



Request for Quote

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

CREATION DATE : 29-OCT-14
BID NUMBER: 7549111
TITLE: TRAILER ATTENUATOR MOUNTED
ARROWBOARDS - DOT

BID CLOSING DATE AND TIME:25-NOV-2014 10:00:00

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

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DOT ACCOUNTS PAYABLE
TWO CAPITOL HILL, RM 230
SMITH ST
PROVIDENCE, RI 02903
US

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DOT MAINTENANCE BUSINESS OFFICE
360 LINCOLN AVE
WARWICK, RI 02888
US

Requisition Number: 1390679
Note to Bidders: QUESTIONS CONCERNING THIS SOLICITATION MAY BE EMAILED TO LISA HILL AT LISA.HILL@PURCHASING.RI.GOV NO LATER THAN TUESDAY, NOVEMBER 18, 2014 AT 4:00 P.M.

Line	Description	Quantity	Unit	Unit Price	Total
1	TRAILER ATTENUATOR MOUNTED ARROWBOARDS, PER ATTACHED SPECIFICATIONS	3.00	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

Ref 1390679

TRAILER ATTENUATOR MOUNTED ARROWBOARD SPECIFICATIONS

GENERAL SPECIFICATIONS:

48"x96" ARROWBOARD

The purpose of these specifications is to describe an attenuator trailer mounted, traffic control warning unit which shall consist of an all-weather sign panel containing illuminated directional arrow capable of being readily understood from a distance of one-half mile minimum during either daytime or nighttime operation.

The attenuator trailer mount Type C arrow panel unit shall meet the requirements of the Manual of Uniform Traffic Control Devices (MUTCD). The unit shall be used on public streets and highways to direct and to warn traffic of lane closures, road diversions and slow moving maintenance operations. The unit shall operate from the vehicle electrical system.

GENERAL OPERATING CRITERIA:

Sign arrow shall be capable of a flashing operation. Remote operation shall be, arranged for simplicity and quick operation so that setup and takedown time can be kept to a minimum and can be operated by one person. All welding shall comply with American Welding Society standards. All nuts and bolts shall be steel, minimum grade 5, zinc plated or stainless steel.

EQUIPMENT COMPONENTS:

SIGN PANEL:

Sign panel shall be sandwich type and lamps shall be mounted on it. Panels shall be fabricated from 0.063" thick aluminum sheets riveted to 3" minimum aluminum channels. Aluminum panels shall be etched and finished with a minimum of two coats of non-reflective flat black enamel on front and back surfaces. Panels shall be not less than 48" high x 96" wide. The perimeter frame shall be from extruded aluminum alloy 1/8" x 3" x 1" minimum. The frame shall be welded. The panel shall be adequately mounted and braced against vibration and shock.

SIGN LAMPS:

A minimum 15 lamps per board are required. A solid-state electronic flasher system shall provide 25 to 40 flashes per minute.

Sign lamps shall be arranged and securely mounted on the panel to provide "arrow" or "caution" delineation as a traffic message indicator. Not less than five (5) lamps per "Arrowhead" are required. The sign shall be capable of indicating right or left traffic direction. By illumination of lamps, the sign shall also be capable of indicating that traffic pass to either side of the unit. Lamps shall be LED (amber), PAR 46, and hooked individually.

The LED lamps shall incorporate a pulse burst of white light prior to the amber flash with wireless remote control. The white flash burst shall be on for 35 milliseconds and off for 50 milliseconds prior to the normal amber flash. The white flash shall be produced by 8 super bright LED's and not effect the normal MUTCD operation of the amber LED flash sequences.

Lamp hoods shall be high-impact plastic and shall circumscribe the lamps 360 degrees. Lamp hoods shall be attached to the sign panel by stainless steel machine screws into insertion nuts permanently installed in the sign panel. The lamp wiring harness shall be securely fastened to the inside of the sign panel to reduce fatigue at the lamp terminals.

CONTROL AND CIRCUITRY:

The system shall operate on 12 VDC current, incorporating an automatic, ambient light monitoring system to maximize system efficiency.

The lamps shall be operated electronically. An automatic lamp intensity regulator to keep lamp output constant with varying battery voltages. The control unit shall have touch pad control with graphic LCD arrow display and lamp intensity and voltage graphic.

Electro-mechanical toggle and/or rotary switches are not acceptable. The controller shall have an LCD display to indicate and verify mode selection and operation. The remote display shall show the operator a preview of the selected mode prior to arrow panel activation.

Instantaneous mode switching is not acceptable.

The control shall incorporate back lighted membrane switches, reverse polarity protection and audible and visual low battery alarm.

When battery charge level is approaching cut-off, the sign display will automatically switch to four-corner caution mode, conserving energy and preventing a "blank" display condition. All sign panel lamp wiring shall be protected to prevent damage to lamps or panel harness in the event of a short circuit. A battery charge condition indicator shall be provided to check battery supply voltage. Lamp intensity shall be regulated by a photo resistor monitoring ambient light levels 24 hours a day. A lamp intensity indicator shall be provided to display lamp intensity level. The control system shall have self diagnoses and indicate to the operator of a lamp circuit failure. Automatic dimming for night time operation shall be 50% reduction in intensity to eliminate glare. An automatic, low voltage disconnect shall protect batteries from deep discharge condition. The disconnect level shall be preset as prescribed by the battery manufacturer to reduce battery wear. The flash rate shall be 25 - 40 flashes per minute with a 50 duty cycle. The system shall incorporate a remote control capable of being removed from the trailer and operated from the cab of the towing vehicle for moving operations. The remote control shall communicate with the sign via FCC approved radio transmitters. The remote control shall be security coded and be dedicated to the "host" sign.

Default sign display to be four-corner caution.

The wireless remote shall derive power independently from the controller power source. A lockable NEMA enclosure shall be mounted on the upright supports for storage of the wireless remote when not use.

FUSE PROTECTED CIRCUITRY:

All wire, cable and other electrical components shall be properly sized/rated for the unit and its operations and shall be suitable for exposed outdoor installations subject to adverse weather conditions and ambient temperatures ranging from 120 degrees F down to -40 degrees F. Wiring and cable shall UL approved for use under required operating conditions. The system shall be protected against short circuit, overload and reverse polarity by appropriate fuses and protective devices.

SIGN PANEL MOUNT - POWER LIFT:

A 12-volt DC power lift unit shall be incorporated into the sign panel mount to provide a method to remotely raise the sign panel from the travel position to the operating position. The power lift unit shall consist of 12-volt DC, linear actuator, 250 pound capacity, equipped with automatic reset thermal overload and ball detent overload crutches. An actuator control switch shall be incorporated into the sign panel remote for operation of the power lift from within the vehicle cab.

The power lift support shall consist of two (2) pieces of 2"x2"x3/16"x80" steel tubing. These members shall have encapsulating brackets and have 1/2" through hole to mate with the holes in the attenuator trailer frame. They shall be secured by 1/2" grade 5 cap screws with locking nuts. These vertical supports will accept the sign panel power lift mount.

POWER SUPPLY

The unit should be self powered stand alone with 55 watt solar panel, solar regulated. With one (1) group 27 deep cycle 12 volt battery 100 amps per hour.

Battery tray must be steel with a poly battery cover.

WARRANTY:

The warranty shall apply to parts and labor covered by standard factory warranty, and accessories by their respective manufacturer. The above also applies to parts and accessories used under normal operating conditions.

MANUALS:

One copy of the current service manual and one copy of the operation manual shall be provided with each unit.

Contract Terms and Conditions

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Terms and Conditions

BID STANDARD TERMS AND CONDITIONS

TERMS AND CONDITIONS FOR THIS BID

RIVIP INFO - BID SUBMISSION REQUIREMENTS

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MAILING ADDRESS FOR BID PROPOSALS ISSUED BY THE STATE OF RHODE ISLAND,
DIVISION OF PURCHASES

All Bid Proposals must be submitted by mail or hand delivered to:

- State of Rhode Island
- Department of Administration
- Division of Purchases, Second floor
- One Capitol Hill
- Providence, RI 02908-5855

DIVESTITURE OF INVESTMENTS IN IRAN REQUIREMENT:

No vendor engaged in investment activities in Iran as described in R.I. Gen. Laws §37-2.5-2(b) may submit a bid proposal to, or renew a contract with, the Division of Purchases. Each vendor submitting a bid proposal or entering into a renewal of a contract is required to certify that the vendor does not appear on the list maintained by the General Treasurer pursuant to R.I. Gen. Laws §37-2.5-3.

DELIVERY PER AGENCY

DELIVERY OF GOODS OR SERVICES AS REQUESTED BY AGENCY.