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April 9, 2018

ATTENTION ALL BIDDERS:

It is the responsibility of the bidder to email Richard Rushing at Richard@fortsmithairport.com to be added to the bidders list in the event an addendum is issued.

Please note the following in regards for the “Tractor and Tractor Mount Runway Broom and Blower” bid:

- Bid opening date is on May 15, 2018 at 2:00 p.m. at Fort Smith Regional Airport, Suite 200.
- Do not add any sales tax to this bid. Section GR-34(c) of the Arkansas Sales & Use Tax Regulations exempts the Fort Smith Regional Airport from paying taxes [see also Arkansas Code 26-52-410(a)]
- Should you wish to submit your bid by express mail, our physical address is:
Fort Smith Regional Airport
6700 McKennon Boulevard, Suite 200
Fort Smith, AR 72903
- The following information must be on the **sealed** envelope:
Vendor name & location
Title of bid – “Tractor and Tractor Mount Runway Broom and Blower”
- You must include a business card of the individual filling out the bid or is an approved representative of the company

Thank you for your cooperation in this matter.

Richard Rushing
(479) 452-7000 ext 12
Richard@fortsmithairport.com

Minimum Specifications Tractor and Tractor Mounted Runway Snow Broom with Blower

These specifications are intended to cover all requirements for the purchase of one tractor, one tractor mounted runway snow broom and one blower system. Bid shall be given as **one lump sum**. All equipment furnished shall be new without repair, including all the interior and exterior trim and appointments listed by the manufacturer as standard equipment and must meet all equipment requirements by State and Federal safety and emission regulations. **Used or Demo models will not be accepted.**

NOTE:

A copy of the bidder's specifications for this equipment shall be submitted with the bid. The successful bidder shall have a parts and service available in the Fort Smith area.

Unit shall be safety inspected, cleaned, lubricated, serviced and ready for immediate duty. The Fort Smith Regional Airport reserves the right to take up to five (5) working days to make acceptance inspection.

Any manufacturer's name, trade name, brand name, or model number used in these specifications are for the purpose of describing and establishing general quality levels. Such references are not intended to be restrictive. Bidders proposals shall **meet or exceed** all requirements of the listed specifications.

New Holland FWD T6.165 4B or Equivalent

ENGINE:

Shall be a turbocharged diesel engine with a displacement of not less than 274 cubic inches, capable of developing a minimum of 110 PTO horsepower. Engine shall be EPA Tier 4B compliant.

REAR PTO:

Shall be 540/1000 RPM reversible shaft with a guard. Will have electro-hydraulic engagement.

FRONT PTO:

Shall be 1000 RPM with a guard. **Shall have a minimum of 105 horsepower at 32 degrees Fahrenheit.** Will have electro-hydraulic engagement.

TRANSMISSION:

Shall have a minimum of 16 forward/16 reverse gears with power shuttle. Minimum forward top speed capability of 24mph.

AXLES:

Rear axle shall have locking rear differential. Front axle shall be limited slip or locking.

WEIGHT:

Shall not weigh less than 10,500lbs without ballast.

HYDRAULICS:

Minimum 29 GPM implement capacity with a pressure and flow compensated hydraulic system. Shall have (3) three **rear and front** hydraulic remotes with cab controls. Front and rear hydraulic remotes **shall have independent control.**

ELECTRICAL:

12-volt, 150-amp alternator minimum.

LIGHTS:

Driving lights (high and low beam headlights). A minimum of 12 cab mounted front/rear LED lights. Twin-Cab mounted amber flashing beacon with in-cab controls.

ROPS CAB:

Fully enclosed with filtered air conditioner and heat. Front and rear windshield wipers, adjustable air suspension seat, heated side view mirrors, AM/FM Radio with aux input. Bidder shall also provide fire extinguisher with mount.

REAR 3-POINT HITCH:

Three-point hitch with draft control with telescoping draft links, right and left stabilizer bar, and swinging drawbar. Minimum lift capacity of 8,300lbs.

FRONT 3-POINT HITCH:

Three-point hitch with draft control and swinging drawbar. Minimum lift capacity of 6000lbs.

TIRES:

Shall have single 650/60-R38 rear and single 520/60-R28 front tires of radial construction. Slightly wider or taller tires are acceptable. Primary concern is low ground pressure for bid tractor. Tractor shall have front fenders.

MISCELLANEOUS:

Fuel tank guard.

AVIATION RADIO:

ICOM VHF Air Band Transceiver IC-A120 with ICOM SP-35 5 watt extension speaker. Aviation band vehicle antenna (range includes 118.3-121.9). Short Style
Bidder shall supply this specific aviation radio used by the Airport, but Airport will install radio.

Additional Requirements

TRACTOR COMPATABILITY:

Tractor **must** be capable of utilizing and compatible with the following attachments:

- M-B Companies, Inc. 3600-TRT PTO/1000rpm Powered Tractor Mounted 14' Snow Broom utilizing the front PTO, and the PTO/1000rpm Powered Rear Mounted Air Blower Package utilizing the rear PTO. These attachments will be utilized simultaneously.
- John Deere HX-15 PTO/540rpm rotary cutter.

M-B Companies 3600-TRT and Blower

GENERAL:

These specifications contemplate the furnishing and delivery of one (1) NEW HEAVY-DUTY TRACTOR MOUNTED RUNWAY BROOM, BLOWER and indicate in general the type, size and quality desired. It must be designed to be mounted to a conventional tractor via a front 3-point hitch/ PTO output. Tractor shall have a minimum 110 HP or larger PTO drive.

The broom head shall provide a swept path of 11.4 feet. It shall be 36 inches in diameter and be capable of producing 1655 Ft-Lbs of torque and 340 RPM. The broom head shall be hydrostatic drive with infinitely variable speed hydraulic pumps and fixed displacement motors. The broom shall have the ability to remove snow, ice, slush, sand and other debris at rated speeds up to 20 MPH depending on conditions. To confirm this, the following must be supplied with the bid.

- The exact proposed broom and air blower drive power system components including, gearbox, and hydrostatic pumps and motors must have in field proven experience. No prototypes shall be allowed. The location and serial number along with contact and phone number of at least one unit must be supplied with the bid.
- Engineering hydraulic power calculations confirming the broom speed and available torque values must be supplied with the bid. The calculations must be understandable, complete, logical, and in a mathematical order per the Society of Automotive Engineers (SAE) and the Fluid Power Society standard formulas and practices. The burdened of proof is the responsibility of the bidder.

Failure to provide the above information for whatever reason will result in disqualification.

BROOM:

The brush itself shall be 36 inches in diameter with a 11.4-foot swept path. The hydrostatic broom drive shall be dual end drive. Power shall be supplied from a variable displacement hydrostatic pump driven through a speed increaser from the tractors **front** 1000 PTO.

Speed of broom shall be infinitely variable from 0 to 340 RPM. Available torque at the broom shaft shall be 1650 ft-lbs at maximum hydraulic pressure of 5075 psi for maximum

snow moving capabilities. Engineering hydraulic power calculations confirming these values must be provided with the bid.

The brush on the cores shall be full width and designed for runway operation and shall be field replaceable with maximum ease without the use of special tools. The wafers shall be a 50/50 combination of polypropylene and wire.

BROOM ANGLE:

The broom head shall be capable of swinging 35 degrees maximum left or right, selectable from an operator's joystick. Using a longer broom than specified to accommodate swept path for larger swing angles is unacceptable due to storage and maneuverability reasons. The broom pattern shall not vary more than 0.5 inches end to end for the whole width of the broom.

BROOM CASTERS

There shall be two single tires for the broom. Each caster assembly shall be free to rotate 360 degrees. The radial pneumatic tires shall be 180/70R8 16 ply. Spring-loaded adjustable automotive type disk brake shall be supplied per caster to prevent caster shimmy at all sweeping speeds. Caster hubs shall be oil filled to provide oil bath lubrication to the caster bearings. No greasing necessary or allowed. The caster assembly shall be non-suspension type allowing the brush to follow the ground contours as close as possible. The broom head caster support shall be mounted to the main broom frame by means of welded brackets constructed of 0.5-inch steel plate, minimum. The steel caster assembly shall be attached to the broom head caster support by means of four bolts for serviceability.

CONTROLS AND INSTRUMENTATION:

An infinity variable (0 – 100%) rheostat for broom speed controls shall be supplied and installed by the **Bidder** in the tractor cab. The remaining controls utilize the tractor's controls, valving, and power for the three broom functions. (Quick disconnect type for hook-up):

- Broom head lift/lower
- Broom head left/ right swing.
- Deflector angle

FORCED AIR BLOWER:

PTO powered, mounted at rear of tractor. Shall use three-point hitch mount. Single impeller: 7,483 CFM at 220 MPH. Requires 1000rpm PTO. Deflectors at the blower nozzle ends direct the flow to one side or the other. Both nozzles blow in same direction at any given time. Deflectors powered by tractor auxiliary hydraulic controls. All blower operations controlled from within the tractor cab. Dual castors keep nozzles at constant distance from ground. Three-point hitch can raise unit for transport.

Additional Requirements

MANUALS:

Bid shall include two (2) of the following: Parts, Service, and Operator Manuals.

WARRANTY:

The equipment provided shall be warranted against defective materials and workmanship for a period of 12 months after the unit is delivered. Warranty includes replacement or repair of defective parts or material and the associated labor to perform the repairs

OPTIONAL AND EXTENDED WARRANTY:

Additional cost of complete spare set of replacement 50/50 combination of polypropylene and wire shall be listed separately from the bid.

Additional costs of extended or optional warranty shall be listed separately from the bid.

DELIVERY AND TRAINING:

The unit must be fully assembled and tested prior to delivery. Shipping cost is the responsibility of the bidder. FOB the buyer. A qualified factory representative must start-up and test the unit prior to training. Training shall be performed by factory trained and authorized technician. The training shall be performed at the customer's site. The purpose of this training is to review safe and effective procedures for use and maintenance of the machine, review and test all systems, assure the full function of the machine.

OMISSIONS:

It is the intent of these specifications to acquire complete purchase of the proposed vehicle. Any items that have been omitted from the specification, which are clearly necessary for the complete purchase shall be included, although not directly specified or called for in the bid specifications

The Fort Smith Regional Airport reserves the right to waive any formalities and the right to reject any or all bids.