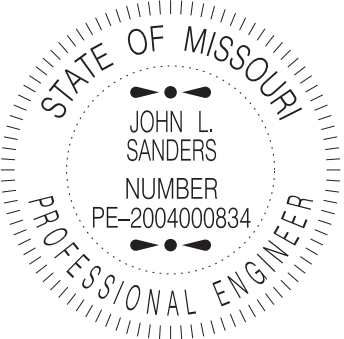


Job No.: J7S3404
 Route: Various
 County: Various

JOB SPECIAL PROVISIONS TABLE OF CONTENTS

(Job Special Provisions shall prevail over General Provisions whenever in conflict therewith.)

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 <p>STATE OF MISSOURI JOHN L. SANDERS NUMBER PE-2004000834 PROFESSIONAL ENGINEER</p> <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 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: J7S3404 VARIOUS COUNTIES, MO DATE PREPARED: 8/23/2019
	ADDENDUM:
Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: ALL	

JOB
SPECIAL PROVISION

A. General - Federal

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 under "Doing Business with MoDOT", "Contractor Resources". 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 under "Doing Business with MoDOT"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to July 2019 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 work shall be

Job No.: J7S3404
Route: Various
County: Various

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 6, 2020
Completion Date: September 1, 2020

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
J7S3404	72	\$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 Deficiencies. 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 Recurring Congestion. 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 Non-Recurring Congestion. When traffic queues 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 infrequently, 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 Except for emergency work, as determined by the engineer, and long term lane closures required by project phasing, all lanes shall be scheduled to be open to traffic during the five major holiday periods shown below, from 12:00 noon on the last working day preceding the holiday until 6:00 a.m. on the first working day subsequent to the holiday unless otherwise approved by the engineer.

Memorial Day
Labor Day
Thanksgiving
Christmas
New Year's Day

3.1.1 Independence Day. The lane restrictions specified in Section 3.1 shall also apply to Independence Day, except that the restricted periods shall be as follows:

12:00 noon July 2, 2020 – 10:00 p.m. July 5, 2020
12:00 noon July 2, 2021 – 6:00 a.m. July 6, 2021
12:00 noon July 1, 2022 – 6:00 a.m. July 5, 2022

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. 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 area 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 Troop D: 417-895-6868
MoDOT Customer Service: 417-895-7600
Barry County Sheriff: 417-847-6556
Barton County Sheriff: 417-682-5541
Jasper County Sheriff: 417-358-8177
McDonald County Sheriff: 417-223-4319
Newton County Sheriff: 417-451-8300
EMERGENCY ONLY NUMBERS *55 cell phone – Missouri Highway Patrol 417-864-1160 – MoDOT Incident Management Coordinator

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.

E. Project Contact for Contractor/Bidder Questions

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

John Sanders, Project Contact
Southwest District
3025 E Kearney Street

Job No.: J7S3404
Route: Various
County: Various

Springfield, MO 65803

Telephone Number: 417-829-8039
Email: John.Sanders@modot.mo.gov

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

F. Supplemental Revisions JSP-18-01H

Stormwater Compliance Requirements

1.0 Description. This provision requires the contractor to provide a Water Pollution Control Manager (WPCM) for any project that includes areas of land disturbance that will total one (1) acre or greater on the project site at any point in time. When a WPCM is required, all sections within this provision shall be applicable, including assessment of specified Liquidated Damages for failure to correct Stormwater Deficiencies, as specified herein.

1.1 Applicability. The project site consists of all areas designated on the plans, including temporary and permanent easements. This provision does 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 Water Pollution Control Manager (WPCM). The Contractor shall designate a competent person to serve as the Water Pollution Control Manager (WPCM) for projects meeting the description in Section 1.0. The Contractor shall ensure the WPCM completes all duties listed in Section 2.1.

2.1 Duties of the WPCM:

- (a) Be familiar with the stormwater requirements including the current MoDOT State Operating Permit for construction stormwater discharges/land disturbance activities; MoDOT's statewide Stormwater Pollution Prevention Plan (SWPPP); the Corps of Engineers Section 404 Permit, when applicable; the project specific SWPPP, the Project's Erosion & Sediment Control Plan; all applicable special provisions, specifications, and standard drawings; and this provision;
- (b) Successfully complete the MoDOT Stormwater Training Course within the last 4 years. The MoDOT Stormwater Training is a free online course available at MoDOT.org;
- (c) Attend the Pre-Activity Meeting for Grading and Land Disturbance and all subsequent Weekly Meetings in which grading activities are discussed;
- (d) Oversee and ensure all work is performed in accordance with the Project-specific SWPPP and all updates thereto, or as designated by the Engineer;
- (e) Review the project site for compliance with the Project SWPPP, as needed, from the start of any grading operations until final stabilization is achieved, and take necessary actions to correct any

known deficiencies to prevent pollution of the waters of the state or adjacent property owners prior to the engineer's weekly inspections;

- (f) Review and acknowledge receipt of each MoDOT Inspection Report (Land Disturbance Inspection Record) for the Project within forty eight (48) hours of receiving the report and ensure that all Stormwater Deficiencies noted on the report are corrected within 7 days of the stormwater inspection or any extended period of time granted by the Engineer.

3.0 Pre-Activity Meeting for Grading/Land Disturbance and Required Hold Point. A Pre-Activity Meeting for Grading/Land Disturbance shall be held prior to the start of any land disturbance operations. No land disturbance operations shall commence prior to the Pre-Activity Meeting except work necessary to install perimeter controls and entrances. 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.

3.1 Hold Point. 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.

4.0 Inspection Reports. Weekly and post run-off inspections will be performed by the engineer and each Inspection Report (Land Disturbance Inspection Record) will be entered into a web-based Stormwater Compliance database. The WPCM will be granted access to this database and shall promptly review all reports, including any noted deficiencies, and shall acknowledge receipt of the report as required in Section 2.1 (f.).

5.0 Stormwater Deficiency Corrections. All stormwater deficiencies identified in the Inspection Report shall be corrected by the contractor within 7 days of the inspection date or any extended period 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.

5.1 Liquidated Damages. If the Contractor fails to complete the correction of all Stormwater Deficiencies listed on the MoDOT Inspection Report within the specified time limit, the Commission will be damaged in various ways, including but not limited to, potential liability, required mitigation, environmental clean-up, fines and penalties. 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 \$2,000 per day for failure to correct one or more of the Stormwater Deficiencies listed on the Inspection Report within the specified time limit. In addition to the stipulated damages, the stoppage of work shall remain in effect until all corrections are complete.

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

G. Flagging Procedure for Two-Lane Roadways (3-2-1 Cone Procedure)

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

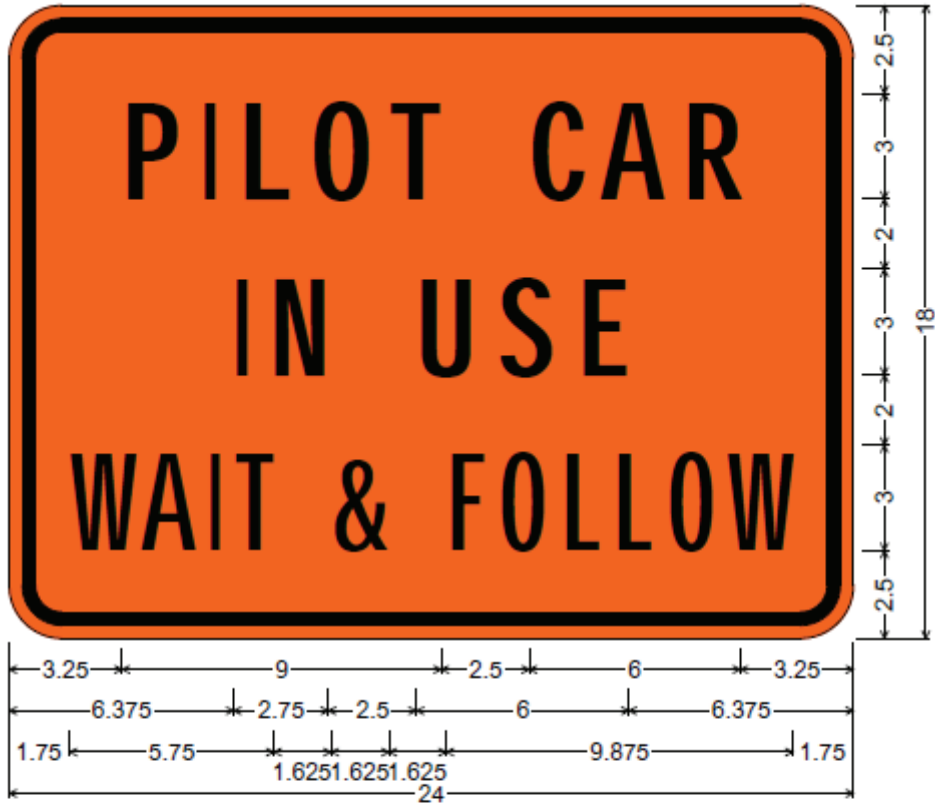


STEP 4

H. Pilot Car In Use – Wait And Follow Sign

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		

I. 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.

J. Sensitive Streams or Waterbodies Near Project Area

1.0 Description. The project crosses, or is in the vicinity of, a sensitive stream or watershed. Waterbodies within and near the project area may serve as habitat for federal and state listed sensitive species. To avoid any negative impacts to these species and their habitats, water quality shall be protected from construction impacts.

1.1 The contractor shall prevent any debris and materials from construction activities from entering streams and other waterbodies. If debris or materials do enter waterbodies, and if deemed necessary by the engineer or MoDOT's environmental personnel, it shall be removed as directed by the engineer at the contractor's expense.

2.0 Basis of Payment. No direct payment will be made for any expense incurred by the contractor by reason of compliance with the specific requirements of the provision, including any delay, inconvenience, or extra work except for those items for which payment is included in the contract.

K. 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 25 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.

L. Aggregate for Seal Coats

1.0 Description. In addition to the requirements of Sec 1003, the following shall apply.

2.0 The use of flint chat from the Joplin area will not be permitted.

M. Fog Sealing Requirements at Select Locations

1.0 Description. In addition to Sec 409, the following shall apply to any segments of routes specified to receive a fog seal treatment in addition to the Seal Coat Treatment.

1.1 The fog seal product shall be a fast breaking, fast setting cationic emulsified asphalt product for use on seal coats. It shall be capable of allowing non-turning traffic to return on the pavement surface in less than one hour at temperatures above 77° F and less than 50% humidity.

2.0 Material Requirements. The emulsified asphalt will meet the material property requirements in Table 1.

Test on Emulsion	Method	Min.	Max.
Viscosity @ 77° F (25° C), SSF	ASTM D88	20	500
Penetration of Residue from Distillation @ 77° F (25° C), 100 g, 5 s, dmm	ASTM D5	40	150
Sieve Test, %	ASTM D244		0.1
Residue from Distillation @ @ 500° F (260° C), %	ASTM D244	57	
Particle Charge	ASTM D244	Positive	

Table 1

3.0 Construction Requirements.

3.1 Seal coat shall only be placed when the ambient temperature and the temperature of the pavement on which it is to be placed is above 75 F.

3.2 A street sweeper shall be used to remove loose aggregate from the centerline of routes placed in two passes. Sweeping shall be completed the same day (or night) the aggregate is placed. The contractor shall repair any damage caused by the sweeper at no expense to the Commission.

3.3 After seal coating, regardless of the aggregate source or type, the surface shall be fog sealed in accordance with Sec 413.40. Pre-coating of aggregate will not be required.

3.3.1 Fog sealing shall be completed within 36 hours of the initial application of seal coat aggregate. Loose aggregate shall be removed from the surface prior to fog sealing.

3.3.2 Fog Sealing Application Rate. The diluted asphalt emulsion shall be uniformly applied at the rate of 0.10 gallon per square yard surface. The application rate may be adjusted as directed by the engineer. Application widths shall be such that an entire lane is covered in one application.

3.3.3 Fog Sealing Material. Asphalt emulsion grade CQS-1H shall be used.

4.0 Traffic Control. The lane shall be closed until the bituminous fog seal is cured. During application and curing of the fog seal, the contractor shall control traffic through the work zone by means of pilot vehicles as in accordance with Sec. 409. This shall be maintained until tracking is prevented.

5.0 Basis of Acceptance. For purposes of acceptance by the engineer, the combination of seal coat and fog seal will be considered an inseparable product. Determination of acceptance will be in accordance with 409.7. The contractor is responsible for any damage claims associated with the seal coat and/or with the fog seal until the route is accepted by the engineer.

6.0 Basis of Payment. Payment for bituminous fog sealing will be in accordance with Sec 413.40.

N. Type 1 Temporary Raised Pavement Markers

1.0 Type 1 Temporary Raised Pavement Markers Application Staging. The contractor shall adhere to Section 620 of the Missouri Standard Specification for Highway Construction and provide either temporary or permanent pavement marking to the roadway before removing the workzone and opening the road to traffic. If the contractor will be providing temporary pavement marking, temporary raised pavement markers (TRPM) shall be applied immediately following the final existing surface sweeping operation and prior to the application of the asphalt binder. If the route or portion of the route will receive a fog seal, the contractor shall use 2 TRPMs at each location specified in the standard plans and/or contract plans. The contractor shall remove the cover of one TRPM after the seal coat treatment has been applied. The contractor shall remove the cover of the second TRPM after the fog seal treatment has been applied. No payment will be made for any temporary pavement marking used.

O. Special Provisions for Seal Coat Projects

Only for Routes with AADT less than 400 - Delete Sec 409.2.1 in its entirety.

For Routes with AADT 400 or above – Section 409.2.1 shall be followed as specified:

409.2.1 All limestone and dolomite shall be either precoated as specified in Sec 409 or fog sealed in accordance with Sec 413. In lieu of using all aggregate material, such as precoated limestone or dolomite, the contractor may use a 50/50 mixture of trap rock and limestone/dolomite meeting the required gradation as specified in Sec 1003.2.2 for the grade of aggregate specified in the contract.

For the purpose of this project, the following tables shall be used as a guide in determining which routes are less than 400 AADT and which routes shall be considered to have 400 AADT or more.

Routes with Less than 400 AADT	Proposal Section Description
None	Base

Routes with More than 400 AADT	Proposal Section Description
Barry County MO 112 Barry County Rt F Barton County US160 Jasper County Rt E Jasper County Rt V McDonald County MO 43 Newton/Barry County MO 86	Base

Delete Sec 409.2.2 and substitute the following:

409.2.2 Asphalt binder shall be CHFRS-2P and shall meet the following criteria:

Asphalt Binder Requirements			
Tests on Asphalt Binder ^a	Test Method	Minimum	Maximum
Penetration @ 77°F	ASTM D 5	60	150
Elastic Recovery @ 50°F, %	AASHTO T 301	65	---

^aThese tests shall be done on the asphalt residue for emulsions and cutbacks.

Delete Sec 409.5.1 and substitute the following:

409.5.1 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. Humidity limitations shall be according to the binder manufacturer's written recommendation. Temperatures shall be obtained in accordance with MoDOT Test Method TM 20.

409.5.1.1 Seal coats for pavements shall not be placed between September 1 and May 1, except when authorized by the engineer. Seal coats for shoulders shall not be placed between October 1 and May 1, except when authorized by the engineer. Placement within these dates shall only be permitted when it is to the Commission's advantage to do so.

Delete Sec 409.5.2 and substitute the following:

409.5.2 Surface Preparation. The surface shall be thoroughly cleaned and swept to remove all dirt, packed soil or any other foreign material prior to spraying the bituminous material.

Amend Sec 409.5.4 through Sec 409.5.7 and substitute the following:

409.5.4 Compaction. The surface aggregate shall be thoroughly seated over the entire area with pneumatic tire rollers, using sufficient passes to embed the aggregate. The aggregate shall be placed and compacted immediately after the asphalt binder application.

409.5.5 Dust Control. At the discretion of the engineer, if dust in the air becomes an issue, the contractor may be required to control dust.

409.5.6 Loose Aggregate. Loose aggregate shall be removed from curbs, gutters, sidewalks, driveways and other areas designated by the engineer.

409.5.7 Application of Cover Aggregate. All portions of the surface not covered by mechanical spreaders shall be hand spotted so that the entire surface will be uniformly covered.

Delete Specification 409.6 and 409.7 of the Missouri Standard Specification and replace with the following:

409.6 Traffic Control.

409.6.1 The contractor shall perform work in such a way as to avoid damage to vehicles resulting from asphalt or loose aggregate. During application of the seal coat, the contractor shall control traffic through the work zone by means of pilot vehicles traveling at a maximum speed of 35 miles per hour. During any additional sweeping operations pilot cars may be eliminated. Conformance with the specifications, standards and traffic control plan is considered a minimum effort and is not intended to absolve any liability for damage to vehicles as a result of construction operations. The contractor shall designate a responsible person for receiving and resolving damage claims made by the public. The company name and contact information shall be posted as designated on the plans. This person shall be available by telephone during the contractor's normal business hours Monday through Friday.

409.6.2 Any route or portion of a route with an existing posted speed limit greater than 45 MPH shall have a temporary workzone speed limit posted at 45 MPH until the route has been accepted by the engineer or the engineer directs the contractor to remove the temporary workzone speed reduction. Existing speed limit signs shall be covered and temporary workzone speed limit signs placed at the same location.

409.6.3 The contractor shall provide contact information signs with their company name and phone number on a variable width by 24 inch tall sign with black lettering on orange retroreflective sheeting in accordance with Sec 1042.2.7. The first line shall state "CONTRACTOR" in uppercase 4 inch C highway font, the second line shall contain the contractor name in upper/lower case 4 inch B highway font and the third line shall contain the contractor's phone number in 4 inch C highway font. Signs shall be posted near the beginning and end of the project limits as approved by the engineer.

409.6.3.1 The contact information sign shall remain in place until the route has been accepted by the engineer and until, in the engineer's judgment, the route exhibits no more loose aggregate.

409.7 Basis of Acceptance. Evaluation of the route for acceptance shall be made no less than 14 days from completion of the route. Seal coat will be evaluated for acceptance by the engineer based on the following criteria:

- (a) No location having bleeding of binder in excess of two square feet or a combined area of bleeding greater than 10 square feet on any 50 foot length of two lane roadway.
- (b) No continued or ongoing tracking from seal coat onto other roadways or adjacent driveways.
- (c) No transverse and longitudinal construction joints from the seal coat application that are not straight, creates a bump, or produce a poor riding surface.
- (d) Longitudinal construction joints that are straight and contains no gaps.
- (e) No asymmetric appearance stemming from longitudinal grooves or ridges in the surface.
- (f) A pavement treatment having complete aggregate coverage with full adherence to the roadway.

409.7.1 The contractor is responsible for any damage claims that are associated with the seal coat until the route is accepted by the engineer.

409.7.1.1 The contractor shall maintain a log of all damage claims for each route on each project. The log shall include the date of the claim, contact information for person making each claim, and the status of each claim. If a claim is denied, a brief explanation as to why the claim was denied shall also be included. This log shall be updated and a copy provided to the Project Office once every week.

409.7.2 In addition to the requirements of Section 107.11, the following shall apply:

Job No.: J7S3404

Route: Various

County: Various

The contractor shall pay 100% of reasonably supported claims for alleged damage from chip sealing operations provided:

- 1) The claimant notifies the contractor within 14 days of the actual work being performed
- 2) The claimant accurately states the route on which the work was performed
- 3) The claimant provides adequate supporting documentation for the claim

409.7.3 The contractor will supply an as-built video of the entire completed chip seal taken 14 days after the work was completed. The video will be taken such that it verifies it includes the entire project limits. A separate video will be submitted to MODOT for each individual route or section of route on which work is performed. Provided the video shows no evidence of aggregate loss, any claims brought to the contractors attention after 14 days should be investigated by the contractor and vetted via their normal claims processes.

P. Bridge Joints

1.0 Protection of Existing Bridge Joints from Seal Coat Operations. When a seal coat (chip seal) is to be applied up to and/or across an existing bridge deck, the contractor shall protect the existing bridge expansion joints by covering the joints such that no seal coat emulsified oil nor seal coat aggregate shall either enter the joint or adhere to the joint. No payment will be made for adherence to this special provision.