

**MISSOURI DEPARTMENT OF TRANSPORTATION
 INFORMAL QUOTE GUIDELINES AND DOCUMENTATION
 FOR PURCHASES FROM \$3,000 TO \$24,999.99
 THIS IS NOT AN ORDER**

REQUEST FOR QUOTATION

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: 3/26/07	QUOTE DUE BY (DATE AND TIME): 4/5/2007 1:00 PM CDST	F.O.B. REQUIREMENTS: FOB DESTINATION
TO BE DELIVERED/COMPLETED NO LATER THAN: ASAP	QUOTATION #: Q5-07-037 THIS QUOTATION # SHOULD BE REFERENCED ON ALL MAILING LABELS, ENVELOPES, AND ANY OTHER CORRESPONDENCE.	BUYER NAME: COREY DUEMMEL PHONE NUMBER: 573-526-6956 FAX NUMBER: 573-526-6796
District Mailing Address: MoDOT District 5 Office 1511 Missouri Blvd. P.O. Box 718 Jefferson City, MO 65102	Delivery Locations: MoDot Maintenance Building Red Eagle Drive Jefferson City, MO. 65109	

ALL QUOTATIONS MUST BE EXTENDED AND TOTALED. DELIVERY TIME MUST BE LISTED

QTY	U/M	DESCRIPTION (including size and/or part #'s)	UNIT PRICE	UNIT PRICE EXTENSION	DELIVERY TIME
		The Missouri Department of Transportation is accepting bids for the purchase of these items:			
6	Each	Mo-C-post and 54' arm (meeting 902.40N) with anchor bolts (meeting 902.30N) MoDot Specs. No coupling required. No sign brackets.			
		All material shall meet MoDOT Specs 902.40N for the posts and 902.30N for the post base in the 2004 Missouri Standard Plans for Highway Construction. (This will also include all caps, covers and associated hardware, as well as all anchor bolts, nuts and washers according to the Missouri standard plans. No coupling required. No sign brackets needed.			
		Award will be made the lowest total price.			
		Please fax back to the attention of Corey Duemmel. Fax #: (573) 526-6796.			

	<p>All vendors MUST be in good standing with the Secretary of State's Office to have their bids considered. Also due to the sensitivity of time, all Vendors must also be in compliant with House Bill 600 "No Taxes Due" with the Department of Revenue. If in doubt, the numbers are provided below.</p> <p>The Secretary of State's phone number is (573) 751-4936; Department of Revenue number is (573) 751-9268.</p>			
	<p>If you have any questions concerning this quote, please call Kevin Eggemeyer at 573-526-3207 or 573-690-5127</p>			
TOTAL ORDER EXTENSION				

VENDOR NAME:

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 must 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 #:
	Fax #:
	Cellular #:
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

All responses to this Request for Quotation MUST be submitted on this form and all pages MUST be returned to the Buyer listed above at the District mailing address shown.

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 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. 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 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.

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

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 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.

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

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.

Missouri Highways and Transportation Commission
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- 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

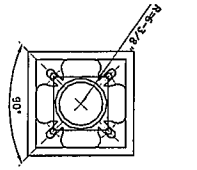
- a. The Contractor expressly warrants that all equipment, supplies, and/or services provided shall: (1) conform to each and every specification, drawing, sample or other description which was furnished to or adopted by MoDOT, (2) be fit and sufficient for the purpose expressed in the solicitation documents, (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

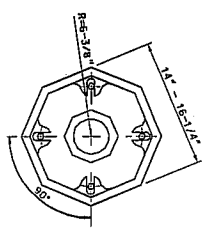
- a. The Contractor represents itself to be an independent Contractor offering such services to the general public and shall not represent itself or its employees to be an employee of the MHTC. Therefore, the Contractor shall assume all legal and financial responsibility for taxes, FICA, employee fringe 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

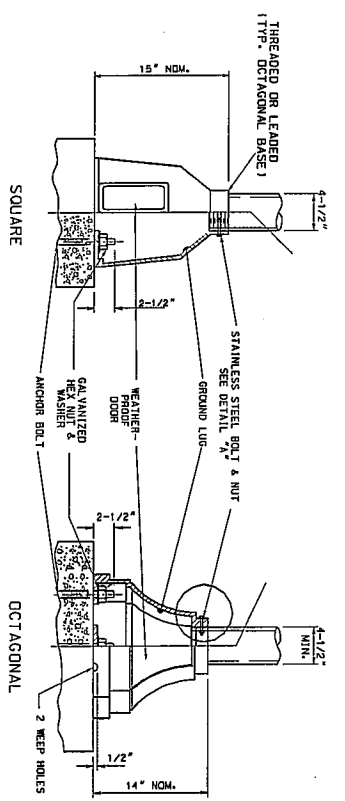
- a. The Contractor shall be responsible for injury or damages as a result of any services and/or goods rendered under the terms and conditions of this Agreement.
- b. In addition to the liability imposed upon the Contractor on the account of personal injury, bodily injury, including death, or property damage, suffered as a result of the Contractor's performance under this Agreement, the Contractor assumes the obligation to save harmless the Commission, including its agents, employees and assigns, and to indemnify the Commission, including its agents, employees and assigns, from every expense, liability or payment arising out of such wrongful or negligent act or omission, including legal fees.
- c. The Contractor also agrees to hold harmless the Commission, including its agents, employees and assigns, from any wrongful or negligent act or omission committed by any subcontractor or other person employed by or under the supervision of the Contractor for any purpose under this Agreement, and to indemnify the Commission, including its agents, employees and assigns, from every expense, liability or payment arising out of such wrongful or negligent act or omission.



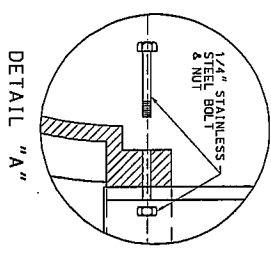
BOLT CIRCLE



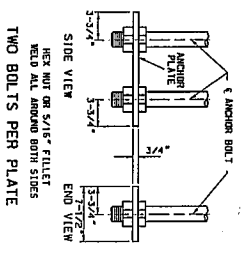
BOLT CIRCLE



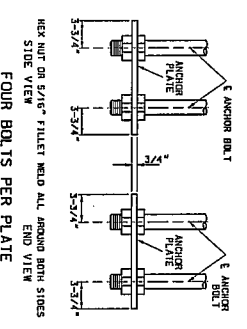
CAST BASE



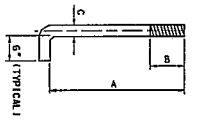
DETAIL "A"



SIDE VIEW
END VIEW
HEX NUT OR 5/16\"/>

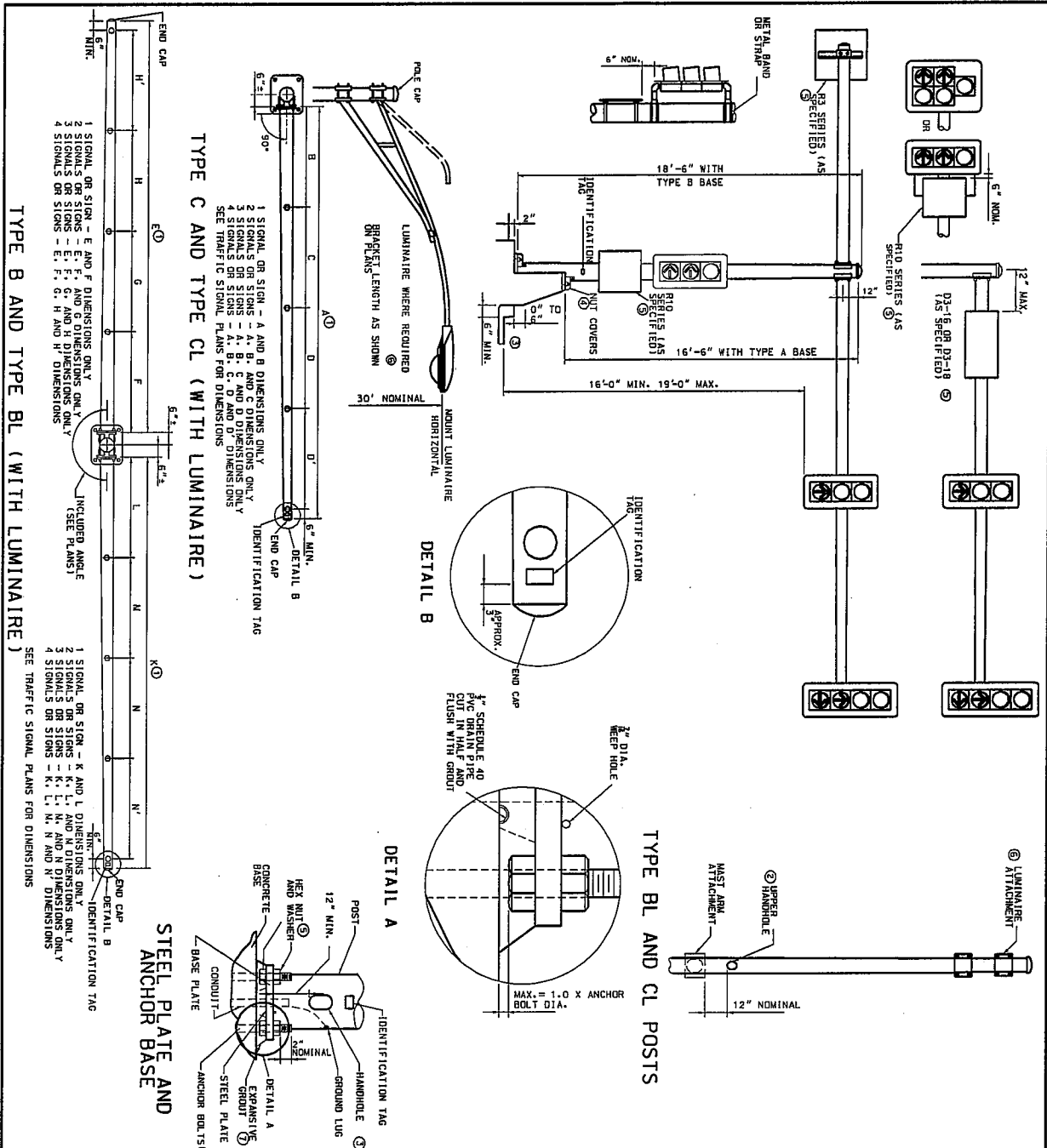


SIDE VIEW
END VIEW
HEX NUT OR 5/16\"/>



ANCHOR BOLT
NOTE:
ALL ANCHOR BOLTS SHALL BE FULLY GALVANIZED.

BOLT LENGTH INCHES	HEX NUT THICKNESS INCHES	THREAD LENGTH INCHES	THREAD DIA. INCHES	DIA. INCHES
13	17	1-5/8	1-3/8	1-3/8
17	21	2-1/8	1-7/8	1-7/8
21	25	2-5/8	2-1/8	2-1/8
25	29	3-1/4	2-1/4	2-1/4
29	33	3-7/8	2-3/8	2-3/8
33	37	4-1/4	2-7/8	2-7/8
37	41	4-7/8	3-1/8	3-1/8
41	45	5-1/4	3-1/4	3-1/4
45	49	5-7/8	3-5/8	3-5/8
49	53	6-1/4	4-1/8	4-1/8
53	57	6-7/8	4-1/4	4-1/4
57	61	7-1/4	4-3/8	4-3/8
61	65	7-7/8	4-7/8	4-7/8
65	69	8-1/4	5-1/8	5-1/8
69	73	8-7/8	5-1/4	5-1/4
73	77	9-1/4	5-3/8	5-3/8
77	81	9-7/8	5-7/8	5-7/8
81	85	10-1/4	6-1/8	6-1/8
85	89	10-7/8	6-1/4	6-1/4
89	93	11-1/4	6-3/8	6-3/8
93	97	11-7/8	6-7/8	6-7/8
97	101	12-1/4	7-1/8	7-1/8
101	105	12-7/8	7-1/4	7-1/4
105	109	13-1/4	7-3/8	7-3/8
109	113	13-7/8	7-7/8	7-7/8
113	117	14-1/4	8-1/8	8-1/8
117	121	14-7/8	8-1/4	8-1/4
121	125	15-1/4	8-3/8	8-3/8
125	129	15-7/8	8-7/8	8-7/8
129	133	16-1/4	9-1/8	9-1/8
133	137	16-7/8	9-1/4	9-1/4
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141	145	17-7/8	9-7/8	9-7/8
145	149	18-1/4	10-1/8	10-1/8
149	153	18-7/8	10-1/4	10-1/4
153	157	19-1/4	10-3/8	10-3/8
157	161	19-7/8	10-7/8	10-7/8
161	165	20-1/4	11-1/8	11-1/8
165	169	20-7/8	11-1/4	11-1/4
169	173	21-1/4	11-3/8	11-3/8
173	177	21-7/8	11-7/8	11-7/8
177	181	22-1/4	12-1/8	12-1/8
181	185	22-7/8	12-1/4	12-1/4
185	189	23-1/4	12-3/8	12-3/8
189	193	23-7/8	12-7/8	12-7/8
193	197	24-1/4	13-1/8	13-1/8
197	201	24-7/8	13-1/4	13-1/4
201	205	25-1/4	13-3/8	13-3/8
205	209	25-7/8	13-7/8	13-7/8
209	213	26-1/4	14-1/8	14-1/8
213	217	26-7/8	14-1/4	14-1/4
217	221	27-1/4	14-3/8	14-3/8
221	225	27-7/8	14-7/8	14-7/8
225	229	28-1/4	15-1/8	15-1/8
229	233	28-7/8	15-1/4	15-1/4
233	237	29-1/4	15-3/8	15-3/8
237	241	29-7/8	15-7/8	15-7/8
241	245	30-1/4	16-1/8	16-1/8
245	249	30-7/8	16-1/4	16-1/4
249	253	31-1/4	16-3/8	16-3/8
253	257	31-7/8	16-7/8	16-7/8
257	261	32-1/4	17-1/8	17-1/8
261	265	32-7/8	17-1/4	17-1/4
265	269	33-1/4	17-3/8	17-3/8
269	273	33-7/8	17-7/8	17-7/8
273	277	34-1/4	18-1/8	18-1/8
277	281	34-7/8	18-1/4	18-1/4
281	285	35-1/4	18-3/8	18-3/8
285	289	35-7/8	18-7/8	18-7/8
289	293	36-1/4	19-1/8	19-1/8
293	297	36-7/8	19-1/4	19-1/4
297	301	37-1/4	19-3/8	19-3/8
301	305	37-7/8	19-7/8	19-7/8
305	309	38-1/4	20-1/8	20-1/8
309	313	38-7/8	20-1/4	20-1/4
313	317	39-1/4	20-3/8	20-3/8
317	321	39-7/8	20-7/8	20-7/8
321	325	40-1/4	21-1/8	21-1/8
325	329	40-7/8	21-1/4	21-1/4
329	333	41-1/4	21-3/8	21-3/8
333	337	41-7/8	21-7/8	21-7/8
337	341	42-1/4	22-1/8	22-1/8
341	345	42-7/8	22-1/4	22-1/4
345	349	43-1/4	22-3/8	22-3/8
349	353	43-7/8	22-7/8	22-7/8
353	357	44-1/4	23-1/8	23-1/8
357	361	44-7/8	23-1/4	23-1/4
361	365	45-1/4	23-3/8	23-3/8
365	369	45-7/8	23-7/8	23-7/8
369	373	46-1/4	24-1/8	24-1/8
373	377	46-7/8	24-1/4	24-1/4
377	381	47-1/4	24-3/8	24-3/8
381	385	47-7/8	24-7/8	24-7/8
385	389	48-1/4	25-1/8	25-1/8
389	393	48-7/8	25-1/4	25-1/4
393	397	49-1/4	25-3/8	25-3/8
397	401	49-7/8	25-7/8	25-7/8
401	405	50-1/4	26-1/8	26-1/8
405	409	50-7/8	26-1/4	26-1/4
409	413	51-1/4	26-3/8	26-3/8
413	417	51-7/8	26-7/8	26-7/8
417	421	52-1/4	27-1/8	27-1/8
421	425	52-7/8	27-1/4	27-1/4
425	429	53-1/4	27-3/8	27-3/8
429	433	53-7/8	27-7/8	27-7/8
433	437	54-1/4	28-1/8	28-1/8
437	441	54-7/8	28-1/4	28-1/4
441	445	55-1/4	28-3/8	28-3/8
445	449	55-7/8	28-7/8	28-7/8
449	453	56-1/4	29-1/8	29-1/8
453	457	56-7/8	29-1/4	29-1/4
457	461	57-1/4	29-3/8	29-3/8
461	465	57-7/8	29-7/8	29-7/8
465	469	58-1/4	30-1/8	30-1/8
469	473	58-7/8	30-1/4	30-1/4
473	477	59-1/4	30-3/8	30-3/8
477	481	59-7/8	30-7/8	30-7/8
481	485	60-1/4	31-1/8	31-1/8
485	489	60-7/8	31-1/4	31-1/4
489	493	61-1/4	31-3/8	31-3/8
493	497	61-7/8	31-7/8	31-7/8
497	501	62-1/4	32-1/8	32-1/8
501	505	62-7/8	32-1/4	32-1/4
505	509	63-1/4	32-3/8	32-3/8
509	513	63-7/8	32-7/8	32-7/8
513	517	64-1/4	33-1/8	33-1/8
517	521	64-7/8	33-1/4	33-1/4
521	525	65-1/4	33-3/8	33-3/8
525	529	65-7/8	33-7/8	33-7/8
529	533	66-1/4	34-1/8	34-1/8
533	537	66-7/8	34-1/4	34-1/4
537	541	67-1/4	34-3/8	34-3/8
541	545	67-7/8	34-7/8	34-7/8
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553	557	69-1/4	35-3/8	35-3/8
557	561	69-7/8	35-7/8	35-7/8
561	565	70-1/4	36-1/8	36-1/8
565	569	70-7/8	36-1/4	36-1/4
569	573	71-1/4	36-3/8	36-3/8
573	577	71-7/8	36-7/8	36-7/8
577	581	72-1/4	37-1/8	37-1/8
581	585	72-7/8	37-1/4	37-1/4
585	589	73-1/4	37-3/8	37-3/8
589	593	73-7/8	37-7/8	37-7/8
593	597	74-1/4	38-1/8	38-1/8
597	601	74-7/8	38-1/4	38-1/4
601	605	75-1/4	38-3/8	38-3/8
605	609	75-7/8	38-7/8	38-7/8
609	613	76-1/4	39-1/8	39-1/8
613	617	76-7/8	39-1/4	39-1/4
617	621	77-1/4	39-3/8	39-3/8
621	625	77-7/8	39-7/8	39-7/8
625	629	78-1/4	40-1/8	40-1/8
629	633	78-7/8	40-1/4	40-1/4
633	637	79-1/4	40-3/8	40-3/8
637	641	79-7/8	40-7/8	40-7/8
641	645	80-1/4	41-1/8	41-1/8
645	649	80-7/8	41-1/4	41-1/4
649	653	81-1/4	41-3/8	41-3/8
653	657	81-7/8	41-7/8	41-7/8
657	661	82-1/4	42-1/8	42-1/8
661	665	82-7/8	42-1/4	42-1/4
665	669	83-1/4	42-3/8	42-3/8
669	673	83-7/8	42-7/8	42-7/8
673	677	84-1/4	43-1/8	43-1/8
677	681	84-7/8	43-1/4	43-1/4
681	685	85-1/4	43-3/8	43-3/8
685	689	85-7/8	43-7/8	43-7/8
689	693	86-1/4	44-1/8	44-1/8
693	697	86-7/8	44-1/4	44-1/4
697	701	87-1/4	44-3/8	44-3/8
701	705	87-7/8	44-7/8	44-7/8
705	709	88-1/4	45-1/8	45-1/8
709	713	88-7/8	45-1/4	45-1/4
713	717	89-1/4	45-3/8	45-3/8
717	721	89-7/8	45-7/8	45-7/8
721	725	90-1/4	46-1/8	46-1/8
725	729	90-7/8	46-1/4	46-1/4
729	733	91-1/4	46-3/8	46-3/8
733	737	91-7/8	46-7/8	46-7/8
737	741	92-1/4	47-1/8	47-1/8
741	745	92-7/8	47-1/4	47-1/4
745	749	93-1/4	47-3/8	47-3/8
749	753	93-7/8	47-7/8	47-7/8
753	757	94-1/4	48-1/8	48-1/8
757	761	94-7/8	48-1/4	48-1/4
761	765	95-1/4	48-3/8	48-3/8
765	769	95-7/8	48-7/8	48-7/8
769	773	96-1/4	49-1/8	49-1/8
773	777	96-7/8	49-1/4	



IDENTIFICATION TAG

MANUFACTURER
 FABRICATION DATE
 SHOP DRAWING NO.
 MFR. PART NUMBER

10 TAG NOTE:
 TAG SHALL BE ALUMINUM OR STAINLESS STEEL AND ATTACHED TO POST BY TWO RIVETS OR STAINLESS STEEL BOLTS. TAG HOLES SHALL BE DRILLED PRIOR TO GALVANIZING.

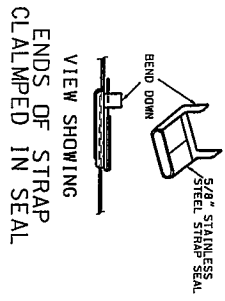
1 ANCHOR LENGTHS SHALL NOT EXCEED 54 FEET.
 2 HANDHOLES SHALL BE APPROXIMATELY 4" x 6-1/2". HANDHOLE FRAME SHALL BE REINFORCED SO THAT THE POLE STRENGTH IS NOT REDUCED.
 3 0" TO 6" VARIATION IN BASE HEIGHT IS FOR OBTAINING 16'-0" CLEARANCE.
 4 0.13 C.Y. CONCRETE AND 3 LBS. REINFORCING STEEL PER 6".
 5 POSTS SHALL BE FURNISHED WITH INDIVIDUAL NUT COVERS.
 6 NO SIGN IN EXCESS OF 15.0 SQUARE FEET SHALL BE INSTALLED ON POSTS OR MAST ARMS. SIGNS EXCEEDING 6.0 SQUARE FEET SHALL BE LOCATED ON THE POST. EDGE OF THE SIGN IS NO MORE THAN 12" FROM THE CENTERLINE OF THE POST.
 7 D3 SERIES SIGNS AS WELL AS SIGNS INSTALLED ON THE POST SHALL BE INSTALLED ON THE MAST ARM SHALL BE MOUNTED WITH A SIGN BRACKET ASSEMBLY.
 8 SEE DRAWING 902-400 FOR TYPICAL BRACKET ARM MOUNTING FOR TYPE BL AND TYPE CL POSTS.
 9 EXPANSIVE GROUT SHALL BE USED BETWEEN THE POST BASE PLATE AND CONCRETE BASE.
 10 POST SHALL BE GROUNDED FROM GROUND LUG IN POST WITH # 6 AWG BARE COPPER WIRE TO CONDUIT. GROUND LUG SHALL BE 90° OR 180° FROM THE HANDHOLE.

GENERAL NOTES:
 ARMS SHALL BE RAKED UP 0.25" PER FOOT MINIMUM. ARMS SHALL BE PROVIDED WITH A PERMANENT MARKING INDICATING PROPER ORIENTATION FOR INSTALLATION.
 SIGNS AND SIGNALS SHALL BE VERTICAL. SIGNAL HEADS ON MAST ARMS SHALL BE TILTED FORWARD FROM THE TOP 3 TO 7 DEGREES FROM VERTICAL.
 IF A SIGN EXCEEDS 42" IN LENGTH, TWO STRAP SUPPORTS ARE REQUIRED. IF A SIGN EXCEEDS 96" IN LENGTH, THREE STRAP SUPPORTS ARE REQUIRED.
 TO DETERMINE LEFT OR RIGHT ON TYPE B OR G SIGNAL POST: INTERSECTION BEING CONTROLLED AND FACING THE SIGNAL INVOLVED.
 SEE DRAWING 902-30 FOR FOUNDATION AND ANCHOR BOLT DETAILS.

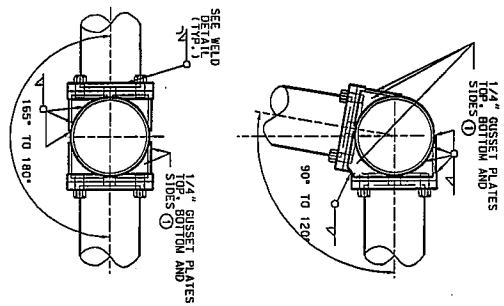
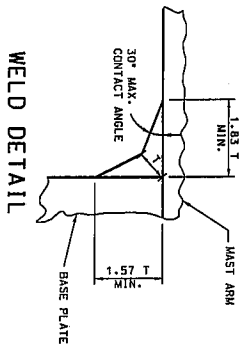
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

TRAFFIC SIGNALS
TUBULAR STEEL POSTS

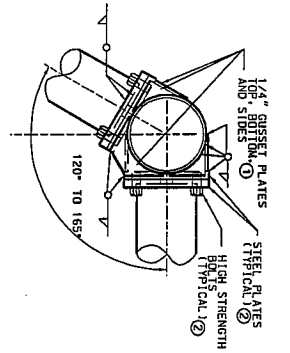
DATE: _____ EFFECTIVE: 07-01-2004 **902-40N** 1/3



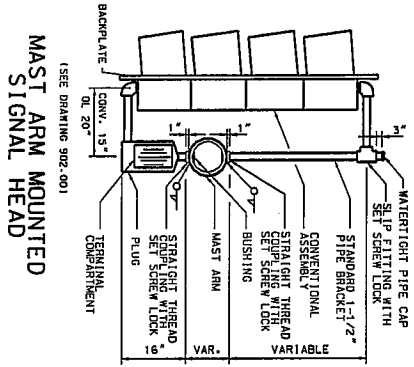
STRAP TYPE
SIGN SUPPORT



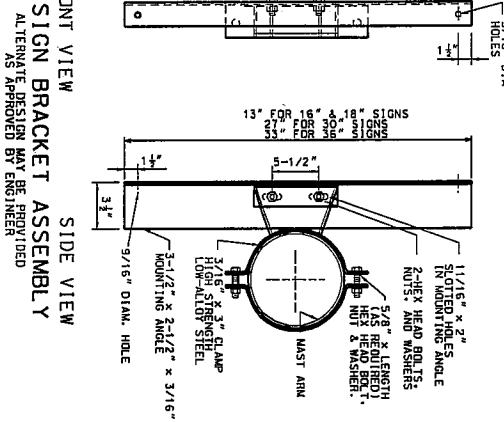
ARM ATTACHMENTS



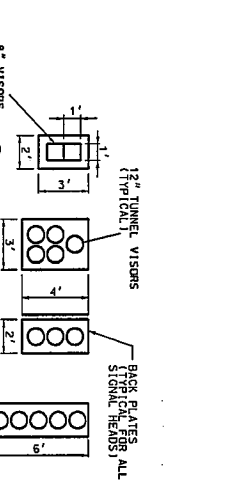
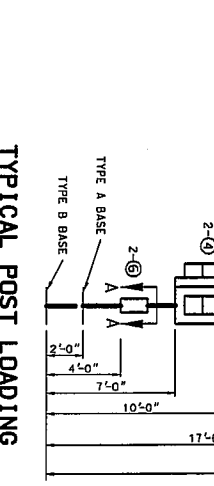
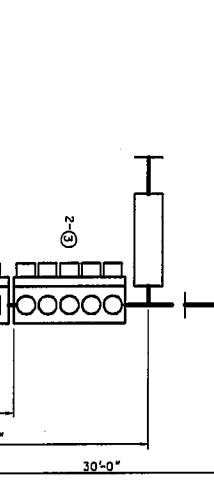
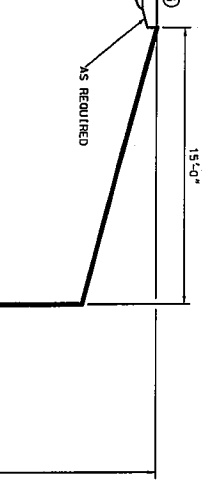
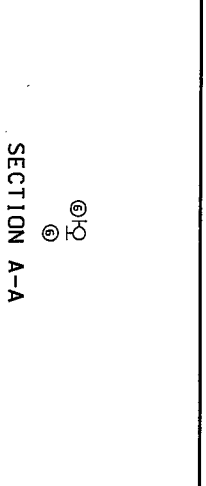
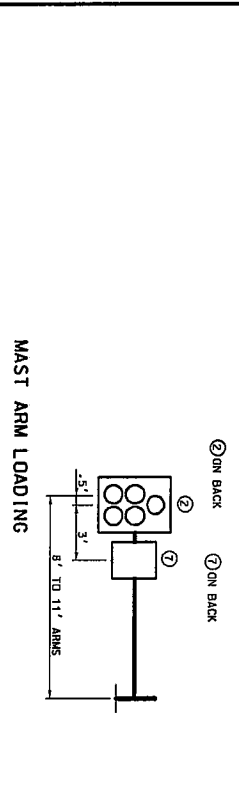
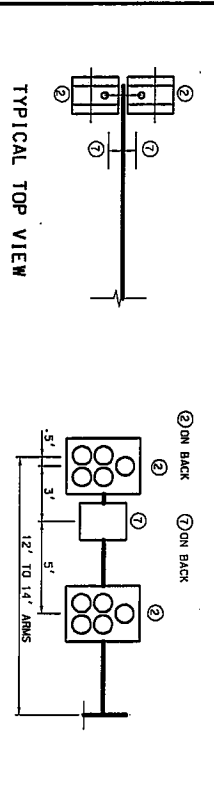
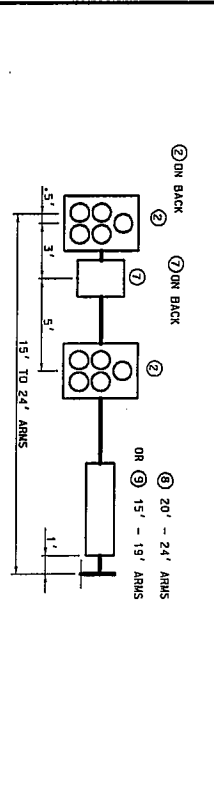
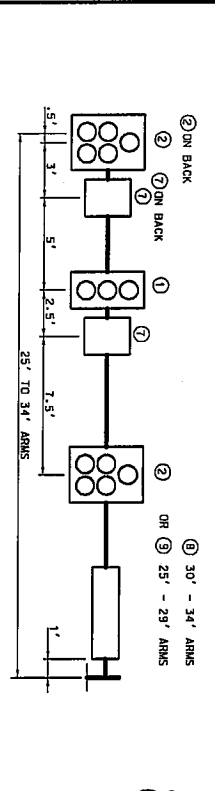
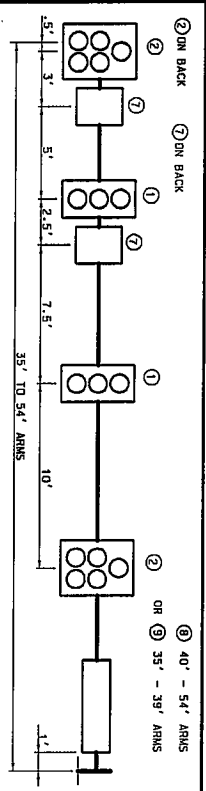
- ① ALL OPENINGS BETWEEN TOP AND SIDE GUSSET PLATES SHALL BE SEALED WITH LIFE-TIME SEALER (SEE MATERIAL LIST).
- ② PLATE AND BOLT SIZES SHALL BE SHOWN ON FABRICATORS SHOP DRAWINGS AND SHALL BE SUBJECT TO APPROVAL.



FRONT VIEW
SIDE VIEW
SIGN BRACKET ASSEMBLY



MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
TRAFFIC SIGNALS TUBULAR STEEL POSTS	
DATE: _____	EFFECTIVE: 07-01-2004
902.40N	
2	3



MINIMUM DESIGN LOADING FOR POST AND MAST ARM ATTACHMENTS

TRAFFIC SIGNALS
TUBULAR STEEL POSTS
DESIGN LOADING REQUIREMENTS

DATE: EFFECTIVE: 07-01-2004 902.40N 3/3

ITEM NO.	DESCRIPTION	WEIGHT (LBS.)	PROG. AREA (SQ. FT.)	SURFACE AREA (SQ. FT.)
1	3-SECTION OL HEAD	60.0	12.0	47.5
2	5-SECTION OL HEAD	100.0	12.0	32.5
3	VERT. 5-SECT. OL HEAD	100.0	12.0	50.5
4	2-SECTION OL HEAD	40.0	6.0	23.0
5	150 WAIT LUMINAIRE	30.0	1.1	3.5
6	9" X 18" SIGN	27.0	1.1	N/A
7	24" X 30" SIGN	25.0	5.0	N/A
8	120" X 18" SIGN	18.0	10.7	N/A
9	96" X 18" SIGN	20.0	12.0	N/A

STRUCTURAL DESIGN REQUIREMENTS:
STRUCTURAL SUPPORTS SHALL BE DESIGNED AND FABRICATED TO WITHSTAND THEIR OWN WEIGHT AND THE WEIGHT OF ALL ATTACHED STRUCTURAL MEMBERS INCLUDING SIGNAL AND LUMINAIRE BRACKET ARMS, AS REQUIRED.
DESIGN OF STRUCTURAL SUPPORTS SHALL BE BASED ON ASHTO STANDARD SPECIFICATIONS FOR LATEST REVISION WITH THESE EXCEPTIONS: LUMINAIRES AND TRAFFIC SIGNALS, 1994 MINIMUM DESIGN WIND SPEED OF 90 MPH AT 30 FEET ABOVE GROUND.
GROUP LOADS:
LOADS PERCENT OF ALLOWABLE STRESS* (ALL MATERIALS)
GROUP I - 100
GROUP II - 133
GROUP III - 167
GROUP IV - 200
* AND LOAD REDUCTION FACTORS SHALL BE APPLIED IN ACCORDANCE WITH THE AISC STEEL DESIGN GUIDE, 3RD EDITION, 1989, CHAPTER 11, FORMULA 11-25 (S1) FOR MINIMUM FOR W FOR GROUP III.

FOR TYPE B AND RL PORTS, USE AND DEAD LOADING SHALL BE BASED ON THE COMBINED EFFECT OF DESIGN LOADING ON EACH ARM ATTACHING AS DESCRIBED IN SECTION 1.2.5 (S10) OF THE STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS, 1994 REVISION.

GENERAL NOTES:
ATTACHMENT LOCATIONS ARE FOR STRUCTURAL DESIGN PURPOSES ONLY.
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
TRAFFIC SIGNALS
TUBULAR STEEL POSTS
DESIGN LOADING REQUIREMENTS