

**BID FORM**

MISSOURI DEPARTMENT OF TRANSPORTATION

GENERAL SERVICES

830 MoDOT DRIVE – P.O. BOX 270

JEFFERSON CITY, MO 65102

REQUEST NO.	1-080701FR		
DATE	June 17, 2008		
PAGE NO.	1	NO. OF PAGES	32

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

2:00 PM, LOCAL TIME, JULY 1, 2008

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

**QUOTATIONS TO BE BASED F.O.B. MISSOURI DEPARTMENT OF TRANSPORTATION**

Submit net bid as cash discount stipulations will not be considered  
Statewide

**ALL BIDS SHOULD BE EXTENDED AND TOTALED.**

**BUYER: FRANKIE J. RYAN**

**BUYER TELEPHONE: 573-522-9481**

SUPPLIES OR SERVICES					
<p>Contract for furnishing <b>“KENWOOD RADIO UNITS”</b> for a contract period beginning date of contract execution through May 31, 2009.</p> <p><b>PLEASE SEE ATTACHED PRICING PAGES</b></p> <p><b>Note to Respondent:</b> A vendor must be in compliance with the laws regarding conducting business in the State of Missouri. The compliance to conduct business in the state shall include but may not be limited to: Registration of business name, vendors <b>MUST</b> submit a bid/proposal that correctly and accurately identifies the company name that is registered to do business in the State of Missouri. All vendors who are required to execute a contractual agreement <b>MUST</b> submit a copy of their certificate with the signed copy of the contract agreement before the purchasing department can proceed with MoDOT legal contract approval.</p> <p><b>VENDOR MUST SIGN AND SUBMIT THIS FORM WITH THE PRICING PAGES</b></p>					

(SEE ATTACHED FOR CONDITIONS AND INSTRUCTIONS)

*In compliance with the above request for bids, and subject to all conditions thereof, the undersigned bidder agrees to furnish and deliver any or all the items on which prices were quoted within SIXTY (60) calendar days after the date listed on the formal purchase order.*

Date: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Fax No.: \_\_\_\_\_

Federal I.D. No. \_\_\_\_\_

Firm Name: \_\_\_\_\_

Address: \_\_\_\_\_

By (Signature): \_\_\_\_\_

Type/Print Name \_\_\_\_\_

Title: \_\_\_\_\_

Is your firm MBE certified?  Yes  No

Is your firm WBE certified?  Yes  No

List all agencies your firm is currently certified with. \_\_\_\_\_

## BID SUBMITTAL

Your written bid must be mailed in a sealed envelope or box, or else delivered by hand or courier service (UPS, Federal Express, DHL, etc.) to be *received on or before the date and time specified on the front page of this bid document*, at the office of:

Ms. Frankie Ryan  
Missouri Department of Transportation  
General Services - Procurement  
830 MoDOT Drive; P.O. Box 270  
Jefferson City, MO 65102

All documents must be sealed and the outmost wrapping should be clearly marked "**Bid for Kenwood Radio Units**".

## CONTRACTUAL REQUIREMENTS

### PRICES:

All prices shall be firm and fixed. The Missouri Department of Transportation (herein after referred to as Department) shall not pay nor be liable for any other additional costs including but not limited to taxes, shipping charges, insurance, interest, penalties, termination payments, attorney fees, liquidated damages, etc. The Contractor shall not invoice federal excise tax unless otherwise required under federal law or regulation.

### AWARD:

For the purposes of this bid, award will be "ALL OR NONE". However, the right is reserved to reject any and all bids or award the bid based on the best interest of the Department. Award of this bid does not constitute final acceptance.

### DELIVERY:

Radio units shall be delivered within sixty (60) calendar days from the date on the purchase order(s) to the Department's office(s) as specified on the purchase order. A list of delivery locations is attached as Appendix A. Charges for delivery shall be included in the bid price.

Each radio shall be delivered to the location fully assembled. This assembly cost shall be included in the bid price.

### COMPLIANCE WITH BID REQUIREMENTS:

Failure to comply with the requirements published in this bid may result in the bid being subject to rejection. Product that does not meet specifications will cause all of the shipments to be returned at the bidders expense.

### CONTRACT PERIOD:

The original contract period shall be from June 1, 2008 through May 31, 2009. The contract shall not bind, nor purport to bind, the Department for any contractual commitment in excess of the original contract period.

### LIQUIDATED DAMAGES FOR DELIVERY AND/OR ACCEPTANCE:

Liquidated damages for failure to deliver shall be set at fifty dollars (\$50) per radio unit per day for each day beyond the sixty (60) calendar day delivery period, to be assessed in the event that some or all of the components making up a radio unit are not received by the specified delivery date.

In the event that any component of a radio unit received does not comply with the specifications as outlined in the bid documents, the Contractor shall make all corrections necessary to bring the radio unit into compliance. All costs resulting from this necessary repair/replacement shall be borne by the Contractor and shall be performed within fourteen (14) calendar days of its being reported to the Contractor unless otherwise agreed to by the Department's representative. Liquidated damages for failure to provide compliant products of fifty dollars (\$50) per radio unit per day, shall be assessed for each radio unit not in compliance after the fourteen (14) calendar days or the agreed upon deadline.

Damages will be limited to fifty percent (50%) of the total contract price. When this amount is reached the Department, at its discretion, reserves the right to cancel the remainder of the contract without being considered in breach of the contract and without any additional payment to the Contractor. Prior to the effective date of cancellation by the Department, the Department will purchase all radio units requested, received and found acceptable, less any liquidated damages as outlined in this section. The Department will apply liquidated damages per location not fulfilled.

**PAYMENT:**

Invoices, per group, per delivery point, in triplicate per payment request per purchase order, should reflect the identical item as listed on the purchase order. These invoices should include the purchase order number, date of shipment, *and a unique serial number for each item.*

Payment for all radio units will be processed after all radio units have been delivered and found acceptable by the Department's representative.

**COOPERATIVE PROCUREMENT:**

The Department is interested in assisting Missouri governmental entities in purchasing equipment, various materials and supplies that meet the Department specifications. The bidder should complete and submit *Appendix C "Cooperative Procurement"* with the other required bid documents.

**CONTRACT PRICE ESCALATION:**

In the event the Contractor requests a price increase during the contract 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 for a price increase, 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.

**APPROVED MANUFACTURED AND BRANDED PRODUCT:**

MoDOT will only accept bids on *Kenwood* manufactured and branded products as specified herein. MoDOT *will not accept substitutions* of the specified manufactured and branded Kenwood products.

**NON-EXCLUSIVITY:**

The Missouri Department of Transportation reserves the right to obtain like or similar products of this or other manufacturers when use of such products is deemed in the best interest of MoDOT.

**VENDOR NAME REGISTRATION:**

On all bid documents, the bidder must use the firm name under which he/she is registered to do business in the state of Missouri. The bidder must ensure that his/her firm name is registered with the office of the Secretary of State.

**ADDITIONAL DOCUMENT SUBMITTAL REQUIREMENTS:**

For the bid to be considered the two (2) attachments "Preference in Purchasing Products" and "Missouri Domestic Product Procurement Act" must be submitted to this office prior to any contract being awarded for this bid.

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**PRICING PAGE**

**(3 pages with a total of 12 items)**

**Page 1 of 3**

Contract for furnishing “Kenwood Radios” for a **contract period beginning date of contract execution through May 31, 2009**. COMPLETE, *SIGN WHERE INDICATED ON PRICING PAGE 3 OF 3*, AND SUBMIT WITH YOUR SIGNED BID FORM AND OTHER REQUIRED DOCUMENTATION.

<b>Full-Power Mobile Radio Units (1 item)</b>				
<i>Refer to ATTACHMENT A for specifications and requirements</i>				
<b>Item #</b>	<b>Description</b>	<b>Kenwood Manufacturer Model #</b>	<b>EST QTY</b>	<b>Extended Total</b>
1	VHF Full-Power Mobile Radio Units.	Kenwood TK-790HBK9BHS1	50	\$ _____
<i>Must bid on all items in the section</i>		<b>Total for Full-Power Mobile Radios</b>		\$ _____

<b>Mid-Power Mobile Radio Units (7 items)</b>				
<i>Refer to ATTACHMENT B for specifications and requirements</i>				
<b>Item #</b>	<b>Description</b>	<b>Kenwood Manufacturer Model #</b>	<b>EST QTY</b>	<b>Extended Total</b>
2	50 watts, under dash & remote mount	# TK 7150	40	\$ _____
3	25 watts, under dash only	# TK 7160	40	\$ _____
4	50 watts, under dash only	# TK7160HK	40	\$ _____
5	30 watts, under dash & remote mount	# TK 7180	40	\$ _____
6	50 watts, under dash and remote mount	# TK7180HK	40	\$ _____
7	50 watts, project 25 digital under dash & remote mount	# TK 5710	40	\$ _____
8	45 watts, under dash & remote mount	# TK790	40	\$ _____
<i>Must bid on all items in the section</i>		<b>Total for Mid-Power Mobile Radios</b>		\$ _____

**PRICING PAGE**

Page 2 of 3

<b>UHF and VHF Hand Held Radio Units (4 items)</b> <i>Refer to <b>ATTACHMENT C FOR UHF</b> specifications and requirement  and <b>ATTACHMENT D FOR VHF</b> specifications and requirements</i>				
Item #	Description	Kenwood Manufacturer Model #	EST QTY	Extended Total
9	<b>8 Channel UHF</b> Handheld Radio Units	Kenwood TK-3160RKP 8 Channel Hand-Held	125	\$ _____
10	<b>128 Channel UHF</b> Handheld Radio Units	Kenwood TK-3180K3 with DTMF Pad Hand-Held	50	\$ _____
11	<b>16 Channel VHF</b> Handheld Radio Units	Kenwood TK-2160	50	\$ _____
12	<b>128 Channel VHF</b> Handheld Radio Units	Kenwood TK2180	100	\$ _____
<i>Must bid on all items in the section</i>		<b>Total for Hand Held Radios</b>		\$ _____

**GRAND TOTAL FOR ALL SECTIONS: \$ \_\_\_\_\_**

**RENEWAL OPTIONS:** *In the event that the Department exercises its option to renew the contract for two (2) one-year periods, or any portion thereof, pursuant to the applicable provisions outlined in this document, the Bidder shall provide below the maximum percentage of increase. The Bidder is cautioned that the percentage shall be computed against the CURRENT contract prices during renewal period. Furthermore, the Bidder is advised that the Department does not automatically grant increases at the time of renewing the contract and that if an increase is requested, documentation of need must be provided at the time of renewal.*

**1<sup>st</sup> 1-year Renewal Period** \_\_\_\_\_ % of maximum increase

**2<sup>nd</sup> 1-year Renewal Period** \_\_\_\_\_ % of maximum increase

(CONTINUE TO PRICING PAGE 3 OF 3 FOR ADDITIONAL INFORMATION)

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**PRICING PAGE**

**Page 3 of 3**

**NOTE ON CURRENT LIST PRICE DISCOUNT:** In the event the Department exercises its option to purchase additional accessories and equipment as available in the Contractor’s product catalog, the Contractor will be required to offer all accessories and equipment to the Department with the below listed discount. This is a minimum, guaranteed discount. MoDOT reserves the right to discuss additional discounts based on the quantity of any products purchased from the Contractor’s catalog:

\_\_\_\_\_ % **Discount off of the Manufacturer’s Current Catalog List Price.**

\_\_\_\_\_ % **Discount off of the Manufacturer’s Current Catalog List Price for Battery Purchases Only**

BIDDER **MUST** PROVIDE A PERCENTAGE OF DISCOUNT AS PART OF THIS BID. However, the Bidder is cautioned that the determination of lowest, responsive bid will not include an evaluation of the discount offered.

**NOTE ON AWARD:** For the purposes of this bid, items will be awarded “*All or None*”. Bidder **must bid on all items listed** in each section in order to be considered for contract award.

**NOTE ON QUANTITIES:** The quantities shown **are estimated** for the period specified. MoDOT reserves the right to increase or decrease the quantity as needed.

**NO SUBSTITUTIONS:** MoDOT *will not accept substitutions* of the specified manufactured and branded Kenwood products.

**NOTE ON PACKAGING:** Product shall be shipped in the original OEM packaging and be clearly marked as to manufacturer, model number, quantity, brand, and all other appropriate, identifying information.

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**Name of the Bidders Firm**

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**Signature of Contractor’s Authorized Representative**

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**Date Signed**

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## **ATTACHMENT A**

### *Specifications for VHF Full-Power Mobile Radio Units*

#### **GENERAL**

The Missouri Department of Transportation (hereinafter referred to as the Department) desires to establish a contract for the purchase of two-way very high frequency (VHF) radio units with a minimum RF output power of one hundred (100) watts. The radio units shall support a minimum of one hundred twenty-eight (128) transmit-receive/tone frequency combinations. The radio units shall be compatible with and work into the Department's statewide two-way radio system and be FCC type accepted. The units shall transmit and receive on the VHF frequencies assigned by the Department. Continuous "sub audible" tones, as assigned, shall operate with the transmit and receive frequencies.

#### **CONTRACTOR REQUIREMENTS**

##### General Requirements

The contractor shall provide radio units for the Department in accordance with the terms and conditions stated herein.

All equipment and services shall be provided to the sole satisfaction of the Department.

Unless stated differently, the contractor shall provide all equipment and personnel needed to fulfill the terms of the contract.

#### **GENERAL SPECIFICATIONS**

These units shall be complete with transmitter-receiver, remote mount control head, microphone, external speaker, cabling, and mobile mount antenna. The radio shall support a minimum of one hundred twenty-eight (128) transmit-receive/tone frequency combinations and a minimum of ten (10) channel groups.

##### Power Requirements

All radios shall operate from the vehicle's 12 volt DC, negative ground electrical system. The radio shall operate without sustaining any memory loss, frequency variation or degradation of any kind when operating from the vehicle's electrical system. Adequate protective devices shall be incorporated into all incoming voltage points to protect the unit from damage from spikes, high-voltage, and all other transients, which may be present or occur in the vehicle's electrical system.

##### Memory Backup

The radio shall have one of the following:

1. An internal lithium battery to maintain all programming. The battery shall have a minimum life of 5 years.
2. A non-volatile memory that retains all programming and status without a battery.

##### Ignition Sense

The radio shall be furnished with an ignition sense kit that disconnects power to the radio when the vehicles' ignition is turned off unless otherwise specified on the purchase order.

##### Power Amplifier Protection

The radio shall have shutdown circuits to guard against reflected power from a shorted or missing antenna. If shutdown circuits are not present, the design of the final power amplifier transistors and their associated components shall be such that they will not be damaged should the transmitter be operated with a shorted or missing antenna.

### Internal Speaker

In addition to the required external speaker the radio shall have a built in speaker capable of adequate audio output in a noisy truck environment.

### Automatic Unit Identification

All radios shall be equipped with an automatic unit identification system

## **DETAILED GENERAL SPECIFICATIONS**

General Specifications	
Channels – Minimum	128
Channel Groups – Minimum	10
Frequency Range – MHz	144-174
Operating Temperature - °C	-30 to +60
Channel Spacing – kHz	25/12.5
Channel Stepping – kHz	2.5/5.0/6.25
Current Consumption – Max Amps Standby	0.75
Automatic Unit Identification	Included
Ignition Sense Kit	Included
3 dB Gain Mobile Antenna	Included
Microphone	Included
Cabling	Included
External Speaker	Included
Dash Mounting Hardware	Included
Alphanumeric Display – Minimum Characters	8
Warranty – Minimum	1 Year

### Transmitter

The transmitter shall have a minimum output of one hundred (100). The transmitter shall have a time-out-timer to shut down the transmitter if on continuously for approximately 60 seconds and send an alarm to the operator after the transmitter is shut down until the push-to-talk is released.

The transmitter shall meet the following minimum requirements:

TRANSMITTER SPECIFICATIONS	
RF Output Power – Watts	100
Time-out-Timer – Seconds	60
Frequency Stability –30°C to +60°C – PPM	+/- 2.5
Modulation/Deviation – kHz	+/- 2.5
Spurious and Harmonics – dB	At least 70 below carrier
Audio Distortion at 1 kHz	3 % or less
FM Hum and Noise – Db	At least –40
Current Consumption at 100 Watt – Max Amps	25.0
Transmit Indicator	Included

### Receiver

The receiver shall produce an audio output of at least five (5) watts into an external speaker. There shall be no noticeable audio distortion at the maximum volume level.

The receiver shall be equipped with a priority scan feature.

The receiver shall meet the following minimum requirements:

RECEIVER SPECIFICATIONS	
Frequency Stability -30°C to +60°C – PPM	+/- 2.5
Sensitivity EIA 12dB SINAD – mV	0.33
Selectivity adjacent channel – dB	-70
Intermodulation – Db	-65 or better
Audio Output 1 kHz, 4 Ohms, 5 % THD – Watts	4
Current Consumption Receive – Max Amps	3.0
Priority Scan	Included

### Controls

The following controls shall be provided.

1. On-off control (can be integrated into the volume control)
2. Volume control
3. Channel control
4. Group/zone up and down
5. A "Transmit" indicator
6. A "Home" button. By pressing the Home button, the radio will bring the user back to a programmable, pre-selected channel.
7. User operated squelch control

### Front Panel Display

The radio shall have a lighted LCD display on the front panel. At a minimum this display shall indicate the channel name, the group name or number, and scan status. The display shall be alphanumeric with a minimum of 8 characters for the channel name.

### Programming Capabilities

All radios shall be programmable from a personal computer and shall be able to transfer or clone its information to or from another like unit using a connecting cable between radios. Each unit shall be delivered pre-programmed. Programming shall be as shown in Appendix B unless otherwise indicated on the purchase order.

### CTCSS Circuitry

All receivers and transmitters shall be equipped with continuous tone coded squelch system (CTCSS) capability programmable by channel. Tones shall be continuously transmitted with the carrier frequency. The CTCSS capability shall be equipped with reverse burst signaling to eliminate squelch tail.

### Mounting

The radio shall be configured for remote mounting of the control head. The radio shall include the following at no additional cost.

1. A compact, separate control head with all controls, internal speaker and microphone connection. The head shall be furnished with a bracket and hardware permitting dash mounting for the head unit in American-made vehicles and trucks.
2. The power amplifier deck shall be furnished with a mounting bracket and hardware for remote mounting in a trunk, behind a truck seat or other locations.
3. A minimum 15 foot control cable shall be provided. All control cable connections shall be protected with covers to protect them from damage. All hardware, covers, connectors and any other required items shall be provided for complete connection of the cable.

### Provided Accessories

The following accessories shall be included in the bid price of each radio unit.

1. Mobile Mount Antenna Kit. Each radio shall be provided with 3 dB gain NMO mobile mount whip antenna and a through-hole NMO type antenna mount with a minimum of 15 feet of coaxial cable. The cable shall be equipped with an end compatible with the radio. The antenna shall be designed to operate in the frequency range of the radio.
2. External Speaker. Each radio shall be equipped with a heavy duty external speaker. The external speaker shall have a 4 inch round speaker mounted in a matched enclosure and capable of handling a minimum of 30 watts. The speaker shall have a maximum impedance of 4 ohms. The speaker shall produce no noticeable distortion at the maximum volume setting on the radio. The speaker shall be equipped with a mobile mount bracket.
3. Hand Microphone. A heavy-duty mil-spec matched hand microphone shall be provided with each radio. The microphone shall include a matched hanger.
4. Cabling. Each radio unit shall be provided with a 15 foot minimum fused power cable, fused ignition sense cable, external speaker cable, remote head cable, and any other cables required for proper operation.

### FCC Compliance

All radios shall by type accepted for use with 47 CFR Part 90.

## **MANUALS AND DOCUMENTATION**

### Operating Manual

One operating manual shall be delivered with each radio. At a minimum, the manuals shall include information on installation, setup, configuration and programming (if applicable), operating guidelines, safety, and connections. The cost of the operating manuals shall be included in the bid price.

### Service Manual

Twelve (12) service manuals showing all circuits, part numbers, part installations, operating voltage, theory of operation, programming, and maintenance procedures shall be furnished at no additional charge. One (1) service manual shall be furnished to each District and two (2) service manuals shall be provided for General Headquarters Traffic.

### Service Bulletins

Service bulletins shall also be provided, at no additional charge, to each delivery location and to General Headquarters Traffic for a minimum of seven (7) years from the date of the purchase order. The service bulletin shall show all updates pertaining to maintenance of the units.

## **PROGRAMMING AND SOFTWARE**

Twelve (12) sets of programming software (compatible with the following Operating Systems: Windows 98/NT/2000/XP) and licenses, for Department furnished computers, and connecting cables need for programming shall be provided at no additional charge. One (1) programming software set shall be furnished to each District and two (2) programming software sets shall be provided for General Headquarters Traffic. The Department shall receive all software updates for a minimum of five (5) years from the date of purchase order at no charge to the Department.

The bidder shall include the following in the bid price:

1. Twelve (12) sets of programming software and licenses. The bidder shall include a programming manual with each software package.
2. Twelve (12) connecting cables and all necessary equipment used in the cloning process.
3. Twelve (12) connecting cables used between the radio and a computer along with twelve (12) individual software package rights for department furnished computers. The programming cable shall be fully equipped to connect to a standard 9-pin male D-sub serial connector on the computer.

### **OPTIONAL EQUIPMENT**

The following optional equipment must be available for purchase at the Department's discretion:

1. Tester, if required for troubleshooting or bench work the bidder shall include as a separate bid item the cost of such testers. The bidder shall also provide technical data sheets for the tester.
2. Replacement hand microphone identical to the microphone provided with radio.
3. DTMF hand microphone compatible with the unit offered.
4. Voice-activated (with push-to-talk option) microphone/headset combination compatible with the unit offered.
5. A minimum 25 foot control cable meeting the specifications above.

These optional bid items will not be considered as part of the bid, but are required to be available. A firm quote should be given for each item, should the Commission deem it necessary to purchase such accessories as identified on the purchase order.

### **OTHER OPTIONAL EQUIPMENT AND ACCESSORIES**

The Department shall have the option to purchase additional accessories at the percent discount off of Manufacture's List Price as indicated on the Pricing Page.

### **SERVICE AND SUPPORT**

#### Service

The bidder shall supply location, contact and shipping information for the authorized company or associated service shop where warranty work can be accomplished.

The successful bidder shall also provide contact information (name, address, phone, e-mail) for technical support representative(s). The representative(s) shall be available during normal weekday hours by phone and e-mail to assist with setup, programming, operation and other technical aspects of the equipment. All costs for technical support shall be included in the bid price.

The contractor must make available spare parts for a minimum of seven (7) years from the date of installation as recorded on the installation measurements records.

#### Warranty

All parts and materials shall be guaranteed to be free from defects or defective workmanship for a minimum of one (1) year from the date of installation or initial operation as recorded by Department staff. For the guarantee limits, it will be considered that all units will be placed in service within twelve (12) months after receipt.

#### Technical Orientation

The successful bidder shall present a complete course of instruction to the Department's radio maintenance personnel. The course shall cover programming, operation, trouble-shooting, and maintenance of the radio. This course will be held in Jefferson City or other Missouri city at a time mutually agreeable by the bidder and the Department. The bidder shall provide all equipment and instruction materials necessary for the course. This course shall be at no cost to the Department.

*~ End of Specification ~*

## **ATTACHMENT B**

### *Specifications for VHF Mid-Power Mobile Radio Units*

#### **GENERAL**

The Missouri Department of Transportation (hereinafter referred to as the Department) desires to establish a contract for the purchase of two-way very high frequency (VHF) radio units with a minimum RF output power of fifty (50) watts from the power amplifier. The radio units shall support a minimum of one hundred twenty-eight (128) transmit-receive/tone frequency combinations.

The radio units shall be compatible with and work into the Department's statewide two-way radio system and be FCC-type accepted. The radio units shall transmit and receive on the VHF frequencies assigned by the Department. Continuous "sub audible" tones, as assigned, shall operate with the transmit and receive frequencies.

#### **CONTRACTOR REQUIREMENTS**

##### General Requirements

The Contractor shall provide radio units for the Department in accordance with the terms and conditions stated herein.

All equipment and services shall be provided to the sole satisfaction of the Department.

Unless stated differently, the Contractor shall provide all equipment and personnel needed to fulfill the terms of the contract.

#### **GENERAL TECHNICAL SPECIFICATIONS AND RADIO UNIT COMPONENTS**

Each radio unit shall be complete with, but not necessarily limited to, the transmitter-receiver, microphone, external speaker, cabling, mobile mount antenna, dash mounting hardware and operating manual. The radio shall support a minimum of one hundred twenty-eight (128) transmit-receive/tone frequency combinations and a minimum of thirteen (13) channel groups.

##### Power Requirements

All radio units shall operate from the vehicle's 12 volt DC, negative ground electrical system. The radio unit shall operate without sustaining any memory loss, frequency variation or degradation of any kind when operating from the vehicle's electrical system. Adequate protective devices shall be incorporated into all incoming voltage points to protect the radio unit from damage from spikes, high-voltage, and all other transients, which may be present or occur in the vehicle's electrical system.

##### Memory Backup

Each radio unit shall have an internal power source to maintain all programming. The battery shall have a minimum life of five (5) years.

##### Ignition Sense

Each radio unit shall be furnished with an ignition sense kit that disconnects power to the radio unit when the vehicles' ignition is turned off, unless otherwise specified on the purchase order.

##### Power Amplifier Protection

Each radio unit shall have shutdown circuits to guard against reflected power from a shorted or missing antenna. If shutdown circuits are not present, the design of the final power amplifier transistors and their associated components shall be such that they will not be damaged should the transmitter be operated with a shorted or missing antenna.

##### Internal Speaker

In addition to the required external speaker, each radio unit shall have a built in speaker capable of adequate audio output in a noisy truck environment.

## Automatic Radio Unit Identification

All radio units shall be equipped with an automatic radio unit identification system programmed in to transceiver.

### **DETAILED GENERAL SPECIFICATIONS**

<b>General Specifications</b>	
Channels – Minimum	128
Channel Groups – Minimum	13
Frequency Range – MHz	144-174
Operating Temperature - °C	-30 to +60
Channel Spacing – kHz	25/12.5
Channel Stepping – kHz	2.5/5.0/6.25
Current Consumption Standby – Max Amps	0.75
Automatic Radio Unit Identification	<b>Included</b>
Ignition Sense Kit	<b>Included</b>
3 dB Gain Mobile Antenna	<b>Included</b>
Microphone	<b>Included</b>
Cabling	<b>Included</b>
External Speaker	<b>Included</b>
Dash Mounting Hardware	<b>Included</b>
Alphanumeric Display – Minimum Characters	8
Warranty – Minimum	1 Year

## Transmitter

The transmitter shall meet the following minimum requirements:

<b>Transmitter Specifications</b>	
RF Output Power – Watts	50
Time-out-Timer – Seconds	60 +/- 5
Frequency Stability -30°C to +60°C – PPM	+/- 2.5
Modulation/Deviation – kHz	+/- 2.5
Spurious and Harmonics – dB	At least 70 below carrier
Audio Distortion at 1 kHz	3 % or less
FM Hum and Noise – Db	At least -40
Current Consumption at 50 Watt – Max Amps	13.5
Transmit Indicator	<b>Included</b>

## Receiver

The receiver shall meet the following minimum requirements:

<b>Receiver Specifications</b>	
Frequency Stability -30°C to +60°C – PPM	+/- 2.5
Sensitivity EIA 12dB SINAD – mV	0.33
Selectivity adjacent channel – dB	-70
Intermodulation – Db	-65 or better
Audio Output 1 kHz, 4 Ohms, 5 % THD – Watts	4
Current Consumption Receive – Max Amps	3.0
Priority Scan	<b>Included</b>

## Controls

At a minimum, the following controls shall be provided:

1. On-off control (can be integrated into the volume control).
2. Volume control.
3. Channel control.
4. Group/zone up and down.
5. A "Transmit" indicator.
6. A "Home" button. By pressing the Home button, the radio unit will return the user to a programmable, pre-selected channel.
7. User operated squelch control.

## Front Panel Display

Each radio unit shall have a lighted LCD display on the front panel. At a minimum this display shall indicate the channel name, the group name or number, and scan status. The display shall be alphanumeric with a minimum of eight (8) characters for the channel name.

## Programming Capabilities

All radio units shall be programmable from a personal computer and shall be able to transfer or clone its information to or from another like radio unit using a connecting cable between radio units. Each radio unit shall be delivered pre-programmed. Programming shall be as shown in Appendix B unless otherwise indicated on the purchase order.

## CTCSS Circuitry

All receivers and transmitters shall be equipped with continuous tone coded squelch system (CTCSS) capability programmable by channel. Tones shall be continuously transmitted with the carrier frequency. The CTCSS capability shall be equipped with reverse burst signaling to eliminate squelch tail.

## Mounting

The transceiver shall be furnished with hardware permitting under the dash mounting in vehicles and trucks in MoDOT's Fleet. For this bid, remote mount radio units ***will not*** be accepted.

## Provided Accessories

The following accessories shall be included in the bid price of each radio unit:

1. *Mobile Mount Antenna Kit.* Each radio unit shall be provided with 3 dB gain NMO mobile mount whip antenna and a through-hole NMO type antenna mount with a minimum of fifteen (15) feet of coaxial cable. The cable shall be equipped with an end compatible with the radio unit. The antenna shall be designed to operate in the frequency range of the radio unit.
2. *External Speaker.* Each radio unit shall be equipped with a heavy duty external speaker. The external speaker shall have an approximately four (4) inch speaker mounted in a matched enclosure and capable of handling a minimum of thirty (30) watts. The speaker shall have a maximum impedance of four (4) ohms. The speaker shall produce no noticeable distortion at the maximum volume setting on the radio unit. The speaker shall be equipped with a mobile mount bracket.
3. *Hand Microphone.* A heavy-duty mil-spec matched hand microphone shall be provided with each radio unit. The microphone shall include a matched hanger.
4. *Cabling.* Each radio unit shall be provided with a minimum fifteen (15) foot fused power cable, fused ignition sense cable, external speaker cable and all other cables required for proper operation.

## FCC Compliance

All radio units must be of a type accepted for use with 47 CFR Part 90.

## **MANUALS AND DOCUMENTATION**

### Operating Manual

One (1) operating manual shall be delivered with each radio unit. At a minimum, the manual shall include information on installation, setup, configuration and programming (if applicable), operating guidelines, safety, and connections. The cost of the operating manual shall be included in the bid price for each radio unit.

### Service Bulletins

Service bulletins shall be provided, at no additional charge, to each delivery location and to Central Office Traffic Division for a minimum of seven (7) years from the date of the purchase order. The service bulletin shall show all updates pertaining to the maintenance and operation of the radio units.

### Optional Equipment

At a minimum, the following optional equipment must be available for purchase at the Department's discretion, with the discount offered by the Bidder as outlined on the Pricing Page, to include all available technical data sheets for each item ordered. The Department may also elect to procure all other products available in the Bidder's most recent parts/equipment catalog's Manufacturer's List Price utilizing the aforementioned discount percentage:

1. Testers.
2. Replacement hand microphones identical in functionality to the microphone provided with radio unit.
3. DTMF hand microphone compatible with the radio unit.
4. Voice-activated (with push-to-talk option) microphone/headset combination compatible with the radio unit.
5. 3 dB gain mobile mount antenna with magnetic mount with connector to match the radio unit, and a minimum of fifteen (15) feet of line cord.
6. Programming software compatible with the current Department furnished computers.
7. Service Manuals for the radio unit.

These optional items ***will not*** be considered as part of the bid award, but are required to be available for purchase by MoDOT. A firm percentage off the current catalog's Manufacturer's List Price should be given as noted on the Pricing Page, should the Department deem it necessary to purchase such optional items, as will be identified on the purchase order. The Bidder will also make available the listed discount percentage for all other products available in the Bidder's most recent parts/equipment catalog accessories.

## **SERVICE AND TECHNICAL SUPPORT**

### Service

The Contractor shall supply location, contact and shipping information for the authorized company or associated service shop where warranty work can be accomplished.

### Technical Support

The Contractor shall be required to provide contact information (name, address, telephone, e-mail, etc.) for technical support representative(s). The representative(s) shall be available to assist Department personnel, at a minimum, during weekdays beginning at 8:00 a.m. through 5:00 p.m., Central Standard Time., by telephone and email to assist with setup, programming, operation and other technical aspects of the equipment. All costs for technical support shall be included in the bid price.

### Replacement and Repair Parts

The Contractor must make available radio unit replacement and repair parts for a minimum of seven (7) years from the date of Department's payment of the purchase order for the radio unit(s).

### **WARRANTY**

All parts and materials shall be guaranteed to be free from defects or defective workmanship for a minimum of one (1) year from the date of radio unit installation as recorded by Department staff. For the guarantee limits, it will be considered that all radio units will be placed in service within twelve (12) months after acceptance and payment for the radio units by the Department.

### **TRAINING AND TECHNICAL ORIENTATION**

The Contractor shall present a complete course of instruction to the Department's radio maintenance personnel as part of the contract. The cost of the initial course shall be included in the bid price. The course shall cover programming, operation, trouble-shooting, and maintenance of the radio unit. This course will be held in Jefferson City or other Missouri city at a time and date mutually agreeable to the Bidder and the Department.

The Contractor shall provide all equipment and instruction materials necessary for the initial course. The Contractor will be required to provide one (1) such initial training and technical orientation course to the Department, for approximately twenty (20) students, during the course of the original contract period noted in the bid documents herein.

Additional training and technical orientation courses requested by the Department during the original contract period shall be as mutually agreed to by the Contractor and the Department as to cost per student, scheduling issues and location.

### **MODEL NUMBER CHANGES OR CHANGES IN MANUFACTURE SPECIFICATIONS**

#### Model Number Changes

In the event the radio unit manufacturer changes the original model numbers to the radio units purchased by the Department as part of the bid contract, and no other aspect of the radio unit's functionality has been changed/modified/upgraded, the Department will note such change(s) in the purchase orders issued by the Department for these radio units. No other action by the Department will be necessary to continue purchasing these radio units as part of the bid contract.

#### Changes in Manufacturer Specifications

In the event the radio unit manufacturer changes the functionality of the radio units purchased under the bid contract, and such changes/modifications/upgrades do not result in a reduction of the minimum technical specifications for the radio unit noted herein, and the prices as noted in the current contract with the Contractor remain unchanged, the Department will note such change(s) in the purchase orders issued by the Department for these radio units. No other action by the Department will be necessary to continue purchasing these radio units as part of the bid contract.

In the event the radio unit manufacturer makes changes/modifications/upgrades to any component of the radio units purchased by the Department as part of this bid, that result in any change(s) to the radio unit's functionality or operation/maintenance, the Contractor shall provide all equipment and instruction materials necessary to complete a course of instruction to the Department's radio maintenance personnel related to any changes/modifications/upgrades. This training shall be as mutually agreed to by the Contractor and the Department as to cost per student, scheduling issues and location.

*~ End of Specification ~*

**ATTACHMENT C**  
**Specifications for *UHF Hand Held Radio Units***

**GENERAL**

The Missouri Department of Transportation (hereinafter referred to as the Department) desires to establish a contract for the purchase of two-channel hand held radios operating in the UHF frequency band with an RF output power of two (2) watts. These radios shall be built to provide the utmost reliability and durability while operating in an outdoor environment. The units purchased shall be compatible with and work into the Department's statewide two-way radio system and be FCC type accepted. The units shall transmit and receive on the UHF frequencies assigned herein. Continuous "sub audible" tones, as assigned, shall operate with the transmit and receive frequencies.

**CONTRACTOR REQUIREMENTS**

General Requirements

The contractor shall provide radio units for the Department in accordance with the terms and conditions stated herein.

All equipment and services shall be provided to the sole satisfaction of the Department.

Unless stated differently, the contractor shall provide all equipment and personnel needed to fulfill the terms of the contract.

**TECHNICAL SPECIFICATIONS**

General Specifications

Each radio shall be a handheld UHF radio with two (2) watts of RF a output power, a minimum of eight (8) channels, a replaceable antenna, and provided with two (2) batteries, belt clip, carrying case and a lapel speaker/microphone.

Antenna

The antenna shall be a durable flexible antenna. No "stubby" or compact antennas will be allowed.

Battery

Each radio shall be furnished with two (2) rechargeable Nickel Cadmium, Lithium Ion, or Nickel Metal Hydride battery packs with a guaranteed minimum 5-5-90 duty cycle at two (2) watts for ten (10) hours. Use of battery savers that disable the receiver shall not be allowed.

Recharger

One compatible recharger, operating on 120 volt, A.C., 60 Hertz power, shall be provided for each radio. Each unit shall be capable of fully charging one radio and/or battery pack.

The recharger shall be a "smart charger." The recharger shall have an indicator light to show that the battery is recharging and shall control charging so as not to cause damage to the batteries. The recharger shall have automatic shutoff control, with an indicator light to denote a full charge. The battery pack shall be fully recharged in a period of less than 10 hours.

### Programming Capabilities

The supplier shall program all radios. All radios shall be programmable from a personal computer and shall be able to transfer or clone its information to or from another like unit using a connecting cable between radios. Each radio shall be programmed as indicated on Appendix B unless otherwise indicated on the purchase order. The unit shall be configured so that if the unit is turned to a channel that is not programmed, a tone will sound notifying the operator. In addition, the unit will not be operational on the additional channels.

### Memory Backup

The radio shall have one of the following:

3. An internal lithium battery to maintain all programming. The battery shall have a minimum life of 5 years.
4. A non-volatile memory that retains all programming and status without a battery.

### Environmental Specifications

Independent laboratory certification on the following environmental specifications shall be required:

<u>MIL-STD 810D</u>	<u>Methods/Procedures</u>
Low Pressure	Method 500.2 Procedure 1
High Pressure	Method 501.2 Procedure 1 & 2
Low Temperature	Method 502.2 Procedure 2
Temperature Shock	Method 503.2 Procedure 1
Solar Radiation	Method 505.2 Procedure 1
Rain	Method 506.2 Procedure 2
Humidity	Method 507.2 Procedure 2
Dust	Method 510.2 Procedure 1
Vibration	Method 514.3 Procedure 1
Shock	Method 516.3 Procedure 1 & 4

## **PERFORMANCE SPECIFICATIONS**

### General

Frequency Range	450 to 470 MHz
Number of Channels	8
Channel Spacing	25 KHz, 12.5 KHz
PLL Step	5, 6.25 KHz
Battery Life (5-5-90 duty cycle with battery saver off)	10 Hours
Operating Temperature Range	-22° F to +140° F (-30° C to +60°C)
Antenna Impedence	50 Ohms

### Transmitter

RF Power Output	2 Watts
Frequency Stability:	± 0.0005% at 2 watts (-30°C to +60°C)
Spurious and Harmonics:	-60dB
FM Noise:	-45dB
Audio Response:	+1dB, -3dB from 300Hz to 2800Hz
Audio Distortion:	5% or less at 1000Hz (at 60% deviation)
Frequency Separation:	10MHz

## Receiver

Frequency Stability:	± 0.0005% (-30°C to +60°C)
Modulation Acceptance:	±7 KHz
Sensitivity (12dB SINAD):	0.35uV
Selectivity (EIA SINAD):	-65dB
Squelch Sensitivity:	0.28 uV
Image Rejection:	-65dB
Spurious Rejection:	-65dB
Inter modulation:	-65dB
Audio Output:	500mW at 5% or less distortion

## Controls

The following controls shall be provided.

1. Volume control
2. On-off control (can be integrated into the volume control)
3. Channel control
4. A "Transmit" indicator

## CTCSS Circuitry

All receivers and transmitters shall be equipped with continuous tone coded squelch system (CTCSS) capability programmable by channel. Tones must be continuously transmitted with the carrier frequency. The CTCSS capability shall be equipped with reverse burst signaling to eliminate squelch tail.

## Provided Accessories

The following accessories shall be included in the bid price of each radio unit.

1. A spring loaded belt clip
2. A durable carrying case (leather or urethane) and a D-clip type belt attachment
3. An external speaker/microphone that can be attached to a lapel

## FCC Compliance

All radios shall be type accepted for use with 47 CFR Part 90.

## **MANUALS AND DOCUMENTATION**

### Operating Manual

One operating manual shall be delivered with each radio. At a minimum, the manuals shall include information on installation, setup, configuration and programming (if applicable), operating guidelines, safety, and connections. The cost of the operating manuals shall be included in the bid price.

### Service Manual

Twelve (12) service manuals showing all circuits, part numbers, part installations, operating voltage, theory of operation, programming, and maintenance procedures shall be furnished at no additional charge. One (1) service manual shall be furnished to each District and two (2) service manuals shall be provided for General Headquarters Traffic.

Service bulletins shall also be provided, at no additional charge, to each delivery location and to General Headquarters Traffic for a minimum of seven (7) years from the date of the purchase order. The service bulletin shall show all updates pertaining to maintenance of the units.

### **PROGRAMMING AND SOFTWARE**

Twelve (12) sets of programming software (compatible with the following Operating Systems: Windows 98/NT/2000/XP) and licenses, for Department furnished computers, and connecting cables need for programming shall be provided at no additional charge. One (1) programming software set shall be furnished to each District and two (2) programming software sets shall be provided for General Headquarters Traffic. The Department shall receive all software updates for a minimum of five (5) years from the date of purchase order at no charge to the Department.

The bidder shall include the following in the bid price:

1. Twelve (12) sets of programming software and licenses. The bidder shall include a programming manual with each software package.
2. Twelve (12) connecting cables and all necessary equipment used in the cloning process.
3. Twelve (12) connecting cables used between the radio and a computer along with twelve (12) individual software package rights for department furnished computers. The programming cable shall be fully equipped to connect to a standard 9-pin male D-sub serial connector on the computer.

### **OPTIONAL EQUIPMENT**

The following optional equipment must be available for purchase at the Department's discretion:

1. Tester, if required for troubleshooting or bench work the bidder shall include as a separate bid item the cost of such testers. The bidder shall also provide technical data sheets for the tester
2. Replacement battery identical to battery provided with radio.
3. Replacement antenna identical to the antenna provided with the radio.
4. Replacement carrying case identical to the carrying case provided with the radio.
5. Replacement lapel speaker/microphone identical to the lapel speaker/microphone provided with radio.
6. Voice-activated (with push-to-talk option) microphone/headset combination compatible with the unit offered.

These optional bid items will not be considered as part of the bid, but are required to be available. A firm quote should be given for each item, should the Commission deem it necessary to purchase such accessories as identified on the purchase order.

### **OTHER OPTIONAL EQUIPMENT AND ACCESSORIES**

The Department shall have the option to purchase additional accessories at the percent discount off of Manufacture's List Price as indicated on the Pricing Page.

### **SERVICE AND SUPPORT**

#### Service

The bidder shall supply location, contact and shipping information for the authorized company or associated service shop where warranty work can be accomplished.

The successful bidder shall also provide contact information (name, address, phone, e-mail) for technical support representative(s). The representative(s) shall be available during normal weekday hours by phone and e-mail to assist with setup, programming, operation and other technical aspects of the equipment. All costs for technical support shall be included in the bid price.

#### Warranty

All parts and materials shall be guaranteed to be free from defects or defective workmanship for a minimum of one (1) year from the date of installation or initial operation as recorded by Department staff. For the guarantee limits, it will be considered that all units will be placed in service within twelve (12) months after receipt.

#### Technical Orientation

The successful bidder shall present a complete course of instruction to the Department's radio maintenance personnel. The course shall cover programming, operation, trouble-shooting, and maintenance of the radio. This course will be held in Jefferson City or other Missouri city at a time mutually agreeable by the bidder and the Department. The bidder shall provide all equipment and instruction materials necessary for the course. This course shall be at no cost to the Department.

*~ End of Specification ~*

## **ATTACHMENT D**

### *Specifications for VHF Hand-Held Radio Units*

#### **GENERAL**

The Missouri Department of Transportation (hereinafter referred to as the Department) desires to establish a contract for the purchase of two-way very high frequency (VHF) radio units with a minimum RF output power of five (5) watts from the power amplifier. The radio units shall support a minimum of one hundred twenty-eight (128) transmit-receive/tone frequency combinations.

The radio units shall be compatible with and work into the Department's statewide two-way radio system and be FCC-type accepted. The radio units shall transmit and receive on the VHF frequencies assigned by the Department. Continuous "sub audible" tones, as assigned, shall operate with the transmit and receive frequencies.

#### **CONTRACTOR REQUIREMENTS**

##### General Requirements

The Contractor shall provide radio units for the Department in accordance with the terms and conditions stated herein.

All equipment and services shall be provided to the sole satisfaction of the Department.

Unless stated differently, the Contractor shall provide all equipment and personnel needed to fulfill the terms of the contract.

#### **GENERAL TECHNICAL SPECIFICATIONS AND RADIO UNIT COMPONENTS**

Each radio unit shall be complete with, but not necessarily limited to, the transmitter-receiver, microphone, external speaker, cabling, mobile mount antenna, dash mounting hardware and operating manual. The radio shall support a minimum of one hundred twenty-eight (128) transmit-receive/tone frequency combinations and a minimum of thirteen (13) channel groups.

##### Antenna

The antenna shall be a durable flexible antenna. No "stubby" or compact antennas will be allowed.

##### Battery

Each radio shall be furnished with two (2) rechargeable Nickel Cadmium, Lithium Ion, or Nickel Metal Hydride battery packs with a guaranteed minimum 5-5-90 duty cycle at two (2) watts for ten (10) hours. Use of battery savers that disable the receiver shall not be allowed.

##### Recharger

One compatible recharger, operating on 120 volt, A.C., 60 Hertz power, shall be provided for each radio. Each unit shall be capable of fully charging one radio and/or battery pack.

The recharger shall be a "smart charger." The recharger shall have an indicator light to show that the battery is recharging and shall control charging so as not to cause damage to the batteries. The recharger shall have automatic shutoff control, with an indicator light to denote a full charge. The battery pack shall be fully recharged in a period of less than 10 hours.

### Programming Capabilities

The supplier shall program all radios. All radios shall be programmable from a personal computer and shall be able to transfer or clone its information to or from another like unit using a connecting cable between radios. Each radio shall be programmed as indicated on Appendix B unless otherwise indicated on the purchase order. The unit shall be configured so that if the unit is turned to a channel that is not programmed, a tone will sound notifying the operator. In addition, the unit will not be operational on the additional channels.

### Memory Backup

The radio shall have one of the following:

5. An internal lithium battery to maintain all programming. The battery shall have a minimum life of 5 years.
6. A non-volatile memory that retains all programming and status without a battery.

### **DETAILED GENERAL SPECIFICATIONS**

<b>General Specifications</b>	
Channels – Minimum	128
Channel Groups – Minimum	13
Frequency Range – MHz	144-174
Operating Temperature - °C	-30 to +60
Channel Spacing – kHz	25/12.5
Channel Stepping – kHz	2.5/5.0/6.25
Current Consumption Standby – Max Amps	0.75
Alphanumeric Display – Minimum Characters	8
Warranty – Minimum	1 Year

### Transmitter

The transmitter shall meet the following minimum requirements:

<b>Transmitter Specifications</b>	
RF Output Power – Watts	5 (Max)
Time-out-Timer – Seconds	60 +/- 5
Frequency Stability –30°C to +60°C – PPM	+/- 2.5
Modulation/Deviation – kHz	+/- 2.5
Spurious and Harmonics – dB	At least 70 below carrier
Audio Distortion at 1 kHz	3 % or less
FM Hum and Noise – Db	At least –40
Current Consumption at 50 Watt – Max Amps	13.5
Transmit Indicator	<b>Included</b>

### Receiver

The receiver shall meet the following minimum requirements:

<b>Receiver Specifications</b>	
Frequency Stability –30°C to +60°C – PPM	+/- 2.5
Sensitivity EIA 12dB SINAD – mV	0.33
Selectivity adjacent channel – dB	-70
Intermodulation – Db	-65 or better
Audio Output 1 kHz, 4 Ohms, 5 % THD – Watts	4
Current Consumption Receive – Max Amps	3.0
Priority Scan	<b>Included</b>

## Controls

At a minimum, the following controls shall be provided:

1. On-off control (can be integrated into the volume control).
2. Volume control.
3. Channel control.
4. Group/zone up and down.
5. A "Transmit" indicator.
6. A "Home" button. By pressing the Home button, the radio unit will return the user to a programmable, pre-selected channel.
7. User operated squelch control.

## Front Panel Display

Each radio unit shall have a lighted LCD display on the front panel. At a minimum this display shall indicate the channel name, the group name or number, and scan status. The display shall be alphanumeric with a minimum of eight (8) characters for the channel name.

## Programming Capabilities

All radio units shall be programmable from a personal computer and shall be able to transfer or clone its information to or from another like radio unit using a connecting cable between radio units. Each radio unit shall be delivered pre-programmed. Programming shall be as shown in Appendix B unless otherwise indicated on the purchase order.

## CTCSS Circuitry

All receivers and transmitters shall be equipped with continuous tone coded squelch system (CTCSS) capability programmable by channel. Tones shall be continuously transmitted with the carrier frequency. The CTCSS capability shall be equipped with reverse burst signaling to eliminate squelch tail.

## Provided Accessories

The following accessories shall be included in the bid price of each radio unit.

4. A spring loaded belt clip.
5. A durable carrying case (leather or urethane) and a D-clip type belt attachment.
6. An external speaker/microphone that can be attached to a lapel.

## FCC Compliance

All radio units must be of a type accepted for use with 47 CFR Part 90.

## **MANUALS AND DOCUMENTATION**

### Operating Manual

One (1) operating manual shall be delivered with each radio unit. At a minimum, the manual shall include information on installation, setup, configuration and programming (if applicable), operating guidelines, safety, and connections. The cost of the operating manual shall be included in the bid price for each radio unit.

### Service Bulletins

Service bulletins shall be provided, at no additional charge, to each delivery location and to Central Office Traffic Division for a minimum of seven (7) years from the date of the purchase order. The service bulletin shall show all updates pertaining to the maintenance and operation of the radio units.

## **OPTIONAL EQUIPMENT**

The following optional equipment must be available for purchase at the Department's discretion:

7. Tester, if required for troubleshooting or bench work the bidder shall include as a separate bid item the cost of such testers. The bidder shall also provide technical data sheets for the tester
8. Replacement battery identical to battery provided with radio.
9. Replacement antenna identical to the antenna provided with the radio.
10. Replacement carrying case identical to the carrying case provided with the radio.
11. Replacement lapel speaker/microphone identical to the lapel speaker/microphone provided with radio.
12. Voice-activated (with push-to-talk option) microphone/headset combination compatible with the unit offered.

These optional bid items will not be considered as part of the bid, but are required to be available. A firm quote should be given for each item, should the Commission deem it necessary to purchase such accessories as identified on the purchase order.

## **SERVICE AND TECHNICAL SUPPORT**

### Service

The Contractor shall supply location, contact and shipping information for the authorized company or associated service shop where warranty work can be accomplished.

### Technical Support

The Contractor shall be required to provide contact information (name, address, telephone, e-mail, etc.) for technical support representative(s). The representative(s) shall be available to assist Department personnel, at a minimum, during weekdays beginning at 8:00 a.m. through 5:00 p.m., Central Standard Time, by telephone and email to assist with setup, programming, operation and other technical aspects of the equipment. All costs for technical support shall be included in the bid price.

### Replacement and Repair Parts

The Contractor must make available radio unit replacement and repair parts for a minimum of seven (7) years from the date of Department's payment of the purchase order for the radio unit(s).

## **WARRANTY**

All parts and materials shall be guaranteed to be free from defects or defective workmanship for a minimum of one (1) year from the date of radio unit installation as recorded by Department staff. For the guarantee limits, it will be considered that all radio units will be placed in service within twelve (12) months after acceptance and payment for the radio units by the Department.

## **TRAINING AND TECHNICAL ORIENTATION**

The Contractor shall present a complete course of instruction to the Department's radio maintenance personnel as part of the contract. The cost of the initial course shall be included in the bid price. The course shall cover programming, operation, trouble-shooting, and maintenance of the radio unit. This course will be held in Jefferson City or other Missouri city at a time and date mutually agreeable to the Bidder and the Department.

The Contractor shall provide all equipment and instruction materials necessary for the initial course. The Contractor will be required to provide one (1) such initial training and technical orientation course to the Department, for approximately twenty (20) students, during the course of the original contract period noted in the bid documents herein.

Additional training and technical orientation courses requested by the Department during the original contract period shall be as mutually agreed to by the Contractor and the Department as to cost per student, scheduling issues and location.

## **MODEL NUMBER CHANGES OR CHANGES IN MANUFACTURE SPECIFICATIONS**

### **Model Number Changes**

In the event the radio unit manufacturer changes the original model numbers to the radio units purchased by the Department as part of the bid contract, and no other aspect of the radio unit's functionality has been changed/modified/upgraded, the Department will note such change(s) in the purchase orders issued by the Department for these radio units. No other action by the Department will be necessary to continue purchasing these radio units as part of the bid contract.

### **Changes in Manufacturer Specifications**

In the event the radio unit manufacturer changes the functionality of the radio units purchased under the bid contract, and such changes/modifications/upgrades do not result in a reduction of the minimum technical specifications for the radio unit noted herein, and the prices as noted in the current contract with the Contractor remain unchanged, the Department will note such change(s) in the purchase orders issued by the Department for these radio units. No other action by the Department will be necessary to continue purchasing these radio units as part of the bid contract.

In the event the radio unit manufacturer makes changes/modifications/upgrades to any component of the radio units purchased by the Department as part of this bid, that result in any change(s) to the radio unit's functionality or operation/maintenance, the Contractor shall provide all equipment and instruction materials necessary to complete a course of instruction to the Department's radio maintenance personnel related to any changes/modifications/upgrades. This training shall be as mutually agreed to by the Contractor and the Department as to cost per student, scheduling issues and location.

*~ End of Specification ~*

**PREFERENCE IN PURCHASING PRODUCTS**

DATE: \_\_\_\_\_

The bidders attention is directed to Section 34.076 RSMo 2000 which gives preference to Missouri corporations, firms, and individuals when letting contracts or purchasing products.

Bids/Quotations received will be evaluated on the basis of this legislation.

**All vendors submitting a bid/quotation must furnish ALL information requested below.**

**FOR CORPORATIONS:**

State in which incorporated:

\_\_\_\_\_

**FOR OTHERS:**

State of domicile:

\_\_\_\_\_

**FOR ALL VENDORS:**

List address of Missouri offices or places of business:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**THIS SECTION MUST BE COMPLETED AND SIGNED:**

**FIRM NAME:**

\_\_\_\_\_

**ADDRESS:**

\_\_\_\_\_

**CITY:** \_\_\_\_\_ **STATE:** \_\_\_\_\_ **ZIP:** \_\_\_\_\_

**BY (signature required):**

\_\_\_\_\_

**Federal Tax I.D. #: \_\_\_\_\_ if no Federal Tax I.D. # - list Social Security #: \_\_\_\_\_**

NOTE: For bid/quotation to be considered, the "Preference in Purchasing Products" form must be on file in the General Services (Procurement) Division and must be dated in the current calendar year.

## MISSOURI DOMESTIC PRODUCTS PROCUREMENT ACT

The bidder's attention is directed to the Missouri Domestic Products Procurement Act, Sections 34.350 to 34/359, RsMO, which requires all manufactured goods or commodities used or supplied in the performance of this contract or any subcontract to be manufactured or produced in the United States.

Section 34.355, RsMO, requires the vendor or contractor to certify his compliance with Section 34.353 and, if applicable, Section 34.359, RsMO, at the time of bidding **and** prior to payment. Failure to comply with Section 34.353, RsMO, during the performance of the contract **and** to provide certification of compliance prior to payment will result in nonpayment for those goods or commodities.

Section 34.353.2, RsMO, specifies that it does not apply where the total contract is less than Twenty-Five Thousand Dollars (\$25,000.00). If your total bid is Twenty-Five Thousand Dollars (\$25,000.00) or more, you **must** complete this form as directed below.

**Failure to complete and return this document with this bid will cause the State to presume the manufactured goods or products listed in the bid are not manufactured or produced in the United States, and the bid will be evaluated on that basis. Please read the certification appearing below on this form.**

If all the goods or products specified in the attached bid which the bidder proposes to supply to the State shall be manufactured or produced in the "United States" as defined in Section 34.350, RsMO, check the box at left.

If only one item of any particular goods or products specified in the attached bid is manufactured or produced in the "United States" as defined in Section 34.350, RsMO, check the box at left and list the items (or item number) here:

\_\_\_\_\_

If any or all of the goods or products specified in the attached bid which the bidder proposes to supply to the State are **not** manufactured or produced in the "United States" as defined in Section 34.350, RsMO, then: (a) check the box at left; (b) list below, by item (or item number), the country other than the United States where each good or product is manufactured or produced; and (c) check the boxes to the left of the paragraphs below if applicable and list the corresponding items (or item numbers) in the spaces provided.

n (or item number)	Location Where Item Manufactured or Produced

(attach an additional sheet if necessary)

The following specified goods or products cannot be manufactured or produced in the United States in sufficient quantities or in time to meet the contract specifications. Items (or item numbers): \_\_\_\_\_

\_\_\_\_\_

The following specified goods or products must be treated as manufactured or produced in the United States, in accordance with an existing treaty, law, agreement, or regulation of the United States, including a treaty between the United States and any foreign country regarding export-import restrictions or international trade. Items (or item numbers): \_\_\_\_\_

\_\_\_\_\_

### CERTIFICATION

By submitting this document, completed as directed above, with a bid, the bidder certifies under penalty of making false declaration (Section 575.060, RsMO) that the information contained in this document is true, correct and complete, and may be relied upon by the State in determining the bidders qualifications under and in compliance with the Missouri Domestic Products Procurement Act.

The bidder's failure to complete and return this document with the bid as directed above will cause the State to presume the manufactured goods or products listed in the bid are not manufactured or produced in the United States, and the bid will be evaluated on that basis pursuant to Section 34.353.3(2), RsMO.

Vendor Name: \_\_\_\_\_

Vendor Address: \_\_\_\_\_

## APPENDIX A

### Potential Delivery Locations

District 1  
St. Joseph, MO

District 2  
Macon, MO

District 3  
Hannibal, MO

District 4  
Lee's Summit, MO

District 5  
Jefferson City, MO

District 6  
Chesterfield, MO

District 7  
Joplin, MO

District 8  
Springfield, MO

District 9  
Willow Springs, MO

District 10  
Sikeston, MO

MoDOT Central Office  
Jefferson City, MO

## APPENDIX B

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### Channel Listings

Ch Name	Group/Zone Name	Receive	Transmit	CTCSS	CTCSS	Narrow/Wide Band	Max Power
		Frequency (MHz)	Frequency (MHz)	Decode Tone	Encode Tone		Output (Watts)*
MRTNSVL	D1	151.130	156.135	156.7	114.8	N	100
SKIDMORE	D1	151.130	156.135	156.7	127.3	N	100
POLO1	D1	151.130	156.135	156.7	141.3	N	100
STJOE	D1	151.130	156.135	156.7	156.7	N	100
MACON	D2	151.040	156.045	156.7	127.3	N	100
FAYETTE	D2	151.040	156.045	156.7	141.3	N	100
QNCITY	D2	151.040	156.450	156.7	156.7	N	100
HUGHSVL2	D2	151.040	156.045	156.7	167.9	N	100
HARRIS	D2	151.040	156.045	156.7	179.9	N	100
AVALON	D2	151.040	156.045	156.7	88.5	N	100
MEXICO	D3	151.070	156.015	156.7	114.8	N	100
FAIRMONT	D3	151.070	156.015	156.7	127.3	N	100
EOLIA	D3	151.070	156.015	156.7	156.7	N	100
MNROCTY	D3	151.070	156.015	156.7	179.9	N	100
WRNTON3	D3	151.070	156.015	156.7	192.8	N	100
POLO4	D4	151.070	156.015	156.7	141.3	N	100
PLATCITY	D4	151.070	156.015	156.7	156.7	N	100
HUGHSVL4	D4	151.070	156.015	156.7	167.9	N	100
URICH4	D4	151.070	156.015	156.7	179.9	N	100
KC	D4	151.070	156.015	156.7	192.8	N	100
METRO4	D4	151.100	151.045	156.7	118.8	N	100
MKSCRK5	D5	151.130	156.135	156.7	114.8	N	100
FREEBURG	D5	151.130	156.135	156.7	127.3	N	100
COLECAMP	D5	151.130	156.135	156.7	156.7	N	100
HUGHSVL5	D5	151.130	156.135	156.7	167.9	N	100
WRNTON5	D5	151.130	156.135	156.7	192.8	N	100
ASHLAND	D5	151.130	156.135	156.7	88.5	N	100
HSSPRNGS	D6	151.040	156.045	156.7	114.8	N	100
NCOUNTY	D6	151.040	156.045	156.7	127.3	N	100
TAUMSK6	D6	151.040	156.045	156.7	179.9	N	100
WRNTON6	D6	151.040	156.045	156.7	192.8	N	100
LSBURG6	D6	151.040	156.045	156.7	88.5	N	100
METRO6	D6	151.385	156.135	156.7	103.5	N	100
RIDGLEY	D7	151.130	156.135	156.7	127.3	N	100
AVILLA	D7	151.130	156.135	156.7	141.3	N	100
URICH7	D7	151.130	156.135	156.7	179.9	N	100
JRCOSPR	D7	151.130	156.135	156.7	192.8	N	100
MKSCRK8	D8	151.040	156.045	156.7	114.8	N	100
STRAFFRD	D8	151.040	156.045	156.7	127.3	N	100

## APPENDIX B

Page 2 of 2

Ch Name	Group/Zone Name	Receive Frequency (MHz)	Transmit Frequency (MHz)	CTCSS Decode Tone	CTCSS Encode Tone	Narrow/Wide Band	Max Power Output (Watts)*
ROMANCE8	D8	151.040	156.045	156.7	141.3	N	100
FLAT8	D8	151.040	156.045	156.7	156.7	N	100
MTNGROV8	D8	151.040	156.045	156.7	167.9	N	100
HUMANSVL	D8	151.040	156.045	156.7	179.9	N	100
LEBANON	D8	151.040	156.045	156.7	192.8	N	100
BRANSON	D8	151.040	156.045	156.7	88.5	N	100
PBLUFF9	D9	151.070	156.015	156.7	114.8	N	100
ALTON	D9	151.070	156.015	156.7	127.3	N	100
ROMANCE9	D9	151.070	156.015	156.7	141.3	N	100
FLAT9	D9	151.070	156.015	156.7	156.7	N	100
MTNGROV9	D9	151.070	156.015	156.7	167.9	N	100
TAUMSK9	D9	151.070	156.015	156.7	179.9	N	100
WINONA	D9	151.070	156.015	156.7	192.8	N	100
LSBURG9	D9	151.070	156.015	156.7	88.5	N	100
PBLUFF10	D10	151.130	156.135	156.7	114.8	N	100
BELLCITY	D10	151.130	156.135	156.7	127.3	N	100
WARDELL	D10	151.130	156.135	156.7	141.3	N	100
PERRYVL	D10	151.130	156.135	156.7	156.7	N	100
SIKESTON	D10	151.130	156.135	156.7	167.9	N	100
TAUMSK10	D10	151.130	156.135	156.7	179.9	N	100
TANTA	TA	151.130	151.130	NONE	NONE	N	100
TANTB	TA	151.040	151.040	NONE	NONE	N	100
TANTC	TA	151.070	151.070	NONE	NONE	N	100
TATA	TA	151.130	151.130	156.7	156.7	N	100
TATB	TA	151.040	151.040	156.7	156.7	N	100
TATC	TA	151.070	151.070	156.7	156.7	N	100
NWS1	WX	162.400	N/A	NONE	NONE	W	N/A
NWS2	WX	162.425	N/A	NONE	NONE	W	N/A
NWS3	WX	162.450	N/A	NONE	NONE	W	N/A
NWS4	WX	162.475	N/A	NONE	NONE	W	N/A
NWS5	WX	162.500	N/A	NONE	NONE	W	N/A
NWS6	WX	162.525	N/A	NONE	NONE	W	N/A
NWS7	WX	162.550	N/A	NONE	NONE	W	N/A
VCALL	IOP	155.7525	155.7525	NONE	NONE	N	50
VTAC1	IOP	151.1375	151.1375	NONE	156.7	N	50
VTAC2	IOP	154.4525	154.4525	NONE	156.7	N	50
VTAC3	IOP	158.7375	158.7375	NONE	156.7	N	50
VTAC4	IOP	159.4725	159.4725	NONE	156.7	N	50
MTAC	IOP	154.6800	154.6800	NONE	156.7	W	50

**\* Channels shall be programmed to the maximum power available for the radio unit up to but not exceeding the specified maximum.**

**APPENDIX C**  
**COOPERATIVE PROCUREMENT**

The Department is interested in assisting Missouri governmental entities in purchasing equipment, various materials and supplies that meet the Highway and Transportation Department specifications.

Each bidder is asked to indicate below whether they would be willing to offer MID-POWER MOBILE RADIO UNITS listed herein the attached bid documents for sale to these local political entities at the same bid price offered to this Department.

It is understood the Department will not issue purchase orders, accept delivery nor make payment for these items ordered by any of these political entities/agencies. It is further understood the price is based on the radio units meeting the Department specifications. Any added options, deletions, or extra freight costs would be negotiated between the local agency and the Contractor.

**INDICATE BELOW WHETHER YOUR COMPANY IS WILLING TO OFFER SUCH COOPERATIVE PURCHASING FOR MISSOURI COUNTIES, CITIES OR OTHER POLITICAL ENTITIES.**

YES \_\_\_\_\_ NO \_\_\_\_\_

Indicate the last deadline date that orders will be accepted: \_\_\_\_\_

COMPANY NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_

PRINTED NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

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

**STANDARD SOLICITATION PROVISIONS**

- a. The Missouri Department of Transportation (MoDOT) reserves the right to reject any or all bids/quotes/proposals, and to accept or reject any items thereon, and to waive technicalities. In case of error in the extension of prices in the bid/quote/proposal, unit prices will govern.
- b. All bids/quotes/proposals must be signed with the firm name and by a responsible officer or employee. Obligations assumed by such signature must be fulfilled.
- c. By virtue of statutory authority, a preference will be given to materials, products, supplies, provisions and all other articles produced, manufactured, made or grown, within the State of Missouri.
- d. Time of delivery is a part of the consideration and, if not otherwise stated in the solicitation documents, must be stated in definite terms by the Bidder/Offeror and must be adhered to. If time varies on different items, the Bidder/Offeror shall so state.
- e. If providing bids/quotes/proposals for commodities, the Bidder/Offeror will state brand or make on each item. If bidding or proposing other than the make, model or brand specified, the manufacturer's name, model number or catalog number must be given.
- f. **For bids/proposals of \$25,000 or more**, no bids/proposals by telephone, telegram or telefax will be accepted.
- g. The date specified for the returning of bids/quotes/proposals is a firm deadline and all bids/quotes/proposals must be received at the designated office by that time. The Department does not recognize the U.S. Mail, Railway Express Agency, Air Express, or any other organization, as its agent for purposes of accepting proposals. All proposals arriving at the designated office after the deadline specified will be rejected.

**GENERAL TERMS AND CONDITIONS**

**General Performance**

- a. This work is to be performed under the general supervision and direction of the Missouri Department of Transportation (MoDOT) and, if awarded any portion of the work, the Contractor agrees to furnish at his own expense all labor and equipment required to complete the work, it being expressly understood that this solicitation is for completed work based upon the price(s) specified and is not a solicitation for rental of equipment or employment of labor by MoDOT, and MoDOT is to have no direction or control over the employees used by the Contractor in performance of the work.

**Deliveries**

- a. Unless otherwise specified on the solicitation documents or purchase order, suppliers shall give at least 24 hours advance notice of each delivery. Delivery will only be received between the hours of 8:00 a.m. to 3:00 p.m., Monday through Friday. Material arriving after 3:00 p.m. will not be unloaded until the following workday. No material will be received on Saturday, Sunday or state holidays.
- b. If the prices bid herein include the delivery cost of the material, the Contractor agrees to pay all transportation charges on the material as FOB - Destination. Freight costs must be included in the unit price bid and not listed as a separate line item.
- c. Any demurrage is to be paid by the Contractor direct to the railroad or carrier.

**Nondiscrimination**

- a. The Contractor shall comply with the Regulations relative to nondiscrimination in federally-assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- b. All solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of the Contractor's obligations under this contract and the Regulations, will be relative to nondiscrimination on the grounds of race, color, or national origin.
  - 1) **Sanctions for Noncompliance:** In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, MoDOT 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/proposal, the Bidder/Offeror 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 proposal and/or submitted pricing, and (3) the MHTC's acceptance of the proposal and/or bid by purchase order or post-award contract.
- 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 purchase order and/or notice to proceed.
- d. The contract expresses the complete agreement of the parties and performance shall be governed solely by the specifications and requirements contained therein. Any change, whether by modification and/or supplementation, must be accomplished by a formal contract amendment signed and approved by and between the duly authorized representative of the Contractor and the duly authorized representative of the MHTC, by a modified purchase order prior to the effective date of such modification. The Contractor expressly and explicitly understands and agrees that no other method and/or no other document, including correspondence, acts, and oral communications by or from any person, shall be used or construed as an amendment or modification.

**Subcontracting**

- a. It is specifically understood that no portion of the material or any interest in the contract, shall be subcontracted, transferred, assigned or otherwise disposed of, except with the written consent of MoDOT. Request for permission to subcontract or otherwise dispose of any part of the work shall be

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in writing to MoDOT and accompanied by documentation showing that the organization which will perform the work is particularly experienced and equipped for such work.

- b. Consent to subcontract or otherwise dispose of any portion of the work shall not be construed to relieve the Contractor of any responsibility for the production and delivery of the contracted work and the completion of the work within the specified time.
- c. All payments for work performed by a subcontractor shall be made to the Contractor to whom the contract was awarded and the purchase order issued.

**Invoicing and Payment**

- a. MoDOT is exempt from paying Missouri Sales Tax, Missouri Use Tax and Federal Excise Tax. However, the Contractor may themselves be responsible for the payment of taxes on materials they purchase to fulfill the contract. A Federal Excise Tax Exemption Certificate will be furnished to the successful Bidder/Offeror upon request.
- b. Each invoice 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 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.
- c. 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.
- d. 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.
- e. The MHTC reserves the right to purchase goods and services using the state-purchasing card.

**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.
- b. The Contractor must be registered and maintain good standing with the Secretary of State of the State of Missouri 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 MoDOT a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.
  - 1) 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 MoDOT a copy of their current Transient Employer Certificate from the Department of Revenue, in addition to a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.
- c. 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.

**Executive Order**

- a. 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 (6<sup>th</sup>) 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/proposals, preferences shall be applied in accordance with Chapter 34 RSMo. Contractors should apply the same preferences in selecting subcontractors.
- b. By virtue of statutory authority, RSMo. 34.076 and 34.350 to 34.359, a preference will be given to materials, products, supplies, provisions and all other articles produced, manufactured, made or grown within the State of Missouri. Such preference shall be given when quality is equal or better and delivered price is the same or less.
  - 1) If attached, the document entitled "**PREFERENCE IN PURCHASING PRODUCTS**" should be completed and returned with the solicitation documents.
  - 2) If attached, the document entitled "**MISSOURI DOMESTIC PRODUCTS PROCUREMENT ACT**" should be completed and returned with the solicitation documents. **Applies if bid is Twenty-Five Thousand Dollars (\$25,000.00) or more.**
- c. In the event of a tie of low bids, the MHTC reserves the right to establish the method to be used in determining the award

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**Remedies and Rights**

- a. No provision in the contract shall be construed, expressly or implied, as a waiver by the MHTC of any existing or future right and/or remedy available by law in the event of any claim by the MHTC of the Contractor's default or breach of contract.
- b. The Contractor agrees and understands that the contract shall constitute an assignment by the Contractor to the MHTC of all rights, title and interest in and to all causes of action that the Contractor may have under the antitrust laws of the United States or State of Missouri for which causes of action have accrued or will accrue as the result of or in relation to the particular equipment, supplies, and/or services purchased or produced by the Contractor in the fulfillment of the contract with the MHTC.
- c. In the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Contractor may request MoDOT to enter into such litigation to protect the interests of the MHTC, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

**Cancellation of Contract**

- a. The MHTC may cancel the contract at any time for a material breach of contractual obligations or for convenience by providing the 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.
- b. If the MHTC cancels the contract for breach, the MHTC reserves the right to obtain the equipment, supplies, and/or services to be provided pursuant to the contract from other sources and upon such terms and in such manner as the MHTC deems appropriate and charge the Contractor for any additional costs incurred thereby.

**Bankruptcy or Insolvency**

- a. Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntary or involuntary, or upon the appointment of a receiver, trustee, or assigned the benefit or creditors, the Contractor must notify MoDOT immediately. Upon learning of any such actions, the MHTC reserves the right, at its sole discretion, to either cancel the contract or affirm the contract and hold the Contractor responsible for damages.

**Inventions, Patents, and Copyrights**

- a. The Contractor shall defend, protect, and hold harmless the MHTC, its officers, agents, and employees against all suits of law or in equity resulting from patent and copyright infringement concerning the Contractor's performance or products produced under the terms of the contract.

**Inspection and Acceptance**

- 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.
- b. All equipment, supplies, and/or services which do not comply with the specifications and/or requirements or which are otherwise unacceptable or defective may be rejected. In addition, all equipment, supplies, and/or services which are discovered to be defective or which do not conform to any warranty of the Contractor upon inspection (or at any later time if the defects contained were not reasonably ascertainable upon the initial inspection) may be rejected.
- c. The MHTC reserves the right to return any such rejected shipment at the Contractor's expense for full credit or replacement and to specify a reasonable date by which replacements must be received.
- d. The MHTC's right to reject any unacceptable equipment, supplies, and/or services shall not exclude any other legal, equitable or contractual remedies the MHTC may have.

**Warranty**

- a. 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 MoDOT, (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.
- b. Such warranty shall survive delivery and shall not be deemed waived either by reason of the MHTC's acceptance of or payment for said equipment, supplies, and/or services.

**Status of Independent Contractor**

- a. 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.

**Indemnification**

- a. The Offeror shall defend, indemnify and hold harmless the Commission, 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 Offeror's performance of its obligations under this Agreement.