

**BID PRICING SUBMITTAL FORM**  
**TANDEM AXLE SIDE LOADER, GARBAGE WASTE, RFB #PUR0417-208**  
**ATTACHMENT B**

**SPECIFICATION COMPLIANCE - Any supplier who willfully falsifies responses indicating compliance or non-compliance with the minimum requirements listed below will be subject to suspension and/or debarment from bidding.**

Cab & Chassis

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
<b>1</b>	<b>Engine</b>				
	370 HP Cummins ISL9, with current Tier level requirements				
	2100 Gov. 1150 ft-lb.				
<b>2</b>	<b>Electronic Parameters</b>				
	PTO function enable				
<b>3</b>	<b>Engine Equipment</b>				
	Remote mounted oil check and fill				
	One piece valve cover				
	15" air cleaner				
	DR 12V 160 AMP 36-SI Quadra mount alternator				
	(3) GRP31 12V MF 2280 CCA threaded stud batteries				
	Frame ground return for battery cables and positive posts - <u>Jumpstart posts</u>				
	Non-polished battery box cover				
	No clutch				
	18.7 CFM air compressor				
	Steel compressor discharge line with integral quick connect system charging valve				
	Electronic engine integral shutdown protection system				
	No retarder				
	RH mounted vertical stack exhaust				
	Engine after treatment with both active and manual regeneration with appropriate dash mounted switches				
	RH curved top stack				
	Aluminum after treatment heat shield				
	11'6" exhaust system height				
	Automatic fan control without dash switch				
	Fuel – water separator fuel filter				
	Full flow oil filter				
	Extended purge dryer				
	1300 sq. in. aluminum radiator				
	Anti-freeze to -34F, ethylene glycol pre-charged SCA heavy-duty coolant				
	Blue Stripe coolant hoses				
	Constant tension hose clamps for coolant hoses				
	No radiator draincock				
	Lower radiator guard				
	Aluminum flywheel housing				
	Air intake warmer				
	12V starter with integrated magnetic switch				
	Electric engine block heater				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
<b>4</b>	<b>Transmission and Equipment</b>				
	Allison 3000 RDS Automatic Transmission, with PTO provision				
	WTEC calibration- 6 speed RDS with auto neutral (package 170)				
	Vehicle interface wiring and PDM with body builder connector at end of frame				
	Front mounted PTO behind grill cannot extend past front bumper				
	Magnetic plugs, engine drain, transmission drain, axles fill & drain				
	Push button, electronic shift control, dash mounted				
	Transmission oil check and fill with electronic oil level check				
	Water to oil transmission cooler under radiator				
<b>5</b>	<b>Front Axle and Suspension</b>				
	Dana 2200W, 20,000 lb front axle				
	16.5 X 6 Q+ cast spider cam front brakes, double anchor, fabricated shoes				
	Non-asbestos front brake lining				
	Cast iron front brake drums				
	Vented front hub caps				
	Standard spindle axle nuts for all axles				
	Automatic front slack adjusters				
	Power steering				
	4-quart see-thru power steering reservoir				
	20,000 lb flat leaf front suspension				
	Front shock absorbers				
	Spring pins grease point – location of grease points to be communicated by successful bidder				
<b>6</b>	<b>Rear Axle and Suspension</b>				
	Meritor RT-46-160 R-series tandem rear axle @46,000#				
	6.43 ratio with traction control				
	Iron rear axle carrier housing				
	1710 main driveline with half round yokes				
	1710 inter-axle driveline with half round yokes				
	No traction equalizer				
	One (1) inter-axle lock control valve for tandem or tridem drive axles				
	Warning light for inter-axle wheel lock				
	Synthetic Auto Trans oil & Mobil Synthetic 75W-90 all axles				
	Meritor 16.5 X 7 Q+ cast spider cam rear brakes, double anchor, fabricated shoes				
	Non-asbestos rear brake lining				
	Cast iron rear brake drums				
	Rawhide Scotch seal Plus XL rear oil seals				
	Haldex Goldseal on all drive axles				
	Haldex automatic rear slack adjusters				
	Hendrickson HMX460, 46,000 lb suspension with torque rods				
	54" axle spacing				
	Fore and aft and transverse control rods				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
<b>7</b>	<b>Brake System Equipment</b>				
	Air brake package				
	ABS with traction control enhancement				
	Reinforced nylon, fabric braid and wire braid chassis airlines				
	Standard brake system valves				
	Relay valve with 5-8 PSI crack pressure no rear-proportioning valve				
	BW AD-IP (DRM) brake line air dryer heater				
	Steel air brake reservoirs				
	Central air drain manifold				
<b>8</b>	<b>Wheelbase and Frame</b>				
	Wheelbase = 251" (in.) approx.				
	Bridge length 23'				
	10.76 x 3.50 x .375 body builder dependent drop frame				
	1/4" c-channel inner frame reinforcement				
	Rear frame overhang = 78" (in.) rating at 4.2 RBM				
	Frame overhang range 71" to 80"				
	Square end of frame				
	Light weight heavy duty aluminum engine cross member				
	Standard rearmost cross member				
	Heavy duty suspension cross member				
<b>9</b>	<b>Chassis Equipment</b>				
	Steel bumper with wrap-around steel ends				
	Two (2) front tow hooks, frame mounted, exposed for easy hook up				
	Bumper mounting for license plate				
	Clear frame rails / <b>NO</b> protrusions outboard both frame rails BOC to rear suspension - must be compliant with body builder requirements				
	Huck bolt fasteners				
<b>10</b>	<b>Fuel Tanks and Equipment</b>				
	50-gallon rectangular aluminum fuel tank				
	Fuel/water separator w/12V heater				
	Reinforced nylon fuel hose				
	No fuel cooler				
<b>11</b>	<b>Front Tires, Hubs, Wheels</b>				
	Michelin XZUS2 315/80R22.5 20 ply				
	Pre-set bearing iron front hubs				
	22.5 X 9.00 10-hub pilot 3.12 inset aluminum for max wheel cut				
<b>12</b>	<b>Rear Drive Tires, Hubs, Wheels</b>				
	Michelin XDY3 11R22.5 16 ply				
	Pre-set bearing iron rear hubs				
<b>13</b>	<b>Cab Exterior</b>				
	COE cab galvanized steel flat roof cab				
	Aluminum and fiberglass cabs are unacceptable				
	Poly fender extensions				
	Grab handle LH and RH				
	Removable type grill with bug screen				
	Single outside self-cleaning steps				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Steel doors				
	Dual air horn				
	All locks keyed the same				
	LED headlight				
	LED marker lights				
	Electric over hydraulic cab tilt assist				
	Standard front turn signal lamps				
	Dual bright finish heated West Coast mirrors with LH/RH remote				
	Mirrors must be adjustable electronically and from both driving positions				
	Remote switch mounted on center of dashboard within reach of the right or left side driver compartment				
	Door mounted mirrors, with retractable arms				
	102" equipment width				
	LH/RH 8" stainless steel color convex mirrors mounted under primary mirrors, heated				
	Standard side/rear reflectors				
	Tinted windshield				
	Windshield washer reservoir without fluid level indicator				
<b>14</b>	<b>Cab Interior</b>				
	Cab interior room to be 120-125 cubic feet to provide ample room for operator in both right and left hand operations				
	Dual sit down drive with left and right hand operation				
	Battery disconnect switch				
	Molded plastic door panels				
	Rubber floor covering with insulation				
	Forward roof mounted console				
	5 lb. fire extinguisher				
	Integral heater, defroster and air conditioning dash mounted				
	Main HVAC controls with recirculation switch				
	Standard heater plumbing with shut off valves				
	Sanden heavy duty air conditioner compressor				
	Binary control, R-134A				
	Cab insulation				
	Solid state circuit protection and fuses				
	12V negative ground electrical system				
	Dome light with 3 way switch activated by door				
	Cab door latches with manual locks				
	Bostrom high back, air suspension driver seat				
	Bostrom high back, air suspension passenger seat				
	Integral door panel arm rests				
	3 point fixed retractor driver and passenger seatbelts				
	Fixed steering column				
	16" steering wheel				
	Driver and passenger interior sun visor				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
<b>15</b>	<b>Instrument Panel &amp; Controls</b>				
	Engine remote interface with park brake and auto neutral				
	Low air pressure light and buzzer				
	Primary and secondary air pressure gauges				
	Intake mounted air restriction indicator without graduations				
	Cruise control - elec. engine with switches				
	Key operated ignition switch and integral start position; 4 position Off/Run/Start/Acc, located in center of vehicle				
	Overhead CB Radio provision				
	Center location ignition switch				
	Circuit Boss – Circuit Isolator #70207 (7 circuits), Painless is the current product line we use configured as follows: Circuit 1-3 – constant power Circuit 4-7 – ignition powered Exact connection to particular component will be determined with successful bidder				
	4 sets of keys required				
	ODO/Trip/Hour/Diagnostic/Voltage display with on-board diagnostics on both sides LH/RH drivers				
	Diagnostic interface connector, 9 pin, SAE J1587/1708/1939, located below dash				
	Electric fuel gauge				
	Engine remote interface not configured				
	Park brake and auto neutral				
	Electrical engine coolant temperature gauge				
	Transmission oil temperature indicator light				
	Power outlet on dash				
	Engine and trip hour meters integral within driver display				
	Electric engine oil pressure gauge				
	AM/FM/WB radio				
	Two (2) radio speakers (cab only)				
	AM/FM/WB radio antenna mounted on roof				
	Electronic MPH speedometer with secondary KPH scale				
	Electronic Tachometer, 3000 RPM				
	Ignition controlled engine stop				
	Illuminated rocker switch with wire to BOC				
	Refuse work brake for drive axle SVC brakes, dash switch, w/tran auto neutral				
	Digital voltage display integral with driver display				
	Single windshield wiper motor with delay				
	Park brake system with dash valve control auto neutral and warning indicator				
	Self-cancelling turn signal switch				
<b>16</b>	<b>Paint Designs</b>				
	Paint: one solid color				
	Cab color A: Imron N0006EA White Elite SS				
	Chassis: Black, high solids polyurethane				
	Front wheels: Aluminum front wheels/rims				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Rear: Vendor white rear wheels/rims				
	Standard "vehicle makes frequent stops" decal on rear of body 24" tall by 72" wide.				
	Placement will be determined by Solid Waste Management staff before decal is placed on vehicle but generally centered so that approaching traffic has decal in normal line of sight				
	Bumper paint FFP24812 Argent Silver DuPont Flex				
<b>17</b>	<b>Factory Dual Drive Conversion</b>				
	Dual drive, sit down RH and LH side drive				
	Aftermarket conversions are <u>not</u> acceptable on the cab-over chassis				
<b>18</b>	<b>Manuals</b>				
	Hard copy, exactly as stated on page 4 of the bid document				
<b>19</b>	<b>Warranty</b>				
	Warranty will be the standard cab and chassis truck warranty provided by the truck manufacturer				
<b>20</b>	<b>Additional Warranty</b>				
	5 year extended engine warranty parts and labor				
	5 year extended transmission warranty for refuse vocation				
	Vendor to provide a warranty summary card identifying all applicable warranties				

Side Loader Body – Perkins only - No substitutions

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
<b>1</b>	<b>General</b>				
	Side load packer body and hopper design will allow manual and automated loading without any changes to hopper or body equipment configuration required to do either task				
	To ensure correctness, the body manufacturer will mount the automated side loading lifting arm				
	<b><u>At no time during the automated process of dumping of container shall any part of the arm or container extend above the static roofline of the body</u></b>				
	Grab clamp shall be actuated by two cylinders and use a high friction rubber strapping to enable loading of both 32 to 100 gallon garbage cans and roll carts				
	Maximum manual loading height shall be 5.5' above frame				
	Manual loading shall be accomplished without the use of a container				
	High-density side-load body to be approximately 29 cubic yards exclusive of the hopper				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Rear roof wire protection				
<b>2</b>	<b>Hopper</b>				
	Hopper capacity to be 4.0 cubic yards located directly behind cab				
	Hopper floor and sides to be 3/16" abrasion resistant 70,000 PSI steel				
	Hopper crusher panel, full width				
<b>3</b>	<b>Hopper Doors</b>				
	Hopper loading area is completely enclosed with a right and left hand doors				
	Right (curbside) hopper door is to be split for arm operation with the lower portion of door closed				
	Hopper side door handle type latch				
	Shovel and broom aluminum holders on curbside hopper door				
<b>4</b>	<b>Electrical System</b>				
	All switches to be watertight and mounted into an anti-corrosion box				
<b>5</b>	<b>Paint</b>				
	Body and hopper to include the standard sandblasting, two coats of quality primer, rust proofing, fog coating and finishing coat of IMRON acrylic lacquer or acrylic super enamel				
	Finish coat on box to be Dupont Imron white to match chassis color				
<b>6</b>	<b>Exterior Lights/Reflectors</b>				
	As required by D.O.T. and I.C.C.				
	Lights to be <i>LED Style</i> , watertight, recessed stop, clearance, taillights and orange or yellow warning beacon lights on front and back of packer box				
	Lights to meet FMVSS specifications				
	All lights will be of LED type except rotating beacons				
	Unit shall have mid-body turn signals				
	Work light(s) are to be installed in hopper for observation of hopper contents and operation in low light conditions				
	Two (2) amber warning rotating beacon lights or strobe lights or combination of types to be installed on corners of rear tailgate and one on roof of cab				
	Whelen products L41AP is Cedar Rapids standard				
<b>7</b>	<b>Controls, Gauges, Sensors</b>				
	Controls to consist of right, left and inside cab packer controls				
	Joystick control shall have mountings at sit down positions of cab for operation from either side of cab				
	One (1) right hand crusher panel control				
	Inside cab controls for tailgate and body hoist and pack-on-the-go feature				
	Dual controls on packer body for operation from both sides				
	Emergency stop at all control stations and				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	panic bar mounted on curbside hopper area				
	Manual control valve in cab with safety lock to prevent accidental activation of body hoist				
	Proximity switch/sensor for extending and retracting position of packer				
	All controls and accessories required for safe operation of the vehicle shall be supplied				
<b>8</b>	<b>Cameras and Vision System</b>				
	Color, low light cameras shall be mounted on tailgate and in hopper area and curb side view to observe collection arm and dumping into hopper with LCD color monitor mounted in cab				
	Complete system shall be color				
	Minimum 5" LCD				
	Angeltrax or Pro Vision DVR system with 5 color cameras and VSM GPS				
<b>9</b>	<b>Accessories</b>				
	Mud guards are to be placed in front of rear axle and mud flaps are to be placed behind rear axle				
	Grease gun holder, preferably OTC 2340				
	Clean out tool and aluminum holder				
	Shovel and broom aluminum holders on curbside hopper door				
	Inside hopper bracket				
	Fenders				
	ICC bumper, full width				
<b>10</b>	<b>Training</b>				
	Training for operation and maintenance of the unit and all equipment contained on the unit				
<b>11</b>	<b>Manuals</b>				
	Hard copy, exactly as stated on page 4 of the bid document				
	One (1) set of operating, service and part manuals including maintenance procedures				
	Vendor is required to provide the City with a listing of all filters used on the finished product				
	The listing must include filter type, use, and model number				
<b>12</b>	<b>Warranty</b>				
	Two (2) year 100% parts & labor warranty beginning the date unit is put into service by the City of Cedar Rapids				
	Three (3) year warranty on cylinders				
<b>13</b>	<b>Cart Tipper Street Side</b>				
	The cart tipper shall be Perkins constructed from high quality steel - no substitutions				
	The cart tipper shall be activated by a rotary actuator drive mechanism				
	The cart tipper operation shall be smooth and quiet				
	The cart tipper parts shall be bolted to ensure easy maintenance				
	The cart tipper shall be able to dump 35-95 gallon carts				
	The cart tipper shall be capable of consistently tipping carts that weigh 300 pounds				



	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	The cart tipper cycle time shall be 10-15 seconds				
	The cart tipping dump angle shall be a minimum of 50 degrees				
	The cart tipper shall weigh a maximum of 135 pounds				
	The tipper shall have a 1-year warranty on all parts and labor				
<b>14</b>	<b>Grab Specifications for Arm</b>				
	Minimum container size shall be 32 gallons				
	Maximum container size shall be 100 gal.				
	Minimum lifting capacity shall be 400 # at maximum reach of 120" (approx ten (10) feet)				
	Grab Pack programmable packer cycle after cart pick-up, including multi-cycle option				
	<b><u>Deflector shield shall be installed on arm above grabber to protect cart lids if cart is not set out properly faced to the curb and to direct flow of product into hopper</u></b>				
	High-density side-load body to be approximately 29 cubic yards exclusive of the hopper				
	Hopper capacity to be 4.0 cubic yards located directly behind cab				
	Hopper floor and sides to be ¼" abrasion resistant 65,000 PSI steel				
	Minimum hopper door width of 60 inches				
	The hopper area shall also be designed to accommodate an automated arm style lifting device				
<b>15</b>	<b>Hydraulics</b>				
	Hydraulics system shall be designed to ensure easy maintenance				
	Hydraulic valve for curbside mounted tipper shall not interfere with manually loading operations				
<b>16</b>	<b>Electrical System</b>				
	All switches to be watertight and mounted into an anti-corrosion box				
	All circuits properly fused with color-coded and numbered wiring				
	Fuse box location to be situated in truck cab at console				
	Fuses or breakers in battery box are <u>not</u> acceptable				
<b>17</b>	<b>Exterior Lights/Reflectors</b>				
	As required by D.O.T. and I.C.C.				
	Lights to be <i>Truck-Lite</i> brand or approved equal, watertight, recessed stop, clearance, taillights				
	All lights shall be LED style				
	Lights to meet FMVSS specifications				
	Rotating amber warning beacon Whelen L41AP lights shall be installed on rear tailgate and on roof of cab				
	Units will be equipped with mid-body turn signal lights				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Full width upper light panel with all lighting				
	Mid tailgate light bars, all lights functional				
	Lower tailgate light panel, all lights functional				
<b>18</b>	<b>Controls</b>				
	Controls to consist of right, left and inside cab packer controls				
	Inside cab controls for tailgate and body hoist and pack-on-the-go feature				
	Manual control valve in cab with safety lock to prevent accidental activation of body hoist				
	All controls, accessories required for safe operation of the vehicle shall be supplied				
	Color, low light cameras shall be mounted on tailgate, in hopper area and curb side view to observe collection arm and dumping into hopper				
	Complete system shall be color				
	Minimum 5" LCD color monitor mounted in cab				
<b>19</b>	<b>Accessories</b>				
	Mud guards are to be placed in front of rear axle and mud flaps are to be placed behind rear axle				
	The packer shall be equipped with a back up alarm with a volume of 105 dB				
	All controls, accessories required for safe operation of the vehicle shall be supplied and shall include the following, air toggle switch to apply service, brakes located on right hand side at right of steering wheel				
	Vulcan on-board scale system, G703 system				
<b>20</b>	<b>Electronical Connections (all connections must meet this standard minimum)</b>				
	All lighting used shall be, at a minimum, a two (2) wire light grounded through a wired connection to the battery system				
	Wiring shall be run in loom where exposed, and have grommets or other edge protection where wires pass through metal				
	Exterior exposed wire connectors shall be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids				
	All wire ends not placed into connectors shall be sealed with a heat shrink end cap				
	Wires without a terminating connector or sealed end cap shall not be allowed				
	All holes made in the roof shall be caulked with silicon (no exception)				
	Corrosion preventative compound shall be applied to non-waterproof electrical connectors located outside of the cab or body				
	All non-waterproof connections shall require this compound in the plug to prevent corrosion and for easy separation of the plug				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Any lights containing non-waterproof sockets in a weather-exposed area shall have corrosion preventative compound added to the socket terminal area				
	Rubber coated metal clamps shall be used to support wire harnessing and battery cables routed along the chassis frame rails				
	Heat shields shall be used to protect harnessing in areas where high temperatures exist				
	Harnessing passing near the engine exhaust shall be protected by a heat shield				
	For ease of identification, battery cables shall be color coded				
	All positive battery cables shall be red in color or wrapped in red loom the entire length of the cable				
	All negative battery cables shall be black in color				
	Wire connections shall be made using crimp style heat shrink butt splice connectors or soldered connection covered with heat shrink				
	If crimp style connector is used, crimping tool Westward 13H876 or equivalent must be used to prevent piercing heat shrink				
	Solder sleeve butt splice type connectors shall not be allowed				

Qty	Description	Firm Fixed Price
1	Tandem Axle Side Loader – Garbage Waste per the specifications	\$

Tandem axle cab and chassis manufacturer and model \_\_\_\_\_

Is chassis dealer authorized by the manufacturer to sell, warrant and service equipment as bid  Yes  No

Is side loader manufactured by Perkins  Yes  No

Is body dealer authorized by the manufacturer to sell, warrant and service equipment as bid  Yes  No

Estimated delivery time upon receipt of purchase order \_\_\_\_\_ calendar days

Dealer Name \_\_\_\_\_

NOTE: The bid must be submitted by a licensed vehicle dealer in the State of Iowa

Dealer representative signature \_\_\_\_\_ Date \_\_\_\_\_

DELIVERY ADDRESS	BILLING ADDRESS
Joy Huber Fleet Services Division 500 15 <sup>th</sup> Ave SW Cedar Rapids, IA 52404	Finance Department – Accounts Payable City of Cedar Rapids 101 1 <sup>st</sup> St SE PO Box 2148 Cedar Rapids, IA 52406-2148