

**REQUEST FOR QUOTE
MECHANICAL STREET SWEEPER WITH
VACUUM ASSIST
Delaware River Joint Toll Bridge Commission
RFQ Dated August 11 2022**

GENERAL PROVISIONS

These General Provisions are being provided by the Delaware River Joint Toll Bridge Commission to prospective bidders and will be made part of the executed Purchase Orders.

1. RFQ ISSUING OFFICE:

This RFQ is issued by the Delaware River Joint Toll Bridge Commission (“RFQ Issuing Office”). The Commission is the sole point of contact for this RFQ. Please refer all inquiries to:

| | |
|-----------------|--|
| Contact Name: | Steven Wells, Purchasing Agent DRJTBC |
| Address: | 1199 Woodside Road |
| City-State-Zip: | Yardley, PA 19067 |
| Telephone: | 267-394-6554 |
| Fax: | 267-394-6744 |
| Email: | swells@drjtbc.org |

2. DATE AND TIME FOR SUBMISSION OF QUOTES:

To be considered, a quote must arrive at the RFQ Issuing Office in a sealed envelope on or before **2:00 PM Friday, August 26, 2022.**

3. SUBMISSION OF QUOTES:

- (a) Bidders must complete the attached Quote Form, including Supplier Name and Address, Contact Person, Telephone/Fax Number and email. The Quote Form must be signed and submitted by an authorized representative of the Bidder or the Quote will be rejected.
- (b) It is the responsibility of each Bidder to ensure that the RFQ Issuing Office receives the Quote prior to the date and time for Submission of Quotes, noted under Section 2. The RFQ Issuing Office will reject all late Bids.
- (c) Note: Please have clearly marked on the outside of the sealed envelope: **Sealed Bid: MECHANICAL STREET SWEEPER(s) WITH VACUUM ASSIST August 26, 2022**
- (d) If the quote is submitted with conditions or exceptions or not in conformance with the terms and conditions referenced, it shall be rejected. The quote shall also be rejected if the Services offered by the Bidder are not in conformance with the specifications as determined by the RFQ Issuing Office.

4. **MODIFICATION OR WITHDRAWAL OF QUOTE:**

- (a) Quote Modification or Withdrawal Prior To Date and Time for Submission of Quotes. Quotes may only be modified or withdrawn by written notice received by the RFQ Issuing Office prior to the exact time and date specified for submission of quotes. The written notice shall specifically identify the quotes to be modified or withdrawn. Modifications or withdrawals of quotes received after the exact hour and date specified for submission of quotes shall not be considered, except as provided below.
- (b) Quotes Withdrawal after Date and Time for Submission of Quotes. Bidders are permitted to withdraw erroneous quotes after the Date And Time For Submission Of Quotes only if the following conditions are met:
 - i. The Supplier submits a written request for withdrawal.
 - ii. The Supplier presents credible evidence with the request that the reason for the lower price was a clerical mistake as opposed to a judgment mistake and was actually due to an unintentional arithmetical error or an unintentional omission of a substantial quantity of work, labor, material, or services made directly in the compilation of the price.
 - iii. The request for relief and supporting evidence must be received by the RFQ Issuing Office referenced in Paragraph 3 of this RFQ within three (3) business days after the Date and Time for Submission of Quote, but before issuance of a Purchase Order.
 - iv. The RFQ Issuing Office shall not permit a quote withdrawal if the quote withdrawal would result in award to the same Supplier, its partner, or a corporation or business venture owned by or in which the Supplier has a substantial interest.
 - v. If a Supplier is permitted to withdraw its quote, the Supplier cannot supply any material or labor services or perform any subcontract or other work agreement for the Selected Bidder, without the written approval of the RFQ Issuing Office.
- (c) Firm Quotes. Except as provided above, a quote may not be modified, withdrawn, or cancelled by any Awarded Supplier for a period of sixty (60) days after the date and time for submission of quotes.
 - i. Clarification and Additional Information. After the receipt of quotes, the RFQ Issuing Office shall have the right to contact Suppliers for the purpose of seeking: Clarification of the quote which confirms the RFQ Issuing Office understanding of statements or information in the bid.

5. **REJECTION OF QUOTES:**

The RFQ Issuing Office reserves the right to reject any and all quotes, to waive technical defects or any informality in bids, and to accept or reject any part of any quotes in if the best interests of the RFQ Issuing Office are thereby served.

6. **PURCHASE ORDER:**

RFQ Issuing Office shall execute and issue a Purchase Order to the Bidder offering the **lowest price** in response to the RFQ. (*Total Lump Sum on the RFQ Bid Form will be the determining factor of the Lowest Price only.*) Suppliers may not proceed to provide vehicles until receipt of a Fully Executed Purchase Order from the RFQ Issuing Office. Each RFQ and Purchase Order will be deemed to incorporate the terms and conditions set forth in this RFQ.

7. **TAX EXEMPTION:**

The Delaware Joint Toll Bridge Commission is a tax exempt agency. Our tax exempt certificate will be presented to the successful bidder.

Delaware River Joint Toll Bridge Commission

TECHNICAL SPECIFICATIONS FOR “MECHANICAL STREET SWEEPER WITH VACUUM ASSIST”

INTENT

IT IS THE INTENT OF THIS SPECIFICATION TO PROVIDE FOR THE PURCHASE OF BETWEEN ONE OR AS MANY AS THREE NEW MECHANICAL BROOM WITH VACCUUM ASSIST STREET SWEEPERS.

THE DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION HAS EVALUATED VARIOUS TYPES OF STREET SWEEPERS AND HAS DETERMINED THE FOLLOWING SPECIFICATIONS BEST SUIT THEIR NEEDS. THESE SPECIFICATIONS SHALL BE REGARDED AS MINIMUM.

BIDDER MUST ANSWER YES OR NO TO EACH SPECIFICATION LINE ITEM EXCEPT WHEN ASKED TO STATE SPECIFIC DATA. ALL LINE ITEMS WITH A NO RESPONSE, SHALL BE EXPLAINED IN DETAIL ON THE “EXCEPTIONS TO BID SPECIFICATIONS” PAGE PROVIDED AT THE END OF THIS DOCUMENT. DRJTBC RESERVES THE RIGHT TO EVALUATE ALL PRODUCTS BASED ON THE FOLLOWING SPEC AND RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS OR ANY PART THEREOF. A CONTRACT WILL BE AWARDED TO THE BIDDER SUBMITTING THE LOWEST RESPONSIBLE BID MEETING THE REQUIREMENTS OF THIS SPECIFICATION.

DETAILED SPECIFICATIONS

| | <u>COMPLY</u> | |
|--|---------------|-----------|
| | <u>YES</u> | <u>NO</u> |
| Collection must be performed mechanically by means of 42" diameter side brooms Conveying waste towards the center of the machine, where a 51" long x 26" diameter main broom aligns debris with the fully enclosed and sealed conveyor. | ___ | ___ |
| The dust/particulates must then be vacuumed in and retained in the actual 6.0 cubic yard hopper by suction pressure created in the body itself by two high-capacity hydraulic fans and filtered by a Teflon coated fabric filtering system that completes the sweeping cycle by ensuring only clean air is re-introduced into the environment. | ___ | ___ |
| Water will not be permitted on the main broom, only the gutter/side brooms and the adjustable front broom. | ___ | ___ |

Unit must be capable collecting all different types of waste materials including materials such as bottles, sticks, stones, millings, leaves with no need to stop the sweeper for manual adjustment on the elevator. ___ ___

Unit must be capable of following contour of street / curb line while not allowing **ANY** debris to trail while turning machine. ___ ___

Unit must be equipped with front wheel drive only. ___ ___

Unit must be equipped with Hydraulic Adjustable rear suspension and front spring suspension. ___ ___

The system must be able to sweep without water in the winter, when temperatures are below freezing causing no damage to water system, and permitting limited dust particulates to enter the atmosphere. ___ ___

Two small-size suction fans housed in an appropriately insulated compartment must limit noise levels. ___ ___

Unit must be equipped with suction hose mounted on the rear door ___ ___

Unit must be equipped with centralized manual greasing system ___ ___

COMPLY
YES NO

STEERING

Right-hand drive only must be factory installed at manufacturer's facility. A tiltable steering column must be provided for operator convenience. ___ ___

Unit must have four-wheel steering for optimal sweeping results in tight areas. ___ ___

Turning radius shall not exceed 16 ft. ___ ___

OPERATOR CAB & CONTROLS

| | <u>COMPLY</u> | |
|--|----------------------|------------------|
| | <u>YES</u> | <u>NO</u> |
| The operator’s cab shall be designed with large glass surfaces both in the front and on each side door to provide the operator with the widest possible visibility during vehicle handling. | ___ | ___ |
| The driver’s cab has two full size seats with adjustable spring ride on each seat for the operator’s comfort and required to meet applicable road traffic regulations. | ___ | ___ |
| Adjustable hydraulic power steering must be installed for driver comfort. | ___ | ___ |
| The cab is to be equipped with an airtight closure system keeping dust particulates out. | ___ | ___ |
| Side mirrors are electrically controlled and heated for operator ease and safety | ___ | ___ |
| A high-capacity filter allowing only clean air to be introduced into the cab and a “DELPHI”-type, three-speed, air-conditioning system for cooling the cab must be included. Roof-top air conditioning systems will NOT be acceptable. | ___ | ___ |
| A three-speed forced ventilation system heats up the driver’s cab through several ducts that send air to the windshield for optimal defrosting and to the lower part of the cab for driver comfort. Each vent must be able to open/close independently of each other. | ___ | ___ |
| The cab is completely coated with sound-proofing materials that reduce noise levels to a minimum, making the dB levels safe for the operator. | ___ | ___ |
| The cab tilting system uses a hydraulic pump and allows for easy access to the endothermal engine and the mechanical parts located behind the cab. Non-tilting cabs will NOT be acceptable. | ___ | ___ |
| Steering column must be equipped with the following devices, Forward and reverse gear selector. Control lever to operate DOT-approved headlights, turn signal selector, warning horn, sweeping RPM Increase/Decrease push-button, and Road pan indentation sweeping push-button. | ___ | ___ |

The sweeper control panel must be positioned in the center of the cab of cab for optimal sweeper operation, it must house the lighting controls for night sweeping, automatic and manual hydraulic suspension switch, hopper filter shaker, water controls for gutter brooms, hopper dump controls and sweep function controls. ___ ___

The front broom control panel must be positioned on the operator's door for optimal sweeper operation, it must house all controls for the front broom including but not limited to, directional rotation, water control switch, tilt adjustments and arm rotation. ___ ___

Warning lights must be installed on the sweeper for safe sweeper functionality. Including, excessive coolant temperature, insufficient oil pressure, high beam indicator, low fuel warning, machine tilt indicator, hopper up indicator, hydraulic oil level and filter indicator, engine oil pressure indicator, and parking brake indicator. ___ ___

COMPLY
YES NO

SIDE BROOMS

The vehicle is provided with two one-piece side brooms, one positioned on the right and another on the left-hand side of the main body. ___ ___

Both the positioning and rotation of the side brooms are hydraulically operated. ___ ___

The two side brooms can be operated either individually or together - according to the different working requirements. Side brooms come equipped with an automatic retractable spring system that retracts them in the case of a collision. ___ ___

Broom tilt can be mechanically adjusted with respect to the surface, thus allowing for a constantly perfect setting for each type of application. ___ ___

The rotation rate of the two side brooms can be adjusted directly from the operator's seat with variable values ranging from 0 to 70 rpm. ___ ___

COMPLY
YES NO

ROTATING FRONT BROOM (3rd BROOM)

The sweeper must include a hydraulically driven front broom with full functionality directly from the operator's seat via 2 joysticks and 3 switches. broom must swing 180 degrees for ease of operation and for cleaning 90-degree corners from operator's seat. _____

The front broom (3rd broom) shall be operated accurately and effectively without distracting the operator from vehicle driving operations. _____

The broom must be able to be moved 180° rightward and leftward, and must be retracted back in its rest position on both sides of sweeper. _____

The support brace of the front broom (3rd broom) is provided with a hydraulic shock absorption system along with a mechanical system equipped with cup springs that are operated in case of small collisions. _____

In case of serious impact front broom shall be equipped with safety Systems including a sensor to read pressure for automatic and immediate withdrawal of the moving brooms and a specifically manufactured safety sheer bolt connecting the brush arm to the front of the sweeper: a sensor _____

Equipped with front weed brush attachment including, reinforced front broom arm, stone guard protection and heavy duty weed brush _____

COMPLY
YES NO

MAIN BROOM

The main broom must be positioned in front of the rear wheels but centrally located with respect to the side brooms. _____

The main broom unit must be supported at the center of broom to allow for tilting that provides perfect broom adherence to the ground in every condition to eliminate coning of broom. Rigid mounted main brooms are not allowed they must float with contour of street. _____

The main broom must be lowered to the ground through a hydraulic system that follows the grounds contour and keeps pressure at constant levels. _____

The down pressure must be adjusted from the operator's seat, which is equipped with a pressure gauge _____

The rotation speed of the main broom during operation must be 150 rpm.

The main broom must be full fill. No strip brooms allowed.
Polypropylene bristles. No strip brooms will be allowed.

COMPLY
YES NO

CONVEYOR

Debris and materials are directly thrown by the main broom onto the vertical paddle conveyor and taken into the hopper. Solid type belt conveyors or chain and sprocket drives will **NOT** be allowed.

The external part of the conveyor unit must be made of electrically welded, while the upper part of the body is curved to prevent material accumulation.

The conveyor must consist of a system with two parallel **belts** rotating on two gears bolted onto an upper hydraulically controlled drive shaft and onto two pinions that are free in the lower part of the conveyor.

Eleven flights are to be bolted to the belts and distributed along their length to support special iron and anti-oil linen-faced rubber paddles.

The two upper gears must be able to split into two parts for easy replacement purposes of the belts.

If the conveyor is clogged, a special safety valve installed on the hydraulic system must by-pass the circuit and immediately send an audible warning signal to the cab allowing the system to shut down without damaging any conveyor parts such as the flights.

In order to remove the clogged debris, the operator must invert the rotation direction of the conveyor by simply operating the corresponding specific switch in the cab and idling the machine down.

The conveyor system must be rigidly mounted with adjustable bolts for moving conveyor front to back or side to side. **Conveyor systems that are designed to move in and out of the hopper will NOT be acceptable.**

The rigid mounted conveyor must have a replaceable rubber seal mounted around the opening of the conveyor to seal tight against the hopper allowing no dust particulates to escape out of the body. **Conveyors that do NOT seal tight to hopper will NOT be allowed as this will allow material to drop from conveyor onto platform below.**

COMPLY
YES NO

DUST FILTERING SYSTEM

The volatile dusts and light particulates activated by the main broom must be vacuumed in through a depression created in the hopper by two hydraulically controlled high-speed fans and then retained in the Teflon coated bag filter located in the upper rear section of the hopper. **If the vacuum fans are not located within the hopper area it will NOT be considered acceptable.** _____

The Teflon-fabric bag filter must have a minimal of 236.80 ft² surface allowing for long machine working cycles without clogging. Bag House filtering capacity must be **NO** less than 2.5 microns. **Gore Filtration system is required if it not Gore material, it will NOT be acceptable.** _____

The filter must also re-introduce only clean air into the environment. _____

The filtering system must also include a filter shaking system that can be directly operated from the operator's seat. _____

The system must be hydraulically controlled. During the discharge phase the shaker must vigorously shake the filter, thus ensuring dust detachment inside the hopper and reducing regular cleaning requirements. _____

The Gore Filter must carry a 5-year warranty against defects or workmanship. _____

The air must exit the machine from the top and back of the hopper causing no deflection of air to distract the environment. _____

COMPLY
YES NO

WATER SYSTEM

Dust suppression on the side brooms and front broom (3rd broom) must be obtained by a water supply system consisting of an AISI 304 stainless steel 2.5 mm thick tank material with a capacity of exactly 105 gallons the water tank must be easily emptied through a ball valve mounted at the base of the tank. _____

The use of an electric water pump and 2 stainless steel nozzles for water placement positioned close to the external perimeter of each side broom and 4 stainless steel nozzles positioned on the front broom (3rd broom) allow for long use sweeping and little amounts of water to be put on surface. _____

Baffles are installed inside the tank to ensure better resistance and a smoother ride for the operator. ___ ___

When the tank is empty, the pump must automatically disable and the operator is warned in the cab by a corresponding warning light. ___ ___

COMPLY
YES NO

HOPPER

The hopper must be sealed and made of AISI 304 stainless steel and have a minimal of a 6.0 cu yards usable capacity. ___ ___

The hopper must be provided with a scissor type system consisting of a single-acting multistage hydraulic cylinder, and can be dumped at any height between 45.27 inches and 92” inches. ___ ___

Emptying of hopper must be performed by means of a double-acting hydraulic cylinder that provides a tilting angle of approx. 45 degrees. ___ ___

The lift and tilt cylinders must be protected by safety check valves that control any pressure loss. ___ ___

The hopper scissor lift must come equipped with mechanical stops to ensure maximum safety conditions during maintenance operations in the lower hopper area for access to the upper conveyor opening. ___ ___

The discharge door of the hopper is positioned in the back and closed by a single double-acting hydraulic cylinder and locked by 2 double acting hydraulic cylinders ___ ___

In the closed-door position, the cylinders must create a mechanical dead center preventing the door from being opened in case of loss of pressure in the hydraulic circuit. ___ ___

The machine must automatically sense if the sweeper is resting at any angle in any direction and not allow for the hopper scissors to raise. ___ ___

Forward and reverse speed will be limited but allowed while in the hopper or scissor raised position. ___ ___

All the hopper discharge functions are readily indicated by three warning lights located in the driver’s cab. ___ ___

The rear discharge door must be provided with a mechanical stop that props the door open during hopper washing operations for both safety and ergonomics. ___ ___

COMPLY
YES NO

ENGINE

Sweeper shall be powered by a single FPT Model N-45, Tier IV, 4.5 Liter Diesel with a minimum horsepower rating 138 HP ___ ___

The Def tank **MUST** be no less than 6.8 US Gallons and mounted Opposite side of fuel fill cap. ___ ___

The engine must be provided with a pre-heating device for cold starting during the winter months. ___ ___

COMPLY
YES NO

DRIVE TRAIN

The sweeper must have a closed-circuit hydrostatic drive system on the **front** differential equipped with a hydraulic motor and a load sense piston pump that can be set automatically with variable speeds ___ ___

The forward and reverse gears must be engaged by selecting the corresponding gear with the specific shift control located on the steering column in the cab. **Hydrostat controls selected with your foot will NOT be allowed due safety and ergonomic discomfort for the operator.** ___ ___

When reverse is engaged, the reverse indicator lights on the rear must be lit and the backup alarm simultaneously signals to ensure maximum safety for all surrounding environments to become aware. ___ ___

COMPLY
YES NO

HYDRAULIC SYSTEM

Both the drive and service hydraulic systems must depend on a single oil tank located in an easily accessible area behind the cab. ___ ___

The tank must be provided with a level and temperature indicator located on the side of the machine and clearly visible from the ground. ___ ___

The drive and service hydraulic systems must share a single filter positioned in the upper part of the tank, whose cartridge can be quickly and simply be replaced without any oil loss. ___ ___

A pressure switch must be installed on the filter which allows the operator to be informed in real time by means of an indicator lamp in the cab showing any filter blockage. ___ ___

A float must send an electrical signal to the cab to inform the operator of any oil level reduction due to probable losses. ___ ___

COMPLY
YES NO

STEERING GEAR

The steering gear must provide power steering to all four wheels, to facilitate vehicle handling while driving. ___ ___

The sweeper must be equipped with a four-wheel steerable axle system for maximum maneuverability. ___ ___

Power must be provided to the four-wheel steering by a hydraulic power steering mechanism with incorporated safety valves. ___ ___

Turning radius shall not be more than 16 ft, and this must be accomplished by all four wheels of the sweeper turning in conjunction with each other while obtaining the same wheel pattern from front and rear tires. ___ ___

COMPLY
YES NO

WHEELS

The vehicle has four wheels which are spaced on the outside four corners of the sweeper ensuring maximum possible vehicle stability both during work and during hopper discharge operations performed at various heights up to a maximum of 92”in height. ___ ___

Front and rear wheels must follow in the same footprint, eliminating the machine from trailing debris while turning. ___ ___

COMPLY
YES NO

SUSPENSIONS

Front suspension must have semi-elliptic springs and gas shock absorbers. **if machine does not offer suspension on each wheel independently it will NOT be considered.** _____

Rear suspensions are hydraulically operated and must have two automatic positions: a low position to be used during sweeping mode and dumping mode and a high position to be used during vehicle transport mode and to overcome height differences of up to 7.87 inches. _____

Intermediate rear suspension settings must be able to be obtained manually from inside the cab for ease of maintenance or heightened dumping. _____

This hydraulic suspension system must allow for the vehicle chassis to be kept at a given height above the ground through an automatic setting, regardless of the weight of the debris collected. _____

COMPLY
YES NO

BRAKING SYSTEM

The differential axles must be provided with serviceable disk brakes immersed in an oil bath fitted on the axle shafts of the wheels. _____

The emergency brake must be incorporated into the service brake. _____

The parking brake is a mechanical disc brake that affects the input driveline to the front axle and must be controlled by operating a manual lever provided with an irreversible device. _____

The parking brake device must also transmit the driving power through a sheathed steel cable. _____

While the parking brake is applied a light must be displayed on the control panel. _____

While the parking brake is applied an alarm must sound in the cab while trying to move the vehicle in motion. _____

Dual hydraulic disc brakes must be provided on **each** of the four wheels to provide equal stopping pressures. _____

COMPLY
YES NO

ELECTRIC SYSTEM

The electric system used by the vehicle must be designed according to the applicable road traffic regulations division.

Front and side broom work lights to illuminate the sweeping area

DOT Type-approved flashing hazard indicators

Windshield washers and windshield wiper system

Horn

Reverse back up alarm

COMPLY
YES NO

STREET SWEEPER DIMENSIONS

Maximum length not to exceed 231 in

Maximum Width not to exceed 92 in.

Maximum height not to exceed 114 in. with hopper and scissors down.

Maximum weight empty not to exceed 19,000 lbs.

COMPLY
YES NO

WARRANTY

Entire unit shall be warranted for a minimum of 12 months including parts and labor.

COMPLY
YES NO

PARTS, SERVICE AND TRAINING

Operator Training to be provided On-Site at customer location

Service Training to be provided On-Site at customer location

Two additional Main Brooms to be included at time of delivery

SWEEPER PRICE: _____

COMPANY NAME: _____

COMPANY ADDRESS: _____

PRINT NAME: _____

SIGNATURE: _____

DATE: _____