

**MISSOURI DEPARTMENT OF TRANSPORTATION  
 BID GUIDELINES AND DOCUMENTATION  
 FOR PURCHASES \$25,000.00 AND OVER**

**THIS IS NOT AN ORDER**

**REQUEST FOR BID**

It is the vendor's responsibility to read and comply with all conditions, specifications, and instructions outlined in this document. This document and any subsequent attachments shall supersede all confirmation forms, receipts, or any other paperwork needed to secure materials, equipment, or services.

TODAY'S DATE: OCTOBER 1, 2008	<b>BID DUE BY (DATE AND TIME):</b> OCTOBER 9, 2008 @ 1:00 PM CENTRAL TIME	F.O.B. REQUIREMENTS: DESTINATION (SEE DELIVERY LOCATION(S) BELOW)
TO BE DELIVERED OR COMPLETED BY: OCTOBER 30, 2008 SPECIFY DELIVERY TIME IN SPACE PROVIDED BELOW	<b>BID # D209-026-RM</b> THIS BID # SHOULD BE REFERENCED ON ALL MAILING LABELS, ENVELOPES, AND ANY OTHER CORRESPONDENCE. <b>RETURN IN A SEALED ENVELOPE.</b>	BUYER NAME: JUDY M. FRANKE, CPPB SENIOR GENERAL SERVICES SPECIALIST PHONE NUMBER: (660)-385-8269 <b>NO RESPONSES ACCEPTED BY FAX</b>
District Mailing Address: Missouri Department of Transportation – District 2 General Services (Procurement) Division 902 North Missouri Street P.O. Box 8 Macon, MO. 63552	Delivery Location(s): Missouri Department of Transportation District 2 Signal Shop 26826 US Hwy 63 (Rt. 63 – 0.3 miles South of Rt. DD) Macon, MO 63552	

**ALL BIDS SHOULD BE EXTENDED & TOTALED. DELIVERY TIME MUST BE LISTED**

Quantity	U/M	DESCRIPTION (including size and/or part #'s)	UNIT PRICE	UNIT PRICE EXTENSION	DELIVERY TIME
3	UNITS	All equipment required to install video detection on two main street approaches at three signalized intersections, including buy not limited to two cameras, video processor, surge suppression and power distribution panel and video monitor per intersection. Each intersection will require approximately 400 feet of cable and associated connectors. Any equipment or software required to program the processor and / or adjust the cameras is to be included. Pelco or equivalent mounting hardware will NOT be required. Cameras shall have the ability to be mounted to a 1 1/2" threaded pipe that MoDOT will furnish.  For further information call Ron Harrison 660-651-3912.	\$	\$	
1200	FT.	Video Cable and all connectors required for connection to cabinet equipment and cameras.	\$	\$	
1200	FT.	Camera Power Cable and all connectors required for connection to cameras.	\$	\$	
<b>TOTAL ORDER EXTENSION</b>				<b>\$</b>	

The **unit price** for the cameras shall include the following:

- 6 cameras are to be supplied with hardware for mounting on 1 1/2" vertical pipe. These cameras are to be mounted to an extended vertical support tube that supports the top of the signal head.
- 3 sets of the appropriate installation, technical and operations manuals (1 for each intersection).

*\*NOTE: Use only approved cameras on MoDOT's Signal and Lighting Approved Parts List. Therefore, no bids will be accepted on alternate brands or models. See attached APL.*

**MoDOT reserves the right to increase or decrease this order by 25%.**

**VENDOR NAME:**

(Please enter your company name in this block)

## SPECIAL TERMS AND CONDITIONS

### F.O.B.

All materials bid are F.O.B. Destination (as outlined above). Freight costs must be included in the unit price bid and not listed as a separate line item.

### Pricing Guarantee

Pricing submitted shall be valid for a minimum period of thirty (30) days subsequent to the bid/quote/proposal closing date (or longer if specified by the contract terms herein). Submissions offering less than thirty (30) days from the closing date for acceptance by MoDOT will be considered non-responsive.

### Certificate of Good Standing

The Bidder must be in compliance with the laws regarding conducting business in the State of Missouri. Within ten (10) business days of notification, the Bidder will need to provide a copy of his/her Missouri Secretary of State's "Certificate of Good Standing" prior to the issuance of any contract or initial purchase order by the Missouri Department of Transportation (MoDOT). MoDOT reserves the right, at its sole discretion, to extend the date this documentation must be provided. The Bidder's inability to provide this documentation will result in his/her bid being rejected.

### RsMO 34.040.6 Compliance

The Bidder must be in compliance with the laws regarding conducting business in the State of Missouri. The Bidder should ensure they are in good standing with the Missouri Department of Revenue. Prior to award MoDOT staff will check with the Missouri Department of Revenue to ensure compliance with the provisions of RsMO 34.040.6. If necessary a "Certificate of No Tax Due" may be requested of the successful Bidder. If such a certificate is requested, the Bidder's inability to provide this documentation will result in his/her bid being rejected.

### Award

Award of this bid will be made on an "All Or Nothing" basis using the "lowest and best" principle of award.

### Increase or Decrease Quantities

The Highways and Transportation Commission reserves the right to increase or decrease the quantity of material twenty-five percent (25%).

### Cancellation of Contract

If the Contractor/supplier fails to carry out the performance of the work with sufficient workmen and equipment to insure the completion of the delivery within the time specified or becomes insolvent or is adjudicated a bankrupt or commits any act of bankruptcy or insolvency or allows any final judgment to stand against him for a period of ten (10) days, the Missouri Department of Transportation may give notice in writing by registered mail to the Contractor/supplier and the surety of such delay, neglect or default.

If, within ten (10) days after such notice the Contractor/supplier does not proceed to remedy to the satisfaction of the Department's representatives the faults specified in said notice, or the surety does not proceed to take over the deliveries, the Department shall have full power and authority, without impairing the obligation of the Contractor/supplier under the contract or the surety under the bond, to take over the completion of the work and arrange for the shipment of any materials necessary to complete the work and the Contractor/supplier and the surety will be responsible for any additional costs incurred by the Department in obtaining the completion of the deliveries.

### Environmental Issues

Attention of the bidder is invited to the **Land Reclamation Act, Chapter 444, Laws of 1971, (House Bill 519)** and the necessity for compliance if applicable.

The Contractor shall take necessary precautions and shall schedule and conduct his operations so as to avoid or minimize siltation of streams while removing gravel there from.

# PREFERENCE IN PURCHASING PRODUCTS

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

The bidders attention is directed to Section 34.076 RsMO 1986 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.

Item (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 NOTES

VENDORS MAY ALSO ATTACH OTHER PERTINENT OR SUPPORTING DATA WITH THEIR RESPONSE TO THIS RFB.

**Missouri Department of Transportation purchase orders must be issued to the invoicing company/address. If the invoicing company/address will be different from that listed in the vendor information section (below), the vendor should specify the “remit to” company/address in the vendor notes section (above).**

## VENDOR INFORMATION

Vendor Name/Mailing Address:	Vendor Contact Information (including area codes):
	Phone #:
	Cellular #:
Email Address:	Fax #:
Printed Name and Title of Responsible Officer or Employee:	Signature:
Is your company registered/certified with the State of Missouri as a (please circle):	
MINORITY BUSINESS ENTERPRISE (MBE) ?	YES      NO
WOMEN BUSINESS ENTERPRISE (WBE) ?	YES      NO
Would your company like information on becoming a registered/certified MBE/WBE vendor?	YES      NO
Is your company a MISSOURI SERVICE-DISABLED VETERAN BUSINESS?	YES      NO
<p>A service-disabled veteran is defined as any individual who is disabled as certified by the appropriate federal agency responsible for the administration of veteran's affairs. A service-disabled veteran business is defined as a business concern:</p> <ul style="list-style-type: none"> <li>• not less than fifty-one (51) percent of which is owned by one or more service-disabled veterans or, in the case of publicly owned businesses, not less than fifty-one (51) percent of the stock of which is owned by one or more service-disabled veterans; and</li> <li>• the management and daily business operations of which are controlled by one or more service-disabled veterans.</li> </ul>	

**All responses to this Request For Bid should be submitted on this form and ALL pages should be returned to the Buyer listed above at the District mailing address shown. Bids should be mailed or hand-delivered. Responses by fax cannot be accepted or considered for award.**

**Note: If any of the “Standard Solicitation Provisions” and “General Terms and Conditions” on the following pages conflict with the requirements outlined in this Request For Bid, the RFB requirements will supersede those below.**

## 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. If provided, these bids/proposals should be returned in the MoDOT solicitation return envelope.
- g. If a solicitation return envelope is provided by MoDOT, the bid/quote/proposal should be returned in the envelope provided with the Bid/RFQ/RFP Request Number plainly indicated thereon.
- h. 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.

- 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 in writing to MoDOT and accompanied by a 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 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 contractor shall only utilize personnel authorized to work in the United States in accordance with applicable federal and state laws and Executive Order 07-13 for work performed in the United States.
- d. 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.

#### 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**" must be completed and returned with the solicitation documents.
  - 2) If attached, the document entitled "**MISSOURI DOMESTIC PRODUCTS PROCUREMENT ACT**" must 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

### **Remedies and Rights**

- a. No provision in the contract shall be construed, expressly or implied 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.

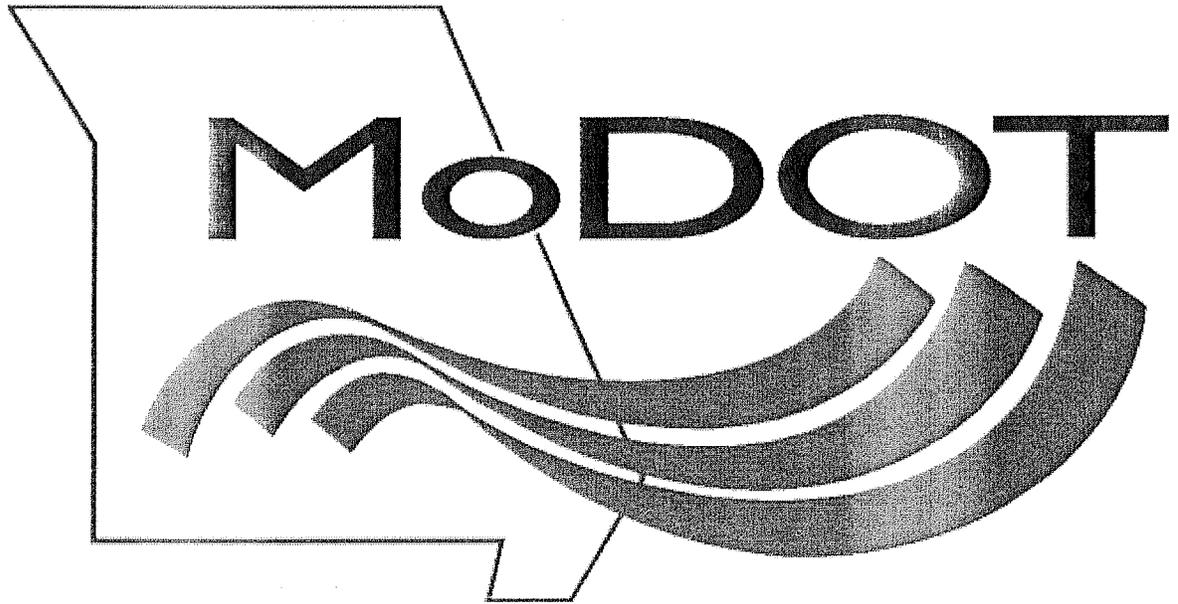
### **Status of Independent Contractor**

- 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 matter.

### **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 obligation under this Agreement.





**Traffic Operations**

**APPROVED PRODUCTS LIST**

**TRAFFIC SIGNALS AND HIGHWAY  
LIGHTING EQUIPMENT**

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## TRAFFIC SIGNALS AND HIGHWAY LIGHTING EQUIPMENT

### I. GENERAL

This Approved Products List (APL) is based on equipment meeting department specifications and being tested for the specified test period with satisfactory performance. All models shall conform to the latest revision of the Missouri Standard Specifications for Highway Construction unless otherwise indicated. The models indicated on the list are approved, but are subject to final field inspection before acceptance.

The department frequently tests new products and equipment for traffic signals and highway lighting. These new products may be installed on a construction project, purchased on parts orders or with controller orders. Vendors may also submit items, at no cost to the department, for the test period. Only a limited number of units will be accepted for test statewide until an item is added to the Approved Products List. A vendor wishing to initiate a test on a new product shall submit a Product Evaluation Request Form - Signal and Lighting Equipment. Copies of this form can be obtained from our website at [www.modot.state.mo.us](http://www.modot.state.mo.us) or contact MoDOT Traffic Operations. Minor model changes do not require an evaluation period, although the vendor shall submit specification sheets and a sample of the product for the Department to inspect.

All equipment evaluations are coordinated through MoDOT Traffic Operations. The vendor supplying the equipment shall provide equipment specifications and a certification that the equipment meets department specifications before the test is performed. The equipment is tested for the period specified on the APL. Products that are not performing satisfactorily will be replaced with an approved product if the vendor cannot provide timely correction of the problem or if unsatisfactory operation of the intersection results.

If a vendor is proposing a product that does not meet department specifications, an explanation of why the product meets or exceeds the current specifications must be provided by the vendor in writing to Traffic Operations. If approved, the product may be tested for the specified period as described above. If the product is satisfactory, the Department will consider a revision to the applicable specifications. Products will not be added to the Approved Products List that do not meet department specifications.

Products on the APL shall continue to perform satisfactorily. In addition, the vendors shall support the products. Products not performing as required or not supported are subject to removal from the APL.

Grounds for removal of products include but are not limited to:

Significant change in product specifications or design without notification to the department.

Failure to correct or replace products that are defective in manufacturing or workmanship.

Repeated patterns of malfunctions of a product not adequately corrected by the vendor.

Unreasonable pricing of repair parts or repair work. Repair work not completed in a reasonable time frame.

Excessive delivery times for new purchases or replacement parts.

Changes in standard specifications may also necessitate removal of specific products from the APL. If this occurs, there will be a grace period where the product will be retained on the list after the specifications are changed. However the product will be removed from the list if it is not revised to meet specifications.

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## II. TRAFFIC SIGNAL EQUIPMENT

All traffic signal equipment requires a one-year evaluation period.

### CONTROLLERS

#### NEMA TS1 CONTROLLERS

#### MODEL

Eagle.....	EPAC Genesis M40
Eagle.....	EPAC M42
Eagle.....	EPAC M52
Econolite.....	ASC/2-2100
Econolite.....	ASC/2S-2100
Naztec.....	980
Peek.....	3000
Traffic Control Technologies (TCT).....	LMD-8000

#### NEMA ON-STREET MASTER CONTROLLER

#### MODEL

Eagle.....	MARC 360
Econolite.....	KMC-10,000
Econolite.....	ASC/2M

#### SOLID STATE PRETIMED CONTROLLERS (ALL TYPES)

#### MODEL

Eagle.....	EPIC Series
Traffic Control Technologies (TCT).....	LMD 40 Series

#### 170 CONTROLLERS

#### MODEL

Eagle.....	170E
McCain.....	170E
Phillips/Sisson Industries, Inc. ....	170E
Safetran.....	170E

### CABINETS AND BACK PANELS (NEMA & S.S. PRETIMED)

**NOTE: Cabinets and Back panels that meet MoDOT specifications from the following manufacturers will be accepted. ALL other manufacturers must provide a model that meets specifications and complete a satisfactory one-year evaluation as described above to be added to the list.**

#### NEMA CABINET AND BACK PANEL ASSEMBLIES

- Control Technology
- Eagle
- Econolite
- Henke/Bison
- IDC/Gibbons
- Naztec P-44

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

**SOLID STATE PRETIMED CABINET AND BACK PANEL ASSEMBLIES**  
Eagle

**CABINETS AND RACKS (TYPE 170 CONTROLLERS)**

*NOTE: Cabinets and Racks that meet MoDOT specifications from the following manufacturers will be accepted. ALL other manufacturers must provide a model that meets specifications and complete a satisfactory one-year evaluation as described above to be added to the list.*

**332 AND 336S CABINET AND RACK ASSEMBLIES**

McCain  
Phillips/Sisson Industries, Inc.  
Safetran

**CONFLICT MONITORS**

<b>NEMA CONFLICT MONITORS</b>	<b>MODEL</b>
Eberle Design Incorporated (EDI).....	NSM-6
Eberle Design Incorporated (EDI).....	NSM-12
Eberle Design Incorporated (EDI).....	SSM-12LE
Econolite .....	ASC3-2100
Naztec, Incorporated .....	NM512
Peek/Transyt.....	1200
Power Distribution & Control (PDC).....	CM82-03
Power Distribution & Control (PDC).....	CM82-06
Power Distribution & Control (PDC).....	CM82-12
Reno A&E .....	MMU-1600
Solid State Devices.....	NM-6
Solid State Devices.....	NM-12
Solid State Devices.....	LCD-6P
Solid State Devices.....	LCD-12P
Traffic Control Technologies (TCT) .....	LNM Series

<b>170 CONFLICT MONITORS</b>	<b>MODEL</b>
Eberle Design Incorporated (EDI).....	210E
Reno A & E .....	2018
Solid State Devices.....	210P

**CABINET ACCESSORIES**

<b>AUXILIARY TIME CLOCK</b>	<b>MODEL</b>
Eltec .....	NTC-17E
Eltec .....	TC-14
RTC.....	AP41

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## EXTERNAL T.B.C. COORDINATORS

## MODEL

Eltec .....TC-14

## FLASHERS (NEMA & 170)

## MODEL

Eberle Design Incorporated (EDI).....810  
 Power Distribution & Control (PDC).....SSF-86  
 Power Distribution & Control (PDC).....SSF-88  
 Reno A & E .....FL-200  
 TSC .....204  
 TSC .....204-15  
 TSC .....304  
 TSC .....304-15

## FLASH TRANSFER RELAYS

## MODEL

AMECO .....136-4962  
 Magnacraft .....W21ACPX-2/W21ACPXD-5  
 Mid-Tex .....136-62T-3A1  
 Power Distribution & Control (PDC).....FTR 91  
 Reno .....TR-200

## LOAD SWITCHES (NEMA & 170)

## MODEL

Eberle Design Incorporated (EDI).....510  
 Power Distribution & Control (PDC).....SSS-86  
 Power Distribution & Control (PDC).....SSS-88  
 Reno A & E .....LS-200  
 Traffic Control Technologies (TCT) .....SSS-86  
 TSC .....200  
 TSC .....200-15  
 TSC .....300  
 TSC .....300-15

## ISOLATORS (170 only) (242=DC, 252=AC)

## MODEL

Detector Systems.....242  
 Detector Systems.....252  
 GDI.....242  
 GDI.....252  
 Power Distribution & Control (PDC).....242  
 Power Distribution & Control (PDC).....252  
 Safetran .....242  
 Safetran .....252

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## **SURGE PROTECTORS**

## **MODEL**

Edco .....SHA 1210  
Edco .....SHA-1250

## **TONE RECEIVERS**

## **MODEL**

Iniven .....IR30M-05-30

## **TONE TRANSMITTERS**

## **MODEL**

Iniven .....IT30

## **DETECTORS**

### **MICROWAVE DETECTORS**

### **MODEL**

Microwave Sensors.....TC-26B  
Electronic Integrated Systems, Inc. (EIS) .....RTMS X-2

### **MICROLOOP, PROBE**

### **MODEL**

3M .....Canoga 701

### **PEDESTRIAN PUSH BUTTONS**

### **MODEL**

Pelco .....SE-2000-00 (Round Pole Mount)  
Pelco .....SE-2001-00 (Flat Mount)  
Polara Bull Dog .....BDLM2-B/PBC-B (ADA Compliant)

### **POWER SUPPLY FOR CARD RACK DETECTORS - NEMA**

### **MODEL**

Detector Systems.....205  
ICC .....PS24  
PGK .....PS-1.2

### **SINGLE CHANNEL SHELF MOUNT DETECTORS, STANDARD**

### **MODEL**

Detector Systems.....910  
Eberle Design Incorporated (EDI).....LM301  
Sarasota.....535B/MS

### **SINGLE CHANNEL SHELF MOUNT DETECTORS, TIME DELAY**

### **MODEL**

Detector Systems.....913  
Eberle Design Incorporated (EDI).....LM301T  
Sarasota.....535T/MS

## MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

<b>ULTRASONIC DETECTORS</b>	<b>MODEL</b>
Microwave Sensors.....	TC-30
<b>2-CHANNEL CARD RACK COUNTING DETECTORS, DUAL OUTPUT</b>	
Eberle Design Incorporated (EDI).....	LM632
<b>2-CHANNEL CARD RACK COUNTING DETECTORS, SINGLE OUTPUT PULSE MODE (170)</b>	<b>MODEL</b>
Detector Systems.....	222R
Sarasota.....	222-GP5
Sarasota.....	222 GP6
<b>2-CHANNEL CARD RACK COUNTING DETECTORS, SINGLE OUTPUT PULSE MODE (NEMA)</b>	<b>MODEL</b>
Eberle Design Incorporated (EDI).....	LM632T
ICC.....	S27B
Reno A & E.....	C
<b>2-CHANNEL CARD RACK DETECTORS, STANDARD (170)</b>	<b>MODEL</b>
Detector Systems.....	222R
Eberle Design Incorporated (EDI).....	LM222
Reno A & E.....	222
Sarasota.....	222-GP5
Sarasota.....	222 GP6
<b>2-CHANNEL CARD RACK DETECTORS, STANDARD (NEMA)</b>	<b>MODEL</b>
Eberle Design Incorporated (EDI).....	LM602R
ICC.....	S27B
Reno A & E.....	C
Reno A & E.....	G
<b>2-CHANNEL CARD RACK DETECTORS, TIME DELAY (170)</b>	<b>MODEL</b>
Sarasota.....	222T-GP5
Sarasota.....	222T GP6
<b>2-CHANNEL CARD RACK DETECTORS, TIME DELAY (NEMA)</b>	<b>MODEL</b>
3M.....	Canoga C800 Series
Detector Systems.....	262CR
Eberle Design Incorporated (EDI).....	LMD602TR

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## SIGNAL HEADS

### BACKPLATES

### MODEL

Neodesia Plastics .....	BP Series
Pelco .....	BK-100x Series
Chapel Hill .....	44xx Series

### HARDWARE

**NOTE:** Hardware that meets MoDOT specifications from the following manufacturers will be accepted. ALL other manufacturers must provide equipment that meets specifications and complete a satisfactory six-month evaluation as described above to be added to the list.

Pelco	
Reliable 3/8" Strandvise .....	5202
Reliable 1/4" Strandvise .....	5200

### LOUVERS

### MODEL

Pelco .....	GPL
-------------	-----

### POLYCARBONATE SIDE-MOUNT BRACKETS WITH RELATED HARDWARE

### MODEL

Component Products .....	Any
Eagle .....	UKS1452AB

### SIGNAL HEADS - ALUMINUM CONVENTIONAL

### MODEL

Automatic/Eagle .....	SIG Series
McCain .....	MTSA Series
Safetrans/IDC .....	ST Series
Traffic Control Technologies (TCT) .....	HSS Series

### SIGNAL HEADS - ALUMINUM PEDESTRIAN

### MODEL

Automatic/Eagle .....	SIG Series
-----------------------	------------

### SIGNAL HEADS - OPTICALLY LIMITED

### MODEL

McCain .....	HPTS Series
--------------	-------------

### SIGNAL HEADS - POLY CONVENTIONAL

### MODEL

Chapel Hill .....	SIG-TPB-305-CTN-NVN-0N (3 section)
Chapel Hill .....	SIG-TPB-586-CTN-NVN-0N (5 section)
Eagle .....	SA Series
General Traffic Equipment Corp. ....	T-30 POLY
IDC/Safetrans .....	LT Series
McCain .....	MTSTP Series
Traffic Control Technologies (TCT) .....	PSS Series

## MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

### PEDESTRIAN HEAD – POLY 1-SECTION ..... MODEL

McCain ..... M32258L (clamshell mount left)  
 McCain ..... M32258R (clamshell mount right)  
 McCain ..... M32258 (side-of-pole mount)

### PEDESTRIAN HEAD MOUNTING – CLAMSHELL ..... MODEL

McCain ..... P9050B

### PEDESTRIAN LED SIGNAL INDICATION

Act One Communications, Inc. .... TP-16WP-1  
 Dialight ..... 430-6473-001  
 Dialight ..... 430-6450-001X  
 Duralight ..... JXM-400VIAL  
 Gelcore ..... PS7-CFC1-01A  
 Gelcore ..... PS7-CFC1-26A  
 Leotek ..... TSL-PED-DP-16-FS

### SIGNAL LENSES-GLASS ..... MODEL

Eagle ..... PBL Series  
 Kopp ..... Any  
 McCain ..... MSP Series

### POSTS AND MAST ARMS

*Note: Posts and Mast Arms do not require an evaluation period. Posts and Mast Arms shall be fabricated in accordance with MoDOT specifications and standards. Posts and Mast Arms shall be pre-approved as required by the MoDOT standards and specifications to be added to the list. The following manufacturers have pre-approved fabrication details and documentation on file with the department. Posts and Mast Arms are subject to field inspection before acceptance.*

#### STEEL POSTS AND MAST ARMS

#### DRAWING NUMBER

Ameron International ..... MO9811 - Rev. 9 (Type C)  
 Ameron International ..... MO9812 - Rev. 10 (Type CL)  
 JEM Engineering & Manufacturing ..... MODOT1-4 Rev. 2 (Types C, CL, B & BL)  
 Millerbernd Manufacturing Company ..... 780C49 (Type C)  
 Millerbernd Manufacturing Company ..... 780C51 (Type CL)  
 Millerbernd Manufacturing Company ..... 500A971  
 Union Metals ..... 30443-B202 - Rev. 18 (Types C, CL, B & BL)  
 Valmont ..... DB00408 - Rev. C (Types C, CL, B & BL)

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## MISCELLANEOUS

<b>LOOP SEALANTS</b>	<b>MODEL</b>
(Loop sealants do not require material certification)	
3M.....	5000
Bondo .....	560
Bondo .....	575
Bondo .....	P606
Chemque.....	290S
Chemque.....	296-06
Durant Paints.....	Stat-A-Flex Polyseal
RAI Products .....	Pro-Seal 6006

<b>PEDESTAL BASES</b>	<b>MODEL</b>
Akron Foundry.....	TS-1000-L-P
Akron Foundry.....	TS-1000-L-WP
Component Products.....	CPI-BAS-1
Pelco.....	PB5336
Pelco.....	PB5337
Pelco.....	PB5340
Pelco.....	PB5341
Traffic Parts .....	TP 289 X

<b>SPLICE KITS (DETECTOR LEAD-IN)</b>	<b>MODEL</b>
3M.....	DBY Series
HOMAC HMC Industries .....	RAB 1/0 Series

<b>METER SERVICE PEDESTAL (SIGNALS/SIGNALS &amp; LIGHTING)</b>	<b>MODEL</b>
Milbank Signal Service Only 120/240 volt.....	CP3B51C1PAAOMO1
Milbank Signal with Lighting 120/240 volt .....	CP3B51C1PBAOMO2
Milbank Signal with Lighting 120/240 volt dual meter.....	CP3B62C2NBAOMO1
Pacific Utility Products Signal with Lighting 120/240 volt.....	USPA-100-100-MODOT

## SIGNAL BULBS

<b>OPTICALLY LIMITED</b>	<b>MODEL</b>
3M.....	78-8008-7703-3
General Electric (GE) .....	150PAR46/TS
Philips.....	150PAR46/TS
 <b>STANDARD - 1260 LUMEN (8 inch indications)</b>	
Sylvania.....	116A21TS8M

**MISSOURI DEPARTMENT OF TRANSPORTATION  
APPROVED PRODUCTS LIST**

<b>STANDARD - 1750 LUMEN (12 inch indications)</b>	<b>MODEL</b>
Aero-Tech.....	01605
Aero-Tech.....	01614
H&H Industries .....	HH229
H&H Industries .....	HH217
Philips.....	K135A21/TS/EW
Radiant.....	K135A21TS
Sylvania.....	135A21/TS/8M/SS

**LIGHT EMITTING DIODES (LED)**

<b>REGULAR VIEW</b>	<b>MODEL</b>
Act One Communications, Inc.....	T1-08A-0004 (8" Yellow Ball – for use at fire stations)
Act One Communications, Inc.....	TA-12A-5 (Yellow Arrow)
Act One Communications, Inc.....	TA-12G-5 (Green Arrow)
American Signal Corporation .....	ASC-0300-GA1 (Green Arrow)
American Signal Corporation .....	ASC-0300-YA1 (Yellow Arrow)
Dialight.....	431-3334-001 Rev. B2 (Yellow Arrow)
Dialight.....	432-2374-001 (Green Arrow)
Dialight.....	431-3334-001X (Yellow Arrow)
Dialight.....	432-2324-001X (Green Arrow)
Duralight .....	JXJ-300VIGB (Green Arrow)
Duralight .....	JXJ-300VIYB (Yellow Arrow)
GELcore .....	DR4-YTFB-20A-22 (8" Yellow Ball – for use at fire stations)
GELcore .....	DR6-YTAAN-21A (Yellow Arrow)
GELcore .....	DR6-GCAAN-21A (Green Arrow)
Ledtronics.....	TRF-108-OPY-120A (8" Yellow Ball – for use at fire stations)
Leotek.....	TSL-12YA-MF-A1 (Yellow Arrow)
Leotek.....	TSL-12GA-MF-A1 (Green Arrow)

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## EXPANDED VIEW

## MODEL

Act One Communications, Inc.....	T1-12R-W (Red Ball)
Act One Communications, Inc.....	T1-12G-W (Green Ball)
Act One Communications, Inc.....	T1-12A-W (Yellow Ball)
Dialight.....	433-1210-003 (Red Ball)
Dialight.....	433-2270-001 (Green Ball)
Dialight.....	433-3230-001 (Yellow Ball)
Dialight.....	435-1210-001 (Red Ball)
Dialight.....	435-2220-001 (Green Ball)
Dialight.....	435-3230-001 (Yellow Ball)
Duralight.....	JXC300-CAG (Green Ball)
Duralight.....	JXC300-CAY (Yellow Ball)
Duralight.....	JXC300-CAR (Red Ball)
GELcore.....	DR6-RTFB-20A-40 (Red Ball)
GELcore.....	DR6-GCFB-20A-40 (Green Ball)
GELcore.....	DR6-YTFB-20A-40 (Yellow Ball)
Leotek.....	TSL-EV12R-HP3-A1 (Red Ball)
Leotek.....	TSL-EV12G-HP3-A1 (Green Ball)
Leotek.....	TSL-EV12Y-HP1-A1 (Yellow Ball)

## PROGRAMMABLE VIEW

## MODEL

Dialight.....	P463R33003 (Red Ball)
Dialight.....	P463Y33003 (Yellow Ball)
Dialight.....	P463G33003 (Green Ball)
GELcore.....	DR3-RCFB-01A (Red Ball)
GELcore.....	DR3-YCFB-01A (Yellow Ball)
GELcore.....	DR3-GCFB-01A (Green Ball)

## VIDEO DETECTION SYSTEMS

### VIDEO DETECTOR

### MODEL

Econolite.....	Autoscope 2004
Econolite.....	Autoscope 2020
Econolite.....	Autoscope Solo Pro
Iteris.....	Vantage Edge2
Traficon.....	VIP 3.1
Traficon.....	VIP 3.2

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## III. HIGHWAY LIGHTING

All highway lighting equipment require a one-year evaluation period except for items noted requiring a six-month evaluation.

### LIGHTING POLES

*Note: Poles do not require an evaluation period. Poles shall be fabricated in accordance with MoDOT specifications and standards. They shall be pre-approved as required by the MoDOT standards and specifications in order to be added to the list. The following manufacturers have pre-approved fabrication details and documentation on file with the department. Lighting poles are subject to field inspection before acceptance.*

STEEL POLES	DRAWING NUMBER
Ameron International .....	MO98AT3 – Rev. 4 (Type AT45) Design 1 & 2
Ameron International .....	MO98AT2 – Rev. 4 (Type AT45) Design 3, 4 & 5
Ameron International .....	MO98AT4 – Rev. 3 (Type AT30)
Ameron International .....	MO98B2 – Rev. 3 (Type B45 & MB45)
Ameron International .....	MO98B4 – Rev. 2 (Type B30)
Millerbernd Manufacturing Co. ....	730B907 (Type AT30)
Millerbernd Manufacturing Co. ....	730B653 (Type AT45)
Millerbernd Manufacturing Co. ....	730B908 (Type B30)
Millerbernd Manufacturing Co. ....	730B909 (Type B45)
Millerbernd Manufacturing Co. ....	730B910 (Type MB45)
Union Metals.....	71019-B6 - Rev. 7 (Type AT45)
Union Metals.....	71019-B7 - Rev. 4 (Types B45 & MB45)
Union Metals.....	71020-B2 - Rev. 5 (Type AT30)
Union Metals.....	71020-B3 - Rev. 4 (Type B30)
Valmont .....	DB00019 – Rev. N (Types AT30 & B30)
Valmont .....	DB00020 – Rev. N (Types AT45, B45 & MB45)

### FOUNDATIONS

*Note: Screw anchor foundations do not require an evaluation period. Screw anchor foundations shall be fabricated in accordance with MoDOT specifications and standards. They shall be pre-approved as required by the MoDOT standards and specifications in order to be added to the list. The following manufacturers have pre-approved fabrication details and documentation on file with the department. Screw anchor foundations are subject to field inspection before acceptance.*

SCREW ANCHOR FOUNDATIONS	DRAWING NUMBER
J. H. Botts .....	JHB MOH 30 – Rev. C (Type AT30)
J. H. Botts .....	JHB MOH 45 – Rev. D (Type AT45)
Hubbell Chance .....	SA112-0696 – Rev. F (Type AT30)
Hubbell Chance .....	SA112-0786 – Rev. B (Type AT45)

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## LUMINAIRES

*NOTE: Luminaires will not be furnished with photoelectric cells. Receptacles will have a shorting plug in place of cell. Multi-tap ballast for 120 Volt and 240 Volt fixtures is permissible.*

<b>BRACKET ARM MOUNT - 150 WATT</b>	<b>MODEL</b>
American Electric Lighting .....	115 Series
American Electric Lighting .....	Durastar 2000, Series 30
Crouse-Hinds/Cooper .....	OVZ Series
Crouse-Hinds/Cooper .....	OVX Series
General Electric (GE).....	M2RR Series
Holophane.....	Mongoose Series

<b>BRACKET ARM MOUNT - 250 WATT</b>	<b>MODEL</b>
American Electric Lighting .....	115 Series
American Electric Lighting .....	Durastar 2000, Series 30
Crouse-Hinds/Cooper .....	OVZ Series
Crouse-Hinds/Cooper .....	OVX Series
General Electric (GE).....	MSRL Series
Holophane.....	Mongoose Series

<b>BRACKET ARM MOUNT - 400 WATT</b>	<b>MODEL</b>
American Electric Lighting .....	125 Series
American Electric Lighting .....	Durastar 2000, Series 30
Crouse-Hinds/Cooper .....	OVX Series
General Electric (GE).....	MSRL Series
Holophane.....	Mongoose Series

<b>HIGH MAST LIGHTING</b>	<b>MODEL</b>
---------------------------	--------------

*NOTE: High mast lighting is custom designed for the location. Fixtures from the following manufacturer's series are considered pre-approved.*

Cooper .....	HMC Series
General Electric (GE).....	HMA Series
Holophane.....	HMS Series
Metrolux .....	VA Series

<b>POLE TOP MOUNTING</b>	<b>MODEL</b>
--------------------------	--------------

Holophane.....	HL2A Series
Holophane.....	Mongoose Series

<b>SIGN LIGHTING - 250 WATT</b>	<b>MODEL</b>
---------------------------------	--------------

General Electric (GE).....	V2FN Series
Guth .....	B17632 Series
Holophane.....	PANL Series
Holophane.....	SNVW Series

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## SIGN LIGHTING - 400 WATT

### MODEL

Holophane.....PANL Series  
 Holophane.....SNVW Series

## UNDERPASS (WALLPACKS)

### MODEL

American Electric Lighting .....582 Series  
 Cooper .....WPK Series  
 General Electric (GE).....WAL Series  
 Holophane.....MDWP Series  
 Holophane.....WL2K Series  
 Hubbell .....PGM-150S Series

## CONTROL EQUIPMENT

### CONTACTORS-ELECTROMECHANICAL

#### MODEL

Square D.....Type S  
 Westinghouse/Cutler-Hammer .....A202 Series

### CONTACTORS-MERCURY

#### MODEL

Dayton/Duracool .....6A/6X Series  
 Magnecraft.....WM Series

### BASE MOUNTED CONTROL CABINETS

***NOTE: Cabinets that meet MoDOT specifications from the following manufacturers will be accepted. All other manufacturers must provide a model that meets specifications and complete a satisfactory six-month evaluation as described above to be added to the list.***

Cleveland Switchboard  
 Coxline  
 Hoffman  
 Shallbetter  
 Inland Technologies

### LIGHTNING ARRESTER

#### MODEL

Delta .....LA 600 Series  
 General Electric Tranquell .....9L15ECB001

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## MOUNTING SOCKET FOR PHOTOELECTRIC CONTROL      MODEL

*NOTE: Mounting sockets require a six-month evaluation.*

American Electric Lighting .....	PBC
Fischer-Pierce.....	S476-71
General Electric (GE).....	MB-PECTL

## PHOTOELECTRIC CONTROL      MODEL

Area Lighting Research .....	SST-120 (120 volt)
Area Lighting Research .....	SST-240 (240 volt)
Area Lighting Research .....	SST-PV (120/240 volt)
American Electric Lighting .....	D120-1.0-STJ (Dark to Light) (120 volt)
American Electric Lighting .....	D124-1.0-STJ (120/240 volt)
American Electric Lighting .....	D240-1.0-STJ (240 volt)
American Electric Lighting .....	DE480-1.0-TJ (480 volt)
Fischer-Pierce.....	FPN7790B (105 – 285 volt)
Fischer-Pierce.....	FPN7772 (195 – 305 volt)
Fischer-Pierce.....	FPN7794 (480 volt)
Fischer-Pierce.....	FPN7760 (120 volt)
General Electric (GE).....	PEC01TL (>120v/< 305v w/ time delay)
General Electric (GE).....	PEC1TL (120v)
General Electric (GE).....	PEC5TL (480v)
ITT .....	SAT-15

## TYPE A CIRCUIT BREAKERS      MODEL

Square D.....	FAL Series
Westinghouse/Cutler-Hammer .....	EHD Series (1-Pole)
Westinghouse/Cutler-Hammer .....	FDB Series (2-Pole)

## MISCELLANEOUS

### AVIATION LIGHTING      MODEL

Hughey & Philips.....	KG114
-----------------------	-------

### FUSED SLIP CONNECTORS      MODEL

*NOTE: Slip connectors require a six-month evaluation.*

Buss .....	HEB-JWRYC
------------	-----------

## MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

### METER SERVICE PEDESTAL (LIGHTING)

### MODEL

Milbank .....	CP3B51C1PBAOMO3 (240 volt)
Milbank .....	CP3B51D1PBAOMO1 (480 volt)
Myers .....	MEUGLA -M100-MDOT (120/240 volt)
Myers .....	MEUG20 (120/240 volt)
Pacific Utility Products .....	USP16-M2100-112C-MODOT (120/240 volt)
Pacific Utility Products .....	USP16-M2100-112C-MODOT (240/480 volt)
Tesco .....	28-105 Type III BF (120/240 volt)
Tesco .....	28-102F (120/240 volt)

### NAVIGATION LIGHTING

### MODEL

Tideland .....	ML-140 with TF-3AC Lamp Changer
Automatic Power, Inc. ....	FA-143

### SPLICE KITS

### MODEL

3M .....	82A1 (Single)
3M .....	82A2 (Single)
3M .....	82B1 (Three Way)
3M .....	82B2 (Three Way)
HOMAC HMC Industries.....	RAB 1/0 Series

### TRANSFORMER BASES

### MODEL

Akron Foundry .....	TB1-17H (for AT30)
Akron Foundry .....	TB3-17H (for AT45)

# MISSOURI DEPARTMENT OF TRANSPORTATION APPROVED PRODUCTS LIST

## IV. POWER SUPPLY EQUIPMENT AND PULL BOXES

All items require a six-month evaluation period.

### MAIN SERVICE DISCONNECT ENCLOSURE WITH SAFETY SWITCH (NEMA 4)

#### MODEL

General Electric (GE).....	TE 100 CS
Square D.....	FA-100-DS Series E2
Westinghouse.....	WFDN 100

### PREFORMED PULL BOX-CLASS 1

#### MODEL

#### Straight

Armorcast Products Company.....	A6001640TAPCX22 (Box & Lid)
Carson Industries .....	H1730-24 (Box)
.....	H1730-PI (Lid)
Strongwell/Quazite.....	PG1730B532 (Box)
.....	PG1730H511 (Lid)
.....	PG1730BA Series
Synertech.....	S1730B24AA (Box)
.....	S1730HBB0A (Lid)

#### Flared

Armorcast Products Company.....	A6001640TAX24 (Box & Lid)
CDR .....	SA12-1730-22 Series (Box & Lid)
NewBasis .....	FCA173022CC4126-62 (Box & Lid)
NewBasis .....	FCA173022CC4749-61 (Box & Lid)
NewBasis .....	FCA173024CC40303 (Box & Lid)
Pencell Plastics.....	PEM-1830-PCX (Box & Lid)

### PREFORMED PULL BOX-CLASS 2

#### MODEL

#### Straight

Armorcast Products Company.....	A6001974TAPCX26 (Box & Lid)
Armorcast Products Company.....	A6001974TAPCX24
Carson Industries.....	H2436-24 (Box)
.....	H2436-PI (Lid)
Strongwell/Quazite.....	PG2436B539 (Box)
.....	PG2436H508 (Lid)
.....	PG2436BA Series
Synertech.....	S2436B26AA (Box)
.....	S2436HCB0A (Lid)

#### Flared

Armorcast Products Company.....	A6001974TAX26 (Box & Lid)
Armorcast Products Company.....	A6001974TAX24
CDR .....	SA12-2436-24 Series (Box & Lid)
NewBasis .....	FCA243630CC4126-61 (Box & Lid)
NewBasis .....	FCA243630CC4749-61 (Box & Lid)
NewBasis .....	FCA243624CC40716 (Box & Lid)
Pencell Plastics.....	PEM-2436-36 (Box & Lid)
Pencell Plastics.....	PEM-2436-PCX-24 (Box & Lid)
Synertech.....	S2436B24AA (Box)
.....	S2436HCB0A (Lid)

**MISSOURI DEPARTMENT OF TRANSPORTATION  
APPROVED PRODUCTS LIST**

**PREFORMED PULL BOX-CLASS 3**

**MODEL**

**Straight**

Armorcast Products Company.....	A6001430TAPCX36 (Box & Lid)
Carson Industries.....	H3048-36 (Box)
.....	H3048-P1 (Lid)
Strongwell/Quazite.....	PG3048B560 (Box)
	PG3048H517 (Lid)
	PG3048BA Series
Synertech.....	S3048B36AA (Box)
	S3048HCB0A (Lid)

**Flared**

Armorcast Products Company.....	A6001550TAX36 (Box & Lid)
CDR .....	SA12-3048-36W Series (Box & Lid)
NewBasis.....	FCA304836EE4749-61 (Box & Lid)
NewBasis.....	FCA304836EE40304 (Box & Lid)
Pencell Plastics.....	PEM-3048-36-PCX-SPLIT (Box & Lid)

**PREFORMED PULL BOX-CLASS 5**

**MODEL**

**Flared**

Armorcast Products Company.....	A6001466TA (Box & Lid)
Armorcast Products Company.....	A6000172TAX36 (Box & Lid)
CDR .....	SA12-3200-36 (Box & Lid)
NewBasis.....	FCA540036C4800 (Box & Lid)
NewBasis.....	FCA540036C40336 (Box & Lid)
NewBasis.....	FCA540036-MODOT