

# INVITATION TO BID



**CITY OF RINGGOLD  
PURCHASING  
P.O. BOX 579  
150 TENNESSEE STREET  
RINGGOLD, GA 30736**

**ITB #20-013**

**FOR:** Trailer Mounted Leaf Loader/Vac

**OPENING DATE:** December 2, 2020

**TIME:** 2:00 p.m.

**PLACE:** Ringgold City Hall  
150 Tennessee Street  
Ringgold, GA 30736

## **Bid Specifications For Trailer Mounted Leaf Loader**

TRAILER: The leaf vacuum and leaf containment box shall be mounted on a pull behind trailer having a tandem axle of 24,000 lbs. gross capacity.

Trailer chassis shall be fabricated from C10x15.3 main channel members, which shall taper at the front and terminate into a 3/4" thick pintle hitch mounting plate.

Trailer cross members shall be W8x10 wide flange beam sections.

The trailer shall be equipped with eight ST235/85R16 tires, electric brakes, a height adjustable pull type pintle hitch, safety pull chains and a 7-prong RV trailer plug with standard wire positions.

The overall towing width of the trailer shall be less than 96" without removal of the collection hose, No Exceptions.

All trailer lighting will be L.E.D. and must comply with Federal Safety Lighting Requirements.

Trailer manufacturer must participate in the NATM (National Association of Trailer Manufacturers) compliance program, and the trailers must be built in compliance with all NHTSA standards (National Highway Traffic Safety Administration).

All wiring shall be done with quality wire connections utilizing weatherproof plugs. No scotch locks or butt connectors allowed. All buss connections within the harness shall be accomplished using ultrasonic solder connections.

CONTAINMENT BOX: The leaf containment box shall be mounted on a double acting scissor hoist and shall hold 15 cubic yards of leaves.

Containment box shall be fabricated from 12 ga.. sides, a 3/16" thick front panel, and a 1/4" plate rear door frame.

A main side support member of C4x5.4 channel shall run the full length of the box.

The box shall be built on 8" x 2" x 1/4" rectangular tube long sill members.

To prevent the leaf material from sticking in the box during dumping the collection box will be of tapered design with the sides tapering out and the roof sloping up from front to rear.

A square box with 2 doors is not acceptable.

The sides will be of a tub type design with a large corner radius to further prevent material from sticking.

The top shall have air openings made of 1/2" expanded metal to allow air escape during operation.

Top shall be supported by a series of C4x5.4 structural channel members.

The rear door of the box shall be shaped similar to that of a garbage packer. This shape adds strength as well as capacity to the box. The rear door shall be mounted on a double hinge at the top to prevent door from being damaged during dumping.

The door shall latch by means of two hydraulic cylinders that will engage and disengage a latch hook mechanism. This door latch shall work in sequence with the hoist such that the door latch will disengage before the hoist will lift.

Only a single hydraulic function shall be necessary to operate both the hoist and door latch, through the use of an adjustable sequencing valve.

**BLOWER HOUSING:** The front and back of the blower housing shall be constructed of 7 ga. steel. The outer skin shall be constructed of 10 ga. steel.

There shall be a 1/4" one-piece wear liner protecting the outer skin.

All components including the entire housing itself will be bolt on and replaceable.

**RIGHT HAND PICK-UP:** This unit is right hand pick-up. The control nozzle is located at the right-hand side of the leaf vacuum.

**COLLECTION ARM:** The leaf vacuum shall have a hydraulic control arm. The pickup nozzle shall be controlled by a three-axis control arm allowing for versatile positioning of the nozzle up and down ditch banks and over curbs and gutters.

The nozzle shall be able to raise and lower, swing in and out and sweep back and forth through the use of three double acting 2-1/2" bore welded hydraulic cylinders. Horizontal movement of the nozzle relative to the center of the impeller shall be from 100" forward to 140" out swinging in a radius arc of 100". Vertical movement of the nozzle shall be 36" up and 24" down allowing the nozzle to reach down into roadside ditches.

The swing function shall be modulated for smooth operation by means of a hydraulic counterbalance valve.

The control arm shall be constructed of 2-1/2" square tubing with  $\frac{1}{8}$ " wall thickness which shall have heavy wall bushings at all connection points.

The base of the arm shall be anchored to the trailer with a heavy duty greaseable pivot assembly mounted on a thrust bearing to minimize wear and resistance.

The pickup assembly shall have a 22" diameter wire reinforced nozzle, transitioned to a fabricated intake weldment. The intake weldment shall be fabricated of 10 ga. steel rolled to a 16" diameter and shall be approximately 30" tall. The weldment shall have heavy duty ears for attaching to the control arm and the sweep cylinder. The nozzle intake weldment shall be able to sweep (pivot) through 60 degrees around the mounting ears.

The intake weldment shall be bridged to the blower housing with a 10'-0" long x 16" diameter wire reinforced rubber hose. The hose shall be secured at each end with threaded band clamps utilizing two 1/2" threaded bolts to ensure a tight connection.

**HYDRAULIC CONTROL SYSTEM:** Hydraulic power shall be supplied by a hydraulic gear pump mounted to an auxiliary drive on the engine. This pump shall deliver oil to an electrically controlled post compensated (flow sharing) hydraulic valve which shall control the following functions- -control arm swing -control arm sweep -control arm raise and lower -body hoist and/or latch -trailer jack if applicable

The oil reservoir shall be of sufficient capacity to operate the system, and shall have a breather cap, as well as sight gauge for oil level indication.

The valve is electrically operated by a single lever, low stress Hall Effect joystick having an IP67 protection rating. The lever shall be two axes with one axis controlling swing left and right, and the other controlling arm raise and lower. The sweep function shall be thumb operated by a rocker switch located on the top of the lever. This Joystick shall use CAN Bus communication with the control system to provide for smooth proportional control in all directions.

The joystick shall be mounted to fully adjustable Ram-Mount style operators control tower located conveniently for operator ease of use.

All wire plug connections for the control harness will be Deutsch or weather-pak style.

**PROPORTIONAL CONTROLS:** The electric over hydraulic controls shall provide for post compensated, proportional operation meaning that the speed of travel of swing and raise/lower

Tank shall be DOT Certified and shall be mounted above trailer platform.

Tank shall be compatible with Tier 4 engines, having proper spacing on the draw tubes.

Tank is to be round in shape to maximize fuel use during out of level operation, and to minimize the effects of fuel sloshing.

Includes built in sight gauge.

**IMPELLER:** Shall be 12" in width. Impeller shall have 6 blades constructed of 3/8 in. AR-400 with two gussets per blade.

Fan diameter shall be sized according to engine horsepower to deliver the most CFM without over working the engine.

Fan shall be directly driven by the engine through a clutch or fluid coupler and shall be attached thereto via an S2 series split taper connection engaging at least 5" of the coupler shaft.

Drive system shall allow for maximum use of engine horsepower. This means that the engine will be able to run at maximum RPM under normal operating conditions. Engine shall not bog or be limited to a lower RPM by an inadequately sized drive system.

**SAFETY SHUT OFF:** The Leaf Vacuum shall be equipped with safety protection that prohibits that running of the engine when the intake hose is removed from the blower housing or the cleanout door is open. This shall prohibit the starting of the engine and will also shut the engine off if either condition occurs during operation.

**HAND CLUTCH:** Power transmission shall be by an 11-1/2" manual engagement automotive Clutch. Clutch shall be of a heavy-duty design for rugged use.

**FINISH:** All major components shall be sandblasted.

Paint shall be PPG Amershield self-priming direct to metal polyurethane paint, color New Cat Yellow.

**WHEEL CHOCKS:** Leaf machine shall be equipped with one pair of wheel chocks.

Leaf Vac Trailer shall have permanent storage container to retain chocks when not in use.

**FIRE EXTINGUISHER:** Leaf vacuum shall be equipped with a 10 lb. ABC class fire extinguisher mounted securely to the chassis.

**FLASHERS:** The Trailer shall have LED oblong yellow flashers mounted inboard of the stop/turn/tail lights. These yellow flashers shall be operated from a toggle switch located on the engine control panel.

**DUST CONTROL SYSTEM:** The leaf vacuum shall be equipped with a dust control system consisting of two 55-gallon poly water tanks mounted to the sides of the Spartan Chassis and a 12-volt electric fluid pump. The system shall deliver water to three nozzles located in the discharge tube. These three nozzles shall spray water into the air/leaf stream to affect a reduction of airborne dust. The system can be turned on or off with a toggle switch on the control panel, or a push button on the joystick.

TARP RODS: Leaf containment box shall include a tarp rod on both sides of the box, running approximately full length. Rods shall provide a fastening place for an optional tarp. Tarp Rods shall be of 5/8" round rod and shall be located about 24" from the top of the containment box.

FUEL SENDING UNIT: The Engine fuel system shall incorporate an electric fuel sending unit and gauge. The gauge shall be mounted in the engine control panel.

ELBOW LINER: The discharge elbow shall have a bolt in 1/4" liner that shall protect the elbow from premature wear.

CLEANOUT DOOR: At the bottom of the vacuum housing there shall be a top-hinged clean-out door for easy removal of unwanted debris in the vacuum housing. The door shall have a safety interlock that will prevent the engine from starting if the door is open.

OPERATORS STATION; Unit shall have a ride on operator's station for ease of operation. It will enable the operator to run the machine from a seated position on the right side of the machine with full view of working area.

HYDRAULIC JACK: Unit shall have a hydraulic jack for means of hooking/unhooking unit to transport vehicle.

SERVICE CAPABILITIES: Successful bidder shall have the means to support equipment with on-site mobile service capabilities.

## **BID SPECIFICATIONS**

Bidders shall be prepared to give a complete demonstration of the merits of the machines offered as directed by the purchaser. The machines so demonstrated shall be complete as offered by the bidder for this bid.

Awards will be made to the best responsible bidder as determined by the City of Ringgold. The quality of the articles to be supplied, their conformity with the specifications, their suitability to requirements and delivery terms shall be taken into consideration.

If there are any of these standards in which proposed machine does not meet, please provide the description of lacking standard with the machines design standard.

The proposal for this machine should include: Trailer Mounted Leaf Loader/Vac

**DELIVERY**

- Please indicate earliest delivery date on bid form. This may be a factor in the award of the bid. Successful bidder shall at the time of delivery have appropriate personnel to explain the proper operation and maintenance of unit.

**EXCEPTIONS & DEVIATIONS**

- Proposer shall fully describe variance exception and/or deviation. Fully explain any item in non-compliance with specification. Additional sheets may be used if required.

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# PROPOSAL

We have examined the specifications and agree to furnish the City of Ringgold with the equipment/services accordingly. Any deviations from the specifications will be marked exception on the bid sheet.

We propose to furnish City of Ringgold with said equipment/service for:

Equipment manufacture and model proposed:

TOTAL BID COST FORMAT

Purchase Price: \$ \_\_\_\_\_

Delivery Date : \_\_\_\_\_

COMPLY TO ALL SPECS: \_\_\_\_\_ YES \_\_\_\_\_ NO

ANY EXCEPTIONS ARE TO BE NOTED: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Bids shall be submitted in a sealed opaque envelope and shall be marked on the outside with the name of the submitting company, the words "SEALED BID – Leaf Vac".** Any deviation from the requirements set forth for the labeling of the bid envelopes shall result in said bid being returned to the bidder unopened and any such bid shall not be considered.

Sealed bids shall be addressed to the attention of Mike Cagle and mailed to the City of Ringgold, P.O. Box 579, Ringgold, GA 30736 or hand delivered to Ringgold City Hall at 150 Tennessee Street, Ringgold, Georgia. All bids shall be received on or before the above designated date and time. Any bid received after this date and time shall not be accepted. Bids shall be typed or submitted in ink. Bids will be opened and read publicly. Bids are legal and binding upon the bidder when submitted.

It is understood that this contract, if accepted by the City of Ringgold, is entered into solely for the convenience of the City and in no way precludes the City from obtaining like goods from other suppliers upon prior approval of the City Manager. Such approval shall be made at the sole discretion of the City of Ringgold and shall be conclusive.

The City of Ringgold reserves the right to accept or reject any or all bids for any reason, to waive technicalities, and to make an award deemed in its best interest. The City of Ringgold shall have the right to delete a unit item from the bid if necessary or proper in the sole determination of the City of Ringgold.

We certify that our bid meets the minimum requirements as specified in bid documents, this \_\_\_\_\_ day of \_\_\_\_\_.

\_\_\_\_\_  
AUTHORIZED SIGNATURE

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
PRINTED NAME OF SIGNATURE

\_\_\_\_\_  
COMPANY

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
CITY/STATE/ZIP CODE

\_\_\_\_\_  
TELEPHONE NUMBER

\_\_\_\_\_  
FAX NUMBER

EMAIL ADDRESS: \_\_\_\_\_

**Contractor Affidavit under O.C.G.A. §13-10-91(b)(1)**

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. §13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of the City of Ringgold, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. §13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.C.A. §13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

\_\_\_\_\_  
Federal Work Authorization User Identification Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Name of Contractor

\_\_\_\_\_  
Name of Project

\_\_\_\_\_  
Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_, \_\_\_\_, 20\_\_ in \_\_\_\_\_ (city), \_\_\_\_\_ (state).

\_\_\_\_\_  
Signature of Authorized Officer or Agent

\_\_\_\_\_  
Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME  
ON THIS THE \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
NOTARY PUBLIC