

**STATE OF MISSOURI  
HIGHWAYS and TRANSPORTATION COMMISSION**

JEFFERSON CITY, MISSOURI

**CONSTRUCTING OR IMPROVING**  
**Contract I.D.** 181019-D09

THIS JOB SHALL BE CONSTRUCTED UNDER  
FEDERAL PROJECT NUMBER(S): FAS S401(49)

Job J5S3286 Route 87 COOPER, MONITEAU County.

BIDDER CHECKLIST  
FINAL CHECKLIST BEFORE SUBMITTING BID

1. Submit completed Contractor Questionnaire and/or Contractor Prequalification Questionnaire with attachments not later than seven (7) days prior to the date and hour of the bid opening. See Secs 101-103 of the Missouri Standard Specifications for Highway Construction, and Rule 7 CSR 10-15.010, "Prequalifications to Bid of Certain Contractors". Questionnaire and Contact information are provided on MoDOT's website.
2. All bids shall be submitted electronically using "Bid Express Secure Internet Bidding" at [www.bidx.com](http://www.bidx.com). Any paper bid submitted will be considered irregular per section 102.8 of the Missouri Standard Specifications for Highway Construction.
3. Please read all items in the bidding document carefully. The EBSX files from MoDOT's website may be used for the itemized bid.
4. If submitted in the name of a firm or corporation, the legal name of the firm or corporation should appear in the space designated, and be signed for by one or more persons legally qualified to execute papers in the name of said firm or corporation.
5. The bidder shall submit a Bid Guaranty meeting the requirements of Sec 102 of the Missouri Standard Specifications for Highway Construction. If submitting a project specific or annual bid bond, bidders must use the MoDOT provided bid bond forms. The project specific bond form is included in the request for bid. The project specific and annual bid bond forms are also available on MoDOT's website. Annual bid bonds shall be executed by June 15th of each year.
6. Submit the Subcontractor Disclosure Form in accordance with the bidding documents. For bids of more than \$2,000,000, each bidder shall submit with each bid a disclosure of the subcontracts that have a subcontract value that is equal or greater than twenty percent of the total project bid or subcontracts that are greater than or equal to \$2,000,000. If that information is not available at the time of bid the bidder shall submit the "Subcontractor Disclosure Form" pages with MoDOT on or before 4:00 p.m. of the third business day after the bid opening date.
7. Submit the DBE Identification Submittal in accordance with the bidding documents for Federal Projects Only.
8. Alternate Pavements; to exercise this option, separate pay items, descriptions and quantities are included in the itemized proposal for each of the two alternates. The bidder shall bid only one of the two alternates and leave the contract unit price column blank for any pay item listed for the other alternate.
9. When submitting a bid, your bid will still come through with "red" folders. You should make sure that it is not the Schedule of Items folder or the Signature and Identity of Bidder folder. Click on the yellow checkmark (Check

Bid)at the top and it will list any errors in the bid. To view itemized folders, click the Tree View. This will show the status of the individual folders.

\*\*\*\*\*

Below is a list of common mistakes made by bidders leading to non-responsive bids. Please refer to the Standard Specifications for the appropriate procedures for completing and submitting a bid.

- a) Submitting a paper bid for a project
- b) Using a different bid bond form than the one provided
- c) Improper use of the Maximum Monetary Value Award Provision
  - only used if bidding more than one project and should be in only one bid proposal
- d) Not obtaining a digital ID in advance of the letting
  - (obtaining a digital ID may take 5 business days)

\*\*\*\*\*

All questions concerning the bid document preparation shall be directed to the Central Office - Design Division at (573) 751-2876. Project specific questions shall be directed to the project contact listed in the Job Special Provisions.

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\*These forms are also available on MoDOT's Website, [www.modot.org](http://www.modot.org) under Information on the Bid Opening Info page of the Contractor Resources site.

**NOTICE TO CONTRACTORS**

Electronic bids submitted through the Bid Express website for the proposed work will be received by the Missouri Highways and Transportation Commission until 11:00 o'clock a.m. (prevailing local time) on 10/19/2018.

Bid bonds will be received at the office of the Secretary to the Commission in the Missouri Department of Transportation Central Office Building, 105 West Capitol Avenue, Jefferson City, Missouri; delivered by US Mail should be mailed to: Missouri Highways and Transportation Commission, Attention: State Design Engineer/Bid Bond, P.O. Box 270, Jefferson City, MO 65102 or delivered by parcel delivery services, (such as UPS, Fed Ex, DHL, etc.) should be shipped to Missouri Highways and Transportation Commission, Attention: State Design Engineer/Bid Bond, 105 West Capitol Avenue, Jefferson City, MO 65102.

(1) PROPOSED WORK: The proposed work, hereinafter called the work, includes:

\*\*\*\*(1): Job J5S3286 Route 87 COOPER, MONITEAU County.

Microsurface from Route 5 at Boonville to Route O at California, the total length of improvement being 32.727 miles.

If more than one Job Number is listed for this call, then combination bids will be required on the Jobs listed above.

(2) COMPLIANCE WITH CONTRACT PROVISIONS: The bidder, having examined and being familiar with the local conditions affecting the work, and with the contract, contract documents, including the Missouri Highways and Transportation Commission's "Missouri Standard Specifications for Highway Construction, 2018," and "Missouri Standard Plans for Highway Construction, 2018", their revisions, and the request for bid, including appendices, the special provisions and plans, hereby proposes to furnish all labor, materials, equipment, services, etc., required for the performance and completion of the work. All references are to the Missouri Standard Specifications for Highway Construction, as revised, unless otherwise noted. All questions concerning the bid document preparation shall be directed to the Central Office - Design Division at (573) 751-2876.

(3) PERIOD OF PERFORMANCE: If the bid is accepted, the bidder shall continuously and diligently prosecute the work in such order and manner as will ensure the completion of the work within the time specified in the Job Special Provisions in accordance with Sec 108.

(4) LIQUIDATED DAMAGES: The bidder agrees that, should the bidder fail to complete the work in the time specified or such additional time as may be allowed by the engineer under the contract, the amount of liquidated damages as specified in the Job Special Provisions to be recovered in accordance with Sec 108.

(5) ITEMIZED BID: The bidder should complete the following section in accordance with Sec 102.7. The bidder proposes to furnish all labor, materials, equipment, services, etc. required for the performance and completion of the work, as follows:

Line Number	Item Number	Quantity	Unit	Unit Price	Extension Price
Section 0001					
Roadway Items - J5S3286					
0010	2022010	1	LS		
	REMOVAL OF IMPROVEMENTS				
0020	2153000	6.000	100F		
	SHAPING SLOPES, CLASS III				
0030	3040504	1098.000	SQYD		
	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)				
0040	4019905	333.800	SQYD		
	MISC. MODIFIED PAVED APPROACH, 8 IN.				
0050	4099905	35307.500	SQYD		
	MISC. SEAL CENTERLINE AND SHOULDER RUMBLES				
0060	4131000	538005.000	SQYD		
	MICROSURFACING, TYPE II				
0070	5029905	26.400	SQYD		
	MISC. FULL DEPTH OPTIONAL PAVEMENT				
0080	6049902	3.000	EA		
	MISC. ADJUSTING VALVE BOX				
0090	6081010	274.400	SQYD		
	CONCRETE CURB RAMP				
0100	6081012	337.000	SQFT		
	TRUNCATED DOMES				
0110	6086004	408.300	SQYD		
	CONCRETE SIDEWALK, 4 IN.				
0120	6086007	11.300	SQYD		
	CONCRETE SIDEWALK, 7 IN.				
0130	6089905	22.800	SQYD		
	MISC. 4 IN. CONCRETE ISLAND CAP				
0140	6091010	89.000	LF		
	CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE S				
0150	6099903	105.000	LF		
	MISC. MODIFIED TYPE B CURB AND GUTTER				
0160	6123000A	2.000	EA		
	TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)				
0170	6161005	2812.000	SQFT		
	CONSTRUCTION SIGNS				
0180	6161008	4.000	EA		
	ADVANCED WARNING RAIL SYSTEM				
0190	6161009	13.000	EA		
	FLAG ASSEMBLY				
0200	6161025	400.000	EA		
	CHANNELIZER (TRIM LINE)				
0210	6161030	12.000	EA		
	TYPE III MOVEABLE BARRICADE				
0220	6161040	2.000	EA		
	FLASHING ARROW PANEL				
0230	6161098A	4.000	EA		
	CHANGEABLE MESSAGE SIGN WITHOUT COMMUNICATION INTERFACE, CONTRACTOR FURNISHED, CONTRACTOR RETAINED				

0240	6162004	4.000	EA
	TEMPORARY SHORT-TERM RUMBLE STRIPS		
0250	6169902	4.000	EA
	MISC. DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE		
0260	6181000	1	LS
	MOBILIZATION		
0270	6200009	287.000	LF
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 6 IN. WHITE		
0280	6200015	36.000	LF
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE		
0290	6200021	4.000	EA
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, LEFT/RIGHT ARROW		
0300	6200036	44.000	EA
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK		
0310	6206000C	345721.000	LF
	4 IN. WHITE STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS		
0320	6206001C	248373.000	LF
	4 IN. YELLOW STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS		
0330	6207002	17.000	EA
	PAVEMENT MARKING REMOVAL (SYMBOLS)		
0340	6261000A	2436.100	STA
	BITUMINOUS SHOULDER RUMBLE STRIP		
0350	6269909	1483.200	STA
	MISC. 6 IN. CENTERLINE RUMBLE STRIP		
0360	6274000	1	LS
	CONTRACTOR FURNISHED SURVEYING AND STAKING		
0370	8031000A	641.000	SQYD
	TURF TYPE TALL FESCUE SODDING		

Section 0001 Total

#### Section 0002

Guardrail/Guard Cable Items - J5S3286

0380	6061060	113.000	LF
	MGS GUARDRAIL		
0390	6061061	2463.000	LF
	MGS GUARDRAIL, 8 FT. POSTS, 6 FT. - 3 IN. SPACING		
0400	6061069	4.000	EA
	MGS BRIDGE APPROACH TRANSITION SECTION (REGULAR/NO CURB)		
0410	6063014	15.000	EA
	TYPE A CRASHWORTHY END TERMINAL (MASH)		

Section 0002 Total

#### Section 0003

Signing Items - J5S3286

0420	9031010	1.100	CUYD
	CONCRETE FOOTINGS, EMBEDDED		
0430	9031241	12.000	EA
	BREAKAWAY ASSEMBLY (PERFORATED SQUARE STEEL TUBE)		
0440	9031280	192.000	LF

2.5 IN. PSST POST - 12 GA.		
0450	9031281	36.000 LF
POST ANCHOR FOR 2.5 IN. PSST - 7 GA.		
0460	9035069A	128.000 SQFT
SHF-FLAT SHEET FLUORESCENT		
Section 0003 Total		
Item Total		
		\$0.00



**DBE CERTIFICATION**

(6) Trainees: (Applies to Federal Projects only) The number of trainee hours provided under this contract will be 0 slots at 1000 hours per slot or 0 hours.

(7) Bidder's Certificaton for DBE Program and Contract Goal

(Applies to Federal Projects only.)

(A) DBE Contract Goal: By submitting this bid, the bidder certifies that the bidder is familiar with the DBE Program Requirements in the General Provisions. The contract goal for the amount of work to be awarded is 5.00 % of the total federal project price. The bidder shall also complete the DBE Identification Submittal form in accordance with the General Provisions. This form is available on MoDOT's Website, [www.modot.org](http://www.modot.org) on the Bid Opening Info page of the Contractor Resources site.

(B) DBE Participation: The bidder certifies that it will utilize DBE's as follows:

% OF TOTAL FEDERAL CONTRACT

NOTE: Bidder must fill in the above blank. If no percentage is specified, the bidder certifies that it agrees to and will comply with the contract goal. If a percentage below the contract goal is specified, then the bidder must submit complete documentation of good faith efforts to meet the DBE contract goal, immediately below.

The DBE Identification Submittal form will be submitted via

(C) Certification of Good Faith Efforts to Obtain DBE Participation: By submitting its signed bid, the bidder certifies under penalty of perjury and other provisions of law, that the bidder took each of the following steps to try to obtain sufficient DBE participation to achieve the Commission's proposed DBE Contract Goal:

**CONTRACT PROVISIONS**

(8a) ACCEPTANCE OF PROVISION FOR PRICE ADJUSTMENT FOR FUEL: Bidders have the option to accept the provision for Price Adjustment for Fuel in accordance with Sec. 109.14. The bidder must select "Yes" for those items of work in which they choose to accept the provision. No price adjustments will be made, due to fuel price changes, for bidders who do not accept this provision. This provision does not apply to Seal Coat.

EXCAVATION PRODUCTION

ASPHALT PAVING PRODUCTION AND HAULING

CONCRETE PAVING PRODUCTION AND HAULING

AGGREGATE BASE HAULING

(8b) ACCEPTANCE FOR PROVISION FOR ASPHALT CEMENT PRICE INDEX, SEAL COAT PRICE INDEX, ASPHALT UNDERSEAL PRICE INDEX, OR POLYMER MODIFIED EMULSION MEMBRANE PRICE INDEX: Bidders have the option to accept the provision for Asphalt Cement Price Index, Seal Coat Price Index, Asphalt Underseal Price Index, and/or Polymer Modified Emulsion Membrane Price Index (when used in conjunction with an Ultrathin Bonded Asphalt Wearing Surface treatment) in accordance with the General Provisions. The bidder must mark each box below if they choose to accept the provision. No price adjustments will be made, due to asphalt price changes, for bidders who do not accept this provision.

ASPHALT CEMENT

SEAL COAT

ASPHALT UNDERSEAL

POLYMER MODIFIED EMULSION MEMBRANE (UBAWS)

(9) MAXIMUM MONETARY VALUE OF AWARDS ACCEPTED THIS BID OPENING: Bidders have the option to specify the maximum monetary value of awards that they will accept for the total of all bids they have submitted in the bid opening, Sec 102.7.2. If the bidder is submitting only one bid, or if the bidder does not want to specify a maximum monetary value for submitted bids, this section should not be completed. If a submitted bid upon correction exceeds the indicated maximum monetary amount, the bid may be declared non-responsive. If a bidder's submitted bids show different values for the maximum monetary value, the lowest value will govern.

MAXIMUM MONETARY VALUE OF AWARDS ACCEPTED THIS BID OPENING

\$

(Note: this amount should be entered in only one of the bids for this bid opening)

(10) COMBINATION BIDS: (Applies only if combination bids are specified. See cover and/or notice to contractor(s).) Combination bids will be in accordance with Sec 102.12. By selecting "All or None" the bidder desires to combine all projects in accordance with Sec 102.12.2.1.

(11a) CERTIFICATIONS FOR FEDERAL JOBS: (Applies to Federal Projects only.) By signing and submitting this bid, the bidder makes the certifications appearing in Sec. 102.18.1 (regarding affirmative action and equal opportunity), Sec. 102.18.2 (regarding disbarment, eligibility, indictments, convictions, or civil judgments), Sec. 102.18.3 (regarding anti-collusion), and Sec. 102.18.4 (regarding lobbying activities). Any necessary documentation is to accompany the bid submission, as required by these sections. As provided in Sec. 108.13, the Commission may terminate the contract for acts of misconduct, which includes but is not limited to fraud, dishonesty and material misrepresentation or omission of fact within the bid submission.

(11b) CERTIFICATIONS FOR STATE JOBS: (Applies to State Projects only.) By signing and submitting this bid, the bidder makes the certifications appearing in Sec. 102.18.2 (regarding diseligibility, indictments, convictions, or civil judgments), Sec. 102.18.3 (regarding anti-collusion), and Sec. 102.18.5 (regarding Missouri Domestic Products Procurement Act).

Any necessary documentation is to accompany the bid submission, as required by these sections. As provided in Sec. 108.13, the Commission may terminate the contract for acts of misconduct, which includes but is not limited to fraud, dishonesty, and material misrepresentation or omission of fact within the bid submission.

Does the bidder make certification for the above items listed in 11(a) or 11(b)? **Yes** ☐ **No** ☐

By selecting "No" the bidder REFUSES to make one or more certifications for the above items 11a or 11b. The bidder shall provide a statement of explanation for the refusal in the space below or by fax to the Design Division @ Fax no. 573-522-2281.

(12) ANTIDISCRIMINATION: The Commission hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, businesses owned and controlled by socially and economically disadvantaged individuals will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, religion, creed, sex, age, ancestry, or national

origin in consideration for an award.

(13) PREFERENCE TO MISSOURI FIRMS IN AWARDING OF CONTRACTS: (Applies to State Projects only.) The bidder's attention is directed to Section 34.355 RSMo Supp 2000, et seq, which requires that preference be given in awarding contracts to firms, corporations, or individuals doing business as Missouri firms, corporations, or individuals, or which maintain Missouri offices or places of business, when the quality of performance promised is equal, or better, and the price quoted is the same, or less.

The law also requires that a contractor or bidder domiciled outside the State of Missouri shall be required, in order to be the successful bidder, to submit a bid which is the same percent less than the lowest bid submitted by a responsible contractor or bidder domiciled in Missouri as would be required for the Missouri domiciled contractor or bidder to succeed over the bidding contractor or bidder domiciled outside Missouri in a like contract or bid being let in his domiciliary state. A contractor or bidder domiciled outside Missouri shall also be required to submit an audited financial statement as would be required of a Missouri domiciled contractor or bidder on a like contract or bid being let in the domiciliary state of that contractor or bidder.

For firms, corporations or individuals domiciled outside the State of Missouri, it is requested they submit the following information:

List the state of domicile

List address of all Missouri offices or places of business

I acknowledge that I have read, understand and completed the above Contract Provisions.

**SUBCONTRACTOR DISCLOSURE**

(14) SUBCONTRACTOR DISCLOSURE The bidder shall submit with this bid any subcontracts that meet the requirements of Sec 102. List below the name of each subcontractor that will be furnishing labor, labor and materials, the category of work that the subcontractor will be performing (e.g. asphalt, concrete, earthwork, bridges...), and the dollar value of the subcontract. Select "NONE" if there are no subcontractors that need to be disclosed.

If the information is not available at the time of bid, the bidder shall submit the "Subcontractor Disclosure Form", located on MoDOT's website, on or before 4:00 p.m. of the third business day after the bid opening date, directly to the Design Division, Missouri Department of Transportation, 105 W. Capitol Avenue, P.O. Box 270, Jefferson City, Missouri 65102-0270. Telefax transmittal to MoDOT will be permitted at fax no. 573-522-2281 or emailed to [subcontractor.disclosure@modot.mo.gov](mailto:subcontractor.disclosure@modot.mo.gov). The complete signed original documents do not need to be mailed to MoDOT, but the bidder shall have it available if requested by the Design Division or the engineer.

SUBCONTRACTOR NAME:

DOLLAR VALUE: \$

CATEGORY OF WORK:

SUBCONTRACTOR NAME:

DOLLAR VALUE: \$

CATEGORY OF WORK:

SUBCONTRACTOR NAME:

DOLLAR VALUE: \$

CATEGORY OF WORK:

SUBCONTRACTOR NAME:

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DOLLAR VALUE: \$

CATEGORY OF WORK:

SUBCONTRACTOR NAME:

DOLLAR VALUE: \$

CATEGORY OF WORK:

SUBCONTRACTOR NAME:

DOLLAR VALUE: \$

CATEGORY OF WORK:

Submitted:

**SIGNATURE AND IDENTITY OF BIDDER**

## (15) SIGNATURE AND IDENTITY OF BIDDER

BY SUBMITTING THIS BID ELECTRONICALLY, I HEREBY ACKNOWLEDGE THAT ALL REQUIREMENTS INCLUDED IN THE HARD COPY REQUEST FOR BID, AND AMENDMENTS ARE A PART OF THIS BID AND CONTRACT.

\*\*\* AN ELECTRONIC PROPOSAL SUBMITTED AND SIGNED WITH A DIGITAL ID, UNDER THE PROVISION OF THE MISSOURI DEPARTMENT OF TRANSPORTATION, WILL BE CONSIDERED VALID AND BINDING. \*\*\*

THE BIDDER CERTIFIES THAT THE BIDDER AND ITS OFFICIALS, AGENTS, AND EMPLOYEES HAVE NEITHER DIRECTLY NOR INDIRECTLY ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION, OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THIS BID, AND THAT THE BIDDER INTENDS TO PERFORM THE WORK WITH ITS OWN BONAFIDE EMPLOYEES AND SUBCONTRACTORS, AND DID NOT BID FOR THE BENEFIT OF ANOTHER CONTRACTOR.

THE BIDDER CERTIFIES THAT THE BIDDER'S COMPANY KNOWINGLY EMPLOYS ONLY INDIVIDUALS WHO ARE AUTHORIZED TO WORK IN THE UNITED STATES IN ACCORDANCE WITH APPLICABLE FEDERAL AND STATE LAWS AND ALL PROVISIONS OF MISSOURI EXECUTIVE ORDER NO. 07-13 FOR CONTRACTS WITH THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, ACTING THROUGH THE MISSOURI DEPARTMENT OF TRANSPORTATION.

THE BIDDER ACKNOWLEDGES THAT THIS IS AN UNSWORN DECLARATION, EXECUTED UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES AND/OR FALSE DECLARATION UNDER THE LAWS OF MISSOURI, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS. THE FAILURE TO PROVIDE THIS CERTIFICATION IN THIS BID MAY MAKE THIS BID NON-RESPONSIVE, AND CAUSE IT TO BE REJECTED.

☐ Yes ☐ No

Select "No" ONLY if the bidder REFUSES to make this certification. The bidder may provide an explanation for the refusal with this submittal in the space below or by fax to the Design Division @ fax no. 573-522-2281.

USE OF ANOTHER PERSON'S DIGITAL ID IN THIS BIDDING PROCESS VIOLATES THE LAWS OF MISSOURI.

I acknowledge that I have read, understood and completed the above Electronic Bid Submission Certification.

**BID BOND**

(16) BID GUARANTY: The bidder shall submit a Bid Guaranty meeting the requirements of Section 102 of the Missouri Standard Specifications for Highway Construction. MoDOT's bid bond forms are available on MoDOT's website.

Annual bid bonds shall be submitted to MoDOT by June 15th of each year. If utilizing a paper annual or project specific bid bond as a Bid Guaranty

for this project the bidder shall mark the box below.

\*\*Pay by: ☐ Paper Annual or Project Specific Bid Bond.

If submitting a cashier's/certified check, the Bid Bond folder will not turn green.

**ELECTRONIC BID BOND**

The bidder shall complete the following bond verification process if utilizing an electronic project bid bond or electronic annual bid bond as a Bid Guaranty for this project.

\*\*Bond ID:

\*\*Surety Registry Agency:

\*\*Bond Pct:

Surety State:

FIELDS WITH THE \*\* INDICATOR ARE REQUIRED FIELDS IF SUBMITTING YOUR BID VIA BID EXPRESS

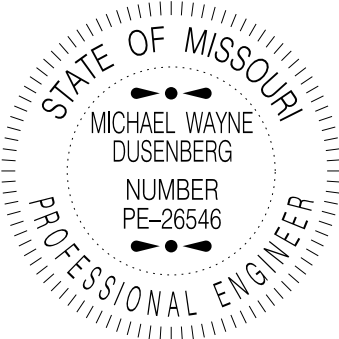


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Job No.: J5S3286  
Route: 87  
County: Cooper/Moniteau

 <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<b>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</b> 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636
	If a seal is present on this sheet, JSP's have been electronically sealed and dated.
	JOB NUMBER: J5S3286 COOPER/MONITEAU COUNTY, MO DATE PREPARED: 08/13/2018
	ADDENDUM DATE:
Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: All	

JOB  
SPECIAL PROVISION

A. General - Federal JSP-09-02D

**1.0 Description.** The Federal Government is participating in the cost of construction of this project. All applicable Federal laws, and the regulations made pursuant to such laws, shall be observed by the contractor, and the work will be subject to the inspection of the appropriate Federal Agency in the same manner as provided in Sec 105.10 of the Missouri Standard Specifications for Highway Construction with all revisions applicable to this bid and contract.

**1.1** This contract requires payment of the prevailing hourly rate of wages for each craft or type of work required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations, and requires adherence to a schedule of minimum wages as determined by the United States Department of Labor. For work performed anywhere on this project, the contractor and the contractor's subcontractors shall pay the higher of these two applicable wage rates. State Wage Rates, Information on the Required Federal Aid Provisions, and the current Federal Wage Rates are available on the Missouri Department of Transportation web page at [www.modot.org](http://www.modot.org) under "Bidding". Effective Wage Rates will be posted 10 days prior to the applicable bid opening. These supplemental bidding documents have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

**1.2** The following documents are available on the Missouri Department of Transportation web page at [www.modot.org](http://www.modot.org) under "Business"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to July 2018 Missouri Standard Plans  
For Highway Construction

These supplemental bidding documents contain all current revisions to the published versions and have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

B. Contract Liquidated Damages

**1.0 Description.** Liquidated Damages for failure or delay in completing the work on time for this contract shall be in accordance with Sec 108.8. The liquidated damages include separate amounts for road user costs and contract administrative costs incurred by the Commission.

**2.0 Period of Performance.** Prosecution of work is expected to begin on the date specified below in accordance with Sec 108.2. Regardless of when the work is begun on this contract, all

Job No.: J5S3286  
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work shall be completed on or before the date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Notice to Proceed: January 2, 2019  
Completion Date: September 28, 2019

**2.1 Calendar Days.** The count of calendar days will begin on the date the contractor starts any construction operations on the project.

Job Number	Calendar Days	Daily Road User Cost
J5S3286	105	\$2,300

**3.0 Liquidated Damages for Contract Administrative Costs.** Should the contractor fail to complete the work on or before the completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged contract administrative liquidated damages in accordance with Sec 108.8 in the amount of **\$500** per calendar day for each calendar day, or partial day thereof, that the work is not fully completed. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the above specified completion date or calendar days.

**4.0 Liquidated Damages for Road User Costs.** Should the contractor fail to complete the work on or before the completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged road user costs in accordance with Sec 108.8 in the amount specified in Section 2.1 for each calendar day, or partial day thereof, that the work is not fully completed. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.

C. Work Zone Traffic Management

**1.0 Description.** Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows.

**1.1 Maintaining Work Zones and Work Zone Reviews.** The Work Zone Specialist (WZS) shall maintain work zones in accordance with Sec 616.3.3 and as further stated herein. The WZS shall coordinate and implement any changes approved by the engineer. The WZS shall ensure all traffic control devices are maintained in accordance with Sec 616, the work zone is operated within the hours specified by the engineer, and will not deviate from the specified hours without prior approval of the engineer. The WZS is responsible to manage work zone delay in accordance with these project provisions. When requested by the engineer, the WZS shall submit a weekly report that includes a review of work zone operations for the week. The report shall identify any problems encountered and corrective actions taken. Work zones are subject to unannounced inspections by the engineer and other departmental staff to corroborate the validity of the WZS's review and may require immediate corrective measures and/or additional work zone monitoring.

**1.2 Work Zone Conflict Resolution.** Any conflict resolution shall be in accordance with Sec 616.4. Failure to make corrections on time may result in the engineer suspending work. The

suspension will be non-excusable and non-compensable regardless if road user costs are being charged for closures.

## **2.0 Traffic Management Schedule.**

**2.1** Traffic management schedules shall be submitted to the engineer for review prior to the start of work and prior to any revisions to the traffic management schedule. The traffic management schedule shall include the proposed traffic control measures, the hours traffic control will be in place, and work hours.

**2.2** The traffic management schedule shall conform to the limitations specified in Sec 616 regarding lane closures, traffic shifts, road closures and other width, height and weight restrictions.

**2.3** The engineer shall be notified as soon as practical of any postponement due to weather, material or other circumstances.

**2.4** In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work. Lanes shall not be closed until material is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed lane is opened to traffic.

**2.5 Traffic Congestion.** The contractor shall, upon approval of the engineer, take proactive measures to reduce traffic congestion in the work zone. The contractor shall immediately implement appropriate mitigation strategies whenever traffic congestion reaches an excess of 10 minutes to prevent congestion from escalating to 15 minute or above threshold. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall immediately review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent the queues from reoccurring. Traffic delays may be monitored by physical presence on site or by utilizing real-time travel data through the work zone that generate text and/or email notifications where available. The engineer monitoring the work zone may also notify the contractor of delays that require prompt mitigation. The contractor may work with the engineer to determine what other alternative solutions or time periods would be acceptable.

### **2.5.1 Traffic Safety.**

**2.5.1.1** Where traffic queues routinely extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway, the contractor shall extend the advance warning area, as approved by the engineer.

**2.5.1.2** When a traffic queue extends to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway due to non-recurring congestion, the contractor shall deploy a means of providing advance warning of the traffic congestion, as approved by the engineer. The warning location shall be no less than 1000 feet and no more than 0.5 mile in advance of the end of the traffic queue on divided highways and no less than 500 feet and no more than 0.5 mile in advance of the end of the traffic queue on undivided highways.

## **3.0 Work Hour Restrictions.**

**3.1** There are six major holiday periods shown below. All lanes shall be scheduled to be open to traffic during these holiday periods, from 12:00 noon on the last working day proceeding the holiday until 9:00 a.m. on the first working day subsequent to the holiday unless approved by the Engineer.

Memorial Day  
Independence Day  
Labor Day  
Thanksgiving  
Christmas  
New Year's Day

**3.1.1** The contractor's working hours will be restricted for the Special Events as shown below. All lanes shall be scheduled to be open to traffic during these Special Events.

Prairie Home Fair  
Moniteau County Fair  
Ozark Ham and Turkey Festival

**3.1.1** All lanes of Route 87 and all sidewalks in the city limits of California shall be open to traffic for the Ozark Ham and Turkey Festival. All lanes of Route 87 and all sidewalks in the city limits of California shall be scheduled to be open to traffic from 12:00 noon on the last working day preceding the festival until 9:00 a.m. on the first working day subsequent to the festival.

**3.2** The contractor shall not perform any construction operation on the roadway, including the hauling of material within the project limits, during restricted periods, holiday periods or other special events specified in the contract documents.

#### **4.0 Detours and Lane Closures.**

**4.1** When a changeable message sign (CMS) is provided, the contractor shall use the CMS to notify motorists of future traffic disruption and possible traffic delays one week before traffic is shifted to a detour or prior to lane closures. The CMS shall be installed at a location as approved or directed by the engineer. The CMS shall be capable of communication with the Transportation Management Center (TMC), if applicable, prior to installation on right of way. All messages planned for use in the work zone shall be approved and authorized by the engineer or its designee prior to deployment. When permanent dynamic message signs (DMS) owned and operated by MoDOT are located near the project, they may also be used to provide warning and information for the work zone. Permanent DMS shall be operated by the TMC, and any messages planned for use on DMS shall be approved and authorized by the TMC at least 72 hours in advance of the work.

**4.2** At least one lane of traffic in each direction shall be maintained at all times except for brief intervals of time required when the movement of the contractor's equipment will seriously hinder the safe movement of traffic. Periods during which the contractor will be allowed to interrupt traffic will be designated by the engineer.

**5.0 Basis of Payment.** No direct payment will be made to the contractor to recover the cost of equipment, labor, materials or time required to fulfill the above provisions, unless specified

elsewhere in the contract document. All authorized changes in the traffic control plan shall be provided for as specified in Sec 616.

D. Utilities

**1.0** For informational purposes only, the following is a list of names, addresses, and telephone numbers of the known utility companies in the area of the construction work for this improvement:

<u>Utility Name</u>	<u>Known Required Adjustment</u>	<u>Type</u>	<u>Location</u>
Ameren Missouri – Electric Contact: Derek Wekenborg (573) 681-7526 <a href="mailto:dwekenborg@ameren.com">dwekenborg@ameren.com</a>	None	Electric	Boonville Guardrail
Ameren Missouri – Gas Contact: Jake Martin (573) 681-7550 <a href="mailto:jmartin7@ameren.com">jmartin7@ameren.com</a>	None	Gas	California Boonville Guardrail
Centurylink Contact: Tim McKinney (573) 635-1147 <a href="mailto:Tim.h.mckinney@centurylink.com">Tim.h.mckinney@centurylink.com</a>	Yes – see 2.0	Communications	California Guardrail
Co-Mo Connect Contact: Matt Schubert (573) 573-789-7752 <a href="mailto:mschubert@co-mo.net">mschubert@co-mo.net</a>	None	Communications	California
Spire Energy Contact: Jon Harrel (816) 969-2298 <a href="mailto:Jon.harrel@spireenergy.com">Jon.harrel@spireenergy.com</a>	None	Gas	California
MoDOT Signals and Lighting Contact: Jason Morff (573) 526-3207 <a href="mailto:Jason.morff@modot.mo.gov">Jason.morff@modot.mo.gov</a>	None	Electric	Boonville
AT&T Distribution Contact: Tim Bregenzer (618) 210-2425 <a href="mailto:Tb6879@att.com">Tb6879@att.com</a>	None	Communications	Boonville Guardrail

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City of Boonville Contact: M.L. Cauthon (660) 882-5257 <a href="mailto:mcauthon@boonville-mo.org">mcauthon@boonville-mo.org</a>	Yes – see 3.0	Water	Boonville Guardrail
Sho-Me Technologies Contact: Brad McGoon (417) 859-3475 <a href="mailto:dmcgoon@shomepower.com">dmcgoon@shomepower.com</a>	None	Electric, Telephone	California
Cooper County CPWSD 1 Contact: CW Adams (660) 882-6455 <a href="mailto:ccpwsd@gmail.com">ccpwsd@gmail.com</a>	None	Water	Guardrail
Bluebird Network Contact: David Frazier (816) 237-2125 <a href="mailto:David.frazier@bluebirdnetwork.com">David.frazier@bluebirdnetwork.com</a>	None	Communications	Boonville
City of California Contact: Kyle Wirts (573)-796-2268 <a href="mailto:K.wirts@cityofcalifornia.net">K.wirts@cityofcalifornia.net</a>	Yes - see 4.0	E, S, SD, SS, W	California

**1.1** The existence and approximate location of utility facilities known to exist, as shown on the plans, are based upon the best information available to the Commission at this time. This information is provided by the Commission "as-is" and the Commission expressly disclaims any representation or warranty as to the completeness, accuracy, or suitability of the information for any use. Reliance upon this information is done at the risk and peril of the user, and the Commission shall not be liable for any damages that may arise from any error in the information. It is, therefore, the responsibility of the contractor to verify the above listing information indicating existence, location and status of any facility. Such verification includes direct contact with the listed utilities.

**2.0 Centurylink.** The Contractor is advised that Centurylink has a pedestal in conflict with the ADA work at the SE corner of Route 87 and North Street that will require adjustment. Centurylink advises they will adjust the facilities in conjunction with the Contractor's ADA work. The Contractor shall directly contact Centurylink to coordinate the adjustment and take measures to ensure that the integrity of the existing facilities are not disturbed until such time that the relocations are complete. There will be no direct pay for compliance to the above specification.

**3.0 City of Boonville.** The Contractor is advised that the City of Boonville has two (2) water valve boxes located within the sidewalk work that will require adjustment. The Contractor shall adjust the City of Boonville facilities to grade as necessary. The Contractor shall contact the City at least forty-eight (48) hours prior to beginning adjustment so City personnel can be on-site to answer any questions regarding the adjustment of these facilities. Payment for all necessary work and materials required for the adjustment of these facilities shall be completely covered by "Pay Item 604-99.02 Adjusting Valve Box" as included elsewhere in this contract.



**4.0 City of California.** The Contractor is advised that the City of California has one (1) water valve box located within the sidewalk work that will require adjustment. The Contractor shall adjust the City of California facilities to grade as necessary. The Contractor shall contact the City at least forty-eight (48) hours prior to beginning adjustment so City personnel can be on-site to answer any questions regarding the adjustment of these facilities. Payment for all necessary work and materials required for the adjustment of these facilities shall be completely covered by "Pay Item 604-99.02 Adjusting Valve Box" as included elsewhere in this contract.

**E. Emergency Provisions and Incident Management**

**1.0** The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from the police or other emergency agencies for incident management. In case of traffic accidents or the need for police to direct or restore traffic flow through the job site, the contractor shall notify police or other emergency agencies immediately as needed. The resident engineer's office shall also be notified when the contractor requests emergency assistance.

**2.0** In addition to the 911 emergency telephone number for ambulance, fire or police services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol 573-751-1000 (cell - *55)
Cooper County Sheriff 660-882-2771
Moniteau County Sheriff 573-769-2525

**2.1** This list is not all inclusive. Notification of the need for wrecker or tow truck services will remain the responsibility of the appropriate police agency.

**2.2** The contractor shall notify enforcement and emergency agencies before the start of construction to request their cooperation and to provide coordination of services when emergencies arise during the construction at the project site. When the contractor completes this notification with enforcement and emergency agencies, a report shall be furnished to the engineer on the status of incident management.

**3.0** No direct pay will be made to the contractor to recover the cost of the communication equipment, labor, materials or time required to fulfill the above provisions.

**F. Project Contact for Contractor/Bidder Questions**

All questions concerning this project during the bidding process shall be forwarded to the project contact listed below.

Jason Vanderfeltz, Project Contact  
MoDOT – Central District  
1511 Missouri Blvd., PO Box 718  
Jefferson City, MO 65109

Telephone Number: 573-526-6998  
Email: [jason.vanderfeltz@modot.mo.gov](mailto:jason.vanderfeltz@modot.mo.gov)

All questions concerning the bid document preparation can be directed to the Central Office – Design at (573) 751-2876.

G. Liquidated Damages Specified

**1.0 Description.** If the ADA work within the City of California is not complete and open to vehicular and pedestrian traffic one week prior to the start of the 2019 Ozark Ham and Turkey Festival, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to, increased construction administration cost, potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of \$1000 per day for each full day that the ADA work within the City of California is not complete and open to vehicular and pedestrian traffic in excess of the limitation as specified elsewhere in this special provision. It shall be the responsibility of the engineer to determine the quantity of excess closure time.

**1.1** The said liquidated damages specified will be assessed regardless of whether it would otherwise be charged as liquidated damages under the Missouri Standard Specification for Highway Construction, as amended elsewhere in this contract.

**1.2** For purposes of this provision, the ADA work within the City of California includes but is not limited to the complete construction of all Modified Paved Approaches, Curb Ramps, Sidewalks and Detectable Warnings that are within the city limits of California, Missouri.

H. Micro-Surfacing NJSP-18-04

**Delete Sec 413.10.2 and substitute the following:**

**413.10.2 Material.** All material shall be in accordance with Division 1000, Material Details, and specifically as follows:

Item	Section
Emulsified Asphalt	1015.20.5.2
Aggregate	1003
Cement	1019
Water	1070

**Delete Sec 413.10.2.1.1 and substitute the following:**

**413.10.2.1.1** The mineral aggregate shall be an approved crushed non-carbonate aggregate or an approved crushed steel slag for Grade A. For lower volume routes and non-traffic areas such as shoulders, Grade B or C may be specified such that crushed limestone or crushed gravel sources are allowed. The aggregate shall be free of cemented or conglomerated

material and shall not have any coating or detrimental material. The mineral aggregate shall be in accordance with the following requirements for the grade specified in the contract.

Property	Grade A	Grade B	Grade C
Absorption, AASHTO T 85, percent, max	2.0	4.0	5.5
Deleterious rock, percent by weight, max	2.0	4.0	8.0
Shale, percent by weight, max	0.5	0.75	1.0
Other foreign material, percent by weight, max.	0.5	0.5	0.5
Two fractured faces, percent, min	100	100	100
Thin, elongated particles, ASTM D4791, 5:1, percent, max <sup>a</sup>	10	N/A	N/A
Micro-Deval, AASHTO T 327, percent, max	18	20	N/A
Los Angeles Abrasion, AASHTO T96, percent loss, max	30	50	50
Acid Insoluble Residue (AIR), MoDOT TM76, min	85	N/A	N/A
Sand Equivalent, AASHTO T 176, % min	65	65	65

<sup>a</sup>Test material retained on the No. 4 sieve.

**Delete Sec 413.10.2.1.3 and substitute the following:**

**413.10.2.1.3** The Job Mix Formula (JMF) shall be designed to allow for stockpile and construction tolerances. The gradation of the aggregate stockpile during production shall not vary from the JMF by more than the stockpile tolerance designated in the following table while also remaining within the specification gradation master range. Any material not meeting the master gradation range listed in the following table is unacceptable.

Aggregate Gradation Requirements Master Gradation Range (Percent Passing)			
Sieve Size	Type II Grades A, B, or C	Type III/IIIR Grades A, B, or C	Stockpile Tolerance
3/8 inch	100	100	
No. 4	90 - 100	70 - 90	+/- 5 %
No. 8	65 - 90	45 - 70	+/- 5 %
No. 16	45 - 70	28 - 50	+/- 5 %
No. 30	30 - 50	19 - 34	+/- 5 %
No. 50	18 - 30	12 - 25	+/- 4 %
No. 100	10 - 21	7 - 18	+/- 3 %
No. 200	5 - 15	5 - 15	+/- 2 %

**Delete Sec 413.10.2.2, 413.10.2.3 and 413.10.2.4 and substitute the following:**

**413.10.2.2 Mineral Filler.** Mineral filler shall be a Type I or Type II Portland cement or hydrated lime, and shall be free of lumps or any other deleterious material. The mineral filler application rate range, approved by the mix design laboratory, shall be included in the mix design.

**413.10.2.3 Water.** Water shall be potable and free of harmful soluble salts in accordance with Sec 1070. Water application rate range, approved by the mix design laboratory, shall be included in the mix design. The water content is the total water content of the system, including aggregate moisture.

**413.10.2.4 Additives.** Any other material added to the mixture used to accelerate or retard the break/set or to any of the component materials to provide the required properties shall be supplied by the emulsion manufacturer. Additive application rate range, approved by the mix design laboratory, shall be included in the mix design.

**Delete Sec 413.10.3 and 413.10.3.1 and substitute the following:**

**413.10.3 Job Mix Formula.** The manufacturer of the emulsion shall develop the job mix formula and shall present certified test results for the engineer's approval. The residual asphalt content and emulsion application rate range, approved by the mix design laboratory, shall be included in the mix design. The job mix formula shall be designed in accordance with the following International Slurry Surfacing Association (ISSA) recommended standards:

ISSA Performance Criteria		
Test	ISSA Technical Bulletin No.	Specification
Mix Time @ 77 ° F	TB 113	120 seconds, Min.
Wet Cohesion @ 30 seconds, Min. (Set)  @ 60 minutes, Min. (Traffic)	TB 139	12 kg-cm, Min.  20 kg-cm or Near Spin, Min.
Wet Stripping	TB 114	90 %, Min.
Wet Track Abrasion Loss @ 1-hour soak  @ 6-day soak	TB 100	50 g/ft <sup>2</sup> (538 g/m <sup>2</sup> ), Max.  75 g/ft <sup>2</sup> (807 g/m <sup>2</sup> ), Max.
Lateral Displacement	TB 147	5 % Maximum

In addition to the laboratory mix design performance criteria, mix acceptance will also be subject to satisfactory field performance. The job mix formula, all possible emulsion sources intended for use, all material, the methods and the proportions shall be submitted for approval prior to use. Proportions to be used shall be within the limits provided in the table below. If more than one aggregate is used, the aggregates shall be blended in designated proportions as indicated in the job mix formula, and those proportions shall be maintained throughout the placement

process. If aggregate proportions are changed, a new job mix formula shall be submitted for approval.

Material	Requirement
Type II Mineral aggregate, lbs./yd <sup>2</sup> dry mass, min.	24.0
Type III Mineral aggregate, lbs./yd <sup>2</sup> dry mass, min.	25.0
Type IIIR	As necessary
Polymer solids content, based on asphalt weight, min. %	3.0
Polymer Modified Emulsion (residual), percent, min.	7.5
Mineral Filler, percent by mass of dry aggregate, max.	2.0
Additive	As required to control set/break time
Water	As required to produce proper mix consistency

**413.10.3.1 All Types.** The minimum dry mass per unit area will be based on a bulk specific gravity (BSG) of 2.65. In the event that crushed steel slag aggregate is used as a part of the blended aggregate or as the entire aggregate, the BSG of the final aggregate blend shall be determined and shown as part of the job mix formula criteria. If the BSG is different from 2.65 by more than 0.05, the above minimum masses shall be adjusted by dividing the specified unit mass by 2.65 and multiplying by the new BSG. (For example, for a new BSG = 3.15, the new minimum would be  $3.15(20.0/2.65) = 23.8$  pounds per square yard). These adjusted values shall be designated on the job mix formula and will apply in the field.

***Insert new Sec 413.10.3.5:***

**413.10.3.5. Pre-surface Treatment Requirements.** Other surface treatments used in combination with the micro-surfacing treatment, such as scrub seal or seal coat, may be specified as designated on the plans. The surface treatments shall be constructed in accordance with the Standard Specifications except as described herein:

Surface treatment shall have a 30-day curing period prior to the placement of the micro-surface. Temporary stripes shall be placed in accordance with Sec 620.

The asphalt emulsion for other surface treatments shall not contain an asphalt rejuvenator.

The asphalt emulsion type and grade used in the other surface treatments shall be compatible with the micro-surface mixture. The emulsion type, grade, and other emulsion properties of other surface treatments may be adjusted in accordance with the micro-surfacing emulsion manufacturer.

***Delete Sec 413.10.5.1 and 413.10.5.2 and substitute the following:***

**413.10.5.1 Testing.** Field testing shall be conducted in accordance with MoDOT's Quality Management Inspection and Testing Plan (ITP) for the grade of micro-surfacing specified in the contract, specifically as follows:

Parameter or Procedure	Micro-surfacing Grade	Minimum Testing Frequency	
		Contractor QC	MoDOT QA
Aggregate Gradation Content Control (AASHTO T27 & T11)	Grade A	1 per Day	1 per Activity
	Grade B or C	1 per Activity	1 per Activity

All other testing requirements listed in the ITP shall be followed.

**413.10.5.1.1 Test Strip.** A test strip 500 feet long and the width of one lane shall be constructed on the roadway within the project limits. The micro-surfacing mixture shall be evaluated on the following criteria:

- 1) The micro-surfacing mixture shall exhibit an initial set time of 30 minutes or less.
- 2) After a 2 hour cure time, the micro-surfacing mixture shall be evaluated for marring resistance by opening the test strip to traffic and evaluating after 30 minutes or simulating traffic movements with a stopping and turning vehicle on the test strip.

No streaks, such as those caused by oversized aggregate or broken mix, shall be left in the finished surface. If excessive streaking develops, the job will be stopped until the contractor proves to the engineer that the situation has been corrected. Excessive streaking is defined as:

1. More than four drag marks greater than 0.5 in (12.7 mm) wide and 4.0 in (101 mm) long, or
2. 1.0 in (25.4 mm) wide and 3.0 in (76.2 mm) long, in any 29.9 yd<sup>2</sup> area.

No transverse ripples or longitudinal streaks of 0.25 in in depth will be permitted, when measured by placing a 10 ft. straight edge over the surface.

If any of the above criteria is unsatisfactory, the test strip and any mixture placed during the day's production shall be removed and replaced at the contractor's expense. The test strip shall be repeated until the requirements are met.

**413.10.5.2 Surface Preparation.** The surface shall be thoroughly cleaned of all vegetation, loose material, dirt, mud, and other objectionable material and shall be pre-wetted as required immediately prior to application of the micro-surfacing. All pavement markings shall be removed, maintained, and compensated for in accordance to Sec 620.10.

Coldmilled surfaces shall be swept and vacuumed prior to tack coat application. Upon approval of the engineer, the sweeping and vacuuming requirement may be waived if traffic is allowed onto the coldmilled surface and the surface is considered clean.

The contractor shall provide adequate protection of all utility appurtenances, manholes, valve boxes, drop inlets and other service entrances from the micro-surfacing by a suitable method.

**Delete Sec 413.10.5.3.1 and substitute the following:**

**413.10.5.3.1** The contractor shall repair joints if any of these conditions exist:

- (a) Build-up of micro-surfacing material at the joints.
- (b) Uncovered areas at the joints.
- (c) Longitudinal joints with more than 1/4- inch vertical space between the surface and a 10-foot straightedge placed perpendicular to the joint.
- (d) Transverse joints with more than 1/8- inch vertical space between the surface and a 10-foot straightedge placed perpendicular to the joint.

**Delete Sec 413.10.5.3.3 and substitute the following:**

**413.10.5.3.3** Any successive passes shall be separated such that each layer placed undergoes approximately 24 hours of traffic for compaction and curing.

**Delete Sec 413.10.5.3.6 and substitute the following:**

**413.10.5.3.6** The tack coat shall be applied in accordance with Sec 407 prior to micro-surfacing placement at the target rates indicated in the following table. The tack coat may be diluted at the point of manufacture to one part emulsified asphalt with up to two parts water. Upon approval of the engineer, the application rate may be varied by +/- 0.02 gal/yd<sup>2</sup> in the field, based upon the existing field conditions. The tack coat material shall be in accordance with Sec 1015 and be compatible with the micro-surfacing emulsion.

Tack Coat Application Rates		
Surface Type	Target Application Rate; Undiluted (gal/yd <sup>2</sup> )	Target Application Rate; 2:1 Ratio (66.7%) Diluted (gal/yd <sup>2</sup> )
All surfaces	0.04	0.12

**Insert new Sec 413.10.6 and Renumber Sec 413.10.6 to Sec 413.10.7 and substitute the following. Renumber subsequent sections accordingly:**

**413.10.6 Basis of Acceptance.** Acceptance shall be made no less than 60 days from the completion of the route. Micro-surfacing will be evaluated for acceptance by the engineer based on the following criteria:

- a) A final surface treatment that has complete uniform coverage with full adherence to the roadway with no signs of raveling or material loss.
- b) Longitudinal joints shall be straight, contain no gaps and meet the straightedge requirements within this specification.
- c) Transverse joints shall be smooth and meet the straightedge requirements within this specification.

**413.10.7 Method of Measurement.** Final measurement of completed Type II and Type III surface will not be made except for authorized changes during construction, or where

appreciable errors are found in the contract quantity. Where required, measurement of Type II and Type III micro-surfacing, complete in place, will be made to the nearest square yard. Micro-surfacing quantities of Type IIIR surface to bring the designated area to a level plane will be made to the nearest ton.

Pay items:

413-99.00 SY 1.0 Misc. Micro-surfacing, Type II Grade A  
413-99.00 SY 1.0 Misc. Micro-surfacing, Type II Grade B  
413-99.00 SY 1.0 Misc. Micro-surfacing, Type II Grade C

413-99.00 SY 1.0 Misc. Micro-surfacing, Type III Grade A  
413-99.00 SY 1.0 Misc. Micro-surfacing, Type III Grade B  
413-99.00 SY 1.0 Misc. Micro-surfacing, Type III Grade C

413-99.00 Ton 1.0 Misc. Micro-surfacing, Type IIIR Grade B  
413-99.00 Ton 1.0 Misc. Micro-surfacing, Type IIIR Grade C

I. Sealing Treatment

**1.0 Description.** This work shall consist of furnishing and applying a surface sealing treatment to the existing roadway as shown on the plans. The surface treatment shall contain a mixture of cationic asphalt emulsion, latex polymer, mineral fines, water, and other additives as needed.

**2.0 Mix Design.**

**2.1** At least 30 days prior to placing the surface sealing treatment on the project, the contractor shall submit a mix design for approval to Construction and Materials. One gallon of the asphalt emulsion and 2500 grams of mineral fines representing the gradation shall be submitted with the mix design.

**2.2 Required Information.** At a minimum the Surface Sealing mix design shall contain the following information on the job mix formula:

- (a) Emulsified asphalt source and properties required.
- (b) Mineral fines source .  
Mineral fines gradation required.
- (c) Mixture performance test results required.
- (d) Additives and their sources required.

**2.3 Mix Design Gradation Requirement.** The fine mineral that comprise the combined gradation shall have 100 % of the material passing the No. 30 (600 µm) ( sieve. For spraying applications, the following mix gradation shall be required:



Sieve	Percent Passing
No. 30 (600 µm)	100
No. 50 (300 µm)	80-100
No. 100 (150 µm)	90-100
No. 200 (75 µm)	95-100

**2.4 Mixture Performance Requirements.** The mixture shall meet the following requirements.

Testing Requirement	Min.	Max.	Test Method
Maximum Wet-Track Abrasion Loss, grams per square meter.	--	80 g/m <sup>2</sup>	TB 100 (ISSA) Modified <sup>a</sup>
Asphalt Content by Ignition Method, percent	30%	--	AASHTO T-308-08 <sup>b</sup>
Percent Solids, Asphalt Residue by Evaporation, percent	40%	--	AASHTO T59, Section 6

<sup>a</sup>This method is modified to a three day soak and samples prepared per MoDOT TM 86.

<sup>b</sup>To account for high percentage of binder, sample size should be adjusted based on laboratory oven capability.

**2.5 Required Additives.** A minimum of 3% latex polymer by weight of wet mixture is required in the surface sealant treatment and shall be listed in the job mix formula.

**2.6 Other Additives.** Any other material added to the mixture or to any of the component materials shall be listed in the job mix formula.

### 3.0 Material Certification.

**3.1** The materials used in the mix design shall be certified to meet the following specifications.

**3.2 Bituminous Material.** The bituminous material shall be an asphalt emulsion in accordance with the following table. The bituminous material shall show no separation after mixing. The emulsion shall be sampled in accordance with AASHTO T 40.

Asphalt Emulsion (CSS)			
	Min.	Max.	Test Method
Viscosity, Saybolt Furol at 25 C, s	15	100	AASHTO T 72
Particle charge test	Positive <sup>b</sup>		AASHTO T 59
Residue, %	60	--	AASHTO T 59
Test on Residue from Distillation	Min.	Max.	Test Method
Penetration, 25 C, 100 g, 5 s,	30	100	AASHTO T 49

<sup>b</sup>If the particle charge test is inconclusive, material having a maximum pH value of 6.7 will be acceptable.

**3.6 Water.** Water shall be potable and free of harmful soluble salts.

#### **4.0 Construction Requirements.**

**4.1** The surface sealing mixture may be mixed and applied through mobile distribution equipment as described herein.

**4.2 Mixing Equipment.** All materials shall be thoroughly mixed as to produce a homogenous surface treatment. Individual volume or weight controls for proportioning each material in the mix shall be provided. Materials shall be added by a calibrated controlled device capable of monitoring the amount of material used at the time.

**4.3 Distribution Equipment.** The Distributor shall be equipped with a full sweep agitation system, a pumping system designed to handle fine aggregate mixes, and sufficient power to operate the full spray system and the agitation system at the same time. The Distribution equipment shall be equipped with a monitoring system that ensures the even distribution of material and measures the application rate of the mix.

**4.4 Storage Tanks.** If the mix is being delivered from a central mixing plant, then a job site storage tank shall have the minimum capacity of the entire transport load. The storage tank shall have an internal full sweep mixing system having a mixing capability of providing a homogenous mix representing the mix design at any given location within the tank.

**4.5 Environmental Protection.** The contractor shall comply with all federal, state, and local laws and regulations controlling pollution of the environment.

**4.6 Weather Limitations.** Bituminous material shall not be placed on any wet surface or when the ambient temperature or the temperature of the pavement on which it is to be placed is below 60° F. Temperatures shall be obtained in accordance with MoDOT Test Method TM 20.

**4.7 Surface Preparation.** The surface shall be thoroughly cleaned immediately prior to placing the surface treatment.

**4.8 Protection of Other Surfaces.** All curbs, manhole covers, and ADA facilities shall be protected from the spray or laydown of the bituminous mixture during placement.

**4.9 Dilution.** The bituminous material shall not be diluted in the field with water or other additives except as approved by the manufacturer.

**4.10 Placement.** Placement of the mix shall be in one pass on rumble strips or chip seal surfaces only. The minimum total coverage shall be 0.18 gallons per square yard.

**4.11 Opening to Traffic.** After the sealant application, the roadway shall remain closed until the surface is tack-free and capable of being open to traffic without tracking.

#### **4.12 Basis of Acceptance.**

**4.12.1 Quality Control.** Two samples shall be collected during production on a project. One sample shall be retained for the engineer. The contractor shall test the other sample and verify the mix design in accordance with Section 2.4 of this specification and submit the test results to

the engineer.

**4.12.2 Field Performance.** The finished surface sealant treatment shall be evaluated by the engineer based on the following criteria. Any of the following shall be considered unacceptable material.

(a) The presence of loose aggregate or synthetic materials that may cause damage to traveling vehicles.

(b) A final surface with insufficient coverage or delamination.

**5.0 Method of Measurement.** Final measurement of the surface treatment will not be made except for authorized changes during construction, or where appreciable errors are found in the contract quantity. Where required, measurement of the surface treatment, complete in place, will be made to the nearest square yard. The revision or correction will be computed and added to or deducted from the contract quantity.

**6.0 Basis of Payment.** Payment for all labor and material used to seal rumble strips shall be completely covered by the contract unit price for Item No. 409-99.05, "Surface Sealing Treatment", per sq. yard. No separate payment will be made for any additional construction methods or processes. Manufacturer shall report the unit weight (lbs/gallon) of the surface sealing material on the bill of lading.

J. Optional Pavement

**1.0 Description.** This work shall consist of a pavement composed of 1.75 inch BP-1 (PG 70-22) over 1.75 inch BP-1 (PG 70-22) over 7.5 inch Bituminous Base (PG 64-22) or 8 inch PCCP with 10 foot joints and 1-1/4 inch dowels constructed on a 4 inch Type 5 Aggregate Base. This work shall be performed in accordance with the standard specifications and as shown on the plans or established by the engineer.

**2.0** The quantities shown reflect the total square yards of pavement surface designated for each pavement type as computed and shown on the plans.

**2.1** No additional payment will be made for aggregate base quantities outside the limits of the final surface area as computed and shown on the plans.

**2.2** The contractor shall comply with Sections 401 through 403 for the asphalt option and Sections 501 and 502 for the concrete option.

**3.0 Method of Measurement.** The quantities of concrete pavement will be measured in accordance with Section 502.14. The quantities of asphaltic concrete pavement will be measured in accordance with Section 403.22.

**4.0 Basis of Payment.** The accepted quantity of the chosen option will be paid for by the contract unit bid price for Item 502-99.05, "Full Depth Optional Pavement", per square yard.

K. ADA Compliance and Final Acceptance of Constructed Facilities JSP-10-01A

**1.0 Description.** The contractor shall comply with all laws pertaining to the Americans with Disabilities Act (ADA) during construction of pedestrian facilities on public rights of way for this project. An ADA Checklist is provided herein to be utilized by the contractor for verifying compliance with the ADA law. The contractor is expected to familiarize himself with the plans involving pedestrian facilities and the ADA Post Construction Checklist prior to performing the work.

**2.0 ADA Checklist.** The contractor can locate the ADA Checklist form on the Missouri Department of Transportation website:

[http://www.modot.mo.gov/business/contractor\\_resources/forms.htm](http://www.modot.mo.gov/business/contractor_resources/forms.htm)

**2.1** The ADA Checklist is intended to be a helpful tool for the contractor to use during the construction of the pedestrian facilities and a basis for the commission's acceptance of work. Prior to work being performed, the contractor shall bring to the engineer's attention any planned work that is in conflict with the design or with the requirement shown in the checklist. Situations may arise where the checklist may not fully address all requirements needed to construct a facility to the full requirements of current ADA law. In those situations, the contractor shall propose a solution to the engineer that is compliant with current ADA law using the following hierarchy of resources: 2010 ADA Standards for Accessible Design, Draft Public Rights of Way Accessibility Guidelines (PROWAG) dated November 23, 2005, MoDOT's Engineering Policy Guidelines (EPG), or a solution approved by the U.S. Access Board.

**2.2** It is encouraged that the contractor monitor the completed sections of the newly constructed pedestrian facilities in attempts to minimize negative impacts that his equipment, subcontractors or general public may have on the work. Completed facilities must comply with the requirements of ADA and the ADA Checklist or have documented reasons for the non-complaint items to remain.

### **3.0 Coordination of Construction.**

**3.1** Prior to construction and/or closure on an existing pedestrian path of travel, the contractor shall submit a schedule of work to be constructed, which includes location of work performed, the duration of time the contractor expects to impact the facility and an accessible signed pedestrian detour compliant with MUTCD Section 6D that will be used during each stage of construction. This plan shall be submitted to the engineer for review and approval at or prior to the pre-construction conference. Accessible signed detours shall be in place prior to any work being performed that has the effect of closing an existing pedestrian travel way.

**3.2** *When consultant survey is included in the contract, the contractor shall use their survey crews to verify that the intended design can be constructed to the full requirements as established in the 2010 ADA Standards. When 2010 ADA Standards do not give sufficient information to construct the contract work, the contractor shall refer to the PROWAG.*

**3.3** When consultant survey is not included in the contract, the contractor shall coordinate with the engineer, prior to construction, to determine if additional survey will be required to confirm the designs constructability.

**4.0 Final Acceptance of Work.** The contractor shall provide the completed ADA Checklist to the engineer at the semi-final inspection. ADA improvements require final inspection and compliance with the ADA requirements and the ADA Checklist. Each item listed in the checklist

must receive either a "YES" or an "N/A" score. Any item receiving a "NO" will be deemed non-compliant and shall be corrected at the contractor's expense unless deemed otherwise by the engineer. Documentation must be provided about the location of any non-complaint items that are allowed to remain at the end of the construction project. Specific details of the non-complaint items, the ADA requirement that the work was not able to comply with, and the specific reasons that justify the exception are to be included with the completed ADA Checklist provided to the engineer.

**4.1** Slope and grade measurements shall be made using a properly calibrated, 2 foot long, electronic digital level approved by the engineer.

**5.0 Basis of Payment.** The contractor will receive full pay of the contract unit cost for all sidewalk, ramp, curb ramp, median, island, approach work, cross walk striping, APS buttons, pedestrian heads, detectible warning systems and temporary traffic control measures that are completed during the current estimate period as approved by the engineer. Based upon completion of the ADA Checklist, the contractor shall complete any necessary adjustments to items deemed non-compliant as directed by the engineer.

**5.1** No direct payment will be made to the contractor to recover the cost of equipment, labor, materials, or time required to fulfill the above provisions, unless specified elsewhere in the contract documents.

L. Earthwork

**1.0 Description.** This work shall consist of excavation, compacting embankment or embankment-in-place necessary to construct all optional pavement, paved approaches, sidewalks, curb ramps, curbs, and curb and gutter.

**2.0 Basis of Payment.** All labor, equipment and material costs associated with any excavation, compacting embankment or embankment in place necessary to construct all optional pavement, paved approaches, sidewalks, curb ramps, curbs, and curb and gutter shall be included in other items of work. There will be no direct pay for any excavation, compacting embankment or embankment in place for all optional pavement, paved approaches, sidewalks, curb ramps, curbs, and curb and gutter.

M. Modified Curb and Gutter Type B

**1.0 Description.** The work shall consist of the construction of a Type B Curb and Gutter that shall be modified to include 0 in. to 6 in. curb height rather than the standard 8 in. curb height and 18 in. to 24 in. gutter pan width rather than the standard 30 in. gutter pan width. The curb height and gutter pan width should match and tie-in to the existing curb and gutter at each specific location.

**2.0 Construction Requirements.** The Modified Type B Gutter shall be constructed according to requirements of Sec 609.

**3.0 Basis of Payment.** The work shall consist of constructing the Modified Type B Gutter. The cost of equipment, labor, materials, mounting hardware, and time required to construct the

Modified Type B Gutter and install the associated grates and culverts, shall be considered fully covered by pay item 609-99.03, "Modified Type B Curb and Gutter", per linear foot.

N. 4 Inch Concrete Island Cap

**1.0 Description.** This work shall consist of constructing 4 inch thick concrete cap for islands.

**2.0 Material and Construction Requirements.** Shall meet all requirements of Section 608.

**3.0 Basis of Payment.** Payment for all labor and material to construct the concrete cap shall be completely covered by the contract unit price for Item No. 608-99.05, "4 In. Concrete Island Cap", per sq. yard.

O. Detectable Pedestrian Channelizing Barricade

**1.0 Description.** This work shall consist of utilizing Detectable Pedestrian Channelizing Barricades as shown on the plans and in accordance with the Manual for Uniform Traffic Control Devices (MUTCD). The pedestrian barricade is similar to the Type 3 Barricade indicated in Section 6F.63 of the MUTCD.

**2.0 Basis of Payment.** Payment for furnishing and installing the pedestrian barricades shall be completely covered by the contract unit price for Item No. 616-99.02, "Detectable Pedestrian Channelizing Barricade", per each.

P. Access to City Streets

**1.0 Description.** This improvement involves the construction of ADA facilities adjacent to or across various city streets. The contractor shall make every reasonable effort to minimize any interference to traffic on the city streets and to pursue the work diligently.

**1.1** The contractor will be allowed to fully close 6<sup>th</sup> Street and Jefferson Drive in Boonville and E North Street in California at the intersection of Route 87 to complete paved approach construction. The closure shall not take place until all material, labor, and equipment are available to complete the work in a timely manner. Only one street closure per city will be allowed at one time.

**1.2** The amount of time the street will be closed shall be approved by the engineer prior to the start of construction at that location.

**1.3** The contractor shall contact the Boonville City Administrator two weeks prior to the closing of any city streets within the Boonville city limits.

M.L. Cauthon, III  
Director of Public Works  
City of Boonville  
1200 Locust Street  
Boonville, MO 65233  
660-882-5257

e-mail: [mcauthon@booville-mo.org](mailto:mcauthon@booville-mo.org)

**1.4** The contractor shall contact the City of California Street Supervisor two weeks prior to the closing of any city streets within the California city limits.

Vic Mauer  
Street Department Supervisor  
City of California  
500 South Oak St.  
California, MO 65018  
573-796-3580

**2.0 Construction Requirements.** The contractor has the option of using accelerated Portland cement concrete pavement (PCCP) for use in paved approaches and other areas of improvements as shown on the plans or as approved by the engineer. All materials, mixture and placement requirements shall be in accordance with all applicable portions of Section 501, 502, and 613, except as specified herein. An accelerator will be allowed as approved by the engineer.

**3.0 Basis of Payment.** No direct payment will be made to the contractor for any expenses including but not limited to labor, equipment, materials or time, incurred for compliance with this provision.

**Q. Access to Commercial and Private Properties**

**1.0 Description.** This improvement is in a commercial and residential area. While working on entrances or adjacent properties, the contractor shall make every reasonable effort to minimize any interference to the properties and to pursue the work diligently. Under no circumstances shall the contractor block ingress/egress to and from businesses during the normal business hours of each business unless as approved by the property owner and the engineer.

**1.1** The contractor shall contact each property owner at least one week prior to any sidewalk or entrance construction within their property limits to advise them of the work that will take place and the timeframe of the work.

**1.2** The amount of time that an entrance may be closed shall be approved by the engineer prior to the start of construction at each location.

**2.0 Construction Requirements.** On all entrances the contractor shall keep one-half of the entrance open at all times for vehicle ingress and egress. If there exists more than one entrance to the property, the contractor shall keep minimum one entrance to that property completely open at all times unless as approved by the property owner and the engineer.

**2.1** The contractor will be allowed to vary from Section 2.0 of this provision if other access arrangements are made with the property owner or tenant. These variations must be approved by the engineer prior to beginning work.

**2.2** The contractor has the option of using temporary surfacing and/or accelerated Portland cement concrete pavement (PCCP) for use in paved approaches and other areas of improvements as shown on the plans or as approved by the engineer. All materials, mixture

and placement requirements shall be in accordance with all applicable portions of Section 501, 502, and 613, except as specified herein. An accelerator will be allowed as approved by the engineer.

**3.0 Basis of Payment.** No direct payment will be made to the contractor for any expenses including but not limited to labor, equipment, materials or time, incurred for compliance with this provision.

R. Temporary Short-Term Rumble Strips JSP-13-05E

**1.0 Description.** The work shall include furnishing, installing, maintaining, removing, and relocating the short-term rumble strips, as shown in the plans, or as designated by the engineer.

**2.0 Material.**

**2.1** The short-term rumble strips shall be 10 to 12 feet in length, minimum of 8 inches wide,  $\frac{3}{4}$  to  $1\frac{1}{4}$  inch thick, fabricated from a polymer material, and orange in color.

**2.2** The short term-rumble strips shall not curl or deform across the width of the strip, maintaining its rigidity.

**3.0 Construction.**

**3.1** Each set shall consist of three individual strips spanning a single lane, spaced in accordance with the plans or as directed by the engineer. The short-term rumble strips shall be installed and removed in accordance with manufacturer's recommendation.

**3.2** The contractor shall monitor, maintain alignment, and repair if needed the short-term rumble strips during construction. Short-term rumble strips shall not be placed on roadways when there are no workers present.

**3.3** Strips shall not extend onto the shoulder without the approval of the Engineer.

**4.0 Method of Measurement.** Measurement of short-term rumble strips will be based per each set.

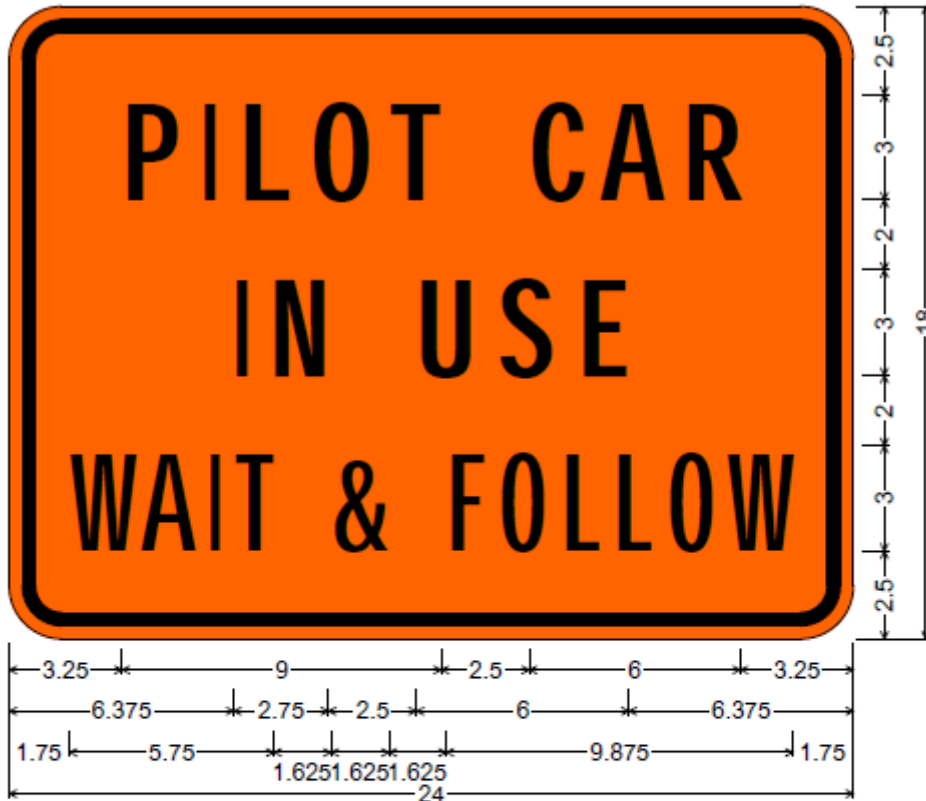
**5.0 Basis of Payment.** The accepted quantity of Temporary Short-Term Rumble Strips sets will be paid for at the contract unit price for 616-20.04, Temporary Short-Term Rumble Strips, per each set. The short-term rumble strips unit bid price shall include the cost of all labor, equipment and materials to install, maintain, remove and relocate the rumble strips during the construction of the project.

S. Pilot Car In Use – Wait And Follow Sign NJSP-1803

**1.0 Description.** The sign shown below shall be printed on 4 mm corrugated plastic or similar and supported with a 10"x30", 9 gauge, galvanized steel H-frame, or similar. This sign shall only be used at private and commercial entrances to enhance the work zone signing, and will not be permitted for use on intersecting state, county or city roads.



**2.0 Method of Payment.** Signs shall be contractor furnished/contractor retained. The cost of the signs and stands are incidental to other traffic control items.



1.500" Radius, 0.375" Border, 0.375" Indent, Black on Orange;  
"PILOT CAR" C; "IN USE" C; "WAIT & FOLLOW" B 80% spacing;  
Table of letter and object lefts.

P	I	L	O	T	C	A	R
3.250	5.500	6.500	8.500	10.750	14.750	16.750	19.125
I	N	U	S	E			
6.375	7.375	11.625	13.875	16.125			
W	A	I	T	&			
1.750	3.750	5.625	6.375	9.125			
F	O	L	L	O	W		
12.375	13.875	15.750	17.250	18.750	20.375		

T. Additional Flaggers

**1.0** Additional flagger(s) and appropriate construction signs shall be provided at each of the specified locations when work zone extends through the following intersections and/or approaches:

All state routes, county roads and city streets

**2.0 Basis of Payment.** There will be no direct pay for all labor and equipment necessary to provide additional flaggers. All cost shall be considered completely covered under the pay items provided in the contract.

U. Guardrail Grading Requirements JSP-17-02B

**1.0 Description.** Guardrail installation and grading shall be in accordance with Missouri Standard Specifications for Highway Construction, Missouri Standard Plans for Highway Construction, and as described herein.

**2.0 Construction Requirements.** When guardrail and/or end treatment removal and replacement requires grading of the shoulder and/or slopes, Section 606.3.1(b), (c), and 606.3.1.1 of the Missouri Standard Specifications shall be waived and the following shall apply:

- a) Along roadways and shoulders, remove no more guardrail than can be reconstructed within seven (7) calendar days, including weekends and holidays. The seven day counting period shall start when the first piece of safety hardware is removed.
- b) The active work zone area that encompasses the guardrail and/or end treatment reconstruction, shall not exceed one (1) mile in length. The contractor shall be required to provide and maintain approved channelizing devices adjacent to the reconstruction area.
- c) Only one-side of the roadway shall be worked on at the same time. Divided facilities shall be limited to work on one-side of each direction at the same time.
- d) When the removal of any existing safety hardware device exposes non-breakaway obstacles, the reconstruction of the safety hardware device protecting the obstacle shall be replaced within 48 hours of removal or an approved temporary crashworthy device shall be provided, installed and maintained at the contractor's expense until the non-breakaway obstacle is permanently protected. The 48 hour counting period shall start when the first piece of safety hardware is removed.
- e) Areas where guardrail and/or end treatments have been removed, but not yet replaced, shall be delineated in accordance with plans or as directed by the Engineer.

**3.0 Non-Compliance.** Non-compliance with this provision shall result in the immediate suspension of work in accordance with Sec 105.1.2. No work, including but not limited to additional guardrail removal and grading, shall be allowed to proceed except for work necessary to restore guardrail installation.

**4.0 Basis of Payment.** No direct payment will be made for compliance with this provision. Guardrail items, grading, and temporary traffic control devices will be paid for as provided in the contract.

V. Pavement Marking Log

**1.0 Description.** The contractor shall log the locations of existing pavement marking prior to any construction operations that may affect the existing pavement marking. The log shall contain all existing pavement marking and shall include center stripes, no passing stripes, lane lines, turn arrows, hash bars, cross walks, and stop bars. The contractor shall provide a copy of the existing pavement marking log to the engineer. The contractor shall place the new pavement marking at the same locations as the existing pavement marking, unless otherwise directed by the engineer or shown on the plans.

**2.0 Basis of Payment.** No direct payment will be made for logging of existing pavement marking.

W. Airport Requirements

**1.0 Description.** The project is located near a public use airport or heliport or is more than 200 feet above existing ground level, which requires adherence to Federal Aviation Regulation Part 77 (FAA Reg Part 77). "Near" to a public use airport or heliport is defined as follows:

20,000 feet (4 miles) from an airport with a runway length of at least 3,200 feet  
10,000 feet (2 miles) from an airport with runway length less than 3,200 feet  
5,000 feet (1 mile) from a public use heliport

**2.0** The maximum height of the improvement and the equipment operating while performing the improvements was assumed to be 15 feet above the current travelway during the process of evaluating the project for compliance with FAA Reg Part 77.

**2.1** If the contractor's height of equipment or if the improvement itself is beyond the assumed height as indicated in Sec 2.0, the contractor will work with the resident engineer to fill out the Form 7460-1, or revise the original Form 7460-1 based upon the proposed height and resubmit, if necessary, for a determination by FAA on compliance with FAA Reg Part 77. Further information can be found in MoDOT's Engineering Policy Guide 235.8 Airports. If the Form 7460-1 must be filed, the associated work shall not be performed prior to the FAA determination, which could take up to 45 days.

**2.2** If the contractor's height of equipment and the improvement itself is below the assumed height as indicated in Sec 2.0, no further action is necessary to fulfill the requirements set forth in FAA Reg Part 77.

**3.0 Basis of Payment.** There will be no direct payment for any work associated with this provision. Contract time extension will be given for the time necessary to obtain or revise the FAA permit. Any delays or costs incurred in obtaining the revised permit will be noncompensable.

X. Contractor Quality Control NJSP-15-42

**1.0** The contractor shall perform Quality Control (QC) testing in accordance with the specifications and as specified herein. The contractor shall submit a Quality Control Plan (QC Plan) to the engineer for approval that includes all items listed in Section 2.0, prior to beginning work.

## **2.0 Quality Control Plan.**

- (a) The name and contact information of the person in responsible charge of the QC testing.
- (b) A list of the QC technicians who will perform testing on the project, including the fields in which they are certified to perform testing.
- (c) A proposed independent third party testing firm for dispute resolution, including all contact information.
- (d) A list of Hold Points, when specified by the engineer.
- (e) The MoDOT Standard Inspection and Testing Plan (ITP). This shall be the version that is posted at the time of bid on the MoDOT website ([www.modot.org/quality](http://www.modot.org/quality)).

**3.0 Quality Control Testing and Reporting.** Testing shall be performed per the test method and frequency specified in the ITP. All personnel who perform sampling or testing shall be certified in the MoDOT Technician Certification Program for each test that they perform.

**3.1 Reporting of Test Results.** All QC test reports shall be submitted as soon as practical, but no later than the day following the test. Test data shall be immediately provided to the engineer upon request at any time, including prior to the submission of the test report. No payment will be made for the work performed until acceptable QC test results have been received by the engineer and confirmed by QA test results.

**3.1.1** Test results shall be reported on electronic forms provided by MoDOT. Forms and Contractor Reporting Excel2Oracle Reports (CRE2O) can be found on the MoDOT website. All required forms, reports and material certifications shall be uploaded to a Microsoft SharePoint® site provided by MoDOT, and organized in the file structure established by MoDOT.

**3.2 Non-Conformance Reporting.** A Non-Conformance Report (NCR) shall be submitted by the contractor when the contractor proposes to incorporate material into the work that does not meet the testing requirements or for any work that does not comply with the contract terms or specifications.

**3.2.1** Non-Conformance Reporting shall be submitted electronically on the Non-Conformance Report form provided on the MoDOT Website. The NCR shall be uploaded to the MoDOT SharePoint® site and an email notification sent to the engineer.

**3.2.2** The contractor shall propose a resolution to the non-conforming material or work. Acceptance of a resolution by the engineer is required before closure of the non-conformance report.

## **4.0 Work Planning and Scheduling.**

**4.1 Two-week Schedule.** Each week, the contractor shall submit to the engineer a schedule that outlines the planned project activities for the following two-week period. The two-week schedule shall detail all work and traffic control events planned for that period and any Hold Points specified by the engineer.

**4.2 Weekly Meeting.** When work is active, the contractor shall hold a weekly project meeting with the engineer to review the planned activities for the following week and to resolve any outstanding issues. Attendees shall include the engineer, the contractor superintendent or project manager and any foreman leading major activities. This meeting may be waived when,

in the opinion of the engineer, a meeting is not necessary. Attendees may join the meeting in person, by phone or video conference.

**4.3 Pre-Activity Meeting.** A pre-activity meeting is required in advance of the start of each new activity, except when waived by the engineer. The purpose of this meeting is to review construction details of the new activity. At a minimum, the discussion topics shall include: safety precautions, QC testing, traffic impacts, and any required Hold Points. Attendees shall include the engineer, the contractor superintendent and the foreman who will be leading the new activity. Pre-activity meetings may be held in conjunction with the weekly project meeting.

**4.4 Hold Points.** Hold Points are events that require approval by the engineer prior to continuation of work. Hold Points occur at definable stages of work when, in the opinion of the engineer, a review of the preceding work is necessary before continuation to the next stage.

**4.4.1** A list of typical Hold Point events is available on the MoDOT website. Use of the Hold Point process will only be required for the project-specific list of Hold Points, if any, that the engineer submits to the contractor in advance of the work. The engineer may make changes to the Hold Point list at any time.

**4.4.2** Prior to all Hold Point inspections, the contractor shall verify the work has been completed in accordance with the contract and specifications. If the engineer identifies any corrective actions needed during a Hold Point inspection, the corrections shall be completed prior to continuing work. The engineer may require a new Hold Point to be scheduled if the corrections require a follow-up inspection. Re-scheduling of Hold Points require a minimum 24-hour advance notification from the contractor unless otherwise allowed by the engineer.

**5.0 Quality Assurance Testing and Inspection.** MoDOT will perform quality assurance testing and inspection of the work, except as specified herein. The contractor shall utilize the inspection checklists provided in the ITP as a guide to minimize findings by MoDOT inspection staff. Submittal of completed checklists is not required, except as specified in 5.1.

**5.1** Inspection and testing required in the production of concrete for the project shall be the responsibility of the contractor. Submittal of the 501 Concrete Plant Checklist is required.

**6.0 Basis of Payment.** No direct payment will be made for compliance with this provision.

Y. Stormwater Compliance Requirements NJSP-15-38

**1.0** The land disturbance necessary to complete this project is not anticipated to exceed one (1) acre. Should the contractor disturb more than one (1) acre to complete the work, or for any other reason, all terms of this Job Special Provision will apply.

**1.1 Description.** The Contractor shall comply with the terms of the United States of America v. Missouri Highways and Transportation Commission Consent Decree (Consent Decree) that are identified as the responsibility of the Contractor or subcontractor, and with the terms of this provision. Viewing of the Consent Decree is available on the MoDOT Land Disturbance webpage under Contractor Resources, or by going to the web address [www.modot.org/LD](http://www.modot.org/LD).

**1.2 Applicability.** The Consent Decree and this provision apply to any project that includes land disturbance of areas totaling greater than one (1) acre on the project site. The project site

consists of all areas designated on the plans, including temporary and permanent easements. The Consent Decree and this provision do not apply to Contractor staging, plant, or borrow areas that are not located on MoDOT right of way (Off-site). The Contractor is responsible for obtaining its own separate land disturbance permit for Off-site areas. This provision is in addition to any other stormwater, environmental, and land disturbance requirements specified elsewhere in the contract.

**2.0 Stormwater Training for Contractor Employees.** The Contractor's on-site project manager, designated Water Pollution Control Manager (WPCM), as defined in Section 3.0, and WPCM delegate, shall complete MoDOT Stormwater Training prior to serving in those roles. If someone other than the Contractor's project manager is given the authority to manage the grading or erosion control operations, the project manager(s) for those operations shall also complete MoDOT Stormwater Training. MoDOT Stormwater Training is also required for any other person who the Contractor gives authority to take measures to prevent or minimize the consequences of non-compliance with the Stormwater requirements, as defined in Section 3.1(a) of this provision.

**2.1** The Commission will provide MoDOT Stormwater Training to the Contractor employees specified in Section 2.0 at a location and time determined by MoDOT. There will be no fee for attending the training; however, the Contractor shall be responsible for all other cost related to the training, such as travel expenses, if necessary, and wages for its employees. The time to complete the training is anticipated to be no more than 6 hours. As long as the Consent Decree is in effect, MoDOT will provide periodic trainings at various locations around the state, as needed, to ensure contractors and bidders have the opportunity to maintain the number of WPCMs they need to comply with this provision.

**2.2** Those who require MoDOT Stormwater Training per Section 2.0 shall complete the training prior to beginning any land disturbance work. Thereafter, training shall occur at least once every two (2) years. The training is not project-specific. Any Contractor employee who receives the training will be qualified to perform the WPCM duties on any MoDOT project for a period of two (2) years.

**2.3** MoDOT will document the names and dates that contractor employees attend MoDOT Stormwater Training and will retain those records for the period of time specified in the Consent Decree. Duplicate record keeping by the contractor is not required.

**3.0 Water Pollution Control Manager (WPCM).** Prior to the Pre-Activity meeting for Grading/Land Disturbance, the Contractor shall designate a Water Pollution Control Manager (WPCM) to fulfill the duties and responsibilities listed in Section 3.1 until final stabilization occurs. The Contractor's on-site project manager may also serve as the WPCM or that role may be assigned to another manager employed by the contractor or a subcontractor. The Contractor shall also maintain a WPCM delegate to temporarily fulfill the WPCM duties in the absence of the primary WPCM (e.g. illness, vacation, other leave).

**3.1 Duties of the WPCM:**

- (a) Be familiar with Stormwater Requirements including the National Pollutant Discharge Elimination System (NPDES), the current MoDOT State Operating Permit for construction stormwater discharges/ land disturbance activities, the Project-specific Stormwater Pollution Prevention Plan (Project SWPPP), the Corps of Engineers Section 404 Permit, when applicable, the Consent Decree, and this provision. The Project

SWPPP includes: a title page with project-specific information, the general SWPPP posted on the MoDOT land disturbance website, the Project Erosion & Sediment Control Plan, all applicable special provisions, and all applicable specifications and standard drawings;

- (b) Complete the stormwater training set forth in Section 2.0;
- (c) Attend the Pre-Activity for Grading/ Land Disturbance Meeting or, if hired after the meeting has occurred, be familiar with the conference decisions;
- (d) Review and sign the Project-specific SWPPP and all updates thereto within time periods set out in the Consent Decree;
- (e) Visit and review the project site for compliance with Stormwater Requirements at least once per week from the start of any grading operations until final stabilization is achieved and permit is closed;
- (f) Be authorized by the Contractor to supervise all work performed by the Contractor and subcontractors that involves compliance with Stormwater Requirements, including the authority to order work be stopped on a Project, implement MoDOT-directed changes in work related to Stormwater Requirements, and order the taking of, measures to cease, correct, prevent, or minimize the consequences of non-compliance with Stormwater Requirements;
- (g) Review and certify electronically each MoDOT inspection report for the Project within three (3) days of receiving each report to ensure it conforms with report requirements in the National Pollution Discharge Elimination System Stormwater (NPDES SW) Permit, Project SWPPP and the Consent Decree and ensure that all Stormwater Deficiencies noted on the report are corrected within the time required;
- (h) Recommend in writing within three (3) days of discovering any changes in site conditions and Best Management Practices (BMPs) that require an update to the Project-specific SWPPP; and
- (i) Be the point of contact relating to Stormwater Requirements and the Consent Decree between the Contractor, Subcontractors and MoDOT.

**4.0 Pre-Activity Meeting for Grading/Land Disturbance and Required Hold Point.** At each Project, a Pre-Activity Meeting for Grading/Land Disturbance shall be held prior to the start of any land disturbance and shall include a physical visit and review of the project site. Discussion items at the pre-activity meeting shall include a review of the project SWPPP, the planned order of grading operations, proposed areas of initial disturbance, identification of all necessary BMPs that shall be installed prior to commencement of grading operations, and any issues relating to compliance with the Stormwater requirements that could arise in the course of construction activity at the project.

**4.1** Contractor employees who shall attend the Pre-Activity Meeting for Grading/Land Disturbance include the WPCM for the Project and the person(s) designated the authority to manage the grading and erosion control operations.

**4.2** Following the pre-activity meeting for Grading/land disturbance, and subsequent installation of the initial BMPs identified at the pre-activity meeting, a Hold Point shall occur prior to the start of any land disturbance operations to allow the engineer and WPCM the time needed to perform an on-site review of the installation of the BMPs to ensure compliance with the SWPPP is met. Land disturbance operations shall not begin until authorization is given by the engineer.

**5.0 Compliance with the NPDES SW Permit and Project SWPPP.** On all projects, the Contractor shall comply with all applicable Stormwater Requirements which are defined as, but are not limited to:

- (a) Consulting with the engineer on recommended design revisions to the Project SWPPP to accommodate the Contractor's staging plan, implementation, managing, and maintaining BMPs or other control measures to prevent or minimize sediment and other pollutants in stormwater runoff in accordance with contract specifications or any relevant manufacturer specifications and good engineering practices, including but not limited to the manuals (*Note: two manuals cited in the MoDOT permit are "Developing your stormwater pollution prevention plan: A guide for construction activities" and "Protecting Water Quality: A Field Guide to erosion, sediment and stormwater best management practices for development sites in Missouri"*) and any other applicable standards for sedimentation basins, stabilization, rock dams, brush checks, construction entrances, and other BMPs;
- (b) Installing all BMPs at the locations and relative times specified in the Project SWPPP; and
- (c) Complying with the Missouri Water Quality Standards and with effluent limitations in Section E.1 of the NPDES SW Permit. Measurement of effluent is not required except as specified in E.2.

**5.1 Stormwater Deficiency Corrections.** Per terms of the Consent Decree, Stormwater Deficiencies identified on the MoDOT Land Disturbance Inspection Report shall be corrected within 7 days of the inspection date to avoid stipulated penalties, except that more time might be granted by the engineer when weather or field conditions prohibit the corrective work. If the Contractor does not initiate corrective measures within 5 calendar days of the inspection date or any extended period granted by the engineer, all work shall cease on the project except for work to correct these deficiencies, unless otherwise allowed by the engineer. All impact costs related to this halting of work, including, but not limited to stand-by time for equipment, shall be borne by the Contractor. Work shall not resume until the engineer approves the corrective work.

**6.0 Inspection Protocol.** The Contractor and all subcontractors shall review and adhere to MoDOT's written Stormwater Inspection Protocol, found on the MoDOT Land Disturbance webpage ([www.modot.org/LD](http://www.modot.org/LD)). The Inspection Protocol is applicable to all Projects under the consent decree. The MoDOT Resident Engineer will serve the role of Stormwater Resident Engineer, or a delegate will be named in their absence.

**6.1 Inspection Reports.** MoDOT will provide one or more Environmental Construction Inspectors (ECI) to perform the weekly and post run-off inspections and other duties described in paragraph 17 of the Consent Decree. The ECI will enter the inspection reports into a web-based Stormwater Compliance database. The WPCM will have access to this database to view all report information, including any noted deficiencies, and to certify the report as required in Section 3.1 (g.). Automated email reminders of pending reports that need to be certified and for



deficiencies that need to be corrected will be sent to the WPCM. The Contractor may designate other employees or subcontractor employees to have viewing access to this database and to receive the email reminders. Completion of MoDOT Stormwater Training is necessary in order to receive the email reminders. The WPCM and other users shall be equipped with an electronic device (desktop computer, laptop, tablet, smartphone, etc.) with a browser and internet access to connect to the database. The contractor shall be responsible for providing the electronic devices.

**7.0 Stipulated Penalties.** If the Contractor fails to comply fully and timely with the requirements of the Consent Decree, stipulated penalties will be assessed to the Commission. For matters under the Contractor's responsibility and control the following stipulated penalties will be assessed to the Contractor and MoDOT will withhold payment pursuant to the following:

<b>Violation</b>	<b>Stipulated Penalty Amount</b>
Failure to Designate or Maintain WPCM at each Project in Accordance with Section 3.0.	\$750 for the initial violation (each person not designated) and then \$750 for each fourteen (14) day period that person is not designated.
Failure to complete MoDOT Stormwater Training by an Individual Required to be Trained in Accordance with Section 2.0, such as the WPCM or Project Manager.	\$750 per person for each missed training. This \$750.00 per person violation shall continue to accrue for each fourteen (14) day period that the person fails to timely receive the applicable training
Failure of WPCM to Review and Certify an Inspection Report in Accordance with Inspection Protocol as set forth in Section 6.	\$250 per inspection report not reviewed or signed.
Failure to Comply with Any NPDES SW Permit or SWPPP Requirement.	\$1000 per violation for the first ten (10) days of the violation; \$2500 per violation for days 11-20; \$3500 per violation for days 21 and beyond.
Failure to Correct a Stormwater Deficiency Identified in a MoDOT Inspection Report, or Otherwise Discovered by the WPCM, within the Time Required by the NPDES SW Permit or SWPPP.	\$1000 per deficiency for the first ten (10) days after correction was required; \$2500 per deficiency for days 11-20 after correction was required; \$3500 per deficiency for days 21 and beyond after correction was required.

**8.0 Information Collection and Retention.** The EPA, its representatives and its agents shall have the right of entry into any facility covered by this Consent Decree, at all reasonable times, upon presentation of credential, to:

- (a) monitor the progress of activities required under the Consent Decree;
- (b) verify any data or information submitted to the United States in accordance with the terms of the Consent Decree;
- (c) obtain samples and, upon request, splits of any samples taken by MoDOT or its representatives, contractors, or consultants;
- (d) obtain documentary evidence, including photographs and similar data; and
- (e) assess MoDOT's compliance with the Consent Decree.

**8.1** Until three (3) years after the termination of the Consent Decree, Contractors and the agents of the Contractors shall preserve all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its Contractors' or agents' possession or control, or that come into the Contractor's or agent's possession or control, and that relate to MoDOT's performance of its obligations under the Consent Decree or to the Contractor's performance of its obligations under the Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures.

**9.0 Basis of Payment.** Should the contractor disturb more than one (1) acre due to its method of operations, or for any other reason, no direct payment will be made for compliance with this provision, including the cost to provide a WPCM. Should the engineer direct the contractor to exceed one (1) acre of land disturbance, payment will be made only for the actual cost of the weekly duties of the WPCM. Separate payment will be made for erosion and sediment control devices, and for permanent and temporary seeding and mulching, when payment for those items are provided elsewhere in the contract.

Z. Supplemental Revisions JSP-18-01D

**Delete Sec 106.9 and substitute the following:**

**106.9 Buy America Requirement** On all federal-aid projects, the contractor's attention is directed to Title 23 CFR 635.410 Buy America Requirements. Where steel or iron products are to be permanently incorporated into the contract work, steel and iron material shall be manufactured in the USA except for "minor usage" as described herein. Furthermore, any coating process of the steel or iron shall be performed in the USA. The use of pig iron and processed, pelletized and reduced iron ore manufactured outside of the USA will be permitted in the domestic manufacturing process for steel or iron material.

**Delete Sec 106.9.3 and substitute the following:**

**106.9.3** Buy America requirements include a step certification for all fabrication processes of all steel or iron materials that are accepted per Sec 1000.

**106.9.3.1** Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and certifications documenting the manufacturing process for all subsequent fabrication, including coatings. The certification shall include language that certifies the following. That all steel and iron materials permanently incorporated in this project was procured and processed domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.

**106.9.3.2** Items designated as Category 2 will include all other steel or iron products not in Category 1 and permanently incorporated in the project. Category 2 items shall consist of, but not be limited to items such as fencing, guardrail, signing, lighting and signal supports. The prime contractor is required to submit a material of origin form certification prior to incorporation into the project from the fabricator for each item that the product is domestic. The Certificate of

Materials Origin form ([link to certificate form](#)) from the fabricator must show all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements and be signed by a fabricator representative. The Engineer reserves the right to request additional information and documentation to verify that all Buy America requirements have been satisfied. These documents shall be submitted upon request by the Engineer and retained for a period of 3 years after the last reimbursement of the material.

**106.9.3.3** Any minor miscellaneous steel or iron items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. Examples of these items would be bolts for sign posts, anchorage inserts, etc. The certification shall read "I certify that all steel and iron materials permanently incorporated in this project during all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements procured and processed domestically in accordance with CFR Title 23 Section 635.410 Buy America Requirements. Any foreign steel used was submitted and accepted under minor usage". The certification shall be signed by an authorized representative of the prime contractor.

***Delete Sec 106.9.4 and Renumber subsequent sections accordingly:***

***Delete Sec 616.5.1 and substitute the following:***

**616.5.1 Amber or Amber and White Warning Lights.** All on-road construction-related vehicles and equipment shall operate with amber or amber and white warning lights having 360 degrees of total coverage and as follows:

- (1) For daytime operations, SAE Class 1 or 2 lights shall be used.
- (2) For dusk to dawn operations, SAE Class 2 lights shall be used, or SAE Class 1 lights with dimming capabilities to minimize glare experienced by travelers.

**616.5.1.1 Red or Red and Blue Warning Lights.** The contractor may elect to use red or red and blue warning lights in accordance with Missouri law and the following requirements:

- (1) Use of red or red and blue lights shall be limited to use on a total of two vehicles per work zone and/or project.
- (2) Use of red or red and blue warning lights shall be limited to areas in advance of tapers or lane shifts and at the active work location.
- (3) Lights shall be SAE Class 2 or SAE Class 1 with dimming capabilities to minimize glare experienced by travelers.

The awarded contract will serve as a permit by the Commission, granting the prime contractor and approved sub-contractors to utilize red or red and blue lights as required by Missouri law.

AA. Flagging Procedure for Two-Lane Roadways (3-2-1 Cone Procedure) NJSP-17-03A

**1.0 Description.** Flagging operations shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) Chapter 6, Section 107 and 616 in Missouri Standard Specifications

for Highway Construction, Missouri Standard Plans for Highway Construction, temporary traffic control plans, and as described herein.

**2.0 Procedures for Flagging Short, Intermediate, or Long-Term Stationary Operations.**

This procedure includes the use of three traffic cones or other channelizing devices.

**2.1 Step 1.** The flagger shall place three cones across the lane of traffic to be stopped, from centerline to shoulder. When no vehicles are present, the flagger should remain on the shoulder with the stop paddle visible.

**2.2 Step 2.** When traffic has stopped, the flagger shall move towards the centerline of the roadway, keeping the stop paddle visible, and keeping a visual contact with the stopped drivers. Once the flagger has confirmed that opposing traffic is clear, the flagger shall prepare to release the stopped traffic.

**2.3 Step 3a.** If the vehicles are to travel in the current lane, the flagger shall remove the center cone from the center of the lane.

**2.4 Step 3b.** If the vehicles are to travel in the opposite lane, the three cones shall remain across the closed lane.

**2.5 Step 4.** If opening the lane (Step 3a above) the flagger shall walk back to the shoulder with the cone, turn the stop paddle to slow, and then release traffic using a hand signal to direct vehicles between the two remaining cones. If releasing traffic to the other lane (Step 3b above) the flagger shall remain near the centerline of the roadway, turn the stop paddle to slow, and use a hand signal to direct the traffic around the cones into the open lane.

**2.6** Once all traffic has cleared, the flagger shall return the slow paddle to stop. The flagger shall replace the cone to the center of the lane or leave the cones across the lane. The flagger then returns to the shoulder and repeats the steps.

**2.7** If the roadway width is less than 12 feet, the number of cones may be reduced to two or one, or other channelizing devices may be used.

**3.0 Basis of Payment.** No direct payment will be made for any cost associated with this provision.

**Pictorial Representation of Steps for Flagging Procedure for Two-Lane Roadways (3-2-1 Cone Procedure)**



STEP 1



STEP 2



STEP 3



STEP 4