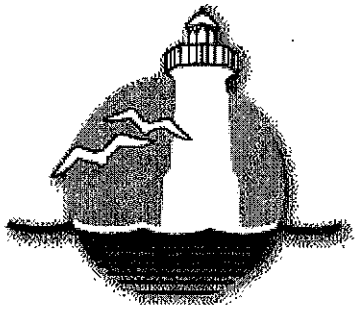

SPECIFICATIONS FOR FIVE YARD DUMP BODY 10'6" PLOW & 8' WING CENTRAL HYDRAULIC SYSTEM

File No. 2013-039

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Fleet Manager
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ADVERTISEMENT FOR BIDS
CITY OF FOND DU LAC

NOTICE IS HEREBY GIVEN that sealed bids will be received in City Administrative offices located on the fourth floor of the City-County Government Center, 160 South Macy Street, Fond du Lac, Wisconsin 54936-0150 on or before2 2:00 PM, March 12, 2013 at which time bids will be publicly opened and read aloud in the City Manager's conference room. Telephone and Fax bids will not be accepted.

Specifications and Proposal Forms may be obtained in City Administrative offices or on the Bid/Proposal tab on the City's website: http://www.fdl.wi.gov/bids.iml. Proposals shall be submitted on forms supplied by the City of Fond du Lac and placed in bidder's own sealed envelope marked **"SEALED BID – FIVE YARD DUMP BODY 10'6' PLOW AND 8' WING, CENTRAL HYDRAULIC SYSTEM FILE NO. 2013-039.**

Only one bid shall be submitted in each sealed envelope.

Late proposals will not be accepted under any circumstances. Any proposal(s) received after the scheduled time for closing will be returned to the proposing firm unopened. Sole responsibility rests with the proposing firm to see that their proposal is received on time.

The City of Fond du Lac reserves the right to accept or reject any or all bids and to accept the bid deemed most advantageous to the City.

Advertised February 26 and March 5, 2013

DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES

It is the intent of these specifications is to describe the minimum requirements for one five yard dump body with central hydraulic system.

1. Bid price shall NOT include any federal or state sales tax.

2. Bidder shall furnish a separate letter, which will fully explain the conditions of the warranty and/or guarantee.

3. Bidder shall submit complete manufacturers specifications and descriptive literature for the units being bid.

4. The bidder must submit his proposal on forms furnished by the City of Fond du Lac.

5. All units shall comply with any and all OSHA and ICC regulations that might pertain to the units being bid.

6. Price shall include all fees or charges for installing, mounting, painting any and all equipment mentioned in these specifications and shall also to include any equipment not specifically mentioned but needed to make a complete unit.

SPECIFICATIONS FOR HEAVY DUTY DUMP BODY AND HYDRAULIC SYSTEM

		COMPLY YES	COMPLY NO
	THE FOLLOWING ARE MINIMUM SPECIFICATIONS FOR A FIVE YARD DUMP BODY AND HYDRAULICS:		
1.	The body shall be 11 feet long, 7 feet wide, with 5 to 7 yard capacity, heavy duty municipal style dump body, Heil SL316 or approved equal.	☐	☐
2.	The body shall have 26" sides, 36" tailgate and 40" high front height measured from floor of the body.	☐	☐
3.	The body shall have a fabricated Western style under-structure, which utilizes full length tubular long members and no cross members, thereby reducing weight, eliminating "wash boarding" of the floor, and providing easy clean out of the understructure.	☐	☐
4.	The body shall be fabricated of minimum ¼" AR400 steel, having a tensile strength of 180,000 PSI and 145,000 PSI yield minimum.	☐	☐
5.	The body interior shall have 9" radius from the front to the floor and the sides to the floor.	☐	☐
6.	The sides and ends shall be fabricated of minimum 7 gauge A500 steel, having a minimum 50,000 PSI yield strength.	☐	☐
7.	The sides shall have horizontal "V" side bracing, which increases strength without increasing weight to the body.	☐	☐
8.	The body shall have dirt shedding top rails and rub rails for easy upkeep.	☐	☐
9.	The tailgate should be double-acting with minimum 1" flame cut heavy-duty hinges and have 1" tailgate latches.	☐	☐

SPECIFICATIONS FOR HEAVY DUTY DUMP BODY AND HYDRAULIC SYSTEM

		COMPLY YES	COMPLY NO
10.	The tailgate shall be fully ribbed and double walled, thereby increasing the tailgate strength, being less likely to crack and be able to conceal interior dents.	☐	☐
11.	The tailgate shall have 1-1/4" greaseable tailgate hinges.	☐	☐
12.	The body hoist shall be a single cylinder, double-acting hoist with a 17.2-ton capacity.	☐	☐
13.	The body hoist shall be "scissors" type with horizontally mounted hoist cylinder. This is needed to eliminate any type of "doghouse" inside the box. There shall be no substitutes.	☐	☐
14.	The hoist shall have greaseless Teflon composite bearings for ease of maintenance.	☐	☐
15.	The hoist shall have an internal cylinder by-pass.	☐	☐
16.	Preparation and paint: the body shall be sand blasted, removing the original primer, re-primed with Covolar or equivalent and then painted with DuPont Imron, color WHITE to match the chassis factory color.	☐	☐
17.	Rust protection shall be used on the under-structure of the body.	☐	☐
18.	A 25-ton spring-mounted pintle hook hitch shall be with safety chain hooks. The height of the hitch shall be mounted 24" from the ground to the center of the hitch in the closed position	☐	☐
19.	The body shall have recessed stop/turn/tail/back-up LED lights with sealing wiring harness and junction box.	☐	☐
20.	A body prop shall be installed.	☐	☐
21.	The body shall have a 1/3-cab protector installed.	☐	☐

SPECIFICATIONS FOR HEAVY DUTY DUMP BODY AND HYDRAULIC SYSTEM

		COMPLY YES	COMPLY NO
22.	There shall be rubber mud flaps installed in the front and at the rear of the tires; plastic is not acceptable.	☐	☐
23.	Install an air operated tailgate latch, with an electric switch for open and lock. Switch must have safety lock-out feature to prevent accidental opening of tail gate.	☐	☐
24.	Switches for lights and controls for hoist and plows shall be mounted between the seats for operator's easy access.	☐	☐
25.	Full length grip strut walk rail each side, step above tires on the left side, pipe style shovel holder left side.	☐	☐
26.	Section existing OEM bumper and reinstall on the of the front hitch, with an added support for the side edge	☐	☐
27.	A spill pan shall be mounted on the rear of the box below the tailgate. It shall be pinned at the sides and bolted at the middle. Mounting pins and brackets shall be of same type and design as used in mounting tailgate spreaders.	☐	☐
28.	Cost shall include mounting & materials of a Wausau HSP4211H or HSS4211H plow w/ pin & loop Quick hitch and Wausau PW9RHTE patrol wing **to be supplied by the City of Fond du Lac.**	☐	☐

HYDRAULIC PUMP:

1. The hydraulic pump shall be a U.S. manufactured axial piston pressure and flow compensated load sensing type. The pump shall be cast iron construction and rated to 4.67 cubic inches per revolution at maximum stroke (20 gpm @ 1000 RPM). The

SPECIFICATIONS FOR HEAVY DUTY DUMP BODY AND HYDRAULIC SYSTEM

		COMPLY YES	COMPLY NO
	pump shall have a two inch suction line. The pump shall be rated for up to 3000 rpm and 3000 psi pressure.	☐	☐
2.	The pump shall have a 1 ¼" keyed drive shaft and SAE type C mounting flange. The pump shall have a high pressure shaft seal, specially designed to prevent damage from road contamination and salt spray.	☐	☐
3.	The pump shall be FORCE America PVWH 34 load sensing pump.	☐	☐
4.	A 1" ¼ turn ball shall be mounted on the pressure outlet of the pump	☐	☐
	MOUNTING:		
	The hydraulic pump shall be mounted with shaft center line parallel to the crankshaft center line and at a level to create not more than a three degree angle on the drive line. Pump mounting shall be incorporated with a bracket fabricated to mount in the extended frame rails of the truck.	☐	☐
	***DRIVE LINE*:**		
1.	The hydraulic pump shall be driven directly off the engine crankshaft via a splined drive line to allow for movement.	☐	☐
2.	The drive line shall include grease fittings on both u-joints. (Spicer model 1310 series).	☐	☐
	RESERVOIR/VALVE ENCLOSURE:		
1.	Reservoir/Valve Enclosure shall be **FORCE America VT35 Valve/Tank Assembly**	☐	☐
2.	The hydraulic reservoir/valve enclosure combination shall be frame mounted with 40 gallon capacity reservoir must be equipped with the following: a. Basket type filler breather cap	☐	☐

SPECIFICATIONS FOR HEAVY DUTY DUMP BODY AND HYDRAULIC SYSTEM

	COMPLY YES	COMPLY NO
b. Magnetic drain plug	☐	☐
c. Two inch NPT suction with 100 mesh screen type filter	☐	☐
d. Separate return port for control drain line	☐	☐
e. Sight temperature gauge externally mounted	☐	☐

3. The hydraulic reservoir shall also be equipped with an electric level or level/temperature sending unit to be wired to the control panel and back lit for designated warning. ☐ ☐

4. The valve shall be mounted on a plate attached to the outside of the reservoir. All hoses must connect to the bottom of the valve, and exit the rear of the reservoir/valve enclosure combination through an integral hose guard. The enclosure cover must have a gasketless passive seal design, to eliminate spray while venting moisture. The valve must be exposed on all sides with the cover removed, for ease of service Further, the valve mounting plate must swing out for ease of valve service and hose replacement. Oil filter, filler breather, and level/temperature sender must be enclosed by the enclosure cover. ☐ ☐

FILTER:

The hydraulic filter shall be 10 micron in-tank type and rated for no less than 90 GPM. The filter shall be model TS-1200 w/ 10 micron element and filter condition indicator gage. ☐ ☐

CONTROL CENTER GENERAL:

The spreader control must be FORCE America SSC-5100.

1. The Control Center must be an armrest mounted, integral center for controlling all hydraulic functions including all automated salt controls and auxiliary lighting. The Center must have changeable

SPECIFICATIONS FOR HEAVY DUTY DUMP BODY AND HYDRAULIC SYSTEM

		COMPLY YES	COMPLY NO
	nomenclatures and be fully back lit with solid state LED's. Four solid state warning light options illuminated in red for low oil, body up and filter bypass must also be supplied. The center must also be supplied with color coded wiring throughout.	☐	☐
2.	Controllers that use a single control movement to control multiple functions, depending on mode selected, are unacceptable. Spreader controls must be easily touch-perceptible knobs. Tactile switches or touch screen controls that operators must look at to operate are unacceptable..	☐	☐
3.	The control center must also include switch controls for up to 8, 15 amp auxiliary functions.	☐	☐
4.	Manuals, service literature, driver and service training must be supplied at no charge. The Control Center is to be FORCE America Patrol Commander Ultra, no substitute.	☐	☐
	CONTROL CENTER (SPREADER CONTROLS):		
1.	The electronic spreader control shall be designed for precise, Closed Loop control of material application. The electronic spreader control shall have a battery back-up to protect memory functions. The unit must be protected from reverse polarity, as well as be over-voltage protected by using a five amp reset circuit breaker.	☐	☐
2.	The spreader control is to be capable of self diagnostics for system errors and correction procedures.	☐	☐
3.	The control unit must have password protection to prevent unauthorized use of set up, complete operation, and calibration parameters. The control unit shall be capable of self calibration		

	COMPLY YES	COMPLY NO
of auger/conveyor feed rates and require no additional time pieces to calibrate. Programming shall allow for blast function to be set one of three ways: momentary, timed or by distance traveled. The unit must also be capable of spreading up to three different materials and up to 10 rate settings per material. The unit must provide three operational modes: manual, open loop (ground speed only) and closed loop (ground speed with auger feedback). The unit must also provide on-off control for gravity fed prewetting systems.	☐	☐

CONTROL CENTER (SPREADER CONTROLS): **cont.**

1.	Two lines of text display shall inform the operator of spread rate information (US or metric), operating modes and calibration parameters. The unit must be capable of displaying logged spread run information for intermediate reference and be able to download data to a serial printer or PC computer when complete data is required. The unit will provide real time and date.	☐	☐
2.	The unit must provide for five, current compensated PWM out-put frequency between 40-150 Hz. In addition the unit must provide rotary spinner speed adjustment, standby (pass) feature, and stationary unload and auger reverse mode. A programmable jump start to provide immediate material flow at start up. The unit must be programmable to interface with road temperature sensors, direct liquid application systems, and AVL/data management equipment.	☐	☐

CONTROL CENTER (VALVE CONTROLS):

Valve control joysticks must be fully proportional, with screw-adjustable speed controls and diagnostic LEDs located under the armrest pad. Speed adjustments

		COMPLY YES	COMPLY NO
	requiring a computer are not acceptable. The valve control for dump body shall single axis with push-button inter-lock. The valve controls for snow plow and wing shall be dual axis.	☐	☐
	HYDRAULIC VALVE:		
1.	The hydraulic valve shall be of modular manifold design.	☐	☐
2.	Each hydraulic function requires an individual manifold stacked together to form the manifold base. The hydraulic control valves shall be pulse-width modulated, proportionally controlled. Each hydraulic valve segment shall be individually mounted to the manifold base assembly and be serviceable without removing any hydraulic hoses or any other hydraulic valve segments. All segments shall have heavy duty continuous duty coils and connections shall be with Hirshman connectors.	☐	☐
3.	All coils shall operate at 12 VDC and require a maximum of 1400 milli-amps. Each segment shall be equipped with a rack and pinion manual override except for the auger and spinner sections. Valve sections must have adjustable stroke limiter flow controls for each function.	☐	☐
4.	Valve segments shall be FORCE America "Add-A-Fold" and be arranged as follows:		
	a. Hoist, double acting with downside relief @ 500 psi	☐	☐
	b. Plow Lift, double acting	☐	☐
	c. Plow Angle, double acting	☐	☐
	d. Wing Toe, double acting	☐	☐
	e. Wing Heel, double acting w/ raise relief	☐	☐
	f. Auger, 14 gpm @1200psi	☐	☐
	g. Spinner, 7 gpm	☐	☐
	h. Prewet, 7 gpm	☐	☐
	PLOW LIGHTS:		
	ROTATING HALOGEN WARNING LIGHT		

SPECIFICATIONS FOR HEAVY DUTY DUMP BODY AND HYDRAULIC SYSTEM

	COMPLY YES	COMPLY NO
Model #454205 -02 Federal Signal	☐	☐
The light bar must be visible from all ground viewing angles.	☐	☐
Snowplow lights shall be mounted on the side and toward the front of the truck hood.	☐	☐

PROPOSAL
FIVE YARD DUMP BODY WITH 10'6" PLOW AND 8' WING
CENTRAL HYDRAULIC SYSTEM

To: CITY OF FOND DU LAC
FOND DU LAC, WI. 54935

We, the undersigned, propose to furnish the City of Fond du Lac, Fond du Lac, Wisconsin, with the following equipment as herein specified by us in accordance with the specifications hereto attached:

ONE FIVE YARD DUMP BODY WITH 10'6" PLOW AND 8' WING, TAILGATE SPREADER WITH CONTROLS AND HYRAULIC SYSTEM $_____

Calendar days for delivery after receipt of receipt of order _____ days

COMPANY_____

NAME_____TITLE_____

ADDRESS_____

DATE_____ TELEPHONE NUMBER_____

SIGNATURE_____