

PATRICIA A. PESHKA

PURCHASING AGENT



FRANK J. PICOZZI

MAYOR

CITY OF WARWICK

PURCHASING DIVISION
3275 POST ROAD
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TEL (401)738-2013
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The following notice is to appear on the City of Warwick's website Thursday, May 6, 2021. The website address is <http://www.warwickri.gov/bids>.

CITY OF WARWICK BIDS REQUESTED FOR

Bid2022-031 Purchase Automated Side - Loader Refuse Vehicle

Specifications are available in the Purchasing Division, Warwick City Hall, Monday through Friday, 8:30 AM until 4:30 PM on or after Thursday, May 6, 2021.

Sealed bids will be received by the Purchasing Division, Warwick City Hall, 3275 Post Road, Warwick, Rhode Island 02886 up until 11:00 AM, Tuesday, May 18, 2021. The bids will be opened publicly commencing at 11:00 AM on the same day in the Lower Level Conference Room at Warwick City Hall. ***Please note due to COVID-19 only one (1) person from each company may attend the bid opening. Employees and visitors must adhere to social distance guidelines. All visitors are advised to wear masks or face coverings at all times.***

Awards will be made on the basis of the lowest evaluated or responsive bid price. Please note that no bids can be accepted via email or fax.

The City of Warwick, in addition to soliciting bids in response to this bid, may consult, consider, and make an award for any and all open bid offers for a comparable unit as sought herein at the following websites:

RI State MPA: <https://www.ridop.ri.gov/contract-portal/>

NASPO: <https://www.naspo.org/>

NJPA (National Joint Powers Alliance): <https://www.njpacoop.org/cooperative-purchasing>

MHEC (Massachusetts Higher Education Consortium): <https://www.mhec.net/>

Individuals requesting interpreter services for the hearing impaired must notify the Purchasing Division at 401-738-2013 at least 48 hours in advance of the bid opening date.

Original Signature on File

Patricia A. Peshka
Purchasing Agent

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

Acknowledgement of Addendum (if applicable)

Addendum Number	Signature of Bidder
_____	_____
_____	_____

COMPANY NAME: _____

COMPANY ADDRESS: _____

COMPANY ADDRESS: _____

BIDDER'S SIGNATURE: _____

BIDDER'S NAME (PRINT): _____

TITLE: _____ TEL. NO.: _____

EMAIL ADDRESS: _____*

*Please include your email address. Future bids will be emailed, unless otherwise noted.

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II. AWARD AND CONTRACT:

The CITY OF WARWICK, acting as duly authorized through its Purchasing Agent/Finance Director/Mayor, accepts the above bid and hereby enters into a contract with the above party to pay the bid price upon completion of the project or receipt of the goods unless another payment schedule is contained in the specifications. All terms of the specifications, both substantive and procedural, are made terms of this contract.

DATE: _____

Bid2022-031

Purchasing Agent

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

CERTIFICATION & WARRANT FORM*

**This form must be completed and submitted with sealed bid.
Failure to do so will result in automatic rejection.**

Any and all bids shall contain a certification and warrant that they comply with all relevant and pertinent statues, laws, ordinances and regulations, in particular, but not limited to Chapter 16- Conflicts of Interest, of the Code of Ordinances of the City of Warwick. Any proven violation of this warranty and representation by a bidder at the time of the bid or during the course of the contract, included, but not limited to negligent acts, either directly or indirectly through agents and/or sub-contractors, shall render the bidder's contract terminated and the bidder shall be required to reimburse the City for any and all costs incurred by the City, including reasonable attorney fees, to prosecute and/or enforce this provision.

Signature

Date

Company Name

Address

Address

***This form cannot be altered**

**CITY OF WARWICK
NOTICE TO BIDDERS**

Bid2022-031 Purchase Automated Side - Loader Refuse Vehicle

If you received this document from our homepage or from a source other than the City of Warwick Purchasing Division, please check with our office prior to submitting your bid to ensure that you have a complete package. The Purchasing Division cannot be responsible to provide addenda if we do not have you on record as a plan holder.

The opening of bids will be in the order established by the posted agenda and the agenda will continue uninterrupted until completion.

Once an item has been reached and any bids on that item has been opened, no other bids on that item will be accepted and any such bid will be deemed late.

The contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap for any position for which the employee or applicant is qualified and that in the event of non-compliance the City may declare the contractor in breach and take any necessary legal recourse including termination or cancellation of the contract.

A bidder filing a bid thereby certifies that no officer, agent, or employee of the City has a pecuniary interest in the bid or has participated in contract negotiations on the part of the City, that the bid is made in good faith without fraud, collusion, or connection of any kind with any other bidder for the same call for bids, and that the bidder is competing solely in his own behalf without connection with, or obligation to, any undisclosed person or firm.

All bids should be submitted with one (1) original and one (1) copy in a sealed envelope, which should read: *YOUR COMPANY NAME* plainly marked on the exterior of the envelope as well as "Bid2022-031 Purchase Automated Side - Loader Refuse Vehicle."

Bids received prior to the time of the opening will be securely kept, unopened. No responsibility will be attached to an officer or person for the premature opening of a bid not properly addressed and identified. No bids will be accepted via facsimile or email.

All proposals submitted become the property of the City and will not be returned. If the company intends to submit **confidential or proprietary information** as part of the proposal, **any limits on the use or distribution of that material should be clearly delineated in writing. This information should be submitted in a sealed envelope, clearly labeled confidential** and where it should be submitted in the response. Please be advised of the Freedom of Information Act as it may pertain to your submittal.

Should you have any questions, please contact James VanGyzen, Automotive Division, at 401-921-9609.

All bids should be written in ink or typed. If there is a correction with whiteout, the bidder should initial the change.

Negligence on the part of the bidder in preparing the proposal confers no rights for the withdrawal of the proposal after it is open.

Any deviation from the specifications must be noted in writing and attached as part of the bid proposal. The bidder should indicate the item or part with the deviation and indicate how the bid will deviate from specifications.

The IRS Form W-9 is available on www.warwickri.gov should be completed and submitted with the bid if the bidder falls under IRS requirements to file this form.

Prevailing Wages may apply to this bid. Current rates may be viewed at <http://www.dlt.state.ri.us/pw>.

The successful bidder must comply with all Rhode Island Laws, applicable to public works projects, including, but not limited to provisions of Chapter 13 of Title 37 of the Rhode Island General Laws, pertaining to prevailing wage rates, and all other applicable local, state and federal laws.

The contractor must carry sufficient liability insurance and agree to indemnify the city against all claims of any nature, which might arise as a result of his operations or conduct of work.

The contractor must keep himself informed of and comply with all laws, ordinances and regulations of the federal, state and municipal governments which may apply and be in force during the life of the contract, in any manner which may affect himself/employees or the conduct of the work or the materials used or employed in the work. Before submitting bids, prospective bidders should examine the terms, covenants and conditions of all codes, permits and laws which may apply. By submitting a bid, the bidder agrees to comply with all pertinent laws/regulations if awarded a contract.

Every contractor and subcontractor awarded a contract for public works, construction, alteration and/or repair, including painting and decorating, or public buildings or public works must submit completed RI Certified Weekly Payroll forms listing employees employed on the project to the awarding authority on a monthly basis for all work completed in the preceding month. These forms may be found at: www.dlt.ri.gov/pw/pwFormsPubs.htm. Certified Payroll forms concerning RI Department of Transportation projects may be submitted on federal forms. However, when a complaint is being investigated by the RI Department of Labor & Training (DLT), the contractor must resubmit the payroll information on the RI Certified Weekly Payroll forms for the entire project.

Awarding authorities, contractors and subcontractors must provide any and all payroll records to the DLT within ten (10) days of any request that is made by the department.

The awarding authority of any public works project will withhold the next scheduled payment to any contractor or subcontractor who fails to comply with the above provisions, as well as any further payments until they comply. The DLT may also impose a penalty of up

to \$500 for each calendar day of noncompliance.

Please refer to Rhode Island state laws Section 37-13 for more information.

Bid surety in the form of a bank check, original bid bond or certified check in the amount of ten (10) percent of the total bid price must be submitted with each bid. If a bid bond is submitted, it must be duly executed by the bidder as principal and having as surety thereon a surety company licensed to do business in the State of Rhode Island and approved by the owner.

The successful bidder must provide the City of Warwick with an original **Certificate of Insurance** for General Liability and Automobile Liability in a minimum amount of \$1 million, naming the **City of Warwick as the additional insured** and so stated on the certificate with the bid name and bid number. It is the vendor's responsibility to provide the City of Warwick with an updated Certificate of Insurance upon expiration of the original certificate.

Failure to provide adequate insurance coverage within the specified duration of time as set forth is a material breach of contract and grounds for termination of the contract.

The successful bidder must furnish a performance bond in the amount of 100 percent of the total bid price.

For a bid to be awarded to a corporation, limited liability company or other legal entity, prior to commencing work under the awarded bid, that corporation, company or legal entity may be required to provide to the Purchasing Agent a **Certificate of Good Standing** dated no more than thirty (30) days prior to the date upon which the bid approval was made.

If required, the successful bidder will provide said **Certificate of Insurance, bonds and Certificate of Good Standing** within ten (10) calendar days after notification or the City reserves the right to rescind said award.

Prices to be held firm One year from date of award. Term contracts may be extended for one (1) additional term upon mutual agreement unless otherwise stated.

The City is exempt from the payment of the Rhode Island Sales Tax under the 1956 General Laws of the State of Rhode Island, 44-18-30, Paragraph I, as amended.

The contractor must carry sufficient liability insurance and agree to indemnify the City against all claims of any nature, which might arise as a result of his operations or conduct of work.

The Purchasing Agent reserves the right to reject any and all bids, to waive any minor deviations or informalities in the bids received, and to accept the bid deemed most favorable to the interest of the City.

The City reserves the right to terminate the contract or any part of the contract in the best interests of the City, upon 30-day notice to the contractor. The City will incur no liability for materials or services not yet ordered if it terminates in the best

interests of the City. If the City terminates in the interests of the City after an order for materials or services has been placed, the contractor will be entitled to compensation upon submission of invoices and proper proof of claim, in that proportion which its services and products were satisfactorily rendered or provided, as well as expenses necessarily incurred in the performance of work up to time of termination.

No extra charges for delivery, handling or other services will be honored. All claims for damage in transit will be the responsibility of the successful bidder. Deliveries must be made during normal working hours unless otherwise agreed upon.

All costs directly or indirectly related to the preparation of a response to this solicitation, or any presentation or communication to supplement and/or clarify any response to this solicitation which may be required or requested by the City of Warwick will be the sole responsibility of and will be borne by the respondent.

If the respondent is awarded a contract in accordance with this solicitation and fails or refuses to satisfy fully all of the respondents obligations thereunder, the City of Warwick will be entitled to recover from the respondent any losses, damages or costs incurred by the City as a result of such failure or refusal.

The City reserves the right to award in part or full and to increase or decrease quantities in the best interest of the City.

Any quantity reference in the bid specifications are estimates only, and do not represent a commitment on the part of the City of Warwick to any level of billing activity. It is understood and agreed that the agreement will cover the actual quantities ordered during the contract period.

The City reserves the right to rescind award for non-compliance to bid specifications.

The successful bidder must adhere to all City, State and Federal Laws, where applicable.

**CITY OF WARWICK
PURCHASE OF 2021 OR NEWER NEW OR USED AUTOMATED SIDE-LOADER
REFUSE VEHICLE(S)**

ENGINE/TRANSMISSIONS

- MINIMUM 355HP @ 1500-1800 RPM (PEAK) 2100 RPM (GOV) 1260 LB-FT, US'17
- 4500 RDS 6 SP-ALLISON RUGGED DUTY SERIES GEN 5 W/PROGNOSTICS

EXHAUST/EMISSIONS

- DPF VERTICAL LH SIDE BACK OF CAB W/SCR VERT RH SIDE BOC
- SINGLE VERTICAL RIGHT SIDE OUTBOARD MOUNTED STRAIGHT EXH STACK PLAIN END, SIDE OUTLET DIFFUSER
- 6.6 GALLON (25 L) 22" DIAMETER TANK LEFT SIDE MOUNTED

ENGINE EQUIPMENT

- MERITOR/WABCO 636 (37.4 CFM)
- 13" (330 mm) DIAMETER BEHIND CAB W/SNORKEL, SINGLE ELEMENT DRY ALTERNATOR TYPE DELCO 12V 160A
- (3) 12V 650/1950 CCA THREADED STUD TYPE
- CHEVRON FULLY FORMULATED COOLANT W/ NITRATES (50/50 MIX DYED PINK) TO -34DEG
- COOLANT CONDITIONER
- 120V 1500 WATT ENGINE BLOCK HEATER
- ENGINE BLOCK HEATER RECEPTACLE, BASIC LOCATION
- BEHR FAN AND ELECTRONIC MODULATING VISCOUS FAN DRIVE MP7 POWERLEASH
- MANUAL DRAIN VALVE (INTEGRAL W/PRIMARY FUEL FILTER)
- HOSES SILICONE
- W/SPRING LOADED CLAMPS FOR BOTH RAD & HTR STARTER 12 VOLT DELCO 39MT-MXT
- CORROSION RESISTANT OIL PAN
- PLASTIC COATED CABLE, MOUNTED FRONT OF EACH BATTERY BOX LENGTH TO ALLOW COVER TO SET ON GROUND
- SINGLE BOX (3) BATTERY MAX PERP. TO FRAME 11"
- BATTERY BOX MOLDED PLASTIC
- FLAMING RIVER BIG SWITCH WIRED TO POSITIVE SIDE

CLUTCH/TRANS EQUIPMENT

- MERITOR 176 MXL "XTENDED LUBE" DRIVELINE
- FURNISH TC541 FOR USE W/ALLISON (HD) SERIES WORLD TRANSMISSION
TRANSYND SYNTHETIC LUBE FOR ALLISON TRANS
- FURNISH FOR ALLISON TRANSMISSION W/DIRECT MOUNT COOLER HALF-ROUND
UNIVERSALJOINT
- UNIVERSAL JOINT HALF-ROUND TYPE

FRONT AXLE EQUIPMENT

- 20000# (9100 KG) FXL20 WIDE PIVOT CENTER STRAIGHT SPINDLE/UNITIZED
BEARINGS
- MERITOR "S" CAM TYPE 16.5" x 6" Q+ MERITOR R403
- CAST IRON
- DUST SHIELDS FOR FRONT AXLE FERROUS HUBS
- DOUBLE ACTING TYPE HALDEX - AUTOMATIC
- TAPERLEAF 23000# (9100 KG) GROUND LOAD RATING STATIC LOAD CUSHIONS
- M100P PLUS RIGHT SIDE ASSIST CYLINDER FRONT BRAKE CHAMBER
MANUFACTURER, MGM FRONT BRAKE CHAMBER 30SQ INCHES (SERVICE)

REAR AXLE EQUIPMENT

- MERITOR R403.
- HALDEX - AUTOMATIC
- 52000# (23600kg) S522R CAST DUCTILE HOUSING
- SS52 MULTILEAF (CAMELBACK) 52000#, EXTRA THICK SPRING
- 23.6 TONNES (52,000 LBS), REAR AXLE LOAD
- REAR AXLE CASING, SUPER DUTY
- 4.80 RATIO
- MERITOR HEAVY DUTY "S" CAM 16.5"x7" Q+ CAST IRON
- POWER DIVIDER LOCKOUT, W/BUZZER & LIGHT
- URETHANE SHOCK INSULATORS, HEAVY DUTY
- W/SS582 & SS652 REAR SUSP
- MGM MODEL TR-T; TAMPER-RESISTANT BRAKE CHAMBERS REAR SPRING BRAKE
CHAMBERS 30/30 TYPE
- 55" AXLE SPACING (BOGIE WHEELBASE)

- BRONZE BUSHINGS
- SPINDLE NUTS, MAIN AXLE, INTEGRATED
- 4S/4M SYSTEM REAR WHEEL END SENSORS W/O BRAKE DIAPHRAGM
- BENDIX WITHOUT TRACTION CONTROL
- BRAKE LINING MATERIAL DRIVE, MERITOR / R403

FRAME EQUIPMENT/FUEL TANKS

- STEEL-3/8" X 13 3/8" X 3 1/4" (CLASS 8)
- 246" WB
- 111" AF
- FULL INSIDE REINFORCEMENT, STEEL 1/4" 6.35
- BASIC FUEL LEVEL SENDER MOUNTED ON L.H TANK
- RUST PREVENTATIVE BETWEEN FRAME RAILS
- 12" FRONT FENDER MOUNTED FLUSH-PAINTED STEEL
- STEEL 1/2" PL BOLTED BOC & INTERMDT 1/8" BELOW TOP OF RAIL 1/2" PLATE (ONE) BACK TO BACK
- FURNISH STANDARD STEEL CLOSING REAR CROSSMEMBER W/O FRAME RAIL CLEARANCE
- SKID PLATE UNDER BUMPER AND RADIATOR
- CENTER TOW CAPABILITY BASED ON BUMPER SELECTION WITHOUT TOWING DEVICES, REAR
- 80 GALLON (300 L) STEEL, 26"x24" RECTANGULAR W/O RH FUEL TANK
- LOCATE BEHIND LH RAIL- 5" BELOW TOP OF RAIL W/O BRIGHT FINISH FUEL TANKS
- FOR LH FUEL TANK INCLUDES SUMP

AIR/BRAKE

- WABCO AIR DR, 1800P W/O TURBO CUT OFF VALVE, W/COALESC OIL FILTER
- AUTO DRAIN VALVE, HEATED ON SUPPLY TANK, MANUAL (PETCOCK) ON ALL OTHER TANKS
- AUXILIARY WORK BRAKE HAND CONTROL, ACCESSIBLE BOTH SIDES SINGLE VALVE SYSTEM

ELECTRICAL

- TRUCKLIGHT LED TYPE ROOF MARKER for LR
- COMPUTER AND 2-WAY RADIO DEDICATED CIRCUIT ALL CIRCUITS FUSE/BREAKER PROTECTED HEADLAMP BULB TYPE, HALOGEN
- OMIT TAIL LIGHTS
- BATTERY SHOCK PADS
- FRONT AND SIDE DIRECTION IND & MARKER, LED TYPE
- BATTERY DISCONNECT SWITCH FURNISH ON OR NEAR BATTERY BOX (LIGHT ON IN RUN POSITION)

PTO

- FURNISH PUMP MTG PROVISIONS - INCLUDE WIRING, SWITCHES, AND INDICATORS AS REQUIRED
- EL PREP KIT, REFUSE, RP170 ELECT. INTERFACE (3 CON 54 PINS)
- 1350 SERIES FLANGE (DOES NOT INCLUDE FRONT FRAME EXTENSION) WITHOUT PTO ENGINE REAR

CAB

- RUBBER FLOOR MAT
- U.S. UNITS (PREDOMINANT)
- TRANSMISSION GAUGE AND TRANS. OIL HIGH TEMPERATURE LIGHT
- FIRE EXTINGUISHER
- STD HEATER
- INTEGRAL W/HEATER (COMBO HEATER/AIR CONIDITIONER UNIT) W/R134a REFRIGERANT
- AM/FM PREMIUM STEREO, CD-PLAYER, MP3, WEATHERBAND, HANDSFREE INTERFACE, BLUETOOTH
- RADIO ANTENNA, CH STYLE COWL MOUNTED ON LH SIDE
- CHASSIS KEYED AT RANDOM - 2 KEYS

CAB EXTERIOR

- R.H. & L.H. SIT DOWN DRIVING POSITION, EXTENDED CAB VERSION LOCATED IN STD LOCATION
- STANDARD 2 STEP CAB ACCESS BLACK, EXTENDED CAB VERSION EMBLEMS OPTION, COMPLETE

- AIR HORN (1) TWIN-UNDER CAB TRUMPET W/DUAL LANYARD ELECTRIC HORN SINGLE TONE
- MIRRORS LH & RH ELECTRIC HEATED
- LH & RH FRONT HINGED DOORS W/POWER WINDOWS BOTH SIDES
- CAB CORNER PROTECTION, FRONT

WHEELS AND TIRES

- FRONT ADVANCED LOW ROLLING RESISTANCE, BEST FUEL ECONOMY
- REAR ADVANCED LOW ROLLING RESISTANCE, BEST FUEL ECONOMY
- TWO FRONT TIRES & WHEELS
- EIGHT REAR AXLE TIRES & WHEELS DRIVE
- WHEEL STUDS LONGER LENGTH
- 315/80R22.5 L BRIDGESTONE M870 (20000 lbs)
- 22.5x9.00 ALCOA ULTRA ONE ALUM DISC 10-HP; 11.25" BC, 5.96" INSET MACHINE CLEAN BUFFED-ALL WHEELS
- STANDARD VALVE STEMS AND CAPS
- 315/80R22.5 L BRIDGESTONE M870 (36360 lbs) (ALL POSITION)
- 22.5x9.00 ALCOA ULTRA ONE ALUM DISC 10-HP, 11.25" BC, 6.94" OFFSET MACHINE CLEAN BUFFED - ALL WHEELS

COMMUNICATIONS SYSTEM

- REMOTE DIAGNOISTIC SERVICES, ENABLED
- SERVICES DIAGNOSTICS DISPLAY IN CLUSTER, BASIC
- REMOTE SOFTWARE UPGRADE ENABLED

PAINT

- SINGLE COLOR WHITE; P9188
- PAINT - CAB, URETHANE CLEAR COAT SAME AS FIRST COLOR - CAB
- FRAME BLACK (URETHANE)
- CHASSIS PAINT PROCESS, STANDARD COLOR
- BUMPER SAME COLOR AS CHASSIS RUNNING GEAR
- PAINT FUEL TANK SAME COLOR AS CHASSIS RUNNING GEAR WITHOUT SPECIAL

PRE-FINISHED OPTION

WARRANTY

- ALLISON TRANSMISSIONS STANDARD
- SEVERE DUTY WARRANTY CLASSIFICATION
- STANDARD SEVERE DUTY COVERAGE 12 MONTHS / 100,000 (161,000 KM)
- AIR CONDITIONING STANDARD COVERAGE (Sealed System Only) 12 MONTHS UNLIMITED MILEAGE
- STANDARD SEVERE DUTY CHASSIS TOWING
- STANDARD ENGINE TOWING COVERAGE 24 MONTHS/250,000 MILES
- SEVERE DUTY STANDARD BASE COVERAGE 12 MONTHS/100,000 MILES (161,000 KM)
- ENGINE COVERAGE 24 MONTHS / 250,000 MILES (402,000KM)
- US and CANADA EQUIPPED VEHICLE EMISSION COMPONENTS COVERAGE 60 MONTHS/100,000 MILES (161,000 KM)
- DIAGNOSTIC SOFTWARE PACKAGE, PARTS, SERVICE AND OPERATORS MANUAL OR ELECTRONIC MANUALS MUST BE SUPPLIED FOR EACH VEHICLE

**AUTOMATED RIGHT-HAND BODY
CAPACITY 33-CUBIC YARDS**

COMPLIANCE
(Yes/No)

BODY CAPACITY

- Minimum capacity of the body, (excluding hopper area) 27 cu yd
- Capacity of the tailgate - 6 cu yd
- Hopper capacity - 6.5 cu yd

BODY DIMENSIONS

- Rounded to permit a maximum capacity
- Taper to facilitate the unloading of the material and to increase compaction ratio
- Taper dimension of the body sides - 12"
- Inside body width at front - 75 ¾"
- Inside body width at rear - 88"
- Outside body width - 96"
- Inside body height - 96 ½"
- Outside body height above frame - 103"
- Overall length including hopper - 310 ½"
- Overall body height above frame (including arm) - 103"

FLOOR CONSTRUCTION

- Hopper floor made of abrasion resistant steel
- Hopper floor steel grade - S-107
- Hopper floor thickness - ¼"
- Hopper floor yield strength - 65,000 psi
- Body floor - rounded
- Body floor thickness - 3/16"
- Body floor steel grade - IPSCO 100
- Body floor yield strength - 100,000 psi
- Body long sills dimensions - HSS tubing 8 x 2 x 3/8"
- Body long sills yield strength - 50,000 psi
- Hopper sump box volume - 30.7 gal
- Hopper sump box dimensions - 14 x 6 x 87"
- Crossmember steel grade - 50W
- Crossmember dimensions - 4 7/8 x 4 11/16 x ¼"

SIDE CONSTRUCTION

- Body walls are rounded and smooth, improving resistance and featuring lightness

- Body walls thickness - 12 ga
- Body walls steel grade - ASTM A-715 GR 80F
- Body walls yield strength - 80,000 psi
- Hopper sides thickness - ¼"
- Hopper sides steel grade - S-107
- Hopper sides yield strength - 65,000 psi
- Rub rail thickness - 12 ga.
- Rub rail steel grade - A-569
- Rub rail dimensions - 8 x 3 1/16 x 9 7/8"
- Dimensions of body window, 8 x 8", made of expanded metal, installed on the front wall of the body to indicate when body is full
- Hopper access door is installed to permit the driver to have access to the hopper if something falls off the cart
- Hopper upper left wall thickness - 10 ga
- Hopper upper right wall thickness - 14 ga
- Hopper walls lower part steel thickness - ¼"
- Hopper walls lower part steel grade - S-107
- Hopper walls upper part steel grade - A-569
- Hopper access door thickness - 14 ga
- Hopper access door steel grade - A569
- Hopper access door dimensions - 32 x 44"
- Front bolsters steel grade - A569
- Front bolsters dimensions - 9 7/16 x 10"
- Rear bolsters steel grade - A569
- Rear bolsters dimensions - 8 7/16 x 10"

ROOF CONSTRUCTION

- Body roof is rounded and made of high yield steel to ensure strength when material is packing against it
- Roof thickness - 12 ga
- Roof steel - ASTM A-715 GR 80F
- Roof yield strength - 80,000 psi
- Front bolsters steel grade - A569
- Front bolsters thickness - 12 ga
- Front bolsters dimensions - 4 ¾ x 4"
- Rear bolsters steel grade - 44 W
- Rear bolsters thickness - 3/16"
- Rear bolsters dimensions - 10 x 5 ¾"

HOPPER

- Hopper depth curbside - 56"
- Hopper depth streetside - 70 ½"
- Hopper length - 69 ½"
- Hopper width - 66"
- Follower panels thickness - ¼"
- Follower panels steel grade - A-569

REAR TAILGATE

- Rear tailgate is hydraulically operated, bustle type with an automatic lock mechanism and
- Hydraulic safety locks
- Tailgate side and rear thickness - 12 ga
- Tailgate side and rear steel - ASTM A-715 GR 80F
- Tailgate side and rear yield strength - 80,000 psi
- Tailgate is operated by two (2) cylinders
- Tailgate cylinders - Nitrate treated
- Tailgate cylinder bore diameter - 2 ½"
- Tailgate cylinder rod diameter - 1 ¾"
- Tailgate cylinder stroke - 39"
- Tailgate cycle time at idle - 55 sec
- Tailgate side framing steel - S – 107
- Tailgate side framing - 5 x 2 x 3/16"
- Tailgate top framing steel - HSS tubing
- Tailgate top framing - 4 x 4 x 3/16"
- Tailgate bottom framing steel - HSS tubing
- Tailgate bottom framing - 7 x 3 x ¼"
- Tailgate hydraulic line equipped with flow restrictor to prevent sudden descent
- Tailgate hinge pins diameter - 1 ¼"
- Tailgate rubber seal height - 30"
- Rubber seal is installed on the tailgate to prevent liquid leakage and banging on back of body
- Cab mounted audible alarm provided to indicate when the tailgate is unlocked
- Manual control with safety lock installed in the cab to prevent accidental activation
- Tailgate safety prop provided

PACKER

- Packer is 24" high providing 75,400 lbs. of force on material, ensuring efficient packing
- Packer is unitized, integral with body
- Packer is guided by two (2) rails in which wear plates are made of steel grade - AR500
- Wear plates thickness - $\frac{1}{4}$ "
- Rail dimensions - $3\frac{1}{2}$ " x $2\frac{3}{16}$ "
- Packer wear shoes steel grade - AR425
- Packer wear shoes thickness - $\frac{3}{8}$
- Packer is operated by two (2) cylinders
- Packer cylinders rods - chrome plated
- Cylinder bore diameter - 4"
- Cylinder rod diameter - $2\frac{1}{2}$ "
- Cylinder stroke - 40"
- Maximum operation pressure - 3000 psi
- Maximum compaction of refuse - 900 lbs/cu yd
- Packing force - 66,750 lbf
- Cylinder force - 75,400 lbf
- Inside width of packing ram - $65\frac{1}{2}$ "
- Inside height of packing ram - 24"
- Packing ram stroke - 52"
- Packing ram top steel grade - A-514/CHT-100
- Packing ram top thickness - $\frac{1}{4}$ "
- Packing ram top yield strength - 100,000 psi
- Packing face plate steel grade - A-514/CHT-100
- Packing face plate thickness - $\frac{1}{4}$ "
- Packing face plate yield strength - 100,000 psi
- Packing ram swept volume - 1.75 cu. yd.
- Penetration of the ram into body - 6"
- Packer ram cycle time at 1200 rpm - 14 sec.
- Packer length (including following panels) - 55"
- Red packer buttons diameter - $2\frac{3}{4}$ "
- Others packer buttons diameter - $1\frac{9}{16}$ "
- Packer pins diameter - $1\frac{3}{4}$ "
- Packer pins steel grade - HR 1045
- Packer is reinforced with a combination of structural members for maximum rigidity
- Packer controls consist of start, retract and emergency stop
- Emergency red button is provided to stop packer ram movement at any time
- One complete set of packer controls located in cab is provided
- Control buttons are heavy duty, industrial type, color coded, corrosion proof and weather resistant

HYDRAULIC SYSTEM

- Designed to ensure easy maintenance
- Composed of 2 vane pumps, one for the body functions and one for the arm.
- Pumps have a common suction port
- Pump model - Denison T6DC
- Pressure body line shall be made up of a Denison relief valve R5P, a Denison vent valve W01 with a 12 volt DC in line mounted solenoid which divert the flow back to tank when pump is not engaged, and finally, a flow control block which divert the excess flow back to tank over 45 gpm
- Body functions pump maximum flow - 20.0 gpm at 700 rpm
- Arm functions pump maximum flow - 13.0 gpm at 700 rpm
- Pressure relief valve for the body - 3000 psi
- Pressure relief valve for the arm - 2100 psi
- Tank capacity for cab over 85 gal
- Maximum quantity of oil in hydraulic tank - 74 gal
- Tank to be equipped with magnetic drain plug, oil level sight gauge and shut-off valves in suction line
- In-tank return line filter capacity - 150 gpm
- Nominal filtration rating - 7 mic
- Beta filtration ratio per ISO 16889 - Beta ration $10 \geq 200$
- Suction line strainer size - 100 mesh
- Suction line strainer flow capacity - 100 gpm
- Tank – baffled
- Tank – pressurized at 5 psi
- Return filter to be a bypass valve and a differential pressure filter indicator
- Return line filter to have replaceable cartridge element
- Suction line filter to have replaceable cartridge element
- Return line filter cracking pressure - 25 psi
- Pump drive shaft - HD Spicer 1310 Series
- All hoses to be double braided wire minimum, high burst capacity and reinforced with nylon wrap to prevent chaping
- Hydraulic tubing used where flexibility is not needed
- All pipes – zinc coated to prevent corrosion
- All hydraulic tubing – securely clamped to prevent vibration, abrasion and excessive noise
- All hydraulic hoses meet S.A.E. standards for designed pressure, bends respect recommended S.A.E. standards
- Hydraulic system operates at an acceptable temperature without the need for external hydraulic oil cooling devices
- Quick disconnect fittings provided so that a pressure gauge can be easily connected without the use of tools or the need to remove hydraulic fittings

CART LIFTING MECHANISM

- Arm C-rail extension steel - A709
- Arm C-rail extension yield strength - 36,000psi
- Arm I-rail extension steel - ASTM A36
- Arm I-rail extension yield strength - 100,000 psi
- Arm lift frame steel - A709
- Arm lift frame yield strength - 36,000 psi
- Extension rails activated by two (2) cylinders
- Extension rails cylinders diameter - 1.5"
- Extension rails cylinders rod diameter - 1"
- Extension rails cylinders stroke - 54"
- Extension rails cylinders – clevis mounted at base
- Extension rails cylinders rod – two (2) axles mounted and chromed plated
- Leveling rod ensure stable displacement and rotation above hopper
- Bin lifting cylinder diameter - 3"
- Bin lifting cylinder rod diameter - 1.75"
- Bin lifting cylinder stroke - 16"
- Bin lifting cylinder rod – chrome-plated
- Grabber activated by two (2) cylinders
- Grabber – coated with high friction rubber strip to maintain good grip on bin
- Grabber cylinders diameter - 1.5"
- Grabber cylinders rod diameter - 1"
- Grabber cylinders stroke - 5"
- Grabber cylinders rods – chrome plated
- Lifting device minimum bin size - 36 gal
- Lifting device maximum bin size - 95 gal
- Maximum lifting capacity of arm at maximum reach - 1,000 lbs
- Maximum lifting capacity of arm at minimum reach - 1,000 lbs
- Dump height - 107 7/8"
- Maximum horizontal reach (center of cart) - 144"
- Minimum horizontal reach - 0"
- Arm swing out effect - 40 11/16"
- Dump cycle time of arm at minimum reach - 10 sec
- Dump cycle time of arm at maximum reach - 20 sec
- Arm and valve stack weight (without oil and grabber) - 1950 lbs
- Hydraulic pump flow rate at engine idle speed - 12.5 GPM
- Arm maximum operating pressure - 2,000 psi
- Grabber maximum operating pressure - 1,200 psi
- Arm valves – 3 position type
- Extension and lifting arm valve - proportional
- Grabber valves - On/Off type
- Arm controlled by joy stick
- Joy Stick has three functions to control each arm movement

- Arm and cylinders warranty - 1 year
- Arm safety valve (relief valve) pressure setting - 2,100 psi
- Dumping angle - 47 deg
- Holding valves installed to prevent any uncommanded moves
- Grabber – an automatic closing when dumping to prevent cart slipping and collision with hopper-must be able to lift 32 to 96 gallon containers

EJECTION MECHANISMS (BODY HOIST)

- Ejection done by a hoist cylinder
- Body hoist
- Hoist cylinder – front mounted with outer cover and bottom lifting for greater stability of the tipped body
- Body – raised by one single acting, front mounted, telescopic cylinder
- Cylinder – 4-stages with a stroke of 180"
- Body cylinder bore diameter - 6 ½"
- Body cylinder – Nitrate treated
- Body dump angle - 45 deg
- Safety prop supplied to support the body in the raised position

CRUSHER PANEL

- Installed on the front wall of the body to optimize the compaction of the material and facilitate the transfer into the body
- Steel grade - A-569
- Thickness - 3/16"
- Dimensions for standard body - 54 x 38"
- Operated by one (1) cylinder
- Cylinder rod – chrome plated
- Cylinder bore diameter - 2"
- Cylinder rod diameter - 1 ½"
- Cylinder stroke - 14 ½"
- Hydraulic protection supplied to prevent packing on top of the ram
- Cylinder pins steel – cold-roll stress proof
- Cylinder pins diameter - 1"

ELECTRICAL SYSTEM

- All stop, directional, tail and clearance lights – led lights
- Truck-Lite Easy Seal, recessed mount and watertight or equivalent
- All lights provided following FMVSS #108
- Rear lights integrated to tailgate structure
- Back-up alarm provided
- Light switches – heavy duty, industrial type, water tight with adjustable arm and over travel to prevent damage
- All circuits – properly fused and wiring is color coded and numbered

- Wiring conforms to SAE J1128
- Wiring connections with shrink tube and at some places, blue crimp sealed with epoxy
- All wiring run in plastic loom

CONTROLS CHARACTERISTICS

- Tailgate joystick – pneumatic
- Tailgate joystick equipped with safety lock
- Body joystick – pneumatic
- Pump button – electric
- Packer controls – electric
- Arm – controlled by electric joystick

CONSOLE STANDARD CHARACTERISTICS

- Button and red light are used for pump
- Red lights are used for body raised or tailgate unlocked
- Red light used for auto-neutral (option)

ACCESSORIES

- Mud guards supplied in front of rear axle
- Mud flaps supplied at rear of rear axle

PAINTING

- Truck will be properly cleaned of all dirt, grease, and weld slag
- Body and hopper will be steel gritblasted
- One coat (0.002”) of polyurethane primer Imron Elite applied
- One finish coat (0.002”) of polyurethane paint Imron Elite applied
- Finish paint coat – baked 125°F - 150°F
- Body painted one color - WHITE

MANUALS & SOFTWARE

- Diagnostic software package, parts, service and operator's manuals or electronic manuals **must** be supplied for the refuse packer

LUBRICATION

- All body hinges, cylinder rod ends, cylinder base, trunnion and pivot points supplied with grease fittings

WARRANTY

- Length of warranty on defective parts will not be less than one (1) year
- Length of warranty on hydraulic cylinders and hoses will not be less than one (1) year
- Length of warranty on automated arm is not less than one (1) year
- Body manufacturers certified ISO 9001
- All internal inspection documents such as intermediate inspection booklets made at the body manufacturer available and filed per vehicle

OPTIONS

- Auto lube system
- Rear strobe on tailgate
- Two (2) spot lights in rear for backing up/come on when truck is put in reverse
- Camera system hopper and backup – switch when transmission is put in speed
- Back-up sonar system
- Two (2) year extended warranty on body

DELIVERY

- Delivery to the City of Warwick, Public Works Department is to be as specified on the pricing pages after receipt of the purchase order
- The vehicle should be completed and ready to use upon delivery.
- The City of Warwick will assess a penalty of \$1,000 to the awarded bidder for every 15 days the vehicle is delayed after the specified delivery date after receipt of order

CITY OF WARWICK

BID AND CONTRACT FORM

TITLE OF SPECIFICATION: Bid2022-031 Purchase Automated Side - Loader Refuse
Vehicle

I. BID:

WHEREAS, the CITY OF WARWICK has duly asked for bids for performance of services and/or supply of goods in accordance with the above-indicated specifications.

The person or entity does irrevocably offer to perform the services and/or furnish the goods in accordance with the specifications, which are hereby incorporated by reference in exchange for the bid price.

This offer will remain open and irrevocable until the CITY OF WARWICK has accepted this bid or another bid on the specifications or abandoned the project.

The bidder agrees that acceptance by the CITY OF WARWICK will transform the bid into a contract. This bid and contract will be secured by Bonds, if required by the specifications.

Pricing as follows

Continued next page

PLEASE COMPLETE THIS PAGE AND SUBMIT WITH YOUR BID

(PRICING SHEET MAY NOT BE CONFIDENTIAL)

Description – FOR PURCHASE NEW VEHICLE	<u>Bid</u>
I. Cab & Chassis	
Year	
Make	
Model	
Warranty	
TOTAL COST FOR 1 VEHICLE	\$
<i>Please indicate number of available vehicles</i>	
II. Option	
1. 2-way radio, Motorola XPR-5550E or equivalent, narrow banded (EACH)	\$
TOTAL COST 1 VEHICLE WITH OPTION	\$
Delivery	

PLEASE COMPLETE THIS PAGE AND SUBMIT WITH YOUR BID

(PRICING SHEET MAY NOT BE CONFIDENTIAL)

Description - FOR PURCHASE OF USED VEHICLE	<u>Bid</u>
I. Cab & Chassis	
Year	
Make	
Model	
Warranty	
TOTAL COST FOR 1 VEHICLE	\$
<i>Please indicate number of available vehicles</i>	
II. Option	
1. 2-way radio, Motorola XPR-5550E or equivalent, narrow banded (EACH)	\$
TOTAL COST 1 VEHICLE WITH OPTION	\$
Delivery	