



# Request for Quote

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
ONE CAPITOL HILL  
PROVIDENCE RI 02908

CREATION DATE : 16-JUL-14  
BID NUMBER: 7548887  
TITLE: FURNISH AND INSTALL POLY TANKS WITH  
SPRAYERS - DOT  
  
BID CLOSING DATE AND TIME:12-AUG-2014 10:30:00

BUYER: Hill, Lisa  
PHONE #: 401-574-8118

**B  
I  
L  
L  
  
T  
O**  
DOT ACCOUNTS PAYABLE  
TWO CAPITOL HILL, RM 230  
SMITH ST  
PROVIDENCE, RI 02903  
US

**S  
H  
I  
P  
  
T  
O**  
DOT MAINTENANCE BUSINESS OFFICE  
360 LINCOLN AVE  
WARWICK, RI 02888  
US

Requisition Number: 1373201

Line	Description	Quantity	Unit	Unit Price	Total
1	FURNISH AND INSTALL POLY TANKS WITH SPRAYERS PER ATTACHED SPECIFICATIONS	7.00	Each		

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

Terms of Payment: \_\_\_\_\_

It is the Vendor's responsibility to check and download any and all addenda from the RIVIP. This offer may not be considered unless a signed RIVIP generated Bidder Certification Cover Form is attached and the Unit Price column is completed. The signed Certification Cover Form must be attached to the front of the offer

Rhode Island Dept. of Transportation  
Specifications for seven (7) 1700 Minimum 2100 gallon Maximum Poly Tanks with Sprayers

**General:**

The need for seven (7) 1700 gallon minimum 2100 gallon Maximum poly tanks/reservoirs with sprayers has become an operational requirement at RIDOT.

This specification describes a dump truck body mounted liquid treatment applicator consisting of a tank, hydraulically operated pump, control system and a spray bar. The unit will be capable of loading, transporting, unloading and spraying liquids and de-icers directly to the pavement. The units and all related components shall be delivered and operationally installed on site on each truck at the RIDOT Highway and Bridge Maintenance Headquarters, 360 Lincoln avenue Warwick RI 02888.

The primary function of this unit will be to carry and apply liquids and de-icers (calcium, magnesium chloride, salt brine) including water for various RIDOT road maintenance operations (sweeping operations, winter ice control etc).

The existing RIDOT tandem axel trucks at which the liquid application systems will be installed are Equipped with Bosch Rexroth 440-RC and 550-RC closed loop ground speed control units. It is the responsibility of the bidder to provide, calibrate and install the required components to make the units compatible and operational. The successful bidder shall install, calibrate and operationally test each unit, if spray pattern adjustments need to be made the successful bidder is responsible to make them.

The successful bidder shall guarantee the storage tank/reservoir for a minimum of 5 years. All other components shall be guaranteed for a minimum of one year. The successful bidder shall maintain a fully stocked shop with an inventory of parts that will maintain the systems in operating condition. In the event of a system failure, the successful bidder shall supply parts and technical assistance to return the unit to operating condition within 48 business hours of notification.

**PLEASE NOTE;**

- These units are to fit in the beds of our existing tandem axel dumps.
- These units are to be easily removable and installable.
- Each unit must be powered by the trucks existing central hydraulic system and related components and must be compatible, work simultaneously and or in conjunction with our existing Bosch Rexroth closed loop controllers.
- If the addition of a secondary controller is required it must be properly installed and is not to interfere with data collected by the existing Bosch Rexroth controllers.

**Spray System/Pump:**

- The tank shall be equipped with one self priming centrifugal spray pump powered by one properly sized hydraulic motor that will be driven by the trucks existing central hydraulic system in accordance with this specification.
- The pump shall be designed to withstand salt solutions with suspended solids or abrasives and be able to withstand severe operation during summer and winter temperatures.
- The pump shall be capable of producing a flow rate of at least 180 gallons per minute and a pressure of 45 PSI.
- The pump shall be constructed with the following materials in the following manor;  
housing----- cast iron

impeller ----- bronze or stainless steel  
 bearings----- roller, outboard of seals  
 seals----- mechanical, silicone tungsten carbide , suitable  
                   for sealing abrasive salt slurries from bearings.  
 shafts----- stainless steel resistant to the effects of liquid  
                   melting agents.  
 wear plates----- stainless steel

-The housing of the pump shall be sandblasted, primed and painted with a corrosion resistant self etching paint or equivalent.

-The unit shall have multi lane capability meaning individual lane spray patters shall be independently selected from within the cab by means of a switch panel or controller.

**Spray Bar**

-The main spray bar shall be constructed of a minimum of 1.5” brass or stainless steel pipe and brass nozzles.

-The spray bar shall produce a solid stream of liquid to provide application rates of 60 gallons per lane mile at 30 miles per hour, with a spray pattern of at least 12 feet.

-There shall be nozzle assemblies with adjustable nozzles to allow treatment of a lane to either side of the lane in which the truck is traveling.

-The spray bar/pump combination shall be capable of applying a minimum of 60 gallons per lane mile at 30 MPH for a 3 lane application.

-The spray bar shall be adjustable in height from 12” above the pavement to 24” above the pavement when the system is mounted in the truck

**Reservoir/Tank:**

-The reservoir/tank shall be constructed of heavy duty UV treated polyethylene able to handle the weight and chemical composition of materials such as water, calcium, magnesium chloride and salt brine.

-The reservoir shall be naturally translucent in color and incorporate molded gallon markers for quantity monitoring purposes.

-The reservoir shall be at least 1700 gallons total in capacity but no more that 2100 gallons in capacity..

-If the manufacturer suggests or offers a tank surge reducing component, device or baffle it must be properly affixed within the tank or at the recommended area.

-The reservoir shall be constructed to safely fit our fleet of tandem axel dump truck bodies without modification or alteration to them.

-The reservoir shall incorporate a 16” service entrance with a vented cap.

-The tank shall be guaranteed for 5 years.

**LEGS/STAND/FRAME:**

-The tank shall be mounted on a frame constructed of steel with galvanized or powder coated mounting rings to hold the tank in place.

- All joints shall be fully welded, chipped and wire brushed.
- All steel frame parts shall be properly prepared and painted with either a self etching corrosion resistant paint or a powder coat application.
- The pump mounting frame shall securely attach or be integral with the tank frame.
- The unit shall be equipped with picking rings to allow for removal of the system from the truck body by a loader and cable sling if required when the tank is empty.
- The units shall come equipped with a storage stand system that will be integrated with the reservoir mounting system.
- The main frame, lateral bracing, legs and all other structural components that mount, fasten, secure or hold the reservoir and related components shall be of sufficient quantity and be well constructed/properly designed.

**FITTING AND HOSES:**

- All tank fittings shall be constructed of stainless steel.
- All valves shall be constructed of brass and stainless steel.
- All hoses shall be manufactured not to burst or collapse.

**SECURING TANK TO GATE:**

- The tank and frame shall be secured in the body of the dump truck by means of a cross bar and pins that engage the tailgate clamps of the dump truck when the tailgate has been removed
- The system shall be equipped with a minimum of 2" x 2" square tubing cross bar fitted with 1-1/4" steel pins to engage the tailgate clamps of the host truck.

**Contract Terms and Conditions**

**Table of Contents**

Terms and Conditions.....	VI
BID STANDARD TERMS AND CONDITIONS .....	VI
TERMS AND CONDITIONS FOR THIS BID .....	VI

**Terms and Conditions**

**BID STANDARD TERMS AND CONDITIONS**

**TERMS AND CONDITIONS FOR THIS BID**