

**MISSOURI DEPARTMENT OF TRANSPORTATION
GENERAL SERVICES
P.O. BOX 270
JEFFERSON CITY, MO 65102**

REQUEST NO.	2-140115RW
DATE	December 31, 2013

SEALED BIDS, SUBJECT TO THE ATTACHED CONDITIONS WILL BE RECEIVED AT THIS OFFICE UNTIL

2:00 p.m., Local Time, January 15, 2014

AND THEN PUBLICLY OPENED AND READ FOR FURNISHING THE FOLLOWING SUPPLIES OR SERVICES.

BIDS TO BE BASED F.O.B. MISSOURI DEPARTMENT OF TRANSPORTATION

Submit net bid as cash discount stipulations will not be considered
Various MoDOT Locations

DEFINITE DELIVERY DATE SHOULD BE SHOWN. THE BIDDER MUST SIGN AND RETURN BEFORE DATE AND TIME SET FOR OPENING. **ALL BIDS SHOULD BE EXTENDED AND TOTALED.**

BUYER: Robin Warren

BUYER TELEPHONE: 573- 526-7929

BUYER EMAIL:

Robin.Warren@modot.mo.gov

SUPPLIES OR SERVICES

Changeable Message Signs

To establish a contract to furnish **Changeable Message Signs** with an effective date of award and ending December 31, 2014 in accordance with the following pages.

Return sealed bid to the address shown at the top of this page.

(SEE ATTACHED FOR CONDITIONS AND INSTRUCTIONS)

In compliance with the above Request For Bid, and subject to all conditions thereof, the undersigned bidder agrees to furnish and deliver any or all the items on which prices were bid within the timeframe specified herein, after receipt of formal purchase order.

Date: _____

Firm Name: _____

Telephone No.: _____

Address: _____

Fax No.: _____

By (Signature): _____

Email Address: _____

Type/Print Name _____

Is your firm MBE certified? Yes No

Title:
Is your firm WBE certified? Yes No

1. INTRODUCTION AND GENERAL INFORMATION

1.1 Introduction:

- 1.1.1 This Request for Bid seeks bids from qualified organizations to provide Trailer and Truck Mounted Solar Changeable Message Signs, with an effective contract period of date of award through December 31, 2014, to the Missouri Highways and Transportation Commission (MHTC) and Missouri Department of Transportation (MoDOT). Each bid must be returned in a sealed envelope to no later than 2:00 p.m., Local Time, January 15, 2014.

RFB Coordinator:

Robin Warren
Sr. General Services Specialist

Phone: 573-526-7929

1.2 General Information:

1.2.1 This document constitutes an invitation for competitive, sealed bids for the procurement of Changeable Message Signs as set forth herein.

1.2.2 Organization - This document, referred to as a Request for Bid (RFB), is divided into the following parts:

- 1) Introduction and General Information
- 2) Scope of Work
- 3) Bid Submission
- 4) Pricing Pages
- 5) MGS Specifications
- 6) District Map
- 7) Terms and Conditions

2. SCOPE OF WORK

2.1 General Requirements:

- 2.1.1 The contractor shall provide Trailer and Truck Mounted Solar Changeable Message Signs, hereinafter referred to as CMS on an as needed, if needed basis for the Missouri Highway and Transportation Commission (MHTC) and Missouri Department of Transportation (MoDOT), hereinafter referred to as the “MoDOT”, in accordance with the provisions and requirements stated herein.
- 2.1.2 The contractor shall provide all deliverables to the sole satisfaction of MoDOT.
- 2.1.3 No estimated quantities are given as part of this bid. MoDOT does not guarantee any specific quantities that may be required to be provided by the contractor. Purchases will be made on an as needed basis.
- 2.1.4 MoDOT reserves the right to obtain “like or similar” products as specified herein from other manufacturers, exclusive of the contract, when use of such products is deemed in the best interest of MoDOT.
- 2.1.5 Unless otherwise specified herein, the contractor shall furnish all material, labor, facilities, equipment, and supplies necessary to provide the deliverables/services required herein.

2.2 Specific Requirements:

- 2.2.1 The contractor shall provide CMS in accordance with the attached specifications: MGS 06-04G & MGS 06-07A and any other provisions outlined in this document.
- 2.2.2 The contractor shall provide MoDOT with 2 Operator's Manuals in hard copy, 4 Parts Books (2 hardcover books and 2 CD's), and 2 Technical Service Manuals for each CMS.
- 2.2.3 The contractor shall provide a contact name, along with the contact name's physical address and an 800 number. The contact person must be accessible for MoDOT representatives to contact twenty-four (24) hours per day, and seven (7) days per week for technical assistance.

2.3 Training Requirements:

- 2.3.1 The contractor shall provide training for all specialty equipment and equipment specified herein. At a minimum, training shall consist of the following:
 - a. A qualified service technician shall conduct training at each district where items are delivered, or at an off-site location at the contractor's expense.
 - 1) The contractor shall provide training to the MoDOT operators of the equipment. The contractor's training must cover safe operation, warranty coverage, and routine/preventative maintenance.
 - 2) The contractor shall provide training within one (1) month after delivery and acceptance.
 - 3) The contractor shall provide all training materials at no additional cost to MoDOT.
 - 4) The contractor shall contact each applicable district to schedule the training classes.
 - 5) If requested by MoDOT, the contractor shall provide repeat training classes at the location the training initially occurred. Such repeat training classes shall be provided by the contractor at no additional cost to MoDOT.

2.4 Delivery Requirements:

- 2.4.1 The contractor shall deliver the CMS as specified herein to various locations throughout the district. *See attached District Map*. The contractor shall deliver such changeable message signs F.O.B. destination.
- 2.4.2 The contractor shall insure the CMS are delivered complete and ready for use.
- 2.4.3 The contractor shall deliver CMS at the specified location within 45 to 60 calendar days after receipt of order.
- 2.4.4 The contractor shall deliver CMS during normal working hours (7:30 a.m. - 4:00 p.m. Monday through Friday). The contractor shall provide MoDOT with at least twenty-four (24) hours advance notice prior to arrival at the delivery point.

2.5 Liquidated Damage Requirements:

- 2.5.1 The contractor shall agree and understand that providing changeable message signs in accordance with the requirements stated herein is considered critical to the efficient operations of MoDOT. However, since the amount of actual damages would be difficult to establish in the event the contractor fails to comply with the contractual requirements, the contractor shall agree and understand that the amount identified below as liquidated damages shall be reasonable and fair under the circumstances.
 - a. In the event the contractor fails to provide CMS in accordance with the contractual requirements specified herein, the contractor shall be assessed liquidated damages in the amount of \$100.00 per day, per complete order for each such delinquent day.
 - b. The contractor shall further agree and understand that such liquidated damages shall either be deducted from the total amount due the contractor or paid by the contractor as a direct payment to MoDOT, at the sole discretion of MoDOT.
 - c. The contractor shall understand that the liquidated damages described herein shall not be construed as a penalty.
 - d. The contractor shall agree and understand that all assessments of liquidated damages shall be within the discretion of each District as a separate entity, and shall be in addition to, not in lieu of, the rights of the State of Missouri to pursue other appropriate remedies. The contractor shall understand and agree that each District's decision shall be individual, final, and without recourse.
 - e. The contractor shall agree and understand that if a product(s) is rejected due to not meeting specifications, all costs associated with returning the product to the contractor shall be paid by the contractor.

2.6 Invoicing and Payment Requirements:

- 2.6.1 The contractor shall submit an itemized invoice to the applicable requesting address for the completion of deliverables, as specified herein.
- 2.6.2 The contractor's invoices should be itemized in accordance with items listed on the purchase order and/or contract. The statewide financial management system has been designed to capture certain receipt and payment information. Therefore, each invoice submitted by the contractor must reference the purchase order number and must be itemized in accordance with items listed on the purchase order. Failure to comply with this requirement may delay processing of invoices for payment.
- 2.6.3 The contractor shall be paid in accordance with the firm, fixed prices stated on the pricing page(s) of this document after completion of deliverables specified herein and acceptance by MoDOT.
- 2.6.4 Other than the payment specified above, no other payments or reimbursements shall be made to the contractor for any reason whatsoever.

- 2.6.5 MoDOT is exempt from paying Missouri Sales Tax, Missouri Use Tax and Federal Excise Tax.
- 2.6.6 Unless otherwise provided for in the solicitation documents, payment for all equipment, supplies, and/or services required herein shall be made in arrears. The Missouri Highways and Transportation Commission (MHTC) shall not make any advance deposits.
- 2.6.7 The MHTC assumes no obligation for equipment, supplies, and/or services shipped or provided in excess of the quantity ordered. Any authorized quantity is subject to the MHTC's rejection and shall be returned at the contractor's expense.
- 2.6.8 The MHTC reserves the right to purchase goods and services using the state-purchasing card.
- 2.7 Other Contractual Requirements:**
- 2.7.1 Contract Period - The contract shall commence from the date of award until December 31, 2014 with three (3) one-year renewal option periods. If the option for renewal is exercised by MoDOT, the contractor shall agree to all terms and conditions of the RFB and all subsequent amendments. Renewal options are at the sole discretion of MoDOT.
- 2.7.2 Renewal Periods - If the option for renewal is exercised by MoDOT, the contractor shall agree that the prices for the renewal period shall not exceed the maximum percentage for the applicable renewal period stated herein.
- a. If renewal percentages are not provided, the prices during renewal periods shall be the same as during the original contract period.
 - b. MoDOT does not automatically exercise its option for renewal based upon the maximum percentage and reserves the right to offer or to request renewal of the contract at a price less than the maximum percentage stated.
 - c. In the event MoDOT exercises its option(s) to renew the contract, the requirements for future years shall be basically similar.
- 2.7.3 Escalation Clause - In the event the contractor requests a price increase during the contract period (original contract period or contract renewal period), the contractor must provide a written request and documentation justifying the need for a price increase, and the amount of such price increase. MoDOT will review the contractor's written request and documentation, and decide if a price increase is to be granted at that particular time. The contractor shall understand and agree that MoDOT's decision shall be final and without recourse.
- a. No price increase shall be granted during the first 3 months of the original contract period, or if applicable, first 3 months of a contract period for a renewal.
 - b. In the event a price increase is granted due to an approved escalation, the renewal percentage shall be based upon the current contract value.
- 2.7.4 Inspection Specifications - MoDOT reserves the right to inspect the material at the point of manufacture, intermediate storage point, or at a destination which shall be at the discretion of MoDOT.
- a. No equipment, supplies, and/or services received by MoDOT pursuant to a contract shall be deemed accepted until MoDOT has had reasonable opportunity to inspect said equipment, supplies, and/or services.

3. BID SUBMISSION

3.1 Bid Submission Information:

- 3.1.1 All bids must be received in a sealed envelope clearly marked “**RFB 2-140115RW CMS Bid**”.
- 3.1.2 All bids must be received at the following address no later than January 15, 2014 at 2:00 p.m., Local Time.

Missouri Department of Transportation
General Services – Procurement Division
Attn: Robin Warren

PO Box 270
Jefferson City, MO 65102

Mailing Address

830 MoDOT Drive
Jefferson City, MO 65109

Physical Address

- 3.1.3 The bidder may withdraw, modify or correct his bid after it has been deposited with MoDOT provided such request is submitted in writing and received at the location designated for the bid opening prior to the time specified for opening bids. Such a request received as specified will be attached to the bid and the bid will be considered to have been modified accordingly. No bid may be modified after the time specified for the opening of bids.
- 3.1.4 The bidder shall submit the following with the bid:
- a. A complete list or catalog describing all available training materials related to the items being proposed.
 - b. A complete options list and/or catalog describing parts with detailed pricing information for each make/model being proposed.
 - c. Warranty information.
 - d. Descriptive literature and specifications showing the exact equipment being proposed.
- 3.1.5 Samples – After review of the submitted bids, the low bidder must submit one (1) sample of the full matrix changeable message sign being bid, and one (1) sample of the character matrix changeable message sign being bid. The second low bidder may also be requested to submit samples at that time.

Requested samples must be received within 7 to 10 days of notification.

Each sample shall be identified by bidder to permit easy reference and identification. The bidder’s samples must be submitted to MoDOT – St. Louis District, Attn: Building A or B, 2309 Barrett Station Road, Ballwin, MO 63021.

- a. For testing purposes, the digital cellular transceivers shall be compatible with the St. Louis District cellular IP provider, which is AT&T.
- b. The bidder must provide 48 hours advance notification of the delivery of the samples.
- c. The bidder must insure that a manufacturer representative knowledgeable in the operation of the sample accompanies the delivery of the samples.
- d. The bidder shall understand and agree that no award of contract shall be made until the changeable message signs have been tested for compliance by MoDOT. **NOTE:** Normal-testing time is a minimum of thirty (30) calendar days.
- e. The bidder shall understand and agree that MoDOT shall not pay any additional charges for the delivery of the bidder’s samples or the return of such samples.

3.1.6 Open Competition / Request For Bid Document:

- a. It shall be the bidder's responsibility to ask questions, request changes or clarification, or otherwise advise MoDOT if any language, specifications or requirements of an RFB appear to be ambiguous, contradictory, and/or arbitrary, or appear to inadvertently restrict or limit the requirements stated in the RFB to a single source. Any and all communication from bidders regarding specifications, requirements, competitive bid process, etc., must be directed to the buyer from MoDOT, unless the RFB specifically refers the bidder to another contact. Such communication should be received at least five (5) working days prior to the official bid opening date.

3.1.7 Bids will be reviewed to determine if the bid complies with the mandatory requirements, and to determine the lowest and best bid.

3.1.8 Cost Determination - The low bid shall be determined by adding together the bidder's firm, fixed price to obtain a grand total per category for line items 001 thru 004.

- a. The renewal pricing shall not be included in the calculation when determining the low bid.

3.1.9 Contract Award – The contract will be awarded to the lowest responsive bidder on an “All or Nothing” basis for items 001 thru 004 determined, as specified above. Items 005 thru 008 will be awarded to the lowest responsive bidder on an “Item by Item” basis.

3.1.10 MHTC reserves the right to reject any or all bids and no award is final until formally approved by the MHTC.

- a. Notification of award shall be at the time the tabulation is posted to the Internet. *It is the sole responsibility for all bidders to check the website for bid results.*

4. PRICING PAGE

4.1 Changeable Message Signs - The bidder shall provide firm, fixed prices in the table below for the original contract period for providing the deliverables in accordance with the provisions and requirements of this RFB. All costs (including freight) associated with providing the required deliverables shall be included in the prices stated below.

4.2 The bidder must provide pricing for line items 001 thru 004 to be considered responsive for the Trailer Mounted Solar Powered Changeable Message Signs.

<i>TRAILER MOUNTED SOLAR POWERED - CHANGEABLE MESSAGE SIGNS (CMS)</i>			
Line Item #	Description	Make and Model	Firm, Fixed Price Original Contract Period
001	Full Matrix CMS - Digital Cellular Transceiver - Installed		\$ _____ Per each
002	Full Matrix CMS - Digital Cellular Transceiver – For Future Install		\$ _____ Per each
003	Character Matrix CMS - Digital Cellular Transceiver - Installed		\$ _____ Per each
004	Character Matrix CMS - Digital Cellular Transceiver – For Future Install		\$ _____ Per each
TOTAL			\$ _____
Cellular IP Provider		Brand and Model Number of Digital Cellular Transceiver	
AT&T			
Alltel			
Verizon			

<i>TRUCK MOUNTED SOLAR POWERED - CHANGEABLE MESSAGE SIGNS (CMS)</i>			
Line Item #	Description	Make and Model	Firm, Fixed Price Original Contract Period
005	Full Matrix CMS Wired Controller / LED		\$ _____ Per each
006	Full Matrix CMS Wireless Controller / LED		\$ _____ Per each
007	Character Matrix CMS Wired Controller / LED		\$ _____ Per each
004	Character Matrix CMS Wireless Controller / LED		\$ _____ Per each

4.3 The bidder shall indicate below the percent (%) discount off Manufacturers Suggested Retail Prices (MSRP) for all Changeable Message Sign options available in the bidder’s data book or pricing guides.

Percent discount off MSRP for all Data Book or Pricing Guide Options: _____ % discount

4.4 Renewal Periods: The bidder shall provide below the maximum percentage of increase or decrease for the renewal periods. The percentage shall be computed against the **current contract period prices** for each renewal period. If a renewal percentage is not provided, the prices for the renewal periods shall be the same as the current contract period.

1st Renewal Period _____% of maximum increase and/or _____% of maximum decrease.

2nd Renewal Period _____% of maximum increase and/or _____% of maximum decrease.

3rd Renewal Period _____% of maximum increase and/or _____% of maximum decrease.

Signature

Date

VENDOR INFORMATION & PREFERENCE CERTIFICATION FORM

Vendor Information

All bidders must furnish ALL applicable information requested below

Vendor Name/Mailing Address: Email Address:	Vendor Contact Information (including area codes): Phone #: Cellular #: Fax #:									
Printed Name of Responsible Officer or Employee:	Signature:									
For Corporations - State in which incorporated:	For Others - State of domicile:									
If the address listed in the Vendor Name/Mailing Address block above is not located in the State of Missouri, list the address of Missouri offices or places of business: If additional space is required, please attach an additional sheet and identify it as <u>Addresses of Missouri Offices or Places of Business.</u>										
M/WBE INFORMATION: List all certified Minority or Women Business Enterprises (<u>M/WBE</u>) utilized in the fulfillment of this bid. Include <u>percentages</u> for subcontractors and identify the M/WBE certifying agency: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; border: none;"><u>M/WBE Name</u></td> <td style="text-align: center; border: none;"><u>Percentage of Contract</u></td> <td style="text-align: center; border: none;"><u>M/WBE Certifying Agency</u></td> </tr> <tr> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> <tr> <td style="border: none;">_____</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> </table> If additional space is required, please attach an additional sheet and identify it as <u>M/WBE Information</u>		<u>M/WBE Name</u>	<u>Percentage of Contract</u>	<u>M/WBE Certifying Agency</u>	_____	_____	_____	_____	_____	_____
<u>M/WBE Name</u>	<u>Percentage of Contract</u>	<u>M/WBE Certifying Agency</u>								
_____	_____	_____								
_____	_____	_____								

Preference Certification

All bidders must furnish ALL applicable information requested below

<u>GOODS/PRODUCTS MANUFACTURED OR PRODUCED IN USA:</u> If any or all of the goods or products offered in the attached bid which the bidder proposes to supply to the MHTC are not manufactured or produced in the "United States", or imported in accordance with a qualifying treaty, law, agreement, or regulation, list below, by item or item number, the country other than the United States where each good or product is manufactured or produced.	
Item (or item number)	Location Where Item is Manufactured or Produced
If additional space is required, please attach an additional sheet and identify it as <u>Location Products are Manufactured or Produced.</u>	
<u>MISSOURI SERVICE-DISABLED VETERAN BUSINESS:</u> Please complete the following if applicable. Additional information may be requested if preference is applicable. See below definitions for qualification criteria: Service-Disabled Veteran is defined as any individual who is disabled as certified by the appropriate federal agency responsible for the administration of veterans' affairs. Service-Disabled Veteran Business is defined as a business concern: <ol style="list-style-type: none"> a. Not less than fifty-one (51) percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than fifty-one (51) percent of the stock of which is owned by one or more service-disabled veterans; and b. The management and daily business operations of which are controlled by one or more service-disabled veterans. 	
<u>Veteran Information</u>	<u>Business Information</u>
_____	_____
Service-Disabled Veteran's Name (Please Print)	Service-Disabled Veteran Business Name
_____	_____
Service-Disabled Veteran's Signature	Missouri Address of Service Disabled Veteran Business
_____	_____

COOPERATIVE AGREEMENT NOTICE

MoDOT is interested in assisting Missouri governmental entities, etc. in purchasing equipment, various materials, and supplies that meet the MoDOT specifications.

Each bidder is asked to indicate below whether they would be willing to offer *Changeable Message Signs* listed in the attached "Request for Bid" for sale to these local political entities at the same bid price offered to MoDOT.

It is understood MoDOT will not issue purchase orders, accept delivery nor make payment for these items ordered by any of these agencies. It is further understood the price is based on the *Changeable Message Signs* meeting MoDOT specifications. Any added options, deletions, or extra freight costs would be negotiated between the local agency and the successful vendor.

Indicate below whether your company is willing to offer such cooperative purchasing for Missouri counties, cities or other political entities.

YES _____

NO _____

If the price varies throughout the state on MoDOT bids because of different delivery destinations, please indicate the price f.o.b. your location that would be offered as described.

F.O.B. Location _____

Indicate the deadline date that orders will be accepted. _____

COMPANY NAME _____

ADDRESS _____

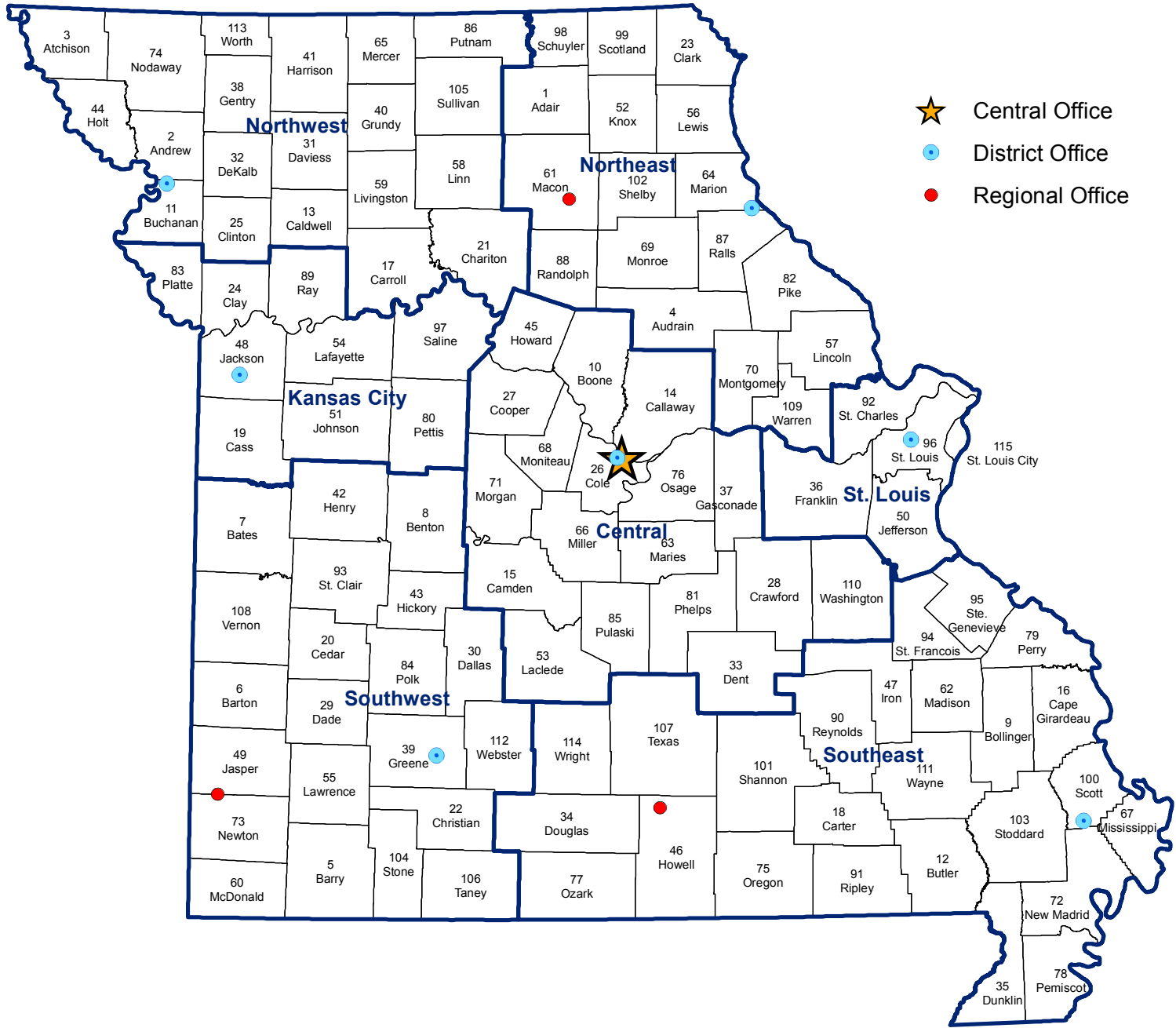
PHONE NUMBER _____

SIGNATURE _____

TITLE _____

DATE _____

Missouri Department of Transportation District Map



County	No. Dist.	County	No. Dist.	County	No. Dist.	County	No. Dist.	County	No. Dist.	County	No. Dist.
Adair	1 .. NE	Chariton	21 .. NW	Harrison	41 .. NW	Macon	61 .. NE	Phelps	81 .. C	Shannon	101 .. SE
Andrew	2 .. NW	Christian	22 .. SW	Henry	42 .. SW	Madison	62 .. SE	Pike	82 .. NE	Shelby	102 .. NE
Atchison	3 .. NW	Clark	23 .. NE	Hickory	43 .. SW	Maries	63 .. C	Platte	83 .. KC	Stoddard	103 .. SE
Audrian	4 .. NE	Clay	24 .. KC	Holt	44 .. NW	Marion	64 .. NE	Polk	84 .. SW	Stone	104 .. SW
Barry	5 .. SW	Clinton	25 .. NW	Howard	45 .. C	Mercer	65 .. NW	Pulaski	85 .. C	Sullivan	105 .. NW
Barton	6 .. SW	Cole	26 .. C	Howell	46 .. SE	Miller	66 .. C	Putnam	86 .. NW	Taney	106 .. SW
Bates	7 .. SW	Cooper	27 .. C	Iron	47 .. SE	Mississippi	67 .. SE	Ralls	87 .. NE	Texas	107 .. SE
Benton	8 .. SW	Crawford	28 .. C	Jackson	48 .. KC	Moniteau	68 .. C	Randolph	88 .. NE	Vernon	108 .. SW
Bollinger	9 .. SE	Dade	29 .. SW	Jasper	49 .. SW	Monroe	69 .. NE	Ray	89 .. KC	Warren	109 .. NE
Boone	10 .. C	Dallas	30 .. SW	Jefferson	50 .. SL	Montgomery	70 .. NE	Reynolds	90 .. SE	Washington	110 .. C
Buchanan	11 .. NW	Davies	31 .. NW	Johnson	51 .. KC	Morgan	71 .. C	Ripley	91 .. SE	Wayne	111 .. SE
Butler	12 .. SE	Dekalb	32 .. NW	Knox	52 .. NE	New Madrid	72 .. SE	St. Charles	92 .. SL	Webster	112 .. SW
Caldwell	13 .. NW	Dent	33 .. C	Laclede	53 .. C	Newton	73 .. SW	St. Clair	93 .. SW	Worth	113 .. NW
Callaway	14 .. C	Douglas	34 .. SE	Lafayette	54 .. KC	Nodaway	74 .. NW	St. Francois	94 .. SE	Wright	114 .. SE
Camden	15 .. C	Dunklin	35 .. SE	Lawrence	55 .. SW	Oregon	75 .. SE	Ste. Genevieve	95 .. SE	St. Louis City	115 .. SL
Cape Girardeau	16 .. SE	Franklin	36 .. SL	Lewis	56 .. NE	Ozark	77 .. SE	St. Louis	96 .. SL		
Carroll	17 .. NW	Gasconade	37 .. C	Lincoln	57 .. NE	Pemiscot	78 .. SE	Saline	97 .. KC		
Carter	18 .. SE	Gentry	38 .. NW	Linn	58 .. NW	Perry	79 .. SE	Schuyler	98 .. NE		
Cass	19 .. KC	Greene	39 .. SW	Livingston	59 .. NW	Pettis	80 .. KC	Scotland	99 .. NE		
Cedar	20 .. SW	Grundy	40 .. NW	McDonald	60 .. SW			Scott	100 .. SE		





TRAILER MOUNTED SOLAR POWERED CHANGEABLE MESSAGE SIGNS MGS 06-04G

1.0 DESCRIPTION. All solar powered changeable message signs, hereinafter referred to as a CMS, shall be designed and manufactured in accordance with this specification.

2.0 MATERIAL. Each CMS shall consist of an all LED (light emitting diode) pixel matrix message board, solar/battery power supply and a user operated interface, as specified, all mounted on a heavy duty, towable trailer.

2.1 Each CMS shall have the following minimum characteristics:

1. Full Matrix - Each CMS shall be the Full Matrix type with the capability of providing one, two, and three lines of changeable characters with minimum heights of 52 inches (1300mm), 28 inches (700mm), and 18 inches (450mm), respectively, and a minimum width of 12 inches (300mm). Full Matrix signs shall be capable of both static and dynamic graphics, and full display sized messages. At the 18-inch (450mm) setting, the sign shall display three lines containing eight changeable characters per line.
2. Character Matrix (Three Line) – Each CMS shall consist of a minimum of three lines containing eight individual changeable characters per line. Each character shall be a minimum of 12 inches wide and 18 inches (450 mm) high.
3. Full matrix CMS and character matrix CMS shall meet the following:
 - a) The overall sign dimensions shall not be less than 72 inches (1800 mm) high x 126 inches (3150 mm) wide.
 - b) The CMS shall be legible up to a distance of 650 feet (200 m) for both day and night operations and shall be visible for ½-mile (800 m) with 18 inch (450 mm) characters.
 - c) When fully raised in the display position, the bottom of the CMS board shall be at least a height of 7 feet (2100 mm) from the ground and the ability to rotate a minimum of 180 degrees atop the lift mechanism. A sight tube, used to aim the CMS board to oncoming traffic, shall be installed on the CMS board or mast. The CMS shall have an electrical-hydraulic lifting mechanism that includes a fully functioning manual lifting and lowering relief mechanism as a backup. The CMS shall have the ability to lock into various viewing angles as determined best for the motorists by the CMS operator.
 - d) All LED displays and control circuitry shall be operational when external temperatures range from -20 F (6 C) to 120 F (50 C). The LED's shall have a rated life of 100,000 hours. The LED's shall be ITE amber in color on a flat black background.
 - e) The CMS face shall be constructed that if an individual panel fails or is disconnected, all other panels shall continue to display the message. The CMS face shall be constructed that if an individual pixel fails all other pixels shall continue to display the message.
 - f) 1. The CMS shall have a digital cellular transceiver compatible with the district's current cellular IP (packet data) service provider and be capable of receiving a message from a remote location and forwarding the message to the CMS controller to change the

displayed message. The cellular carrier and modem shall have GPS tracking capabilities.

2. The CMS shall be constructed with the capability of installing a future digital cellular transceiver.

- g) The CMS shall have the necessary hardware on board that will allow the message to be changed from the CMS location without connection. A connecting cable a minimum of 5 feet (1.5 meters) long shall be provided to allow for the connection from the sign controller to a notebook computer. For on-sight operation, the CMS shall have a removable waterproof hand held keyboard with display panel.
- h) The sign controller shall provide an event time clock, a minimum storage capacity of 400 messages, a battery-charge status, panel or pixel status, and all other required controls for the operation of the display inside a lockable, weatherproof and hinged box.
- i) The supplier shall provide the Commission the required compatible National Transportation Communications for ITS Protocol (NTCIP) software and licenses necessary to change the message from a remote location. This software shall be compatible with the district's Windows operating systems and be able to issue compatible modem commands. The supplier shall provide technical assistance with the installation and operation of software.
- j) The trailer body frame, fenders, control and battery boxes shall be constructed of metal. The trailer welding shall be in accordance with American Welding Society standards. The trailer shall have a 2000-lb (910-kg) swiveling jack located at the four corners. The trailer shall have a hydraulic surge brake system. The trailer shall have a minimum of 15-inch (380 mm) tires. The axle assembly shall have a capacity of 3500-lb (1590-kg). The axles shall have bearing buddies to provide grease to the spindles. Hitch shall be an easily removable combination of a 2-inch (50-mm) ball with single latch type trailer hitch with double chains and 3-inch (75 mm) inside diameter, flat pintle ring ("lunette eye"), adjustable 24-inch (600 mm) to 36-inch (900 mm), in 2-inch (50 mm) increments with double chains. The control box shall have either an interior light or the keyboard display shall be backlit for nighttime lighting.
- k) The unit shall be able to withstand a 65-mph (105-kmph) maximum road wind speed. The trailer shall be able to support the fully extended CMS board in an 80-mph (130-kmph) wind load.
- l) Each CMS unit shall have a trailer lighting system with a 4-wire flat male molded plug.
- m) Batteries shall be absorbed glass mat (AGM) type; class GC2, rated at no less than 200 amp hours per battery when fully charged. The power supply shall use a battery bank sufficient in capacity to operate a full display of characters under normal operating conditions for 30 continuous days when disconnected from the solar panels. The battery bank shall be arranged so the weight is distributed evenly.
- n) Battery Box: A fully enclosed (sides, top, bottom) lockable, weatherproof box, mounted at the base of the frame of the CMS support, shall be made of minimum 14-gauge steel,

with louvered side panels for cross-flow ventilation and with the sides and bottom coated with acid-resistant protector. The battery box shall be large enough to sufficiently house batteries and charger. The lid of the battery box shall be hinged and include a stabilizer rod to allow ease of maintenance and repair of batteries and charger.

- o) Solar charging system shall allow for total autonomy of 24/7/365 continuous operation.
- p) The solar panels shall be able to rotate 360-degrees independent of the direction of the CMS board. The solar panels shall be able to tilt from 0-degree horizontal to 40- degrees vertical.
- q) The CMS shall have the capability to charge the battery bank from a 120 VAC power source within a 48 to 72 hour time period. The CMS shall have power control circuitry to manage solar charging. The CMS shall also be equipped to accept power from a 120 VAC utility power source. All terminals and connections shall be clearly labeled.
- r) All exterior surfaces except the sign face shall be cleaned, primed, and finished with two coats of Highway Safety Orange and the sign interior itself shall be cleaned and finished with one coat of corrosion inhibiting primer and two coats of flat black. The sign face shall be covered with a rigid translucent material to prevent damage to the sign face caused by the environment. Powder coat of the same color is acceptable.

2.2 Owner's Manual. The successful bidder shall furnish manuals as specified in RFB.

3.0 WARRANTY. New units delivered to the Missouri Department of Transportation must be covered by the manufacturer's standard warranty for a minimum of one year, which includes on-site repair (parts, labor, and travel), at no expense to MoDOT.

3.1 All units manufactured shall be exactly the same as the units tested.

3.2 All units shall meet or exceed the specifications for CMS boards as listed in Part 6F.60 of the current Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD).



TRUCK MOUNTED SOLAR POWERED CHANGEABLE MESSAGE SIGNS MGS-06-07A

1.0 DESCRIPTION. All truck mounted solar powered changeable message signs, hereinafter referred to as a CMS, shall be designed and manufactured in accordance with this specification.

2.0 MATERIAL. The truck mounted CMS shall consist of an CMS board, mounting frame and rotating mechanism, remote control switches and circuitry, and a lockable control cabinet housing electronic components in a self-contained power supply. Each unit shall be fully assembled when delivered.

Each CMS shall consist of an all LED (light emitting diode) pixel matrix message board, solar/battery power supply and a user operated interface.

2.1 Each CMS shall have the following minimum characteristics:

- 1) Full Matrix - Each CMS shall be the Full Matrix type with the capability of providing one, two, and three lines of changeable characters with a minimum height of 10.5 inches (265 mm). Full Matrix signs shall be capable of both static and dynamic graphics, and full display sized messages.
- 2) Character Matrix (Three Line) – Each CMS shall consist of a minimum of three lines containing six individual changeable characters per line. Each character shall be a minimum of 10.5 inches (265 mm) high.
- 3) Full matrix CMS and character matrix CMS shall meet the following:
 - a) The overall sign dimensions should be approximately 42 inches (1060 mm) high x 76 inches (1900 mm) wide.
 - b) The CMS shall be legible up to a distance of 650 feet (200 m) for both day and night operations and shall be visible for ½-mile (800 m).
 - c) When fully raised in the display position, the bottom of the CMS board shall be at least a height of 7 feet (2100 mm) from the ground. The CMS shall have an electrical-hydraulic lifting mechanism that includes a fully functioning manual lifting and lowering relief mechanism as a backup.
 - d) All LED displays and control circuitry shall be operational from -20 F (6 C) to 120 F (50 C). The LED's shall have a rated life of 100,000 hours. The LED's shall be ITE amber in color on a flat black background.
 - e) The CMS face shall be constructed such that if an individual panel fails or is disconnected, all other panels shall continue to display the message. The CMS face shall be constructed such that if an individual pixel fails all other pixels shall continue to display the message.
 - f) The sign controller shall provide storage capacity for additional messages in addition to preprogrammed messages and all other required controls for the operation of the display.

- g) Solar Panels: Wattage of the solar panels shall be adequate to fully charge batteries, and will contain a remote battery charger back-up as described below. Solar panels shall be mounted above top of arrow panel with a minimum 4 degree pitch from the horizontal position to encourage shedding of dirt and rainwater.
- h) Battery Charger: The battery charger with charge indicator shall be included and shall be mounted at the base of the frame of the CMS panel support, inside a lockable, weatherproof, battery box. The battery charger shall have the capability to charge the battery bank within a 48 to 72 hour time period from a 120 VAC utility power source.
- i) Batteries shall be the A.G.M. type (Absorb Glass Mat), class GC2, rated at no less than 200 amp hours per battery when fully charged. The quantity of batteries shall provide enough power to run the unit at full load for 30 consecutive days on battery power only. Solar charging shall be disabled during this 30 day period.
- j) Battery Box: A fully enclosed (sides, top, bottom) lockable, weatherproof box, mounted at the base of the frame of the CMS panel support, shall be made of minimum 14-gauge steel, with louvered side panels for cross-flow ventilation and with the sides and bottom coated with acid-resistant protector. The battery box shall be large enough to sufficiently house and service the batteries and charger. The lid of the battery box shall be hinged and include a stabilizer rod to allow ease of maintenance and repair of batteries, charger and or photoelectric control.
- k) Voltage Regulator: The voltage regulator shall be solid-state, micro-processor-based, utilizing constant positive voltage and pulse with modulation to optimize battery charging, measuring battery voltage and adjusting current from the solar panels so the batteries are not overcharged and also prevent overcharging of the batteries by the solar panels when the panel is turned off. An automatic disconnect device shall be included to protect the entire system in case of low voltage.
- l) Controller: Able to program message and monitor messages from inside truck with vendor's supplied handheld controller. Controller supplied shall not have a power saving sleep mode. Controller shall have capability to store 100 factory preprogrammed messages and a minimum of 40 additional user-defined messages. The remote cab control switches shall provide MUTCD Sequential Arrow (Merge Right or Left), Flashing Double Arrow and Alternating Diamond Caution.
- m) Disconnect and Enclosures: Disconnect plug and receptacle shall be determined by the current, voltage, and number of contacts required for proper operation. Connectors shall have screw terminations and accommodate a wire size of up to #12AWG. The male connector shall be enclosed in a NEMA 4 rated surface base enclosure and cover. The female connector shall be enclosed in a NEMA 4 side-entry hood enclosure. Multi-conductor cable shall enter the bottom of the enclosures through a waterproof, flame-resistant, salt and corrosion resistant cable connector with a sealing nut and internal ratchet containing a neoprene cable gland. (See drawing on Attachment 1.)
- n) The support frame shall be painted one coat of primer and one coat high-visibility, Safety Orange Paint similar to Federal Standard 595B #12243.

2.2 Each CMS panel shall be supported on a four vertical post framework.

1. The four vertical post framework shall consist of welded steel tubing in accordance with American Welding Society standards. All open ends of tubing shall be capped and welded shut. The panel shall be rotatable from a horizontal to a vertical position by means of an electrically operated actuator. The supporting frame shall have a locking device to secure the panel in the horizontal and vertical positions. When in the horizontal position, the panel shall rest on a rigid frame support, relieving the load from the rotating device. Each panel shall contain an anchor point on each side, (left, right) of the frame to accommodate a 4-6 inch (100-150 mm) wide strap to anchor to the truck. Angle and cross bracing of the vertical supports shall be provided at the top and bottom of the supports to ensure a rigid frame. See drawing on Attachment 1.
2. The support frame shall be painted one coat of primer and one coat high-visibility, Safety Orange Paint similar to Federal Standard 595B #12243. Powder coat of the same color is acceptable.

2.3 Owner's Manual. The successful bidder shall furnish two Owner's Manuals for each CMS. Each manual shall include the manufacturer's instructions for maintenance and operation of the CMS. Each manual shall also include a detailed, schematic, wiring diagram showing all circuits and components from the power supply through the control to the CMS. The schematic diagram shall list all transistors, resistors, triacs, diodes and other components with the manufacturer's name and part number.

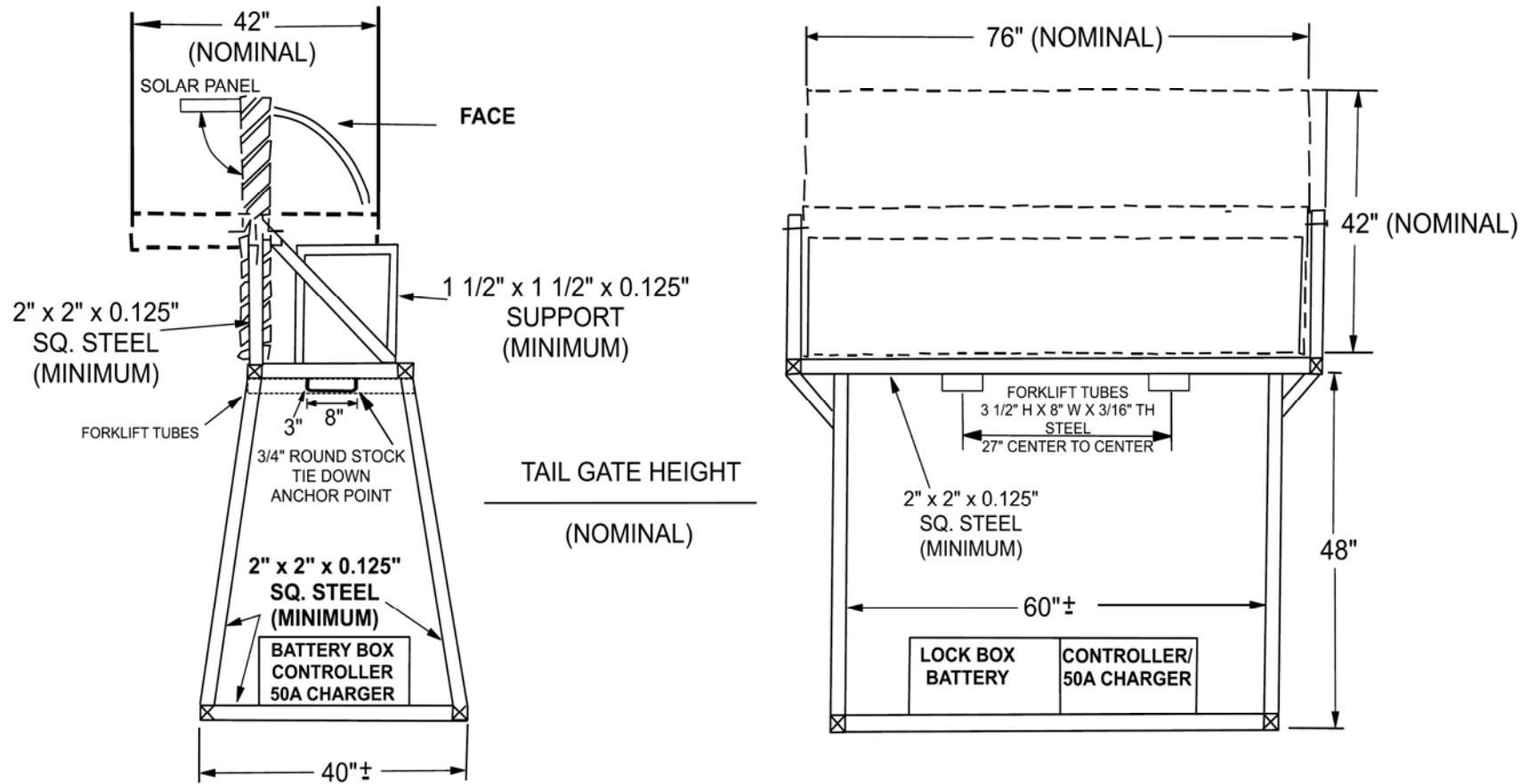
3.0 WARRANTY. New units delivered to the Missouri Department of Transportation must be covered by the manufacturer's standard warranty for a minimum of one year, which includes on-site repair (parts, labor, and travel), at no expense to MoDOT.

3.1 All units manufactured shall be exactly the same as the units tested.

3.2 All units shall meet or exceed the specifications for CMS boards as listed in Part 6F.60 of the current Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD). Units shall be skid mounted to slip into the back of dump trucks.

TRUCK MOUNTED SOLAR POWERED CHANGEABLE MESSAGE SIGN SUPPORT FRAME

ATTACHMENT 1

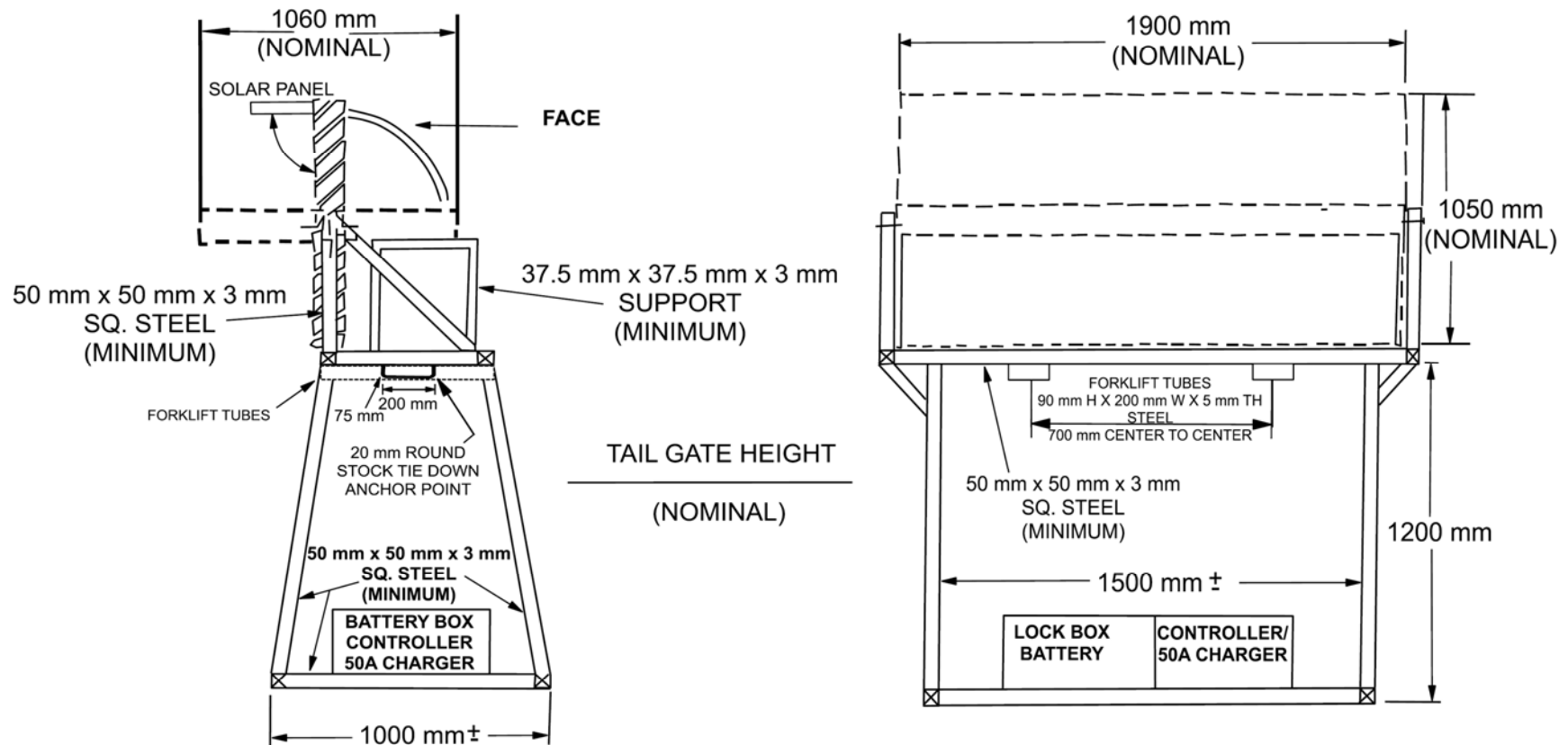


NOTE:

THE SUPPORT FRAME MAY VARY FROM THIS CONFIGURATION BUT THE OVERALL DIMENSIONS SHOULD BE THE SAME.

TRUCK MOUNTED SOLAR POWERED CHANGEABLE MESSAGE SIGN SUPPORT FRAME (METRIC)

ATTACHMENT 1



NOTE:

THE SUPPORT FRAME MAY VARY FROM THIS CONFIGURATION BUT THE OVERALL DIMENSIONS SHOULD BE THE SAME.

Attn: Potential Bidders

If you are responding to the bid for the Changeable Message Signs and the bid for Flashing Arrow Panels, you can return both bid documents in the same envelope as the bid opening for both will be held on the same date and time.

Please note on the outside of any UPS or FedEx packaging the bid numbers that are enclosed.

Thank you!

Robin Warren

Sr. General Services Specialist

573-526-7929

Missouri Highways and Transportation Commission
Standard Bid/Proposal Provisions, General Terms and Conditions and Special Terms and Conditions

STANDARD SOLICITATION PROVISIONS

- a. The solicitation for the procurement of the supplies referenced therein, to which these "Standard Bid Provisions, General Terms and Conditions and Special Terms and Conditions" are attached, is being issued under, and governed by, the provisions of Title 7 – Missouri Department of Transportation, Division 10 – Missouri Highways and Transportation Commission, Chapter 11 – Procurement of Supplies, of the Code of State Regulations. The Missouri Highways and Transportation Commission (**MHTC**), acting by and through its operating arm, the Missouri Department of Transportation (**MoDOT**), draws the Bidder's attention to said 7 CSR 10-11 for all the provisions governing solicitation and receipt of bids/quotes and the award of the contract pursuant to this solicitation.
- b. All bids/quotes must be signed with the firm name and by a responsible officer or employee. Obligations assumed by such signature must be fulfilled.

GENERAL TERMS AND CONDITIONS

Definitions

Capitalized terms as well as other terms used but not defined herein shall have the meaning assigned to them in section 7 CSR 10-11.010 Definition of Terms.

Nondiscrimination

- a. The Contractor shall comply with all state and federal statutes applicable to the Contractor relating to nondiscrimination, including, but not limited to, Chapter 213, RSMo; Title VI and Title VII of Civil Rights Act of 1964 as amended (42 U.S.C. Sections 2000d and 2000e, *et seq.*); and with any provision of the "Americans with Disabilities Act" (42 U.S.C. Section 12101, *et seq.*)
- b. **Sanctions for Noncompliance:** In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, MHTC shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - i. withholding of payments to the Contractor under the contract until the Contractor complies, and/or,
 - ii. cancellation, termination or suspension of the contract, in whole or in part.

Contract/Purchase Order

- a. By submitting a bid/quote, the Bidder agrees to furnish any and all equipment, supplies and/or services specified in the solicitation documents, at the prices quoted, pursuant to all requirements and specifications contained therein.
- b. A binding contract shall consist of: (1) the solicitation documents, amendments thereto, and/or Best and Final Offer (BAFO) request(s) with any changes/additions, (2) the Contractor's bid response, and (3) the MHTC's acceptance of the bid by post-award contract or purchase order.
- c. A notice of award does not constitute an authorization for shipment of equipment or supplies or a directive to proceed with services. Before providing equipment, supplies and/or services, the Contractor must receive a properly authorized notice to proceed and/or purchase order.

Applicable Laws and Regulations

- a. The contract shall be construed according to the laws of the State of Missouri. The Contractor shall comply with all local, state, and federal laws and regulations related to the performance of the contract. The exclusive venue for any legal proceeding relating to or arising, out of the contract shall be in the Circuit Court of Cole County, Missouri.
- b. The Contractor must be registered and maintain good standing with the Secretary of State of the State of Missouri, Missouri Department of Revenue, and other regulatory agencies, as may be required by law or regulations. Prior to the issuance of a purchase order and/or notice to proceed, the Contractor may be required to submit to MHTC a copy of their current Authority Certificate from the Secretary of State of the State of Missouri and/or a copy of their Certificate of No Tax Due from the Missouri Department of Revenue.
- c. Prior to the issuance of a purchase order and/or notice to proceed, all **out-of-state** Contractors **providing services** within the state of Missouri must submit to MHTC a copy of their current Transient Employer Certificate from the Missouri Department of Revenue, in addition to a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.

Executive Order:

The Contractor shall comply with all the provisions of Executive Order 07-13, issued by the Honorable Matt Blunt, Governor of Missouri, on the sixth (6th) day of March, 2007. This Executive Order, which promulgates the State of Missouri's position to not tolerate persons who contract with the state engaging in or supporting illegal activities of employing individuals who are not eligible to work in the United States, is incorporated herein by reference and made a part of this Agreement.

- 1) "By signing this Agreement, the Contractor hereby certifies that any employee of the Contractor assigned to perform services under the contract is eligible and authorized to work in the United States in compliance with federal law."
- 2) In the event the Contractor fails to comply with the provisions of the Executive Order 07-13, or in the event the Commission has reasonable cause to believe that the contractor has knowingly employed individuals who are not eligible to work in the United States in violation of federal law, the Commission reserves the right to impose such contract sanctions as it may determine to be appropriate, including but not limited to contract cancellation, termination or suspension in whole or in part or both.
- 3) The Contractor shall include the provisions of this paragraph in every subcontract. The Contractor shall take such action with respect to any subcontract as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Preferences

- a. In the evaluation of bids/quotes, preferences shall be applied in accordance with 7 CSR 10-11.020(7). Contractors should apply the same preferences in selecting subcontractors. The attached document entitled "**VENDOR INFORMATION AND PREFERENCE CERTIFICATION FORM**" must be completed and returned with the solicitation documents.
- b. Bidders are encouraged to obtain minority business enterprise (MBE) and women business enterprise (WBE) participation in this work through the use of subcontractors, suppliers, joint ventures, or other arrangements that afford meaningful participation for M/WBES. Bidders are encouraged to obtain 10% MBE and 5% WBE participation.

Missouri Highways and Transportation Commission
Standard Bid/Proposal Provisions, General Terms and Conditions and Special Terms and Conditions

Cancellation of Contract

The MHTC may cancel the Contract at any time for a material breach of contractual obligations or for convenience by providing Contractor with written notice of cancellation. Should the MHTC exercise its right to cancel the contract for such reasons, cancellation will become effective upon the date specified in the notice of cancellation sent to the Contractor.

Bankruptcy or Insolvency

Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntarily, or upon the appointment of a receiver, trustee, or assignee, for the benefit of creditors, the Commission reserves the right and sole discretion to either cancel the Agreement or affirm the Agreement and hold the Contractor responsible for damages.

Warranty

The Contractor expressly warrants that all equipment, supplies, and/or services provided shall: (1) conform to each and every specification, drawing, sample or other description which was furnished to or adopted by the MHTC, (2) be fit and sufficient for the purpose expressed in the solicitation documents, (3) be merchantable, (4) be of good materials and workmanship, and (5) be free from defect.

Status of Independent Contractor

The Contractor represents itself to be an independent Contractor offering such services to the general public and shall not represent itself or its employees to be an employee of the MHTC. Therefore, the Contractor shall assume all legal and financial responsibility for taxes, FICA, employee fringe benefits, workers' compensation, employee insurance, minimum wage requirements, overtime, etc., and agrees to indemnify, save and hold the MHTC, its officers, agents and employees harmless from and against any and all losses (including attorney fees) and damage of any kind related to such matters.

Non-Waiver

If one of the parties agrees to waive its right to enforce any term of this Contract, that party does not waive its right to enforce such term at any other time or to enforce any or all other terms of this Contract.

Indemnification

The Contractor shall defend, indemnify and hold harmless MHTC, including its members and department employees, from any claim or liability whether based on a claim for damages to real or personal property or to a person for any matter relating to or arising out of the Contractor's performance of its obligations under the contract awarded pursuant to this solicitation.