

State of Illinois
Department of Transportation
Bureau of Business Services

Specifications and Questionnaire for a Solar Powered, Skid-Mounted, Full-Matrix LED Style, Changeable Message Board

September 2018

This specification and questionnaire covers a solar powered, frame-mounted, FULL MATRIX, LED style, changeable message board for use in Department of Transportation highway maintenance or line striping operations. The Department of Transportation is specifying acceptable units by required components and accessories as outlined below.

Each bidder shall submit with their bid **two sets** of descriptive literature and specifications describing **all** the **equipment** and **options** proposed. This information shall be clearly marked to indicate the make, model, and accessories proposed to be furnished.

Bidders quoting on this equipment must submit with their bid written proof of the following:

- The equipment proposed equals or exceeds that specified in all respects including capacity, operating features, and accessory items.
- The manufacturer of the equipment proposed has been actively involved in the manufacture of the equipment called for in the questionnaire for a period of not less than 5 years.

It is the responsibility of each bidder to complete and return this questionnaire with the bid.

Unless otherwise specified, the proposed equipment shall be complete in all parts and ready for immediate use upon delivery.

Bidders are advised to carefully read these specifications as changes have been made since the last solicitation issue.

Proposed with this Bid:

Make: _____

Model: _____

Manufactured By: _____

Bidder: _____

Telephone: _____

Contact Name: _____

Email: _____

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This specification is intended to describe a solar powered, frame-mounted, programmable, changeable, FULL MATRIX, LED message sign that will be used to display a variety of traffic advisory warnings, and traffic control messages. The message board will be mounted in the bed of a pickup truck or on the bed of a flatbed truck. The message board must be similar and equal to:

AMSIG Model CMS-GP465Y

Other manufacturers products will be reviewed for compliance with the specifications below. This make and model listing is only to provide bidders a description of the type and general configuration of equipment requested.

These message boards will be used and must function during all forms of inclement weather to alert the traveling public.

Complies: Yes No

The major components of the message board shall be compatible as a part of the whole and include Message Sign Panel, Control System, Power Source, Solar array, and Mounting Frame Equipment.

Complies: Yes No

The following accessories and options shall be included:

Message Sign Panel:

The sign shall display up to 12 characters per line and the sign panel message shall be visible and legible from 400' to 1,500' depending on the "message" in both direct sunlight and night conditions.

Complies: Yes No

Visible distance: _____ Feet

A photocell will adjust the light source intensity to maintain legibility in all light conditions.

Complies: Yes No

The message panel shall be full-matrix.

Complies: Yes No

The board shall be capable of presenting graphic symbols.

Complies: Yes No

The message panel shall be formed of reinforced aluminum and shall be approximately 78"x47-3/4"x3". Each line shall be of an angled design to provide the optimum visibility and reduce glare.

Complies: Yes No

Sign dimensions: _____ Inches

If NO, describe: _____

The front face of the board shall be protected with a UV inhibited material.

Complies: Yes No

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Control System:

The CPU shall be mounted within the sign case behind the display panel protected by the display panel support structure.

Complies: Yes No

The CPU shall consist of a single printed circuit board containing all sign message memory and sign operating software.

Complies: Yes No

It shall be solid state with internal safe guards against damage from improper connection.

Complies: Yes No

The CPU shall store approximately 230 manufacturer selected messages and have the capacity to include 200 operator created, keyboard generated messages.

Complies: Yes No

Number of standard messages stored: _____

Capacity for created messages: _____

The message memory shall be retained during power interruption or failures. The CPU shall be capable of full operation the sign in the event the keyboard controller is disconnected.

Complies: Yes No

The keyboard shall be a hand-held terminal, stored and secured by clips within the battery and charger box mounted to the skid-frame of the sign stand.

Complies: Yes No

Power Source:

The power for the sign operation shall be provided by four (4) deep cycle 6-volt batteries.

Complies: Yes No

Describe: _____

The batteries shall be connected to a charger, located in the frame mounted in the weather resistant box with removable, latched lid, secured to the lower frame structure of the sign stand.

Complies: Yes No

The charger shall be connected to a solar array mounted to the top of the sign panel. The solar array shall provide the power to maintain a level of charge for the operation of the sign for extended length of time, while in daily operation.

Complies: Yes No

The charger shall also be capable of connection to 110-volt service to also charge the system batteries.

Complies: Yes No

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Mounting Equipment:

The sign shall be mounted in a structural, tubular frame.

Complies: Yes No

The mounting structure shall provide enough elevation to make the sign visible above the standard body of a pickup truck.

Complies: Yes No

Shop drawings shall be provided (with this bid) to confirm this feature.

Complies: Yes No

The framework shall be powder coated or finished to prevent rust and corrosion.

Complies: Yes No

Describe: _____

The sign board shall be stored in a horizontal position and rotated to an upright position by cylinder(s) controlled by the hand-held unit when in use.

Complies: Yes No

The specified solar array shall be attached to the top of the sign. This shall in no manner obscure any portion of the sign messages.

Complies: Yes No

The mounting framework shall include lugs or other means of securing them to the bed of a pickup truck or the floor of a platform or flatbed truck.

Complies: Yes No

Describe: _____

General:

The vendor shall furnish the machine in first class operating condition with all lubrication completed and the machine ready for operation.

Complies: Yes No

Two (2) copies of all operators' manuals, parts lists, electrical schematics, and warranty information shall be provided at time of delivery.

Complies: Yes No

Note: The manuals, parts lists, and service or shop manuals listed above may be furnished on DVD in lieu of paper.

One session of instruction and training by qualified factory and dealer personnel covering operation and maintenance of the machine shall be provided.

Complies: Yes No

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Requirements Covering Items Detailed Above:

All equipment cataloged as standard shall be furnished and in place and shall be included in the purchase price of the unit. Any parts, tools, and/or accessories not specifically called for but required for proper operation shall be provided.

Complies: Yes No

The vendor or manufacturer of the unit considered for award shall, at the request of the State of Illinois, demonstrate this equipment at a location chosen by the state and in the presence of authorized state personnel to prove out any features in question.

Complies: Yes No

Warranties, Coverage and Duration:

Full coverage warranty on all components and installation for a minimum 12 months shall be provided.

Complies: Yes No

Describe warranty: _____

If NO to any portion, please explain: _____

Since the continuous operation of this equipment is of the utmost importance and generally of an emergency nature, it is necessary that the successful bidder be in a position to render prompt parts and service.

List sources for service: _____

Bid Package:

Bidders will need to send two copies of each of the following with their bid response.

- a) Specification Questionnaire
- b) Descriptive Literature