

# SAGINAW COUNTY ROAD COMMISSION

3020 Sheridan Avenue  
Saginaw, Michigan 48601

## **NOTICE TO BIDDERS**

Sealed proposals will be received by the Board of County Road Commissioners of Saginaw County, Michigan, at their office at 3020 Sheridan Avenue, Saginaw, Michigan, 48601, until 10:00 a.m., Monday, March 15th, 2010, at which time and place bids will be publicly opened and read for the purpose of furnishing one (1) years supply of the following items:

### **Salt Spreaders**

All proposals must be returned in sealed envelopes, plainly **marked as to bid items** and bear name of bidder. **ONE BID, PER ITEM, PER ENVELOPE.**

The Commission reserves the right to reject any or all proposals or any part of same; to waive irregularities and/or informalities and to accept any proposal considered to be in the best interest of the County of Saginaw.

#### **BOARD OF COUNTY ROAD COMMISSIONERS OF SAGINAW COUNTY, MICHIGAN**

John D. Sangster, Chairman  
Richard F. Mallette, Vice Chairman  
Wallace J. Warner, Member  
Richard H. Crannell, P.E., Member  
Todd M. Hare, Member

### General

Specification	Comply	Explain deviations
Spreader to be new, current model, Schmidt Stratos II spreader, Epoke Sirius Series Model SH3800, or equivalent.		
This spreader must be able to apply: <ul style="list-style-type: none"> <li>• Dry material</li> <li>• Pre-wet material</li> <li>• Liquid only (option)</li> </ul> A product brochure has to be submitted with the bid.		
Spreader, control system and liquid system to be supplied from a single; ISO certified manufacturer. All functions to be run test before leaving the factory and a copy of the runt test to be provided.		

### Hopper

Specification	Comply	Explain deviations
Dry material hopper capacity to a minimum of 7,8 cubic yards		
State un-laden tare weight of spreader		_____ lbs
State dimensions of spreader		Height_____ Width_____ Length_____
Hopper to be all stainless steel or galvanized steel construction.		
Spreader to have a separate galvanized frame, strong enough to keep the whole upper structure of dosage system, hopper, pre-wet system and rear discharge system together.		
All hydraulic controls, including drive motors (where practical), valves and all electronic controls are to be housed in a sealed compartment at rear of the spreader.		
Spreader will work on truck, equipped with a hydraulic system that provides 2.700 PSI and a flow of between 8-10 GPM. The truck will be provided with a filter in the pressure filter and will have device to protect spikes in the hydraulic pressure.		
Steel rear mounted access ladder with hand rail and safety grip steps to provide access to rear compartment.		
Hopper grades shall be flat or sloped and with 4" square openings, firmly bolted to the hopper.		

### Rear discharge spreading disc and chute

Specification	Comply	Explain deviations
Spinner and drop chute to be stainless steel.		
Chute and spinner assembly shall be capable of spring assisted swinging to an upright position for storage or calibration.		
Spinner height to be vertically adjustable, step less from 12" to 20" above the road surface.		
Hydraulic off loading of the spreader to be possible with the spinner and drop chute in the upright position .		
Safety device to prevent the spinner from being activated when in upright position.		Describe:

### Dosage system

Specification	Comply	Explain deviations
The dosage system shall include a stainless steel dosage door with an integrated lump crusher. Or a stainless steel feed delivery roller with a stainless steel agitator shaft mounted above the delivery roller.		
The dosage door has 3 settings only: <ul style="list-style-type: none"> <li>• Salting-mode</li> <li>• Sanding-mode</li> <li>• Off-load-mode</li> </ul> The unit shall be calibrated in the Salting and Sanding mode and WILL NOT allow by any means that the driver can interfere with this calibrated height of the dosage door.		Reconfirm: The unit can be calibrated for both the Salting and Sanding mode. The driver CAN NOT change/interfere with the height of the dosage door.
The dosage door will automatically return to the salting mode, after the spreader is completely emptied in Off-load mode.		
The spreading material is transported out of the hopper by means of a conveyor belt.		
The dosage system will NOT have any components that will wear out and then necessitate recalibration.		
A brush system makes sure that rest salt is wiped of the belt and dropped in the chute, to avoid salt building up under the spreader.		

The front roller has a lifetime greased closed bearing system		
The rear roller has an easily accessible greasing point.		

**Pre-wet system**

<b>Specification</b>	<b>Comply</b>	<b>Explain deviations</b>
Liquid capacity to be a minimum of 580 gallons.		
The liquid pump with a minimum capacity of 27 GPM.		
Pre-wet to be programmable and variable between 5% and 30% of the total dosage.		
An in-line 40 mesh filter shall be provided to supply filtered liquid to the pre-wetting pump. The filter shall be self cleaning, have a built in check valve and be easily accessible and serviceable without having to off load the tanks first.		
A liquid valve allows for the following modes: <ul style="list-style-type: none"> <li>• Filling tanks</li> <li>• Spreading</li> <li>• Emptying tanks</li> </ul> This valve is NOT made of plastic, but is made of stainless steel		
The side tanks shall be sumped and baffled and be secured to body by means of recessed steel brackets and bolts. Straps are not acceptable.		
The tanks are made of recyclable PE. Stainless steel tanks are not acceptable.		
If in addition to the side tanks, extra tanks are fitted, they will be fitted to the front of the hopper, NOT in the hopper.		
A sight gauge easily seen from the filling position for liquid level shall be provided.		
Tanks to be filled from a single 2" hydrant type cam lock male part nipple with shutoff valve and be located near spinner chute frame.		
Single bottom ported and vented tank lines will fill and drain all tanks equally.		
The liquid will NOT mix with the salt in the chute, to avoid dry material to block the chute.		

The liquid will mix in 5 stages with the dry material. Or from a single nozzle mounted at the spinner.		
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### Controller

Specification	Comply	Explain deviations
Unit to be supplied with Schmidt CL controller or EpoMaster 3 That includes Thermologic or Epotherm for live temperature controlled spreading and programmable to anticipate changes in temperature.		
All controller functions for dry and liquid materials to be road speed related from 0 – 40 mph.		
The controller will allow on the go adjustments of: <ul style="list-style-type: none"> <li>• Spreading quantity</li> <li>• Spreading width to the left</li> <li>• Spreading width to the right</li> </ul> When the spreading width (to left or right) is changed, the spreader will automatically change the amount of dry material and liquid to keep the amount of material dropped per square yard constant.		Describe
The controller will allow for the following settings: <ul style="list-style-type: none"> <li>• Spreading on/off</li> <li>• Pre-wet on/off</li> <li>• Blast</li> </ul>		
Control screen to display: <ul style="list-style-type: none"> <li>• application rates,</li> <li>• total width and spreading symmetry</li> <li>• spreading of dry material on/off</li> <li>• spreading of liquid on/off</li> <li>• optional: driving speed, date, time, air temp, ground temp, relative air humidity and dewpointtemperature</li> </ul>		
Controller to have 4 different menu's: <ul style="list-style-type: none"> <li>• Spreader menu</li> <li>• Driver menu f.e. selecting material, simulate driving speed, counters</li> <li>• Supervisor menu, to change preset values, displayitems etc.</li> <li>• Service menu, to calibrate etc,</li> </ul> Minimum of the last 2 menu's to be password protected.		

Liquid and dry material empty sensors have to be provided and the controller screen has to indicate when the hopper is empty or liquid tanks are empty.		
The above mentioned sensors have to be fitted in such a way that no tanks have to be removed to replace the sensor.		
Control system to have self diagnostic capabilities and the controller screen to display errors with graphical symbols .		
The control system will be of the CAN-bus type. The controller will only allow operator to change settings and read out. The actual control over the electronics take place in the back of the spreaders.		
All electrical functions are set through a single 5 or 6 conductor, multiples wiring harness.		
Control system must be capable of full manual override to allow spreading in the event of an electrical failure.		
Controller to include a function to allow for easy uploading of any future software enhancements.		Describe:
One rear mounted work light and two rotating beacons have to be fitted. Beacons and the working light can be switched independently from the controller.		

#### **Data recording and data communication with 3<sup>rd</sup> party AVL system**

<b>Specification</b>	<b>Comply</b>	<b>Explain deviations</b>
The data generated during spreading can be linked to a 3 party AVL system, by means of a RS232 port. A data stream with a total of at least 30 parameters can be send to this AVL system.		
The parameters are recorded with each change of: <ul style="list-style-type: none"> <li>• Dry material on/off</li> <li>• Liquid on/off</li> <li>• Width setting</li> <li>• Quantity setting</li> <li>• The function buttons</li> <li>• Alarm status</li> </ul>		

A copy of the data protocol will be added to the bid as part of the bid.		
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**Warranty and after sales**

<b>Specification</b>	<b>Comply</b>	<b>Explain deviations</b>
Warranty to be 100% parts and labour against defects in materials and workmanship with the following minimum coverage: 1 year full FOB customer yard. 2 year electrical components		
2 parts and operator manual to be provided:		
4 hours of operator training to be included.		
Units must not be prototypes and must have been in use with other municipalities for a minimum of 2 years. A minimum of 3 relevant references to be provided.		
Vendor must maintain a reasonable parts inventory and be able to provide 24/7 parts supply from within the US. Prior to the tender award, the corporation reserves the right to visit potential vendor's facilities.		

**Spreader demount system**

<b>Specification</b>	<b>Comply</b>	<b>Explain deviations</b>
An integrated demount system, with storage legs and front roller to remain on spreader while in use. Leg system to allow for mounting and the total weight of the spreader. A number of pictures, but preferably a video has to be provided showing how to de/mount the spreader.		
Unit price to include all parts and labor to install spreaders into current SCRC trucks and testing to insure all spreaders are in proper working condition at time of delivery.		

**Price and spec sheet**

<b>Description</b>	<b>Price</b>	<b>Comment</b>
Spreader as specified in the invitation to bid, including transport to LOCATION		

Pricing for options:		
Extra protection cover to cover the compartment with hydraulic and electronic control		
A 54 GPM liquid pump in lieu of 27 GPM liquid pump.		

Bidder-\_\_\_\_\_

Address-\_\_\_\_\_

Phone-\_\_\_\_\_

Make-\_\_\_\_\_

Model-\_\_\_\_\_

Price Each-\_\_\_\_\_

Price For Seven (7)-\_\_\_\_\_

Delivery Time-\_\_\_\_\_

Signature-\_\_\_\_\_