

CITY OF BRISTOL

INVITATION TO BID

Please quote us your prices on the commodities or services listed below. All prices must be FOB Destination. You must show Unit Price, Amount and Total or bid may be rejected.

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

Since the City of Bristol is exempt from the payment of Federal Excise Taxes and the Connecticut Sales Tax, do not include such taxes. The City reserves the right to reject in whole or in part any or all bids submitted. The attached standard terms and conditions shall become a part of any resultant contract award.



Vendor Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____

THIS IS NOT AN ORDER. Fill in and return to the address below.

ISSUED BY: City of Bristol, Connecticut	(Return Bid attention of) Roger D. Rousseau	BID NUMBER 2011-044
ADDRESS 111 North Main Street Purchasing Department Bristol, CT 06010		DATE ISSUED October 20, 2010
SHIPPING ADDRESS (address for shipment of purchased materials) 95 Vincent P Kelley Road, Bristol CT 06010		DATE BID REQUIRED November 18, 2010 11:00 am
TELEPHONE NUMBER (860) 584-6195		DATE MATERIAL REQUIRED

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	To be Completed by bidder	
				Unit Price	Amount
1.	<p>Dedicated Automated Side Loader Refuse Truck, up to 33 cubic yard capacity, with minimum 12.5 ton compacted solid waste capacity, as per the specifications outlined in Attachment A Chassis Specifications and Attachment B Body Specifications.</p> <p>Chassis: Specification is based on Peterbilt 320 chassis as outlined in Attachment A.</p> <p>Chassis approved include Peterbilt, Autocar, Volvo, Mack that meet the specifications outlined in Attachment A. The specifications as outlined in Attachment A are intended to serve as a base specification; functionally equivalent equipment will be considered. The City shall be the sole judge in determining functional acceptability of equipment, based on its ability to meet the operational</p> <p>Body: The body should be a dedicated automated side loader type with:</p>	1	Base Bid		\$ _____

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	VENDOR FEIN/SSN	ARE YOU INCORPORATED	PURCHASE ORDER ADDRESS (If different from bidder's address above)		
		YES <input type="checkbox"/> NO <input type="checkbox"/>			

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Automated Refuse Truck

Chassis Offered: Mfr. _____ Model _____
Model year. _____

Body Offered: Mfr. _____ Model _____

Bidders may be required to provide a demonstration of the proposed vehicle and/or a loaner vehicle for the City to analyze both compliance and performance.

Option 1
Manual/Automated Multitask Side Loader Refuse Truck, up to 33 cubic yard capacity, with minimum 12.5 ton compacted solid waste capacity, as per the specifications outlined in Attachment C Chassis Specifications and Attachment D Body Specifications.

Chassis: Based on Peterbilt 320, per the specifications outlined in Attachment C. Chassis shall have a drop

1 Add to – Deduct from Base Bid \$ _____

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	VENDOR FEIN/SSN	ARE YOU INCORPORATED YES <input type="checkbox"/> NO <input type="checkbox"/>	PURCHASE ORDER ADDRESS (If different from bidder's address above)		

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	<p>frame as required to accommodate the manual/automated multitask side loader body and shall have a drop frame to provide for low entry cab.</p> <p>Chassis approved include Peterbilt, Autocar, Volvo, Mack that meet the specifications outlined in Attachment C. The specifications as outlined in Attachment C are intended to serve as a base specification; functionally equivalent equipment will be considered. The City shall be the sole judge in determining functional acceptability of equipment, based on its ability to meet the operational</p> <p>Body: All future bodies should be of a manual/automated multitask side loader type with:</p> <p>Side hopper doors that will open and have a low sill allowing for manual feed of leaves, etc.</p> <p>An automated arm on the curb side with the auto features that has a reach ranging from 0' [side of truck] to 7' [minimum allowable value of maximum reach limit]. The over the top type arm can be included as an option</p>				

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			Unit Price
			Amount

provided it meets the reach requirements. Body shall include two (2) mounted 4' X 8' aluminum signs [one (1) each side] with brackets to allow for signs to be changed. Wording and graphics for signs will be determined by the City at a later date.

Bodies approved include Labrie, McNeilus, and Heil manual/automated multitask side loader bodies that meet the specifications outlined in Attachment D. The body shall have a 5-year warranty including all repair, parts, and labor for all components of the body including cylinders, bearings, hydraulic cylinders, hoses, valves, pumps, etc.

The specifications as outlined in Attachment D are intended to serve as a base specification; functionally equivalent equipment will be considered. The City shall be the sole judge in determining functional acceptability of equipment, based on its ability to meet the operational needs of the City.

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ITEM NO.	DESCRIPTION	UNIT	QUANTITY	To be Completed by bidder	
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	Automated Refuse Truck				
	Chassis Offered: Mfr. _____ Model _____ Model year. _____				
	Body Offered: Mfr. _____ Model _____				
	Bidders may be required to provide a demonstration of the proposed vehicle and/or a loaner vehicle for the City to analyze both compliance and performance.				
	Option 2 Heater for all hydraulic systems	1	Each	\$ _____	
	Option 3 Rear Amber Alternating Flashing LED Lights front and rear of body	1	Each	\$ _____	
	Option 4 (3) Camera Intec Vision System on Camera Mounted on tailgate, and (1) Camera mounted to view in hopper and (1) camera to	1	Each	\$ _____	

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ITEM NO.	DESCRIPTION	UNIT	QUANTITY	To be Completed by bidder	
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	view cart. Camera on Tailgate to be Intec CVC 230SH and Hopper and Camera On Tailgate to be an Intec CVC 230SH and Hopper and Cart Cam to be Intec CVC 210 Monitor to be CVM500				
	Option 5 Automated Barrel radio frequency identification ("RFID") reader on arm assembly, meeting City standard technology requirements. The City has recently implemented technology using software and equipment provided by Sonrai Systems; barrels have been equipped with RFIDs capable of being read by said equipment. System proved shall include reader, as well as data storage hardware/software within cab capable of being downloaded to external systems.		1	Each	\$ _____
	Option 6 Eaton Hydraulic Launch System or approved equal The Eaton Hydraulic Launch Assist System shall have a 5-year warranty including all parts and labor.		1	Each	\$ _____

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System Type: _____ .

Can be used on Option 1 vehicle: ____ yes ____ no.

Bid responses shall include:

1. A completed bid form, including acceptance of or exception to all specifications outlined;
2. A Bid Bond or Certified Check in the amount of 5% of the amount bid (bid security will be returned to the awarded contractor upon receipt of subsequent issuance of a purchase order, and to unsuccessful bidders at the time of any award notice given);
3. Any promotional material for equipment proposed.
4. Completed Noncollusion Affidavit.
5. Employment information form.

The awarded contractor shall provide a certificate of insurance as outlined in Section 15 of the Standard Bid and Contract Terms and Conditions, and shall provide a Performance Bond and Labor and Materials Bond, each in the amount of 100% of the contract award.

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The City reserves the right to purchase a second vehicle under any award resulting from this invitation to bid, for a period up to 180 days from the date of the original bid receipt.

Please Note:

Responses to this Request For Quotation must be submitted in writing prior to the due date and time noted above, to the address noted above, as a sealed bid response. Responses received after the required due date and time will not be considered for award.

Faxed bid responses are Not Acceptable.

Bids must be enclosed in a sealed envelope, addressed to the City of Bristol and clearly identified as **“2011-044 Automated Refuse Truck”**.

To be completed	QUOTE NO:	DATE SUBMITTED	DELIVERY AS REQ'D. (Unless noted here)		TOTAL
	SIGNED	TITLE	TELEPHONE NO. & EXTENSION	CASH DISCOUNT	PAYMENT TERMS
by bidder	VENDOR FEIN/SSN	ARE YOU INCORPORATED	PURCHASE ORDER ADDRESS (If different from bidder's address above)		
		YES <input type="checkbox"/> NO <input type="checkbox"/>			

RETURN THIS FORM IMMEDIATELY!

**City Of Bristol, Connecticut
Acknowledgment: Receipt of Bid Documents**

Bid Number: 2011-044

Title: Automated Refuse Truck

Please take a moment to acknowledge receipt of the attached bid documents. Your compliance with this request will help us to maintain proper bid follow-up procedures while ensuring that all vendors have the opportunity to bid.

Date Issued: October 20, 2010

Date Bid received: ____/____/____

Do you plan to submit a bid? Yes____ No____

Print or type the following information:

Company name: _____

Address: _____

City or Town: _____

Phone: _____

Fax: _____

Email: _____

Received by: _____

Note: Faxed acknowledgments are requested!

FAX (860)584-6171

A cover sheet is NOT necessary.

IMPORTANT: DO NOT FAX BID RESPONSE

Bids must be submitted in sealed packages.



CITY OF BRISTOL, CONNECTICUT NON-COLLUSION CERTIFICATION

The undersigned certifies under penalty of false statement that this proposal or contract has been made, submitted and executed in good faith and without collusion or fraud with any other person, and without any agreement designed to limit independent bidding or competition. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity or group of individuals.

I further certify that I have not provided or directed to be provided gifts, meals, or gratuities, as defined in Sec. 2-129(b) of the Bristol Code of Ordinances to any official or employee of the City of Bristol responsible for awarding or administering this bid or contract.

Please complete and sign

Legal Name of Bidder: _____

Business Address: _____

Name of Authorized Agent _____ Title: _____

Phone: _____ Fax: _____

Signature: _____ Date: _____

Employment Information Form



City of Bristol
Workplace Analysis Affirmative Action Report
Employment Information Form

Purchasing Department
111 North Main Street
Bristol, CT 06010

Company Name Street Address City State Zip	Contact Person	Phone Number	Date
--	----------------	--------------	------

Report all permanent full-time or part-time employees, including apprentice and on-the-job trainees. Enter the number on all lines and in all columns.

JOB CATEGORY	A. OVERALL TOTALS (sum of all columns, B-F Male & Female)	B. WHITE (not of Hispanic origin)		C. BLACK (not of Hispanic origin)		D. HISPANIC		E. ASIAN/PACIFIC ISLANDER		F. AMERICAN INDIAN OR ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Officers/Managers											
Professionals											
Technicians											
Sales Workers											
Office/Clerical											
Craft Workers (skilled)											
Operatives (semi-skilled)											
Laborers (unskilled)											
Service workers											
TOTALS ABOVE											

Do you use minority businesses as subcontractors or suppliers?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Explain:
If CT based, do you post all employment openings with the State Of CT Employment Service?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Explain:
Do you use an Affirmative Action Plan?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Explain:
Describe your recruitment, hiring, training and promotion anti-discrimination practices.			



City of Bristol

Purchasing Department
111 North Main Street
Bristol, CT 06010

Telephone Number:
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<http://www.ci.bristol.ct.us>

Standard Bid and Contract Terms and Conditions

Page 1 of 3

All Invitations For Bids issued by the City of Bristol ("City") will bind Bidders to the terms and conditions listed below, unless specified otherwise in any individual Invitation For Bids.

The contractor agrees to comply with the statutes and regulations as they exist on the date of this contract and as they may be adopted or amended from time to time during the term of this contract and any amendments thereto.

Submission of Bids

1. Bids must be submitted on forms supplied by the City Purchasing Department. Telephone or facsimile bids will not be accepted in response to an Invitation For Bids.

2. Bidders shall bear any and all costs associated with response to this invitation to bid, including the costs for any presentation and/or demonstrations (if applicable).

3. The time and date bids are to be opened is given in each bid issued. Bids received after the specified time and date of bid opening given in each bid proposal shall not be considered. **Bid envelopes must clearly indicate the bid number** as well as the date and time of the opening of the bid. The name and address of the Bidder shall appear in the upper left hand corner of the envelope.

4. If it becomes necessary to revise any part of this request or if additional data is necessary to enable interpretation of provisions of this document, revisions or addenda will be provided to all prospective firms who receive this document; such revisions or addenda will additionally be posted on the following website:
<http://www.ci.bristol.ct.us/bids>

5. This document includes an acknowledgement page; this page must be faxed back to the Purchasing Department, to ensure proper notification of changes to the published documents. The City of Bristol does not assume responsibility for any vendor that does not receive revisions or addenda, where the vendor has not acknowledged receipt of any portion thereof.

6. Incomplete bid forms may result in the rejection of the bid. Amendments to bids received by the City after the time specified for opening of bids, shall not be considered. Bids shall be computer prepared, typewritten or handwritten in ink. All bids shall be signed by a person duly authorized to sign bids on behalf of the bidder. Unsigned bids shall be rejected. Errors, alterations or corrections on both the original and copy of the proposal schedule to be returned must be initialed by the person signing the bid proposal or their authorized designee. In the event an authorized

designee initials the correction, there must be written authorization from the person signing the bid proposal to the person initialing the erasure, alterations, or correction. Failure to do so shall result in rejection of bid for those items erased, altered or corrected and not initialed.

7. The City of Bristol reserves the right to accept or reject any and all bid responses, in whole or in part, to waive technical defects, irregularities and omissions if, in its judgement, the best interests of the City will be served.

8. Conditional bids are subject to rejection in whole or in part. A conditional bid is defined as one which limits, modifies, expands or supplements any of the terms and conditions and/or specifications of the invitation for bids.

9. Alternate bids will not be considered, unless specifically authorized in the invitation to bid. An alternate bid is defined as one which is submitted in addition to the bidders primary response to the invitation for bids.

10. Prices should be extended in decimal, not fraction, to be net, and shall include transportation and delivery charges fully prepaid by the Contractor to the destination specified in the bid, and subject only to cash discount. In the event of a discrepancy between the unit price and the extension, the unit price shall govern.

11. Pursuant to Section 12-412 of the Connecticut General Statutes, municipalities are exempt from the payment of excise, transportation and sales taxes imposed by the Federal Government and/or the State. Such taxes must not be included in bid prices.

12. By its submission the Bidder represents that the bid is not made in connection with any other Bidder submitting a bid for the same commodity or commodities and is in all respects fair and without collusion or fraud.

13. All bids will be opened and read publicly and upon award are subject to public inspection, subject to the provisions of Section 1-210 of the Connecticut General Statutes (Freedom of Information). Copies of information resulting from any bid opening are generally not available until a contract has been formally awarded.

Guaranty or Surety

14. Bid and or performance bonds may be required, if specifically required within the specifications. Bonds must meet the following requirements:

Corporation - must be signed by an official of the corporation above their official title and the corporate seal must be affixed over the signature; **Firm or Partnership** - must be signed by all the partners and indicate they are "doing business as"; **Individual** - must



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Standard Bid and Contract Terms and Conditions

Page 2 of 3

be signed by the owner and indicated as "Owner". The surety company executing the bond or countersigning must be licensed in Connecticut and the bond must be signed by an official of the surety company with the corporate seal affixed over their signature. Signatures of two witnesses for both the principal and the surety must appear on the bond. Power of attorney for the official signing the bond for the surety company must be submitted with the bond.

15. The City requires General Liability insurance (including Completed Operations coverage) from all contractors doing business with the City, in the amounts of \$1,000,000 (combined single limit) Bodily Injury-Property Damage Coverage per occurrence and \$2,000,000 aggregate coverage; as well as \$1,000,000 automobile liability where the use of a vehicle is used in the performance of this contract, and workers compensation as defined in the Connecticut General Statutes. The City is to be named as an additional insured on all policies.

Samples

16. Accepted bid samples do not supersede specifications for quality unless sample is superior in quality. All deliveries shall have at least the same quality as the accepted bid sample. Samples are furnished free of charge. Samples may be held for comparison with deliveries.

Award

17. Award will be based on quality of the articles or services to be supplied, their conformance with specifications, delivery terms, price, administrative costs, past performance, and financial responsibility. The Purchasing Department may correct inaccurate awards resulting from clerical or administrative errors.

18. The Purchasing Department may reject any bidder in default of any prior contract or guilty of misrepresentation or any bidder with a member of its firm in default or guilty of misrepresentation.

19. In the event that a local business submits a bid to the City that is within 4% of the lowest qualified bidder and is considered to be in compliance with the requirements set forth in the bid, the local business shall be allowed the opportunity to accept the award of the contract at the amount of the lower bid. Such practice shall apply to all City bids for all City departments, with the following exceptions:

1. Contracts exceeding \$300,000.00.
2. Professional services, awarded on subjective and objective criteria in addition to cost.
3. Contracts using state, federal or other funds that have governing regulations disallowing such practice.

4. Contracts awarded on behalf of the Bristol Water Department as a separate enterprise fund.

Contract

20. The existence of the contract shall be determined in accordance with the requirements set forth above. However, the award of the contract is not an order to ship.

21. The Contractor shall not assign or otherwise dispose of their contract or their right, title or interest, or their power to execute such contract to any other person, firm or corporation without the prior written consent of the Purchasing Department.

22. Bidders have ten days after notice of award to refuse acceptance of the award; after ten days the award will be binding on the Contractor. If the Contractor refuses to accept the award within the ten day period, the award will be made to the next lowest responsible qualified bidder.

23. Failure of a Contractor to deliver commodities or perform services as specified will constitute authority to purchase these commodities or services on the open market. The Contractor agrees to promptly reimburse the City for excess cost of these purchases. The purchases will be deducted from the contracted quantities.

24. The bidder hereinafter referred to as persons requesting the use of city facilities of the City of Bristol, or in contracting with the City of Bristol for goods, services, materials, labor and the like with the city of Bristol and its respective officers, agents and servants agrees to indemnify, defend and save harmless from and against any and all claims, damages, losses, litigation expenses, counsel fees and compensation arising out of any injuries (including death) sustained by, or alleged to have been sustained by, the servants, employees or agents of the City of Bristol and its respective officers, agents and servants, or of the bidder or of any participant or spectator, and from injuries including death) sustained by, or alleged to have been sustained by, the public or any persons on or near the site or on any other person or damage to property, real or personal, including property of the city of Bristol and their respective officers, agents, and servants, caused in whole or in part by the acts or omission of the Bidder or any participant or spectator or anyone directly or indirectly employed or working for the bidder while engaged in the activity in the City of Bristol.

25. Notwithstanding any provision or language in this contract to the contrary, the purchasing agent may terminate this contract whenever he/she determines in his/her sole discretion that such termination is in the best interests of the City. Any such termination shall be



City of Bristol

Purchasing Department
111 North Main Street
Bristol, CT 06010

Telephone Number:
(860) 584-6195

Fax Number:
(860) 584-6171

<http://www.ci.bristol.ct.us>

Standard Bid and Contract Terms and Conditions

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effected by delivery to the Contractor of a written notice of termination. The notice of termination shall be sent by registered mail to the Contractor address furnished to the City for purposes of correspondence or by hand delivery. Upon receipt of such notice, the Contractor shall both immediately discontinue all services affected (unless the notice directs otherwise) and deliver to the City all data, drawings, specific-ations, reports, estimates, summaries, and such other information and materials as may have been accum-ulated by the Contractor in performing his duties under this contract, whether completed or in progress. All such documents, information, and materials shall become the property of the City. In the event of such termination, the Contractor shall be entitled to reasonable compensation as determined by the Office of Corporation Counsel for the City of Bristol, however, no compensation for lost profits shall be allowed.

26. The individual signing this submittal hereby declares that no person or persons other than members of his/her own organization are interested in this Project or in the contract proposed to be taken; that it is made without any connection with any other person or persons making a proposal for the same work and is in all respects fair and without collusion or fraud; that no person acting for or employed by the City of Bristol is directly or indirectly interested therein, or in the supplies or works to which it relates or will receive any part of the profit or any commission therefrom in any manner which is unethical or contrary to the best interests of the City of Bristol.

Delivery

27. All products and equipment delivered must be new, and shall include any and all manufacturer warranties, unless otherwise stated in the bid specifications.

28. Delivery will be onto the specified City loading docks by the Contractor unless otherwise stated in the bid specifications.

29. Payment terms are net 30 days after receipt of goods or properly executed invoice, whichever is later, unless otherwise specified. A contractor may quote payment discount terms which may be considered in making the award.

30. Charges against a Contractor shall be deducted from current obligations. Money paid to the City by the Contractor shall be payable to the Treasurer, City of Bristol..

Saving Clause

31. The Contractor shall not be liable for losses or delays in the fulfillment of the terms of the contract due to wars, acts of public enemies, strikes, fires,

floods, acts of God or any other acts not within the control of or reasonably prevented by the Contractor. The Contractor will give written notice of the cause and probable duration of any such delay.

Advertising

32. Contractors may not reference sales to the City for advertising and promotional purposes without the prior specific approval of the Purchasing Department.

Rights

33. Any and all data collected by the contractor relative to either the performance of services or delivery of materials shall remain the sole property of the City of Bristol. Such data includes historic usage of materials and services as collected by the contractor, as it relates to Bristol purchasing activity. The City has sole and exclusive right and title to all printed material produced for the City, whether acceptable or unacceptable, and the contractor shall not copyright any printed matter produced under the contract.

34. The Contractor assigns to the City all rights title and interests in and to all causes of action it may have under Section 4 of the Clayton Act, 15 USC 15, or under Chapter 624 of the general statutes. This assignment occurs when the Contractor is awarded the contract.

35. Contractor agrees that it is in compliance with all applicable federal, state and local laws and regulations, including but not limited to Connecticut General Statutes Sections 4a-60 and 4a-60a. The Contractor also agrees that it will hold the City harmless and indemnify the City from any action which may arise out of any act by the contractor concerning lack of compliance with these laws and regulations. All purchases will be in compliance with Section 22a-194 to Section 22a-194g of the Connecticut General Statutes related to product packaging.

37. This contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill promulgated June 16, 1971, the provisions of Executive Order No. Seventeen of Governor Thomas J. Meskill promulgated February 15, 1973 and section 16 of Public Act 91-58 nondiscrimination regarding sexual orientation, and the provisions of Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999 regarding Violence in the Workplace Prevention Policy.

City of Bristol, Connecticut

Invitation to Bid 2011-044

Attachment A

**Chassis Specifications for Dedicated Automated Side Loader
Refuse Collection Vehicle**

Complies Yes No Exception

	<u>Complies</u>	<u>Yes</u>	<u>No</u>	<u>Exception</u>
Rear Axle & Equipment				
Dana Spicer D46-170HP 46,000 Lb	_____	_____	_____	_____
Laser Factory Axle Alignment	_____	_____	_____	_____
Accurate To .030 Of An Inch	_____	_____	_____	_____
Magnetic Rear Axle Oil Drain Plug	_____	_____	_____	_____
Outboard Mounted Brake Drums	_____	_____	_____	_____
Php10 Iron Lms Hubs, Cast Drums, 16.5x8.6 Brakes	_____	_____	_____	_____
Tandem Axles, 46,000 Lb Max	_____	_____	_____	_____
Haldex 3030in Parking Brakes, Both Axles	_____	_____	_____	_____
Chicago Rawhide Scotseal Plus XI Oil Seals, Tandem	_____	_____	_____	_____
Asphalt Dump Brake Chamber Clearance	_____	_____	_____	_____
Dana Spicer Es 16.5x8.6 Cam Brakes, Refuse Service	_____	_____	_____	_____
34-46,000 Lb Axle Eaton Es Non-Asbestos Brake Linings,	_____	_____	_____	_____
Gussetted Cam Brackets, Cast Brake Spiders	_____	_____	_____	_____
Bendix 4s4m Abs, Sbm Valve	_____	_____	_____	_____
Synthetic Axle Lubricant, All Axles	_____	_____	_____	_____
Ratio 4.88 Rear Axle	_____	_____	_____	_____
Hendrickson Haulmax HMX 46,000 Lb, 54in Axle Spacing	_____	_____	_____	_____
Engine & Engine Equipment				
Cummins ISM 320V 320@2100, 320@1500, 1150@1200	_____	_____	_____	_____
Includes Alum Flywheel Housing.	_____	_____	_____	_____
Belly Pan	_____	_____	_____	_____
Turbo Heat Shield	_____	_____	_____	_____
Denso 130 Amp Alternator	_____	_____	_____	_____
Immersion Type Pre-Heater 110-120v 1500 Watts	_____	_____	_____	_____
Mitsubishi 12v Starter	_____	_____	_____	_____
Key Ignition	_____	_____	_____	_____
Weather Pack Silicone Sealed	_____	_____	_____	_____
Electrical Chassis Connectors	_____	_____	_____	_____
12 Volt System W/Circuit Protection	_____	_____	_____	_____
Wires Numbered Every 4 Inches Or Less	_____	_____	_____	_____
4 East Penn Deka Batteries 2800 cca Threaded Stud Type	_____	_____	_____	_____
terminals Maintenance Free 12v Batteries	_____	_____	_____	_____
Stranded Copper Battery Cables Double Aught (00) Or	_____	_____	_____	_____
Larger	_____	_____	_____	_____
The Big Switch Battery Disconnect Switch Mtd On	_____	_____	_____	_____
Back Of Battery Box	_____	_____	_____	_____
Horton Fan Clutch Drivemaster For ISM	_____	_____	_____	_____
Wabco 18.7 Cfm Air Compressor	_____	_____	_____	_____

City of Bristol, Connecticut

Invitation to Bid 2011-044

Attachment A

**Chassis Specifications for Dedicated Automated Side Loader
Refuse Collection Vehicle**

Complies Yes No Exception

F/G Fs1000 Superfilter – Frame Mounted	_____	_____	_____
High Efficiency Cooling System	_____	_____	_____
Silicone Radiator Hoses Includes Constant Torque Clamps	_____	_____	_____
Radiator Crossbrace	_____	_____	_____
Bugscreen—Removable Type Rad Mtd	_____	_____	_____
Additional Clips At Bottom Of Bugscreen.	_____	_____	_____
Fepto Style Grille	_____	_____	_____
Wing Nut Style Mounted Grille	_____	_____	_____
Dnldsn 16in Fvg Air Cleaner Horizontal Mounted	_____	_____	_____
Ism/Isc (Fvg16-0587)	_____	_____	_____
Molded Rubber Air Intake Connection	_____	_____	_____
With Lined Stainless Steel Clamps	_____	_____	_____
Constant Torq Hose Clamps On Air Intake Hoses For Donaldson Air Cleaners.	_____	_____	_____
Additional Support For Air Intake Stanchion	_____	_____	_____
Single Vertical Exhaust Center of Chassis	_____	_____	_____
Stainless Steel Flex Tubing & Clamps	_____	_____	_____
Single Exhaust Guard Vented Aluminum Box	_____	_____	_____
Single Curved Chromed Standpipe 36 inch with ventricals	_____	_____	_____

Transmission & Clutch

Allison RDS 4500 5 Speed	_____	_____	_____
Ism. Includes Rear Trans Support With Keypad Shift Controls.	_____	_____	_____
Magnetic Transmission Oil Drain Plug	_____	_____	_____
1810 Hd Driveline With Single Midship Bearing	_____	_____	_____
W/4.5in X .180 Wall Tubing	_____	_____	_____
Half Round End Yokes W/Zerk Fittings	_____	_____	_____
Coated Driveshaft Splines	_____	_____	_____
Water-To-Oil Heat Exchange	_____	_____	_____
Allison Md/Hd Auto Neutral ‘Ak’	_____	_____	_____
Transynd Automatic Fluid For Allison Trans	_____	_____	_____

Air & Trailer Equipment

Bendix Ap-Ip Ep Air Dryer With Heater	_____	_____	_____
Extended Purge (For Use W/Higher Consumption Applications).	_____	_____	_____
Includes Single-Bolt Dessicant Cartridge.	_____	_____	_____
Air Tank Valve Guards	_____	_____	_____
(3) Berg Pull Cord Drain Valves	_____	_____	_____
Nylon Chassis Hose	_____	_____	_____
Braided Chassis Harness Cover	_____	_____	_____
Rubber-Lined Clamps Along Frame Rail	_____	_____	_____
Teflon-Lined, Stainless Steel Braided	_____	_____	_____

City of Bristol, Connecticut

Invitation to Bid 2011-044

Attachment A

**Chassis Specifications for Dedicated Automated Side Loader
Refuse Collection Vehicle**

Complies Yes No Exception

Cab & Equipment

53in Lcf Cab dedicated RH [right hand] Drive	_____	_____	_____
Incls Stl Frames W/Alum & Fiberglass Panels, All Alum Doors,	_____	_____	_____
Dual Door Stops, Door Locks, Tinted Safety Glass Thru-Out, Cab	_____	_____	_____
& Door Mtd Entry Grab Handles, 53 Degree Hyd Tilt, Sstl Grille,	_____	_____	_____
Dual Rear Cab Fenders, Service Module Boc (Cab Tilt Pump, Oil	_____	_____	_____
Fill & Dipstick, Coolant Fill & Check, Fluid Fill & Dipstick For	_____	_____	_____
Auto Trans), Door Mtd Armrest, Power Windows, Full Insulation,	_____	_____	_____
Rubber Floor Mats, Engine Tunnel Mtd Control Console,	_____	_____	_____
Removable Instrument Panel W/Speedometer Message Center,	_____	_____	_____
Cigar Lighter & Ashtray, View Window In Rh Door, 18in Step	_____	_____	_____
Height On Each Side, Extended Metal Step W/Addt'l Grab	_____	_____	_____
Handle Lh/Rh.	_____	_____	_____
Two Person Seating	_____	_____	_____
Ignition And Doors Keyed Alike	_____	_____	_____
Full Length Piano Type Stainless	_____	_____	_____
Steel Door Hinges And Pins	_____	_____	_____
Rubber Fenders 4.5 Inch On Cab Fender	_____	_____	_____
(Overlaps 4.5in Wheel Well Fenders)	_____	_____	_____
National Air Driver Seat Low Back	_____	_____	_____
Lowback Vinyl Non-Air Passenger Seat	_____	_____	_____
3-Point Safety Belt-Driver & Pass	_____	_____	_____
Gray Interior Color	_____	_____	_____
Includes Abs Gray Headliner & Rear Cab Panel, Gray Vinyl	_____	_____	_____
Engine Tunnel Cover.	_____	_____	_____
Diamond Plate Aluminum floor Covering Drivers Side	_____	_____	_____
(2) Inside Sunvisors	_____	_____	_____
Scuff Pad On Doghouse Cover	_____	_____	_____
Engine Tunnel Cover Padded Vinyl	_____	_____	_____
16in Ipo Std 17in Steering Wheel	_____	_____	_____
Rear Window Back Of Cab Standard Tint	_____	_____	_____
18.5in X 54in	_____	_____	_____
View Window In Rh Door	_____	_____	_____
Power Windows Rh And Lh Doors	_____	_____	_____
Combo Fresh Air Heater/Air Conditioner	_____	_____	_____
With Radiator Mounted Condenser.	_____	_____	_____
54,500 Btu/Hr Heated/Air Conditioner	_____	_____	_____
Bi-Level Heater/Defroster Controls	_____	_____	_____
Silicone Heater Hoses	_____	_____	_____

City of Bristol, Connecticut

Invitation to Bid 2011-044

Attachment A

**Chassis Specifications for Dedicated Automated Side Loader
Refuse Collection Vehicle**

Complies Yes No Exception

Outside Sunvisor Stainless Steel	_____	_____	_____
(2) Moto-Mirror Rh & Lh Ss Motorized/Heated	_____	_____	_____
(1) Convex Prutsman 8 Inch Heated Ss Mirror Mounted Under Mirror Bracket.	_____	_____	_____
(2) Air Horns 24.5in Chrome – Round W/Horn Shield Dual Electric Horn	_____	_____	_____
Concert Class Am/Fm/Weatherband With Two Speakers, Electronic Tuning, 18 Station Presets, Auto- Preset Scan, Seek Tuning, Tone Control, Balance Control And Fader, Quarts Clock, Led Lighting.	_____	_____	_____
Washer Bottle Cover W/Shield	_____	_____	_____
Peterbilt Electric Windshield Wipers With Intermittent Feature	_____	_____	_____
Wheel Well Fenders 4-1/2 Inch	_____	_____	_____
(2) Grabhandles Horizontal Front Of Cab Under Windshield. (For Access To Windshield For Cleaning.)	_____	_____	_____
Rain Gutters Over Driver And Passenger Doors	_____	_____	_____
5 Lb 3a:40bc Fire Extinguisher Shipped Loose	_____	_____	_____
Triangle Reflector Kit Shipped Loose	_____	_____	_____
Electrical Wiring Diagram Shipped Loose	_____	_____	_____
107 dB Backup Alarm	_____	_____	_____
Oil Temp Gauge Trans – Main For use with Allison Transmission	_____	_____	_____
Water Temp Gauge	_____	_____	_____
Oil Pressure Gauge – Engine	_____	_____	_____
Air Restriction Gauge – Dial Type	_____	_____	_____
(2) Air Pressure Gauges Primary and Secondary	_____	_____	_____
Fuel Filter Restriction Gauge	_____	_____	_____
Fuel Level Gauge	_____	_____	_____
Warning Light Battery Disconnect Switch Engaged (Marker Light) external mounted	_____	_____	_____
Speedo Dixson Elec 0-80 MPH, 0-130 KPH Without Odometer	_____	_____	_____
Tach Dixson Elec 0-3000 RPM Voltmeter	_____	_____	_____
Headlights Dual Rect Halogen	_____	_____	_____
(5) LED Clearance w/ (2) LED Marker LIGHTS. INCLUDES FIVE LIGHTS MTD ON TOP OF	_____	_____	_____

City of Bristol, Connecticut

Invitation to Bid 2011-044

Attachment A

**Chassis Specifications for Dedicated Automated Side Loader
Refuse Collection Vehicle**

Complies Yes No Exception

THE CAB AND ONE CAB SIDE MARKER LIGHT IN FRONT OF EACH CAB DOOR.

Omit Stop/Tail/Backup Lights

Daytime Running Lights

Directionals Front Surface

Mounted above headlights with side-mounted turn signals behind doors.

Kysor Solid State Flasher HD

Paint

Color Dupont Imron Elite

Base Coat/Clear Coat (CAB/HOOD)

CAB – PETERBILT METALLIC GREEN

N85200 FRAME N0001EA BLACK

N85300 WHEEL N0006EA WHITE

Colors subject to revision based on City-specific requirements

Estimated Chassis Wt: 20100 lbs

Chassis Warranty

All components of the chassis, including engine, engine equipment, transmission, drive train, rear end, etc. shall have a five-year unconditional warranty including all parts and labor; and the awarded bidder shall be able to provide local warranty service [within a 50 mile radius of the City] for the duration of the warranty.

Manuals, Diagrams, and Diagnostic Software

A full set of parts, service, repair, and operator's manuals are supplied in printed format.

A full set of parts, service, repair, and operator's manuals are supplied in digital format.

Full set of wiring diagrams, hydraulic diagrams are supplied in printed format.

Full set of wiring diagrams, hydraulic diagrams are supplied in digital format.

Full set of diagnostic software for the chassis is supplied on CD disc format.

Full set of diagnostic software for the body is supplied on CD disc format.

City of Bristol, Connecticut

Invitation to Bid 2011-044

Attachment A

**Chassis Specifications for Dedicated Automated Side Loader
Refuse Collection Vehicle**

Complies Yes No Exception

Full set of diagnostic software for the engine is supplied on CD disc format.

Full set of diagnostic software for the transmission is supplied on CD disc format.

Radio Equipment

Motorola XTL1500 communications radio unit, complete with antenna assembly, installed

GPS Equipment

The contractor shall carry a \$500.00 allowance for the purchase and installation of a GPS device within the vehicle. The device, to be determined at a later date by the City, will be capable of providing vehicle location data; additionally, the device will be capable of providing other vehicle data (e.g. RFID, engine performance).

**City of Bristol, Connecticut
 Invitation to Bid 2011-044 Attachment B
 Dedicated Automated Side Loader Refuse Body Specifications**

		YES	NO	Comments
<u>1- Body capacity</u>				
The body has a rounded shape enhancing resistance to deformation, durability and better legal payload.		<input type="checkbox"/>	<input type="checkbox"/>	_____
The body capacity, excluding the receiving hopper, is minimum:	27 cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The hopper has a capacity of:	4 cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The tailgate has a capacity of:	6 cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Please note: the intent of these specifications is to acquire a vehicle with minimum 12.5 ton compaction capacity.	12.5 ton	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>2- Body dimensions</u>				
Body is curved, taper and adapted to manual, semi-automated and automated garbage collection.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Overall body length, including hopper and tailgate is:	307 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Overall body height above frame is:	101 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Overall body width is:	96 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside body width at front is:	78 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside body width at rear is:	87.5 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Width tapering is:	9.5 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside body height at front is:	89 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside body height at rear is:	92.5 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Height tapering is:	3.5 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>3- Body floor construction</u>				
An abrasion resistant slope floor is taper and the slope angle is:	21 °	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slope floor steel grade is:	AR-425	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slope floor thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slope floor yield strength is:	190 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slope floor wear plate steel grade is:	AR-500	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slope floor wear plate thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slope floor wear plate yield strength is:	200 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body floor is curved avoiding material fall back on the hopper.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Floor abrasion resistant steel grade is:	A-572 GR50	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body floor thickness is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body floor yield strength is:	50000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Long sills are made from:	HSS TUBING	<input type="checkbox"/>	<input type="checkbox"/>	_____
Long sills dimensions is:	6X2X3/8 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Long sills steel grade is:	A-500 C GRADE	<input type="checkbox"/>	<input type="checkbox"/>	_____
Long sills yield strength is:	50 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Number of sills under floor is:	2	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>4- Body side walls construction</u>				
The side walls is rounded improving resistance and featuring lightness.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Lower body side walls steel grade is:	A-715 GR 80	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lower body side walls thickness is:	10 ga	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lower body side walls yield strength is:	80 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Upper body side walls steel grade is:	A-715 GR 80	<input type="checkbox"/>	<input type="checkbox"/>	_____

**City of Bristol, Connecticut
 Invitation to Bid 2011-044 Attachment B
 Dedicated Automated Side Loader Refuse Body Specifications**

		YES	NO	<u>Comments</u>
Upper body side walls thickness is:	12 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Upper body side walls yield strength is:	80 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
The wall surface is a self rounded shape.		<input type="checkbox"/>	<input type="checkbox"/>	
Upper wall design is rounded to improve the response to compression and bending stresses when body is full.		<input type="checkbox"/>	<input type="checkbox"/>	
<u>5- Body roof construction</u>				
Body roof is rounded and made of high yield steel ensuring strength when material is packing against it.		<input type="checkbox"/>	<input type="checkbox"/>	
Roof structural channel steel grade is:	A-715 GR80	<input type="checkbox"/>	<input type="checkbox"/>	
Roof thickness is:	12 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Roof yield strength is:	80 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
<u>6- Hopper dimensions and construction</u>				
A large hopper offers a volume of not less than:	4 cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper depth is:	18 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper width is:	72 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper length is:	60 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper height, at front, from bottom to canopy is:	105.5 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper height, at rear from bottom to canopy is:	107 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor thickness is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor yield strength is:	65 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor wear plate steel grade is:	AR-500	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor wear plate thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor wear plate yield strength is:	200 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Side abrasion resistant steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper side walls thickness is:	3/16	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper side walls yield strength is:	65 000	<input type="checkbox"/>	<input type="checkbox"/>	
Two body windows of expanded metal are installed in front of body wall to indicate when body is full.		<input type="checkbox"/>	<input type="checkbox"/>	
Body windows dimensions are:	8 X 8 in	<input type="checkbox"/>	<input type="checkbox"/>	
Maximum loading height above chassis frame is:	5.5 in	<input type="checkbox"/>	<input type="checkbox"/>	
Body front wall lower section steel grade is:	A-572 GR50	<input type="checkbox"/>	<input type="checkbox"/>	
Steel thickness of body front wall lower section is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	
Body front wall upper section steel grade is:	A-715 GR80	<input type="checkbox"/>	<input type="checkbox"/>	
Steel thickness of body front wall upper section is:	12 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper front wall steel grade is:	A-569	<input type="checkbox"/>	<input type="checkbox"/>	
Steel thickness of hopper front wall is:	14 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Right-hand side sump box capacity is:	8 gal	<input type="checkbox"/>	<input type="checkbox"/>	
Left-hand side sump box capacity is:	12 gal	<input type="checkbox"/>	<input type="checkbox"/>	
Sump boxes doors dimensions are:	18 X 22.5 in	<input type="checkbox"/>	<input type="checkbox"/>	
Sealed level above sump box floor is:	17 in	<input type="checkbox"/>	<input type="checkbox"/>	
Floating panels steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	
Floating panels thickness is:	3/16 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Floating panels yield strength is:	65000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Floating panels dimensions are:	35 5/8 x 63 7/8 in	<input type="checkbox"/>	<input type="checkbox"/>	

City of Bristol, Connecticut
Invitation to Bid 2011-044 Attachment B
Dedicated Automated Side Loader Refuse Body Specifications

		YES	NO	<u>Comments</u>
Breaker bar steel grade is:	A-500 Grade C	<input type="checkbox"/>	<input type="checkbox"/>	
Breaker bar thickness is:	3/8 in	<input type="checkbox"/>	<input type="checkbox"/>	
Breaker bar yield strength is:	50,000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Breaker bar dimensions are:	6 x 71 in	<input type="checkbox"/>	<input type="checkbox"/>	
Length from packer face to breaker bar is:	40 5/8 in	<input type="checkbox"/>	<input type="checkbox"/>	
<u>7- Hopper doors</u>				
Hopper loading area is completely enclosed with a right and left hand side doors.		<input type="checkbox"/>	<input type="checkbox"/>	
Doors are held open or close with locks and wear pillow.		<input type="checkbox"/>	<input type="checkbox"/>	
Left hopper door dimensions is:	71 X 73 in	<input type="checkbox"/>	<input type="checkbox"/>	
Right hopper door dimension is:	71 X 73 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper door steel is:	A-569	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper door steel thickness is:	14 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Roll carts volume that the opening can accept is:	290 gal	<input type="checkbox"/>	<input type="checkbox"/>	
<u>8- Rear tailgate</u>				
The tailgate is hydraulically operated, bustle type complete with automatic hydraulic lock mechanism, ensuring resistance when material is packing against it.		<input type="checkbox"/>	<input type="checkbox"/>	
A safety pin is provided to hold the lock mechanism to prevent an accidental opening.		<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate steel grade is:	A-715 GR 80	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate skin thickness is:	12 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate yield strength is:	80 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate hinge pin steel is:	Casting steel 8630	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate hinge pin surface treatment is:	Melonite QPQ	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate hinge pins diameter is:	1 1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
The number of cylinders operating the tailgate is:	2	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate cylinder bore diameter is:	2 1/2 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate cylinder rod diameter is:	1 3/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate cylinder rod surface treatment is:	Chrome-plated	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate cylinder stroke is:	39 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate cycle time at idle is:	39 sec	<input type="checkbox"/>	<input type="checkbox"/>	
Rubber seal is installed to prevent liquid leakage and banging on back of body, on whole width of the bottom and each side to an height of:	30 in	<input type="checkbox"/>	<input type="checkbox"/>	
Manual control valve in cab is installed with safety lock to prevent accidental activation.		<input type="checkbox"/>	<input type="checkbox"/>	
A light and audible alarm in cab are provided to indicate when tailgate is unlocked.		<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate safety prop is provided and assure an opening of:	24 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate hydraulic line is equipped with flow restrictor to prevent sudden descent.		<input type="checkbox"/>	<input type="checkbox"/>	
The tailgate opening angle is not less than (above horizontal):	45 °	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate Length:	33 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate top frame steel is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	

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		YES	NO	<u>Comments</u>
Tailgate top frame thickness is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate bottom frame steel is:	50W	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate bottom frame thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate side frame steel is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate side frame thickness is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>9- Packer</u>				
The packer is built so that packing area produce a pressure on garbage of:	60 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
The packer is guided by 2 rails on which wear plates are welded.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Rail wear plates steel grade is:	AR-500	<input type="checkbox"/>	<input type="checkbox"/>	_____
Rail wear plates thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Rail wear plates yield strength is:	200 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Rail dimensions are:	3 1/2 x 2 3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer underside wear shoes steel grade is:	AR-425	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer underside wear shoes thickness is:	3/8 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer underside wear plates yield strength is:	190 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer topside wear shoes steel grade is:	AR-425	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer topside wear shoes thickness is:	1/2 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer topside wear plates yield strength is:	190 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer is operated by 2 double-acting cylinders.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer cylinders rod are:	Chrome-plated	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder bore diameter is:	4 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder rod diameter is:	2 1/2 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinders force is:	75 400 lbf	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer force on garbage(lbf) is:	67 400 lbf	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum compaction of refuse is:	850 lbs/cu.yd.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder stroke is:	40 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside width of packing ram is:	72 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Inside height of packing ram is:	18 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing ram stroke is:	52 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing ram top steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing ram top thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing ram top yield strength is:	65 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing face plate steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing face plate thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing face plate yield strength is:	65 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packing ram swept volume is:	1.44 cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Penetration of the ram into body is:	12 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer ram cycle time is:	12 sec @ 1200 RPM	<input type="checkbox"/>	<input type="checkbox"/>	_____
The packer is unitized, integral with body.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer is reinforced with a combination of structural members for maximum rigidity.		<input type="checkbox"/>	<input type="checkbox"/>	_____
The electric buttons drive an air actuator to power the packer hydraulic valve.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer controls consist of start, retract, emergency stop and		<input type="checkbox"/>	<input type="checkbox"/>	_____

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		YES	NO	Comments
engine speed-up (High Idle).		<input type="checkbox"/>	<input type="checkbox"/>	_____
Emergency red button is provided to stop packer ram movement				
at any time.		<input type="checkbox"/>	<input type="checkbox"/>	_____
One complete set of packer controls located on R.H. side is				
provided.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Accelerator switch is located in cab.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Control buttons are heavy duty, industrial type, color coded,				
corrosion proof and weather resistant.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer length (including following panels) is:	55 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer control red button diameter is:	3 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer control others buttons diameter is:	1.5 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer cylinder pins steel is:	Casting steel 8630	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer cylinder pins surface treatment is:	Melonite QPQ	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer cylinder pins diameter is:	1 3/4 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer cylinder pins are easily greasable by sump doors.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Following panel steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	_____
Following panel thickness is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Following panel yield strength is:	65000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Following panel dimensions are:	35 5/8 x 63 7/8 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>10- Crusher panel</u>				
A crusher panel is installed on the front wall of the body to				
optimize the compaction of the material and to facilitate the				
transfer into the body.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel steel grade is:	A-715 GR80	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel thickness is:	10 ga	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel yield strength is:	80 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel dimensions are:	51 x 46 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel is operated by 1 cylinder.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel cylinder rod is:	Chrome-plated	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel cylinder bore diameter is:	2 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel cylinder rod diameter is:	1 1/2 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel cylinder stroke is:	14 1/2 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Two rubber strips 6" wide is attached to crusher panel.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Hydraulic protection is supplied to prevent packing on top of the				
ram.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel cylinder pins steel is:	Cold-roll Stress proof	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel cylinder pins surface treatment is:	Melonite PQP	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel cylinder pins diameter:	1 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel cycle time is:	5 sec	<input type="checkbox"/>	<input type="checkbox"/>	_____

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<u>11- Hydraulic system</u>	YES	NO	Comments
The hydraulic system is designed to ensure easy maintenance. The hydraulic pressure line is made up of a Denison relief valve	<input type="checkbox"/>	<input type="checkbox"/>	_____
R5P: including vent valve VV01 with a 12 volts DC in line mounted solenoid which divert the flow back to tank when pump is not engaged, and a flow control which divert the excess flow back to tank over 45 gpm.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hydraulic pump shall be a two (2) stage pump with one stage of the pump dedicated to the operation of the automated arm and the other stage shall be dedicated to the operation of the compaction system of the body and other hydraulic components, providing continuous compaction regardless of other ongoing hydraulic system operations	<input type="checkbox"/>	<input type="checkbox"/>	_____
	<input type="checkbox"/>	<input type="checkbox"/>	_____
ARM working pressure (Relief valve adjustment) is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
System working pressure (Relief valve adjustment) is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Reservoir capacity for conventional cab is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Reservoir capacity for cab over is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum quantity of oil in hydraulic reservoir for conventional cab is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum quantity of oil in hydraulic saddle tank is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
The hydraulic reservoir is equipped with magnetic drain plug, oil level sight gauge and shut-off valves in suction line and check valve on return.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The return line filter capacity is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nominal filtration rating is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
The suction line strainer capacity is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Suction line strainer size is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Beta filtration ratio per ISO 16889 is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
The return line filter is located in tank.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The return line filter have a derivation valve and a differential pressure indicator.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The return line filter derivation valve cracking pressure is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Reservoir has an inspection and clean out cover.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The hydraulic tank is pressurized for conventional cab.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The hydraulic tank for cab over vent is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fourth braided wire hoses are used on the pressure side and all other hoses are double braided wire; high burst capacity and reinforced with nylon wrap to prevent chafing.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hydraulic tubing is extensively used where flexibility is not needed.	<input type="checkbox"/>	<input type="checkbox"/>	_____
All pipes are zinc coated to prevent corrosion.	<input type="checkbox"/>	<input type="checkbox"/>	_____
All hydraulic tubing is securely clamped to prevent vibration, abrasion and excessive noise.	<input type="checkbox"/>	<input type="checkbox"/>	_____
All hydraulic hoses conform to S.A.E. standards for designed pressure.	<input type="checkbox"/>	<input type="checkbox"/>	_____

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	YES	NO	<u>Comments</u>
Bends are not less than recommended by S.A.E. standards.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hydraulic system operates at an acceptable temperature without the need for external hydraulic oil cooling devices.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Quick disconnect fittings are provided so that a pressure gauge can be easily connected without the use of tools or the need to remove hydraulic fittings.	<input type="checkbox"/>	<input type="checkbox"/>	_____
High flex hydraulic hoses are used at hinge point.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hydraulic tank is baffled.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hydraulic pump driving shaft is: HD spicer (1310)	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hydraulic pump shall be a two (2) stage pump with one stage of the pump dedicated to the compaction system of the body and providing continuous compaction regardless of other ongoing hydraulic system operations; and the other stage shall be dedicated to the operation of the automated arm and other hydraulic components	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>12- Body lifting mechanism</u>			
The hoist cylinder is centrally front mounted with outer cover and bottom lifting for greater stability of the tipped body.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body is raised by one single acting front mounted telescopic cylinder with:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Telescopic cylinder rods surface treatment is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder stroke is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lifting capacity is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body cylinder bore diameter is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body dump angle is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body lifting cycle time is:	<input type="checkbox"/>	<input type="checkbox"/>	_____
The air joystick with safety lock is installed in cab. A light and audible alarm in cab are provided to indicate when body is raised and are activated until it is not completely down. Safety prop is supplied to support the empty body in the raised position for safe maintenance.	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>13- Electrical system</u>			
All stop, directional, tail, backup and clearance lights are LED lights, recessed mount and watertight or equivalent.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Mid-body turn signals is standard equipment.	<input type="checkbox"/>	<input type="checkbox"/>	_____
All lights are provided following CMVSS and FMVSS #108.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Rear lights are integrated in lower light box	<input type="checkbox"/>	<input type="checkbox"/>	_____
Back-up alarm is provided.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Limit switches are heavy duty, industrial type, water tight with adjustable arm and over travel to prevent damage.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Wiring is color coded and numbered.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Circuit breakers are manually resettable in Labrie console.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Wiring conforms to: SAEJ1128	<input type="checkbox"/>	<input type="checkbox"/>	_____
Electrical splices are welded and covered with shrinking tube, in certain places, splices are set and covered with a shrinking tube with epoxy sealant.	<input type="checkbox"/>	<input type="checkbox"/>	_____

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	YES	NO	<u>Comments</u>
All electric wires are covered by a plastic shield.	<input type="checkbox"/>	<input type="checkbox"/>	<hr/>

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	YES	NO	Comments
<u>14- Accessories</u>			
Steel mud guards are supplied in front of rear axle.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Rubber mud guards with chain are supplied behind rear axle.	<input type="checkbox"/>	<input type="checkbox"/>	_____
If pump is front mounted, steel guard is fixed on the front bumper.	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>15- Painting</u>			
The truck is properly cleaned of all dirt and grease.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body and hopper are steel grit blasted.	<input type="checkbox"/>	<input type="checkbox"/>	_____
One coat (0,002") of urethane primer (DuPont) is applied.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The finish coat (0,002") of urethane paint is Hunter Green.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Colors subject to revision based on City-specific requirements			
Rust protection is applied in body cavity.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Most bolt-on parts are powder gray painted.	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>16- Manuals, Diagrams, and Diagnostic Software</u>			
Full set of parts, service, repair, and operator's manuals are supplied in printed format.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Full set of parts, service, repair, and operator's manuals are supplied in digital format.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Full set of wiring diagrams, hydraulic diagrams are supplied in printed format.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Full set of wiring diagrams, hydraulic diagrams are supplied in digital format.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Full set of diagnostic software for the body is supplied on CD disc format.	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>17- Lubrication</u>			
All body hinges, cylinder rod ends, cylinder base trunnions and pivot points are supplied with grease fittings.	<input type="checkbox"/>	<input type="checkbox"/>	_____
All packer grease fittings are easily accessible.	<input type="checkbox"/>	<input type="checkbox"/>	_____
A grease chart is supplied.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hopper and sump door hinges are greaseless.	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>18- Warranty</u>			
The length of warranty of the body including parts and labor for all components of the body including -the automated arm, arm cylinders, hydraulic cylinders, all arm components, hoses, bearings, bushings, valves, pumps, etc. is not less than:	<input type="checkbox"/>	<input type="checkbox"/>	_____
	5 years		
<u>19- Certification</u>			
The body manufacturer is certified ISO 9001.	<input type="checkbox"/>	<input type="checkbox"/>	_____
All internal inspection documents such as intermediate inspection booklets made at the body manufacturer are available and filed for every vehicle.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Manufacturer and welders are certified by the Canadian Welding Bureau (CWB) and conforms to the standards:			
Welding procedure and materials are certified by the Canadian Welding Bureau (CWB) and conforms to the standards:	<input type="checkbox"/>	<input type="checkbox"/>	_____
	CSA-W47.1		
	CSA-W59	<input type="checkbox"/>	<input type="checkbox"/>

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YES NO Comments

21- In the event that a bidder does not meet body specifications or chooses to use the terms exceeds. Engineered factory documents accompanied with drawings will be required for each time the term is used with an explanation of the way in it exceeds.

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		YES	NO	Comments
<u>22- Controls and button characteristics</u>				
Tailgate control is:	Pneumatic	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate control is equipped with safety lock.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Body lifting control is:	Pneumatic	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body lifting control is equipped with safety lock.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Pump activation control is:	Electric	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer control is:	Electric	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel is:	Hydraulic	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>23- Noise level</u>				
Noise level at idle speed at 20'	72 dBA	<input type="checkbox"/>	<input type="checkbox"/>	_____
Noise level at 1100 RPM at 20'	74 dBA	<input type="checkbox"/>	<input type="checkbox"/>	_____
Noise level with packer activation at 20'	76 dBA	<input type="checkbox"/>	<input type="checkbox"/>	_____
Noise level inside cab of international 7400 at 1100 RPM	RPM	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>24- Cart lifting mechanism "Helping Hand"</u>				
Cart lifting mechanism is hydraulically operated and activated by a joystick in the cab.		<input type="checkbox"/>	<input type="checkbox"/>	_____
If dual arm is installed, a manual switch activate the left or right cart lifting mechanism.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Minimum bin size accepted by lifting mechanism is:	32 gal	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum bin size accepted by lifting mechanism is:	95 gal	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lifting capacity at maximum reach is:	400 lbs	<input type="checkbox"/>	<input type="checkbox"/>	_____
Vertical dump height is:	89 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum horizontal reach from side of vehicle is:	84 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Minimum horizontal reach from side of vehicle is:	0 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lifting mechanism cycle time at minimum reach is:	8 sec	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lifting mechanism cycle time at maximum reach is:	18 sec	<input type="checkbox"/>	<input type="checkbox"/>	_____
Unit weight without grab and oil but including valve is:	1 260 lbs	<input type="checkbox"/>	<input type="checkbox"/>	_____
Flow to Helping Hand from the flow control is:	20 gpm @ 700 RPM	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum operating pressure is:	2 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
The length of warranty of the body including parts and labor for all components of the body including the automated arm, arm cylinders, hydraulic cylinders, all arm components, hoses, bearings, bushings, valves, pumps, etc. is:	5 years	<input type="checkbox"/>	<input type="checkbox"/>	_____

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**Chassis Specifications for Manual/Automated Side Loader Refuse
Collection Vehicle**

Complies Yes No Exception

Dana Spicer D46-170HP 46,000 Lb	_____	_____	_____
Laser Factory Axle Alignment	_____	_____	_____
Accurate To .030 Of An Inch	_____	_____	_____
Magnetic Rear Axle Oil Drain Plug	_____	_____	_____
Outboard Mounted Brake Drums	_____	_____	_____
Php10 Iron Lms Hubs, Cast Drums, 16.5x8.6 Brakes	_____	_____	_____
Tandem Axles, 46,000 Lb Max	_____	_____	_____
Haldex 3030in Parking Brakes, Both Axles	_____	_____	_____
Chicago Rawhide Scotseal Plus XI Oil Seals, Tandem	_____	_____	_____
Asphalt Dump Brake Chamber Clearance	_____	_____	_____
Dana Spicer Es 16.5x8.6 Cam Brakes, Refuse Service	_____	_____	_____
34-46,000 Lb Axle Eaton Es Non-Asbestos Brake Linings,	_____	_____	_____
Gussetted Cam Brackets, Cast Brake Spiders	_____	_____	_____
Bendix 4s4m Abs, Sbm Valve	_____	_____	_____
Synthetic Axle Lubricant, All Axles	_____	_____	_____
Ratio 4.88 Rear Axle	_____	_____	_____
Hendrickson Haulmaax HMX 46,000 Lb, 54in Axle Spacing	_____	_____	_____

Engine & Engine Equipment

Cummins ISM 320V 320@2100, 320@1500, 1150@1200	_____	_____	_____
Includes Alum Flywheel Housing.	_____	_____	_____
Belly Pan	_____	_____	_____
Turbo Heat Shield	_____	_____	_____
Denso 130 Amp Alternator	_____	_____	_____
Immersion Type Pre-Heater 110-120v 1500 Watts	_____	_____	_____
Mitsubishi 12v Starter	_____	_____	_____
Key Ignition	_____	_____	_____
Weather Pack Silicone Sealed	_____	_____	_____
Electrical Chassis Connectors	_____	_____	_____
12 Volt System W/Circuit Protection	_____	_____	_____
Wires Numbered Every 4 Inches Or Less	_____	_____	_____
4 East Penn Deka Batteries 2800 cca Threaded Stud Type	_____	_____	_____
terminals Maintenance Free 12v Batteries	_____	_____	_____
Stranded Copper Battery Cables Double Aught (00) Or	_____	_____	_____
Larger	_____	_____	_____
The Big Switch Battery Disconnect Switch Mtd On	_____	_____	_____
Back Of Battery Box	_____	_____	_____
Horton Fan Clutch Drivemaster For ISM	_____	_____	_____
Wabco 18.7 Cfm Air Compressor	_____	_____	_____
F/G Fs1000 Superfilter – Frame Mounted	_____	_____	_____
High Efficiency Cooling System	_____	_____	_____
Silicone Radiator Hoses Includes Constant Torque Clamps	_____	_____	_____

City of Bristol, Connecticut

Invitation to Bid 2011-044 Attachment C

**Chassis Specifications for Manual/Automated Side Loader Refuse
Collection Vehicle**

Complies Yes No Exception

Radiator Crossbrace	_____	_____	_____
Bugscreen—Removable Type Rad Mtd	_____	_____	_____
Additional Clips At Bottom Of Bugscreen.	_____	_____	_____
Fepto Style Grille	_____	_____	_____
Wing Nut Style Mounted Grille	_____	_____	_____
Dnldsn 16in Fvg Air Cleaner Horizontal Mounted	_____	_____	_____
Ism/Isc (Fvg16-0587)	_____	_____	_____
Molded Rubber Air Intake Connection	_____	_____	_____
With Lined Stainless Steel Clamps	_____	_____	_____
Constant Torq Hose Clamps On Air Intake Hoses For	_____	_____	_____
Donaldson Air Cleaners.	_____	_____	_____
Additional Support For Air Intake Stanchion	_____	_____	_____
Single Vertical Exhaust Center of Chassis	_____	_____	_____
Stainless Steel Flex Tubing & Clamps	_____	_____	_____
Single Exhaust Guard Vented Aluminum Box	_____	_____	_____
Single Curved Chromed Standpipe 36 inch with ventricles	_____	_____	_____

Transmission & Clutch

Allison RDS 4500 5 Speed	_____	_____	_____
Ism. Includes Rear Trans Support With Keypad Shift Controls.	_____	_____	_____
Magnetic Transmission Oil Drain Plug	_____	_____	_____
1810 Hd Driveline With Single Midship Bearing	_____	_____	_____
W/4.5in X .180 Wall Tubing	_____	_____	_____
Half Round End Yokes W/Zerk Fittings	_____	_____	_____
Coated Driveshaft Splines	_____	_____	_____
Water-To-Oil Heat Exchange	_____	_____	_____
Allison Md/Hd Auto Neutral 'Ak'	_____	_____	_____
Transynd Automatic Fluid For Allison Trans	_____	_____	_____

Air & Trailer Equipment

Bendix Ap-IP Ep Air Dryer With Heater	_____	_____	_____
Extended Purge (For Use W/Higher Consumption Applications).	_____	_____	_____
Includes Single-Bolt Dessicant Cartridge.	_____	_____	_____
Air Tank Valve Guards	_____	_____	_____
(3) Berg Pull Cord Drain Valves	_____	_____	_____
Nylon Chassis Hose	_____	_____	_____
Braided Chassis Harness Cover	_____	_____	_____
Rubber-Lined Clamps Along Frame Rail	_____	_____	_____
Teflon-Lined, Stainless Steel Braided	_____	_____	_____
Compressor Discharge Hose	_____	_____	_____
Air System Charge Valve—Schrader	_____	_____	_____
Air System Diagram, Shipped Loose	_____	_____	_____

City of Bristol, Connecticut

Invitation to Bid 2011-044 Attachment C

**Chassis Specifications for Manual/Automated Side Loader Refuse
Collection Vehicle**

Complies Yes No Exception

(1) Flipper Valve To Actuate Front/Rear Brakes
For Use W/Rh Or Lh Steer Cab
(3) Steel Painted Air Tanks
Body Connections 5ft Box
Junction Box Contains Light And Power Circuits For Body
Connections Located 5ft From Boc

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Tires & Wheels

Ff: Br 20ply 315/80R22.5 M860
Rr: Br 20ply 11R22.5 M860
Code-Rear Tire Qty 08
Ff: Accur 29039 Plt 22.5x9.00 Stl Whl
Pilot Mount
Rr: Accur 29300 Plt 22.5x9.00 Stl Whl
Pilot Mt, Five Hand Holes
Front tires shall be Michelin XZY traction tires
Rear tires shall be Michelin XDY traction tires

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Fuel Tanks

26in Aluminum 80 Gallon Fuel Tank Rh BOC
Paddle Handle Filler Cap
With Threadless Filler Neck
Location Rh Boc 80 Gallon
Forward Fuel Tank Fill
Fuel Cooler
Locate Fuel Tanks Back As Far As Possible

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Paint

Color Dupont Imron Elite
Base Coat/Clear Coat (CAB/HOOD)
CAB – PETERBILT METALLIC GREEN
N85200 FRAME N0001EA BLACK
N85300 WHEEL N0006EA WHITE
Colors subject to revision based on City-specific
requirements
Estimated Chassis Wt: 20100 lbs

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Chassis Warranty

All components of the chassis, including engine, engine
equipment, transmission, drive train, rear end, etc. shall have

City of Bristol, Connecticut

Invitation to Bid 2011-044 Attachment C

**Chassis Specifications for Manual/Automated Side Loader Refuse
Collection Vehicle**

Complies Yes No Exception

a five-year unconditional warranty including all parts and labor; and the awarded bidder shall be able to provide local warranty service [within a 50 mile radius of the City] for the duration of the warranty.

Manuals, Diagrams, and Diagnostic Software

A full set of parts, service, repair, and operator's manuals are supplied in printed format.

A full set of parts, service, repair, and operator's manuals are supplied in digital format.

Full set of wiring diagrams, hydraulic diagrams are supplied in printed format.

Full set of wiring diagrams, hydraulic diagrams are supplied in digital format.

Full set of diagnostic software for the chassis is supplied on CD disc format.

Full set of diagnostic software for the body is supplied on CD disc format.

Full set of diagnostic software for the engine is supplied on CD disc format.

Full set of diagnostic software for the transmission is supplied on CD disc format.

Radio Equipment

Motorola XTL1500 communications radio unit, complete with antenna assembly, installed

GPS Equipment

The contractor shall carry a \$500.00 allowance for the purchase and installation of a GPS device within the vehicle. The device, to be determined at a later date by the City, will be capable of providing vehicle location data; additionally, the device will be capable of providing other vehicle data (e.g. RFID, engine performance).

City of Bristol, Connecticut
Invitation to Bid 2011-044 Attachment D
Manual/Automated Multitask Side Loader Refuse Body Specifications

		YES	NO	Comments
<u>1- Body capacity</u>				
The body has a rounded shape enhancing resistance to deformation, durability and better legal payload.		<input type="checkbox"/>	<input type="checkbox"/>	
The body capacity, excluding the receiving hopper, is minimum:	27 cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	
The hopper has a capacity of:	4 cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	
The tailgate has a capacity of:	6 cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	
Please note: the intent of these specificvations is to acquire a vehicle with minimum 12.5 ton compaction capacity.	12.5 ton	<input type="checkbox"/>	<input type="checkbox"/>	
<u>2- Body dimensions</u>				
Body is curved, taper and adapted to manual, semi-automated and automated garbage collection.		<input type="checkbox"/>	<input type="checkbox"/>	
Overall body length, including hopper and tailgate is:	307 in	<input type="checkbox"/>	<input type="checkbox"/>	
Overall body height above frame is:	101 in	<input type="checkbox"/>	<input type="checkbox"/>	
Overall body width is:	96 in	<input type="checkbox"/>	<input type="checkbox"/>	
Inside body width at front is:	78 in	<input type="checkbox"/>	<input type="checkbox"/>	
Inside body width at rear is:	87.5 in	<input type="checkbox"/>	<input type="checkbox"/>	
Width tapering is:	9.5 in	<input type="checkbox"/>	<input type="checkbox"/>	
Inside body height at front is:	89 in	<input type="checkbox"/>	<input type="checkbox"/>	
Inside body height at rear is:	92.5 in	<input type="checkbox"/>	<input type="checkbox"/>	
Height tapering is:	3.5 in	<input type="checkbox"/>	<input type="checkbox"/>	
<u>3- Body floor construction</u>				
An abrasion resistant slope floor is taper and the slope angle is:	21 °	<input type="checkbox"/>	<input type="checkbox"/>	
Slope floor steel grade is:	AR-425	<input type="checkbox"/>	<input type="checkbox"/>	
Slope floor thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Slope floor yield strength is:	190 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Slope floor wear plate steel grade is:	AR-500	<input type="checkbox"/>	<input type="checkbox"/>	
Slope floor wear plate thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Slope floor wear plate yield strength is:	200 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Body floor is curved avoiding material fall back on the hopper.		<input type="checkbox"/>	<input type="checkbox"/>	
Floor abrasion resistant steel grade is:	A-572 GR50	<input type="checkbox"/>	<input type="checkbox"/>	
Body floor thickness is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	
Body floor yield strength is:	50000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Long sills are made from:	HSS TUBING	<input type="checkbox"/>	<input type="checkbox"/>	
Long sills dimensions is:	6X2X3/8 in	<input type="checkbox"/>	<input type="checkbox"/>	
Long sills steel grade is:	A-500 C GRADE	<input type="checkbox"/>	<input type="checkbox"/>	
Long sills yield strength is:	50 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Number of sills under floor is:	2	<input type="checkbox"/>	<input type="checkbox"/>	
<u>4- Body side walls construction</u>				
The side walls is rounded improving resistance and featuring lightness.		<input type="checkbox"/>	<input type="checkbox"/>	
Lower body side walls steel grade is:	A-715 GR 80	<input type="checkbox"/>	<input type="checkbox"/>	
Lower body side walls thickness is:	10 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Lower body side walls yield strength is:	80 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Upper body side walls steel grade is:	A-715 GR 80	<input type="checkbox"/>	<input type="checkbox"/>	

City of Bristol, Connecticut
Invitation to Bid 2011-044 Attachment D
Manual/Automated Multitask Side Loader Refuse Body Specifications

		YES	NO	Comments
Upper body side walls thickness is:	12 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Upper body side walls yield strength is:	80 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
The wall surface is a self rounded shape.		<input type="checkbox"/>	<input type="checkbox"/>	
Upper wall design is rounded to improve the response to compression and bending stresses when body is full.		<input type="checkbox"/>	<input type="checkbox"/>	

5- Body roof construction

Body roof is rounded and made of high yield steel ensuring strength when material is packing against it.		<input type="checkbox"/>	<input type="checkbox"/>	
Roof structural channel steel grade is:	A-715 GR80	<input type="checkbox"/>	<input type="checkbox"/>	
Roof thickness is:	12 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Roof yield strength is:	80 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	

6- Hopper dimensions and construction

A large hopper offers a volume of not less than:	4 cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper depth is:	18 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper width is:	72 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper length is:	60 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper sill height for multitask manual feeding is maximum:	45 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper height, at front, from bottom to canopy is:	105.5 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper height, at rear from bottom to canopy is:	107 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor thickness is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor yield strength is:	65 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor wear plate steel grade is:	AR-500	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor wear plate thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper floor wear plate yield strength is:	200 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Side abrasion resistant steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper side walls thickness is:	3/16	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper side walls yield strength is:	65 000	<input type="checkbox"/>	<input type="checkbox"/>	
Two body windows of expanded metal are installed in front of body wall to indicate when body is full.		<input type="checkbox"/>	<input type="checkbox"/>	
Body windows dimensions are:	8 X 8 in	<input type="checkbox"/>	<input type="checkbox"/>	
Maximum loading height above chassis frame is:	5.5 in	<input type="checkbox"/>	<input type="checkbox"/>	
Canopy steel grade is:	A-569	<input type="checkbox"/>	<input type="checkbox"/>	
Canopy steel thickness is:	14 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Body front wall lower section steel grade is:	A-572 GR50	<input type="checkbox"/>	<input type="checkbox"/>	
Steel thickness of body front wall lower section is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	
Body front wall upper section steel grade is:	A-715 GR80	<input type="checkbox"/>	<input type="checkbox"/>	
Steel thickness of body front wall upper section is:	12 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper front wall steel grade is:	A-569	<input type="checkbox"/>	<input type="checkbox"/>	
Steel thickness of hopper front wall is:	14 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Right-hand side sump box capacity is:	8 gal	<input type="checkbox"/>	<input type="checkbox"/>	
Left-hand side sump box capacity is:	12 gal	<input type="checkbox"/>	<input type="checkbox"/>	
Sump boxes doors dimensions are:	18 X 22.5 in	<input type="checkbox"/>	<input type="checkbox"/>	
Sealed level above sump box floor is:	17 in	<input type="checkbox"/>	<input type="checkbox"/>	
Floating panels steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	

**City of Bristol, Connecticut
 Invitation to Bid 2011-044 Attachment D
 Manual/Automated Multitask Side Loader Refuse Body Specifications**

		YES	NO	Comments
Floating panels thickness is:	3/16 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Floating panels yield strength is:	65000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Floating panels dimensions are:	35 5/8 x 63 7/8 in	<input type="checkbox"/>	<input type="checkbox"/>	
Breaker bar steel grade is:	A-500 Grade C	<input type="checkbox"/>	<input type="checkbox"/>	
Breaker bar thickness is:	3/8 in	<input type="checkbox"/>	<input type="checkbox"/>	
Breaker bar yield strength is:	50,000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Breaker bar dimensions are:	6 x 71 in	<input type="checkbox"/>	<input type="checkbox"/>	
Length from packer face to breaker bar is:	40 5/8 in	<input type="checkbox"/>	<input type="checkbox"/>	

7- Hopper doors

Hopper loading area is completely enclosed with a right and left hand side doors.		<input type="checkbox"/>	<input type="checkbox"/>	
Doors are held open or close with locks and wear pillow.		<input type="checkbox"/>	<input type="checkbox"/>	
Left hopper door dimensions is:	71 X 73 in	<input type="checkbox"/>	<input type="checkbox"/>	
Right hopper door dimension is:	71 X 73 in	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper door steel is:	A-569	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper door steel thickness is:	14 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Roll carts volume that the opening can accept is:	290 gal	<input type="checkbox"/>	<input type="checkbox"/>	

8- Rear tailgate

The tailgate is hydraulically operated, bustle type complete with automatic hydraulic lock mechanism, ensuring resistance when material is packing against it.		<input type="checkbox"/>	<input type="checkbox"/>	
A safety pin is provided to hold the lock mechanism to prevent an accidental opening.		<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate steel grade is:	A-715 GR 80	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate skin thickness is:	12 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate yield strength is:	80 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate hinge pin steel is:	Casting steel 8630	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate hinge pin surface treatment is:	Melonite QPQ	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate hinge pins diameter is:	1 1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
The number of cylinders operating the tailgate is:	2	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate cylinder bore diameter is:	2 1/2 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate cylinder rod diameter is:	1 3/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate cylinder rod surface treatment is:	Chrome-plated	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate cylinder stroke is:	39 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate cycle time at idle is:	39 sec	<input type="checkbox"/>	<input type="checkbox"/>	
Rubber seal is installed to prevent liquid leakage and banging on back of body, on whole width of the bottom and each side to an height of:	30 in	<input type="checkbox"/>	<input type="checkbox"/>	
Manual control valve in cab is installed with safety lock to prevent accidental activation.		<input type="checkbox"/>	<input type="checkbox"/>	
A light and audible alarm in cab are provided to indicate when tailgate is unlocked.		<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate safety prop is provided and assure an opening of:	24 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate hydraulic line is equipped with flow restrictor to prevent sudden descent.		<input type="checkbox"/>	<input type="checkbox"/>	

**City of Bristol, Connecticut
 Invitation to Bid 2011-044 Attachment D
 Manual/Automated Multitask Side Loader Refuse Body Specifications**

		YES	NO	Comments
The tailgate opening angle is not less than (above horizontal):	45 °	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate Length:	33 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate top frame steel is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate top frame thickness is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate bottom frame steel is:	50W	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate bottom frame thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate side frame steel is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	
Tailgate side frame thickness is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	

9- Packer

The packer is built so that packing area produce a pressure on garbage of:	60 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
The packer is guided by 2 rails on which wear plates are welded.		<input type="checkbox"/>	<input type="checkbox"/>	
Rail wear plates steel grade is:	AR-500	<input type="checkbox"/>	<input type="checkbox"/>	
Rail wear plates thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Rail wear plates yield strength is:	200 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Rail dimensions are:	3 1/2 x 2 3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packer underside wear shoes steel grade is:	AR-425	<input type="checkbox"/>	<input type="checkbox"/>	
Packer underside wear shoes thickness is:	3/8 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packer underside wear plates yield strength is:	190 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Packer topside wear shoes steel grade is:	AR-425	<input type="checkbox"/>	<input type="checkbox"/>	
Packer topside wear shoes thickness is:	1/2 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packer topside wear plates yield strength is:	190 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Packer is operated by 2 double-acting cylinders.		<input type="checkbox"/>	<input type="checkbox"/>	
Packer cylinders rod are:	Chrome-plated	<input type="checkbox"/>	<input type="checkbox"/>	
Cylinder bore diameter is:	4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Cylinder rod diameter is:	2 1/2 in	<input type="checkbox"/>	<input type="checkbox"/>	
Cylinders force is:	75 400 lbf	<input type="checkbox"/>	<input type="checkbox"/>	
Packer force on garbage(lbf) is:	67 400 lbf	<input type="checkbox"/>	<input type="checkbox"/>	
Maximum compaction of refuse is:	850 lbs/cu.yd.	<input type="checkbox"/>	<input type="checkbox"/>	
Cylinder stroke is:	40 in	<input type="checkbox"/>	<input type="checkbox"/>	
Inside width of packing ram is:	72 in	<input type="checkbox"/>	<input type="checkbox"/>	
Inside height of packing ram is:	18 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packing ram stroke is:	52 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packing ram top steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	
Packing ram top thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packing ram top yield strength is:	65 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Packing face plate steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	
Packing face plate thickness is:	1/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packing face plate yield strength is:	65 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Packing ram swept volume is:	1.44 cu. yd.	<input type="checkbox"/>	<input type="checkbox"/>	
Penetration of the ram into body is:	12 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packer ram cycle time is:	12 sec @ 1200 RPM	<input type="checkbox"/>	<input type="checkbox"/>	
The packer is unitized, integral with body.		<input type="checkbox"/>	<input type="checkbox"/>	
Packer is reinforced with a combination of structural members for maximum rigidity.		<input type="checkbox"/>	<input type="checkbox"/>	
The electric buttons drive an air actuator to power the packer		<input type="checkbox"/>	<input type="checkbox"/>	

**City of Bristol, Connecticut
 Invitation to Bid 2011-044 Attachment D
 Manual/Automated Multitask Side Loader Refuse Body Specifications**

		YES	NO	Comments
hydraulic valve.		<input type="checkbox"/>	<input type="checkbox"/>	
Packer controls consist of start, retract, emergency stop and engine speed-up (High Idle).		<input type="checkbox"/>	<input type="checkbox"/>	
Emergency red button is provided to stop packer ram movement at any time.		<input type="checkbox"/>	<input type="checkbox"/>	
One complete set of packer controls located on R.H. side is provided.		<input type="checkbox"/>	<input type="checkbox"/>	
Accelerator switch is located in cab.		<input type="checkbox"/>	<input type="checkbox"/>	
Control buttons are heavy duty, industrial type, color coded, corrosion proof and weather resistant.		<input type="checkbox"/>	<input type="checkbox"/>	
Packer length (including following panels) is:	55 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packer control red button diameter is:	3 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packer control others buttons diameter is:	1.5 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packer cylinder pins steel is:	Casting steel 8630	<input type="checkbox"/>	<input type="checkbox"/>	
Packer cylinder pins surface treatment is:	Melonite QPQ	<input type="checkbox"/>	<input type="checkbox"/>	
Packer cylinder pins diameter is:	1 3/4 in	<input type="checkbox"/>	<input type="checkbox"/>	
Packer cylinder pins are easily greasable by sump doors.		<input type="checkbox"/>	<input type="checkbox"/>	
Following panel steel grade is:	S-107	<input type="checkbox"/>	<input type="checkbox"/>	
Following panel thickness is:	3/16 in	<input type="checkbox"/>	<input type="checkbox"/>	
Following panel yield strength is:	65000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Following panel dimensions are:	35 5/8 x 63 7/8 in	<input type="checkbox"/>	<input type="checkbox"/>	

10- Crusher panel

A crusher panel is installed on the front wall of the body to optimize the compaction of the material and to facilitate the transfer into the body.

Crusher panel steel grade is:	A-715 GR80	<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel thickness is:	10 ga	<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel yield strength is:	80 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel dimensions are:	51 x 46 in	<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel is operated by 1 cylinder.		<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel cylinder rod is:	Chrome-plated	<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel cylinder bore diameter is:	2 in	<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel cylinder rod diameter is:	1 1/2 in	<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel cylinder stroke is:	14 1/2 in	<input type="checkbox"/>	<input type="checkbox"/>	
Two rubber strips 6" wide is attached to crusher panel.		<input type="checkbox"/>	<input type="checkbox"/>	
Hydraulic protection is supplied to prevent packing on top of the ram.		<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel cylinder pins steel is:	Cold-roll Stress proof	<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel cylinder pins surface treatment is:	Melonite PQP	<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel cylinder pins diameter:	1 in	<input type="checkbox"/>	<input type="checkbox"/>	
Crusher panel cycle time is:	5 sec	<input type="checkbox"/>	<input type="checkbox"/>	

11- Hydraulic system

The hydraulic system is designed to ensure easy maintenance. The hydraulic pressure line is made up of a Denison relief valve R5P: including vent valve VV01 with a 12 volts DC in line

<input type="checkbox"/>	<input type="checkbox"/>	
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**City of Bristol, Connecticut
 Invitation to Bid 2011-044 Attachment D
 Manual/Automated Multitask Side Loader Refuse Body Specifications**

	YES	NO	Comments
mounted solenoid which divert the flow back to tank when pump is not engaged, and a flow control which divert the excess flow back to tank over 45 gpm.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hydraulic pump shall be a two (2) stage pump with one stage of the pump dedicated to the operation of the automated arm and the other stage shall be dedicated to the operation of the compaction system of the body and other hydraulic components, providing continuous compaction regardless of other ongoing hydraulic system operations			
	Each stage 38		
	gpm @ 1200 RPM	<input type="checkbox"/>	<input type="checkbox"/>
ARM working pressure (Relief valve adjustment) is:	3000 PSI	<input type="checkbox"/>	<input type="checkbox"/>
System working pressure (Relief valve adjustment) is:	3000 PSI	<input type="checkbox"/>	<input type="checkbox"/>
Reservoir capacity for conventional cab is:	65 gal	<input type="checkbox"/>	<input type="checkbox"/>
Reservoir capacity for cab over is:	71 gal	<input type="checkbox"/>	<input type="checkbox"/>
Maximum quantity of oil in hydraulic reservoir for conventional cab is:	52 gal	<input type="checkbox"/>	<input type="checkbox"/>
Maximum quantity of oil in hydraulic saddle tank is:	57 gal	<input type="checkbox"/>	<input type="checkbox"/>
The hydraulic reservoir is equipped with magnetic drain plug, oil level sight gauge and shut-off valves in suction line and check valve on return.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The return line filter capacity is:	150 gpm	<input type="checkbox"/>	<input type="checkbox"/>
Nominal filtration rating is:	7 micron	<input type="checkbox"/>	<input type="checkbox"/>
The suction line strainer capacity is:	100 gpm	<input type="checkbox"/>	<input type="checkbox"/>
Suction line strainer size is:	100 mesh	<input type="checkbox"/>	<input type="checkbox"/>
Beta filtration ratio per ISO 16889 is:	200	<input type="checkbox"/>	<input type="checkbox"/>
The return line filter is located in tank.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The return line filter have a derivation valve and a differential pressure indicator.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The return line filter derivation valve cracking pressure is:	25 PSI	<input type="checkbox"/>	<input type="checkbox"/>
Reservoir has an inspection and clean out cover.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The hydraulic tank is pressurized for conventional cab.	<input type="checkbox"/>	<input type="checkbox"/>	_____
The hydraulic tank for cab over vent is:	10 µm	<input type="checkbox"/>	<input type="checkbox"/>
Fourth braided wire hoses are used on the pressure side and all other hoses are double braided wire; high burst capacity and reinforced with nylon wrap to prevent chafing.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hydraulic tubing is extensively used where flexibility is not needed.	<input type="checkbox"/>	<input type="checkbox"/>	_____
All pipes are zinc coated to prevent corrosion.	<input type="checkbox"/>	<input type="checkbox"/>	_____
All hydraulic tubing is securely clamped to prevent vibration, abrasion and excessive noise.	<input type="checkbox"/>	<input type="checkbox"/>	_____
All hydraulic hoses conform to S.A.E. standards for designed pressure.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Bends are not less than recommended by S.A.E. standards.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hydraulic system operates at an acceptable temperature without the need for external hydraulic oil cooling devices.	<input type="checkbox"/>	<input type="checkbox"/>	_____
Quick disconnect fittings are provided so that a pressure gauge can be easily connected without the use of tools or the need to remove hydraulic fittings.	<input type="checkbox"/>	<input type="checkbox"/>	_____
High flex hydraulic hoses are used at hinge point.	<input type="checkbox"/>	<input type="checkbox"/>	_____

**City of Bristol, Connecticut
 Invitation to Bid 2011-044 Attachment D
 Manual/Automated Multitask Side Loader Refuse Body Specifications**

		YES	NO	<u>Comments</u>
Hydraulic tank is baffled.		<input type="checkbox"/>	<input type="checkbox"/>	
Hydraulic pump driving shaft is:	HD spicer (1310)	<input type="checkbox"/>	<input type="checkbox"/>	
Hydraulic pump shall be a two (2) stage pump with one stage of the pump dedicated to the compaction system of the body and providing continuous compaction regardless of other ongoing hydraulic system operations; and the other stage shall be dedicated to the operation of the automated arm and other hydraulic components		<input type="checkbox"/>	<input type="checkbox"/>	
<u>12- Body lifting mechanism</u>				
The hoist cylinder is centrally front mounted with outer cover and bottom lifting for greater stability of the tipped body.		<input type="checkbox"/>	<input type="checkbox"/>	
Body is raised by one single acting front mounted telescopic cylinder with:	4 sections	<input type="checkbox"/>	<input type="checkbox"/>	
Telescopic cylinder rods surface treatment is:	Nitrated	<input type="checkbox"/>	<input type="checkbox"/>	
Cylinder stroke is:	180 in	<input type="checkbox"/>	<input type="checkbox"/>	
Lifting capacity is:	99550 lbs	<input type="checkbox"/>	<input type="checkbox"/>	
Body cylinder bore diameter is:	6 1/2 in	<input type="checkbox"/>	<input type="checkbox"/>	
Body dump angle is:	46.5 °	<input type="checkbox"/>	<input type="checkbox"/>	
Body lifting cycle time is:	70 sec @ 850 RPM	<input type="checkbox"/>	<input type="checkbox"/>	
The air joystick with safety lock is installed in cab.		<input type="checkbox"/>	<input type="checkbox"/>	
A light and audible alarm in cab are provided to indicate when body is raised and are activated until it is not completely down.		<input type="checkbox"/>	<input type="checkbox"/>	
Safety prop is supplied to support the empty body in the raised position for safe maintenance.		<input type="checkbox"/>	<input type="checkbox"/>	
<u>13- Electrical system</u>				
All stop, directional, tail, backup and clearance lights are LED lights, recessed mount and watertight or equivalent.		<input type="checkbox"/>	<input type="checkbox"/>	
Mid-body turn signals is standard equipment.		<input type="checkbox"/>	<input type="checkbox"/>	
All lights are provided following CMVSS and FMVSS #108.		<input type="checkbox"/>	<input type="checkbox"/>	
Rear lights are integrated in lower light box		<input type="checkbox"/>	<input type="checkbox"/>	
Back-up alarm is provided.		<input type="checkbox"/>	<input type="checkbox"/>	
Limit switches are heavy duty, industrial type, water tight with adjustable arm and over travel to prevent damage.		<input type="checkbox"/>	<input type="checkbox"/>	
Wiring is color coded and numbered.		<input type="checkbox"/>	<input type="checkbox"/>	
Circuit breakers are manually resettable in Labrie console.		<input type="checkbox"/>	<input type="checkbox"/>	
Wiring conforms to:	SAEJ1128	<input type="checkbox"/>	<input type="checkbox"/>	
Electrical splices are welded and covered with shrinking tube, in certain places, splices are set and covered with a shrinking tube with epoxy sealant.		<input type="checkbox"/>	<input type="checkbox"/>	
All electric wires are covered by a plastic shield.		<input type="checkbox"/>	<input type="checkbox"/>	
<u>14- Accessories</u>				
Steel mud guards are supplied in front of rear axle.		<input type="checkbox"/>	<input type="checkbox"/>	
Rubber mud guards with chain are supplied behind rear axle.		<input type="checkbox"/>	<input type="checkbox"/>	
If pump is front mounted, steel guard is fixed on the front bumper.		<input type="checkbox"/>	<input type="checkbox"/>	

**City of Bristol, Connecticut
 Invitation to Bid 2011-044 Attachment D
 Manual/Automated Multitask Side Loader Refuse Body Specifications**

	YES	NO	Comments
<u>15- Painting</u>			
The truck is properly cleaned of all dirt and grease.	<input type="checkbox"/>	<input type="checkbox"/>	
Body and hopper are steel grit blasted.	<input type="checkbox"/>	<input type="checkbox"/>	
One coat (0,002") of urethane primer (DuPont) is applied.	<input type="checkbox"/>	<input type="checkbox"/>	
The finish coat (0,002") of urethane paint is Hunter Green.	<input type="checkbox"/>	<input type="checkbox"/>	IMRON Elite (DuPont)
Colors subject to revision based on City-specific requirements			
Rust protection is applied in body cavity.	<input type="checkbox"/>	<input type="checkbox"/>	
Most bolt-on parts are powder gray painted.	<input type="checkbox"/>	<input type="checkbox"/>	
<u>16- Manuals, Diagrams, and Diagnostic Software</u>			
Full set of parts, service, repair, and operator's manuals are supplied in printed format.	<input type="checkbox"/>	<input type="checkbox"/>	
Full set of parts, service, repair, and operator's manuals are supplied in digital format.	<input type="checkbox"/>	<input type="checkbox"/>	
Full set of wiring diagrams, hydraulic diagrams are supplied in printed format.	<input type="checkbox"/>	<input type="checkbox"/>	
Full set of wiring diagrams, hydraulic diagrams are supplied in digital format.	<input type="checkbox"/>	<input type="checkbox"/>	
Full set of diagnostic software for the body is supplied on CD disc format.	<input type="checkbox"/>	<input type="checkbox"/>	
<u>17- Lubrication</u>			
All body hinges, cylinder rod ends, cylinder base trunnions and pivot points are supplied with grease fittings.	<input type="checkbox"/>	<input type="checkbox"/>	
All packer grease fittings are easily accessible.	<input type="checkbox"/>	<input type="checkbox"/>	
A grease chart is supplied.	<input type="checkbox"/>	<input type="checkbox"/>	
Hopper and sump door hinges are greaseless.	<input type="checkbox"/>	<input type="checkbox"/>	
<u>18- Warranty</u>			
The length of warranty of the body including parts and labor for all components of the body including -the automated arm, arm cylinders, hydraulic cylinders, all arm components, hoses, bearings, bushings, valves, pumps, etc. is not less than:	<input type="checkbox"/>	<input type="checkbox"/>	
	5 years	<input type="checkbox"/>	
<u>19- Certification</u>			
The body manufacturer is certified ISO 9001.	<input type="checkbox"/>	<input type="checkbox"/>	
All internal inspection documents such as intermediate inspection booklets made at the body manufacturer are available and filed for every vehicle.	<input type="checkbox"/>	<input type="checkbox"/>	
Manufacturer and welders are certified by the Canadian Welding Bureau (CWB) and conforms to the standards:	<input type="checkbox"/>	<input type="checkbox"/>	CSA-W47.1
Welding procedure and materials are certified by the Canadian Welding Bureau (CWB) and conforms to the standards:	<input type="checkbox"/>	<input type="checkbox"/>	CSA-W59

**City of Bristol, Connecticut
 Invitation to Bid 2011-044 Attachment D
 Manual/Automated Multitask Side Loader Refuse Body Specifications**

YES NO Comments

21- In the event that a bidder does not meet body specifications or chooses to use the terms exceeds. Engineered factory documents accompanied with drawings will be required for each time the term is used with an explanation of the way in it exceeds.

22- Controls and button characteristics

Tailgate control is:	Pneumatic	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tailgate control is equipped with safety lock.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Body lifting control is:	Pneumatic	<input type="checkbox"/>	<input type="checkbox"/>	_____
Body lifting control is equipped with safety lock.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Pump activation control is:	Electric	<input type="checkbox"/>	<input type="checkbox"/>	_____
Packer control is:	Electric	<input type="checkbox"/>	<input type="checkbox"/>	_____
Crusher panel is:	Hydraulic	<input type="checkbox"/>	<input type="checkbox"/>	_____

23- Noise level

Noise level at idle speed at 20'	72 dBA	<input type="checkbox"/>	<input type="checkbox"/>	_____
Noise level at 1100 RPM at 20'	74 dBA	<input type="checkbox"/>	<input type="checkbox"/>	_____
Noise level with packer activation at 20'	76 dBA	<input type="checkbox"/>	<input type="checkbox"/>	_____
Noise level inside cab of international 7400 at 1100 RPM	RPM	<input type="checkbox"/>	<input type="checkbox"/>	_____

24- Cart lifting mechanism "Helping Hand"

Cart lifting mechanism is hydraulically operated and activated by a joystick in the cab.		<input type="checkbox"/>	<input type="checkbox"/>	_____
If dual arm is installed, a manual switch activate the left or right cart lifting mechanism.		<input type="checkbox"/>	<input type="checkbox"/>	_____
Minimum bin size accepted by lifting mechanism is:	32 gal	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum bin size accepted by lifting mechanism is:	95 gal	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lifting capacity at maximum reach is:	400 lbs	<input type="checkbox"/>	<input type="checkbox"/>	_____
Vertical dump height is:	89 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum horizontal reach from side of vehicle is:	84 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Minimum horizontal reach from side of vehicle is:	0 in	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lifting mechanism cycle time at minimum reach is:	8 sec	<input type="checkbox"/>	<input type="checkbox"/>	_____
Lifting mechanism cycle time at maximum reach is:	18 sec	<input type="checkbox"/>	<input type="checkbox"/>	_____
Unit weight without grab and oil but including valve is:	1 260 lbs	<input type="checkbox"/>	<input type="checkbox"/>	_____
Flow to Helping Hand from the flow control is:	20 gpm @ 700 RPM	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maximum operating pressure is:	2 000 PSI	<input type="checkbox"/>	<input type="checkbox"/>	_____
The length of warranty of the body including parts and labor for all components of the body including -the automated arm, arm cylinders, hydraulic cylinders, all arm components, hoses, bearings, bushings, valves, pumps, etc. is:	5 years	<input type="checkbox"/>	<input type="checkbox"/>	_____



City of Bristol
BRISTOL, CONNECTICUT 06010

Invitation to Bid 2011-044
Automated Side Load Refuse Truck
Addendum 01
November 15, 2010

Please note:

Attachment C is revised via the inclusion of three (3) additional pages Six through Eight; attached to this addendum and made a part of the specifications.

All other terms and conditions remain unchanged.

Roger D. Rousseau
Purchasing Agent
Tel (860) 584-6195
Fax (860) 584-6171

RETURN THIS FORM IMMEDIATELY!

City of Bristol, Connecticut
Acknowledgment: Receipt of Bid Documents

Bid Number: **2011-044**
Title: **Automated Side Load Refuse Truck
Addendum 01**

Please take a moment to acknowledge receipt of the attached bid documents. Your compliance with this request will help us to maintain proper follow-up procedures while ensuring that all recipients have the opportunity to submit proposals.

Date Addendum #01 was issued November 15, 2010

Date Addendum #01 was received ____/____/____

Do you plan to submit a bid? Yes____ No____

Print or type the following information:

Company name: _____

Address: _____

City or Town: _____

Phone: _____

Fax: _____

Email: _____

Received by: _____

**Note: Faxed acknowledgments are requested!
FAX (860)584-6171
A cover sheet is NOT necessary.
IMPORTANT: DO NOT FAX PROPOSALS.
PROPOSALS MUST BE SUBMITTED IN SEALED PACKAGES**

City of Bristol, Connecticut

Invitation to Bid 2011-044 Attachment C

**Chassis Specifications for Manual/Automated Side Loader Refuse
Collection Vehicle**

Complies Yes No Exception

Battery Box & Bumper

Alum Battery Box Spacesaver Lh Back Of Cab	_____	_____	_____
Rubber Battery Pad In Bottom Of (1) Battery Box	_____	_____	_____
Mat In Box That Hlds Batteries Only	_____	_____	_____
Steel Bumper Swept Back Painted	_____	_____	_____
Requires Bumper Extension.	_____	_____	_____
Notched Top Flange Of Bumper	_____	_____	_____
Screen Over Air Intake Opening In Bumper	_____	_____	_____

Cab & Equipment

53in Lcf Cab dedicated RH [right hand] Drive	_____	_____	_____
Includes Stl Frames W/Alum & Fiberglass Panels, All Alum	_____	_____	_____
Doors, Dual Door Stops, Door Locks, Tinted Safety Glass Thru-	_____	_____	_____
Out, Cab & Door Mtd Entry Grab Handles, 53 Degree Hyd Tilt,	_____	_____	_____
Sstl Grille, Dual Rear Cab Fenders, Service Module Boc (Cab Tilt	_____	_____	_____
Pump, Oil Fill & Dipstick, Coolant Fill & Check, Fluid Fill &	_____	_____	_____
Dipstick For Auto Trans), Door Mtd Armrest, Power Windows,	_____	_____	_____
Full Insulation, Rubber Floor Mats, Engine Tunnel Mtd Control	_____	_____	_____
Console, Removable Instrument Panel W/Speedometer Message	_____	_____	_____
Center, Cigar Lighter & Ashtray, View Window In Rh Door, 18in	_____	_____	_____
Step Height On Each Side, Extended Metal Step W/Additional	_____	_____	_____
Grab Handle Lh/Rh.	_____	_____	_____
Two Person Seating	_____	_____	_____
Ignition And Doors Keyed Alike	_____	_____	_____
Full Length Piano Type Stainless	_____	_____	_____
Steel Door Hinges And Pins	_____	_____	_____
Rubber Fenders 4.5 Inch On Cab Fender	_____	_____	_____
(Overlaps 4.5in Wheel Well Fenders)	_____	_____	_____
National Air Driver Seat Low Back	_____	_____	_____
Lowback Vinyl Non-Air Passenger Seat	_____	_____	_____
3-Point Safety Belt-Driver & Pass	_____	_____	_____
Gray Interior Color	_____	_____	_____
Includes Abs Gray Headliner & Rear Cab Panel, Gray Vinyl	_____	_____	_____
Engine Tunnel Cover.	_____	_____	_____
Diamond Plate Aluminum floor Covering Drivers Side	_____	_____	_____
(2) Inside Sunvisors	_____	_____	_____
Scuff Pad On Doghouse Cover	_____	_____	_____
Engine Tunnel Cover Padded Vinyl	_____	_____	_____
16in IPO Std 17in Steering Wheel	_____	_____	_____
Rear Window Back Of Cab Standard Tint 18.5in X 54in	_____	_____	_____
View Window In Rh Door	_____	_____	_____
Power Windows Rh And Lh Doors	_____	_____	_____

City of Bristol, Connecticut

Invitation to Bid 2011-044 Attachment C

**Chassis Specifications for Manual/Automated Side Loader Refuse
Collection Vehicle**

	<u>Complies</u>	<u>Yes</u>	<u>No</u>	<u>Exception</u>
Combo Fresh Air Heater/Air Conditioner	_____	_____	_____	_____
With Radiator Mounted Condenser.	_____	_____	_____	_____
54,500 Btu/Hr Heated/Air Conditioner	_____	_____	_____	_____
Bi-Level Heater/Defroster Controls	_____	_____	_____	_____
Silicone Heater Hoses	_____	_____	_____	_____
Outside Sunvisor Stainless Steel	_____	_____	_____	_____
(2) Moto-Mirror Rh & Lh Ss Motorized/Heated	_____	_____	_____	_____
(1) Convex Prutsman 8 Inch Heated Ss Mirror	_____	_____	_____	_____
Mounted Under Mirror Bracket.	_____	_____	_____	_____
(2) Air Horns 24.5in Chrome – Round W/Horn Shield	_____	_____	_____	_____
Dual Electric Horn	_____	_____	_____	_____
Concert Class Am/Fm/Weatherband	_____	_____	_____	_____
With Two Speakers, Electronic Tuning, 18 Station Presets, Auto-	_____	_____	_____	_____
Preset Scan, Seek Tuning, Tone Control, Balance Control And	_____	_____	_____	_____
Fader, Quarts Clock, Led Lighting.	_____	_____	_____	_____
Washer Bottle Cover W/Shield	_____	_____	_____	_____
Peterbilt Electric Windshield Wipers	_____	_____	_____	_____
With Intermittent Feature	_____	_____	_____	_____
Wheel Well Fenders 4-1/2 Inch	_____	_____	_____	_____
(2) Grabhandles Horizontal Front Of Cab	_____	_____	_____	_____
Under Windshield. (For Access To Windshield For Cleaning.)	_____	_____	_____	_____
Rain Gutters Over Driver And Passenger Doors	_____	_____	_____	_____
5 Lb 3a:40bc Fire Extinguisher Shipped Loose	_____	_____	_____	_____
Triangle Reflector Kit Shipped Loose	_____	_____	_____	_____
Electrical Wiring Diagram	_____	_____	_____	_____
Shipped Loose	_____	_____	_____	_____
107 dB Backup Alarm	_____	_____	_____	_____
Oil Temp Gauge Trans – Main	_____	_____	_____	_____
For use with Allison Transmission	_____	_____	_____	_____
Water Temp Gauge	_____	_____	_____	_____
Oil Pressure Gauge – Engine	_____	_____	_____	_____
Air Restriction Gauge – Dial Type	_____	_____	_____	_____
(2) Air Pressure Gauges	_____	_____	_____	_____
Primary and Secondary	_____	_____	_____	_____
Fuel Filter Restriction Gauge	_____	_____	_____	_____
Fuel Level Gauge	_____	_____	_____	_____
Warning Light Battery Disconnect Switch Engaged	_____	_____	_____	_____
(Marker Light) external mounted	_____	_____	_____	_____
Speedo Dixson Elec 0-80 MPH, 0-130 KPH	_____	_____	_____	_____
Without Odometer	_____	_____	_____	_____
Tach Dixson Elec 0-3000 RPM Voltmeter	_____	_____	_____	_____
Headlights Dual Rect Halogen	_____	_____	_____	_____

City of Bristol, Connecticut

Invitation to Bid 2011-044 Attachment C

**Chassis Specifications for Manual/Automated Side Loader Refuse
Collection Vehicle**

Complies Yes No Exception

(5) LED Clearance w/ (2) LED Marker	_____	_____	_____
LIGHTS. INCLUDES FIVE LIGHTS MTD ON TOP OF	_____	_____	_____
THE CAB AND ONE CAB SIDE MARKER LIGHT IN	_____	_____	_____
FRONT OF EACH CAB DOOR.	_____	_____	_____
Omit Stop/Tail/Backup Lights	_____	_____	_____
Daytime Running Lights	_____	_____	_____
Directionals Front Surface	_____	_____	_____
Mounted above headlights with side-mounted turn signals	_____	_____	_____
behind doors.	_____	_____	_____
Kysor Solid State Flasher HD	_____	_____	_____