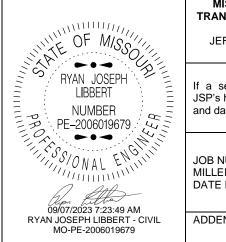
Route: 17

County: Miller/Pulaski

JOB SPECIAL PROVISIONS TABLE OF CONTENTS

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

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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: JCD0047 MILLER/PULASKI COUNTIES DATE PREPARED: 5/10/2023

ADDENDUM:

Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: ALL

Route: 17

County: Miller/Pulaski

JOB SPECIAL PROVISION

A. <u>General - Federal</u> JSP-09-02J

- **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 2023 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 JSP-13-01C

- **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 on all projects (job numbers) shall be completed on or before the Contract Completion date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Route: 17

County: Miller/Pulaski

Notice to Proceed Date: December 4, 2023 Contract Completion Date: September 1, 2024

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 \$2,300

- **3.0 Liquidated Damages for Contract Administrative Costs.** Should the contractor fail to complete the work on or before the contract 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 contract 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 contract 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 JSP-02-06N

- **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.

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County: Miller/Pulaski

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

Route: 17 County: Miller/Pulaski

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:

When Independence Day falls on:	The Holiday is Observed on:	Halt Lane Closures beginning at:	Allow Lane Closures to resume at:
Sunday	Monday	Noon on Friday	6:00 a.m. on Tuesday
Monday	Monday	Noon on Friday	6:00 a.m. on Tuesday
Tuesday	Tuesday	Noon on Monday	6:00 a.m. on Wednesday
Wednesday	Wednesday	Noon on Tuesday	6:00 a.m. on Thursday
Thursday	Thursday	Noon on Wednesday	6:00 a.m. on Friday
Friday	Friday	Noon on Thursday	6:00 a.m. on Monday
Saturday	Friday	Noon on Thursday	6:00 a.m. on Monday

3.2 The contractor shall not perform any construction operation on the roadway, roadbed or active lanes, 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. If a CMS with Communication Interface is required, then the CMS shall be capable of communication 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.

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County: Miller/Pulaski

D. <u>Emergency Provisions and Incident Management</u>

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 (800-525-5555) (Cellular *55)
Miller County Sheriff
573-369-2341
Fire: 573-369-0043
City of Crocker Police
573-736-2211
Pulaski County Sheriff
573-774-6196
Fire: 573-774-3050
City of Waynesville Police
573-774-2414

- **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.

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E. <u>Project Contact for Contractor/Bidder Questions</u>

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

Ryan Libbert, Project Contact Central District 1511 Missouri Blvd. Jefferson City, MO 65102

Telephone Number: 573-522-5265 Email: Ryan.Libbert@modot.mo.gov

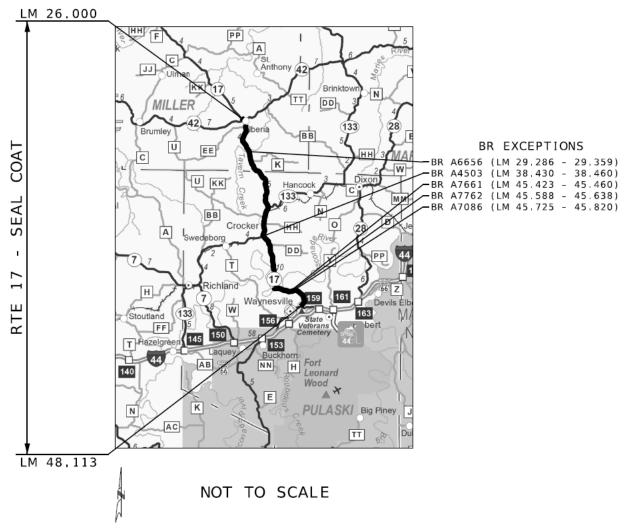
All questions concerning the bid document preparation can be directed to the Central Office – Design at (573) 751-2876.

F. <u>Project Details and Quantities</u>

1.0 Description. This project consists of placing bituminous material followed by placing cover aggregate material as described here in and inaccordance with Section 409 of the Missouri Standard Specifications for Highway Construction. The project limits are from Log Mile 26.000 to 48.113. The total length of pavement limits are 21.828 miles with a total average width of 24 feet. Pavement will not be placed at the following exception locations listed below:

Route: 17 County: Miller/Pulaski

LOCATION SKETCH



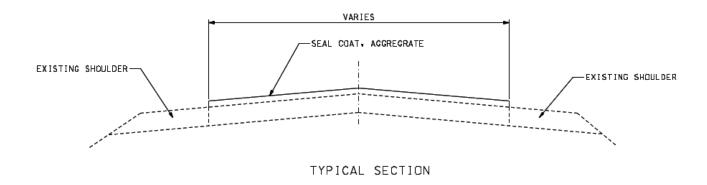
	EXCEPTIONS						
APPROX.	APPROX. LOG MILE						
FROM	TO	(FT)	COMMENTS/BRIDGE NUMBERS				
29.286	29.359	385.44	BR A6656 OVER TAVERN CREEK				
38.430	38.460	158.40	BR A4503 OVER BNSF RAILROAD				
45.423	45.460	195.36	BR A7661 OVER GASCONADE RIVER OVERFLOW				
45.588	45.638	264.00	BR A7762 OVER GASCONADE RIVER OVERFLOW				
45.725	45.820	501.60	BR A7086 OVER GASCONADE RIVER				
TOTAL		1504.8					

2.0 Application Rate and Typical.

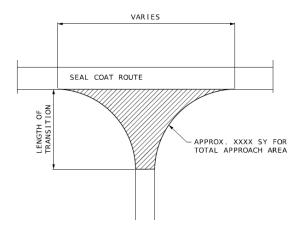
BINDER APPLICATION RATE	0.28 GAL/YD ²
-------------------------	--------------------------

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2.1 Typical state route transitions:



TYPICAL STATE ROUTE JUNCTION

3.0 Pavement Quantities.

3.1 Payment quantities are as follows:

Route: 17

County: Miller/Pulaski

	SEAL COAT QUANTITIES							
				AVERAGE				
APPROX.	LOG MILE		LENGTH	WIDTH	SEAL COAT, AGGREGATE	0.28 GAL/SY EMULSIFIED		
FROM	T0	ROUTE	(MI)	(FT)	GRADE B2 (SY)	ASPHALT SEAL COAT (GAL)	Remarks	
26.000	26.691	17	0.691	24	9729.3	2724.2		
26.691	29.130	17	2.439	26	37202.9	10416.8	2' SHOULDER	
29.130	29.286	17	0.156	28	2562.6	717.5	3' SHOULDER	
29.286	29.359	17	0.073				BR EXCEPTION (A6656)	
29.359	29.531	17	0.172	28	2825.4	791.1	3' SHOULDER	
29.531	36.240	17	6.709	26	102334.6	28653.7	2' SHOULDER	
36.240	38.185	17	1.945	24	27385.6	7668.0		
38.185	38.430	17	0.245	44	6324.3	1770.8	10' SHOULDER	
38.430	38.460	17	0.030				BR EXCEPTION (A4503)	
38.460	38.720	17	0.260	44	6711.5	1879.2	10' SHOULDER	
38.720	45.423	17	6.703	26	102243.1	28628.1	2' SHOULDER	
45.423	45.460	17	0.037				BR EXCEPTION (A7661)	
45.460	45.588	17	0.128	26	1952.4	546.7	2' SHOULDER	
45.588	45.638	17	0.050				BR EXCEPTION (A6656)	
45.638	45.725	17	0.087	26	1327.0	371.6	2' SHOULDER	
45.725	45.820	17	0.095				BR EXCEPTION (A6656)	
45.820	47.411	17	1.591	26	24268.1	6795.1	2' SHOULDER	
47.411	48.113	17	0.702	22	9060.5	2536.9		
				Cubbatal 4	222027.2	02400.7		
				Subtotal 1	333927.3	93499.7		

	SEAL COAT QUANTITIES							
				AVERAGE				
APPROX.	LOG MILE		LENGTH	WIDTH	SEAL COAT, AGGREGATE	0.28 GAL/SY EMULSIFIED		
FROM	T0	ROUTE	(FT)	(FT)	GRADE B2 (SY)	ASPHALT SEAL COAT (GAL)	Remarks	
26.052		17	85	VAR	465	130.2	RTE 42 (WEST) INTERSECTION	
26.052		17	93	VAR	562	157.4	RTE 42 (EAST) INTERSECTION	
26.585		17	78	VAR	482	135.0	RTE EE INTERSECTION	
30.328		17	71	VAR	418	117.0	RTE K INTERSECTION	
35.537		17	115	VAR	578	161.8	RTE 133 (NORTH) INTERSECTION	
37.382		17	44	VAR	278	77.8	RTE HH INTERSECTION	
38.383		17	94	VAR	920	257.6	RTE 133 (SOUTH) INTERSECTION	
39.605		17	80	VAR	559	156.5	RTE DD INTERSECTION	
				Subtotal 2	4262	1193.3		
			Subtotal 1	333927.3	93499.7			
		Total	338189.3	94693.0				
				USE	338189	94693		

- **4.0 Temporary Traffic Control Plans.** See <u>Standard Plan 616.20</u> for standard temporary traffic control requirements.
- **4.1** Construction sign descriptions and quantities are as follows:

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	CONSTRUCTION SIGNING								
			AREA		TOTAL				
SIGN NO.	SIGN	SIZE (in.)	(FT.2)	QTY.	AREA	DESCRIPTION			
1*	GO20-1	60 X 24	10	2	20	ROAD WORK NEXT 22 MILES			
2**	WO20-1	48 X 48	16	18	288	ROAD WORK AHEAD			
7	WO20-4	48 X 48	16	5	80	ONE LANE ROAD AHEAD			
8	WO20-7a	48 X 48	16	18	288	FLAGGER (SYMBOL) WITH FLAGS			
11	WO3-4	48 X 48	16	14	224	BE PREPARED TO STOP			
26	GO20-2	48 X 24	8	2	16	END ROAD WORK			
35	WO8-12	48 X 48	16	37	592	NO CENTER LINE			
53	GO20-4	36 X 18	4.5	1	4.5	PILOT CAR FOLLOW ME			
56	CONST-7	48 X 24	8	2	16	RATE OUR WORK ZONE			
57	WO8-7a	36 X 36	9	17	153	FRESH OIL LOOSE GRAVEL ***			
58	GO20-4a	42 X 30	8.75	4	35	PILOT CAR IN USE WAIT & FOLLOW			
58	GO20-4a	18 X 12	1.5	10	15	PILOT CAR IN USE WAIT & FOLLOW			
59	CONST-8	48 X 36	12	2	24	WORK ZONE NO PHONE ZONE			
	GO22-1	21 X 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)			
		-							
	616-10.	5 CONSTR	UCTION SIG	INS TOTAL	1759.88				
				USE	1760				

^{* -} IF LESS THAN TWO (2) MILES, DELETE SIGN NO. 1.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIREMENTS.

4.2 Traffic Control Devices and Moblization are as follows:

ITEM NO.	QTY.	DESCRIPTION
616-10.25	40	CHANNELIZERS (TRIM-LINE)
612-30.00A	1	TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
616-10.98A	4	CHANGEABLE MESSAGE SIGN
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

^{** -} ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

^{*** -} FRESH OIL/LOOSE GRAVEL SIGN SHALL BE PLACED AT THE START OF THE PROJECT. SIGNS SHOULD ALSO BE INSTALLED WITHIN 150 FT. AFTER THE INTERSECTION OF A STATE ROUTE. ADDITIONAL SIGNS MAY BE INSTALLED WITHIN 150 FT. AFTER OTHER INTERSECTIONS, AS DIRECTED BY ENGINEER.

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	STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS							
				4" SOLID	4" SOLID	4" INT.	<u> </u>	
APPROX	LOG MILE		LENGTH	WHITE	YELLOW	YELLOW		
FROM	TO	ROUTE	(FT)	(LF)	(LF)	(LF)	REMARKS	
26.000	26.691	RTE 17	3648	0	7296	0	DBL YELLOW	
26.052		RTE 17	70		140		RTE 42 (WEST)	
26.052		RTE 17	85		170		RTE 42 (EAST)	
26.585		RTE 17	68	228	136		RTE EE	
26.691	27.621	RTE 17	4910	9820	9820	0	DBL YELLOW	
27.621	27.791	RTE 17	898	1796	898	225	SB INT YELLOW	
27.791	27.961	RTE 17	898	1796	898	225	NB INT YELLOW	
27.961	28.239	RTE 17	1468	2936	2936	0	DBL YELLOW	
28.239	28.388	RTE 17	787	1574	787	197	SB INT YELLOW	
28.388	28.419	RTE 17	164	328	0	41	INT YELLOW	
28.419	28.589	RTE 17	898	1796	898	225	NB INT YELLOW	
28.589	28.868	RTE 17	1473	2946	2946	0	DBL YELLOW	
28.868	29.028	RTE 17	845	1690	845	211	SB INT YELLOW	
29.028	29.380	RTE 17	1859	3718	1859	465	NB INT YELLOW	
29.380	29.570	RTE 17	1003	2006	2006	0	DBL YELLOW	
29.570	29.730	RTE 17	845	1690	845	211	SB INT YELLOW	
29.730	29.752	RTE 17	116	232	0	29	INT YELLOW	
29.752	29.906	RTE 17	813	1626	813	203	NB INT YELLOW	
29.906	31.018	RTE 17	5871	11742	11742	0	DBL YELLOW	
31.018	31.137	RTE 17	628	1256	628	157	SB INT YELLOW	
31.137	31.187	RTE 17	264	528	528	0	DBL YELLOW	
31.187	31.296	RTE 17	576	1152	576	144	NB INT YELLOW	
31.296	40.327	RTE 17	47684	95368	95368	0	DBL YELLOW	
35.537		RTE 17	76		152		RTE 133 (NORTH)	
38.383		RTE 17	93	129	186		RTE 133 (SOUTH)	
40.327	40.502	RTE 17	924	1848	924	231	SB INT YELLOW	
40.502	40.521	RTE 17	100	200	200	0	DBL YELLOW	
40.521	40.676	RTE 17	818	1636	818	205	NB INT YELLOW	
40.676	48.113	RTE 17	39267	78534	78534	0	DBL YELLOW	
			Total	226575	222949	2769		
			Use	226,575	222,949	2,769		
NOTE: TEM	NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10.							

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Route: 17

County: Miller/Pulaski

	PREFORMED THERMOPLASTIC PAVEMENT MARKING								
			30" WHITE	R/R	24"				
APPROX.	LOG MILE		MIDBLOCK	MARKER	WHITE				
FROM	TO	ROUTE	(EA)	(EA)	(LF)	REMARKS			
26.052		RTE 17			22	RTE 42 (WEST)			
26.052		RTE 17			12	RTE 42 (EAST)			
26.585		RTE 17			12	RTE EE			
36.474		RTE 17	5			CROSSWALK			
36.548		RTE 17	5			CROSSWALK			
36.983		RTE 17	5			CROSSWALK			
37.382		RTE 17		1		RTE HH			
		Total	15	1	46				
		Use	15	1	46				
NOTE: TEM	PORARY AN	ID PERMAN	ENT PAVEMENT	MARKING SHAL	L BE IN ACCOR	DANCE WITH 620.10.			

NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10.

G. 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).
- **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.

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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.

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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.

H. Supplemental Revisions JSP-18-01Z

Compliance with <u>2 CFR 200.216 – Prohibition on Certain Telecommunications and Video</u> Surveillance Services or Equipment.

The Missouri Highways and Transportation Commission shall not enter into a contract (or extend or renew a contract) using federal funds to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as substantial or as critical technology as part of any system where the video surveillance and telecommunications equipment was produced by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

Stormwater Compliance Requirements

- **1.0 Description.** This provision requires the contractor to provide a Water Pollution Control Manager (WPCM) for any project that includes land disturbance on the project site and the total area of land disturbance, both on the project site, and all Off-site support areas, is one (1) acre or more. Regardless of the area of Off-site disturbance, if no land disturbance occurs on the project site, these provisions do not apply. 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. This provision is in addition to any other stormwater, environmental, and land disturbance requirements specified elsewhere in the contract.
- **1.1 Definitions.** The project site is defined as all areas designated on the plans, including temporary and permanent easements. The project site is equivalent to the "permitted site", as defined in MoDOT's State Operating Permit. An Off-site area is defined as any location off the project site the contractor utilizes for a dedicated project support function, such as, but not limited to, staging area, plant site, borrow area, or waste area.
- **1.2 Reporting of Off-Site Land Disturbance.** If the project includes any planned land disturbance on the project site, prior to the start of work, the contractor shall submit a written report to the engineer that discloses all Off-site support areas where land disturbance is planned, the total acreage of anticipated land disturbance on those sites, and the land disturbance permit number(s). Upon request by the engineer, the contractor shall submit a copy of its land disturbance permit(s) for Off-site locations. Based on the total acreage of land disturbance, both on and Off-site, the engineer shall determine if these Stormwater Compliance Requirements shall apply. The Contractor shall immediately report any changes to the planned

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area of Off-site land disturbance. The Contractor is responsible for obtaining its own separate land disturbance permit for Off-site areas.

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 as soon as possible, but no later than stated in Section 5.0.
- **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

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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.

Anti-Discrimination Against Israel Certification

By signing this contract, the Company certifies it is not currently engaged in and shall not, for the duration of the contract, engage in a boycott of goods or services from the State of Israel, companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel, or persons or entities doing business in the State of Israel as defined by Section 34.600 RSMo. This certification shall not apply to contracts with a total potential value of less than One Hundred Thousand Dollars (\$100,000) or to contractors with fewer than ten (10) employees.

Ground Tire Rubber (GTR) Dry Process Modification of Bituminous Pavement Material

1.0 Description. This work shall consist of the dry process of adding ground tire rubber (GTR) to modify bituminous material to be used in highway construction. Existing GTR requirements in Section 1015 pertain to the wet process method of GTR modification that blends GTR with the asphalt binder (terminal blending or blending at HMA plant). The following requirements shall govern for dry process GTR modification. The dry process method adds GTR as a fine aggregate or mineral filler during mix

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production. All GTR modified asphalt mixtures shall be in accordance with Secs 401, 402, or 403 as specified in the contract; except as revised by this specification.

- **2.0 Materials**. The contractor shall furnish a manufacturer's certification to the engineer for each shipment of GTR furnished stating the name of the manufacturer, the chemical composition, workability additives, and certifying that the GTR supplied is in accordance with this specification.
- **2.1 Product Approval.** The GTR product shall contain a Trans-Polyoctenamer (TOR) added at 4.5 % of the weight of the crumb rubber or an engineered crumb rubber (ECR) workability additive that has proven performance in Missouri. Other GTR additives shall be demonstrated and proven prior to use such as a five-year field performance history in other states or performance on a federal or state-sanctioned accelerated loading facility.
- **2.2 General.** GTR shall be produced from processing automobile or truck tires by ambient or cryogenic grinding methods. Heavy equipment tires, uncured or devulcanized rubber will not be permitted. GTR shall also meet the following material requirements:

Table 1 – GTR Material Properties						
Property	Test Method	Criteria				
Specific Gravity	ASTM D1817	1.02 to 1.20				
Metal Contaminates	ASTM D5603	<u><</u> 0.01%				
Fiber Content	ASTM D5603	<u><</u> 0.5%				
Moisture Content	ASTM D1509	<u><</u> 1.0%*				
Mineral Filler	AASHTO M17	<u><</u> 4.0%				

^{*}Moisture content of the GTR shall not cause foaming when combined with asphalt binder and aggregate during mix production

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2.3 Gradation. The GTR material prior to TOR or ECR workability additives shall meet the following gradation and shall be tested in accordance with ASTM D5603 and ASTM D5644.

Table 2 – GTR Gradation			
Sieve	Percent Passing by Weight		
No. 20	100		
No. 30	98-100		
No. 40	50-70		
No. 100	5-15		

- **3.0 Delivery, Storage, and Handling.** The GTR shall be supplied in moisture-proof packaging or other appropriate bulk containers. GTR shall be stored in a dry location protected from rain before use. Each bag or container shall be properly labeled with the manufacturer's designation for the GTR and specific type, mesh size, weight and manufacturer's batch or Lot designation.
- **4.0 Feeder System.** Dry Process GTR shall be controlled with a feeder system using a proportioning device that is accurate to within ± 3 percent of the amount required. The system shall automatically adjust the feed rate to always maintain the material within this tolerance and shall have a convenient and accurate means of calibration. The system shall provide in-process monitoring, consisting of either a digital display of output or a printout of feed rate, in pounds per minute, to verify feed rate. The supply system shall report the feed in 1-pound increments using load cells that will enable the user to monitor the depletion of the GTR. Monitoring the system volumetrically will not be allowed. The feeder shall interlock with the aggregate weight system and asphalt binder pump to maintain correct mixture proportions at all production rates.

Flow indicators or sensing devices for the system shall be interlocked with the plant controls to interrupt mixture production if GTR introduction rate is not within \pm 3 percent. This interlock will immediately notify the operator if GTR introduction rate exceeds introduction tolerances. All plant production will cease if the introduction rate is not brought back within tolerance after 30 seconds. When the interlock system interrupts production and the plant has to be restarted, upon restarting operations; the modifier system shall run until a uniform feed can be observed on the output display. All mix produced prior to obtaining a uniform feed shall be rejected.

- **4.1 Batch Plants.** GTR shall be added to aggregate in the weigh hopper. Mixing times shall be increased per GTR manufacturer recommendations.
- **4.2 Drum Plants.** The feeder system shall add GTR to aggregate and liquid binder during mixing and provide sufficient mixing time to produce a uniform mixture. The feeder system shall ensure GTR does not become entrained in the exhaust system of the drier or plant and is not exposed to the drier flame at any point after introduction.

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5.0 Testing During Mixture Production. Testing of asphalt mixes containing GTR shall not begin until at least 30 minutes after production or per additive supplier's recommendation.

- **6.0 Construction Requirements.** Mixes containing GTR shall have a target mixing temperature of 325 F or as directed by the GTR additive supplier. The additive supplier's recommendations shall be followed to allow for GTR binder absorption/reaction. This may include holding mix in the silo to allow time for binder to absorb into the GTR. Rolling operations may need to be modified.
- **7.0 Mix Design Test Method Modification.** A formal mixing procedure from the additive supplier shall be provided to the contractor and engineer that details the proper sample preparation, including blending GTR with the binder or other additives. Samples shall be prepared and fabricated in accordance with this procedure by the engineer and contractor throughout the duration of the project.
- **8.0 Mix design Volumetrics.** Mix design volumetric equations shall be modified as follows:
- **8.1** Additional virgin binder added to offset GTR absorption of binder shall be counted as part of the mix virgin binder
- **8.2** GTR shall be included as part of the aggregate when calculating VMA of the mix.
- **8.2.1** GTR SPG shall be 1.15

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8.3 Mix G_{sb} used to determine VMA shall be calculated as follows:

$$G_{\mathit{sb}\;(\mathit{JMF}\,)} = \frac{(100\,-\,P_{\mathit{bmv}}\,)}{\left(\frac{P_{\mathit{s}}}{G_{\mathit{sb}}} + \frac{P_{\mathit{GTR}}}{G_{\mathit{GTR}}}\right)}$$

where:

 $G_{sb\ (IMF)} = bulk\ specific\ gravity\ of\ the\ combined\ aggregate\ including\ GTR$

 $P_{bmv} = percent \ virgin \ binder \ by \ total \ mixture \ weight$

 $P_s = percent \ aggregate \ by \ total \ mixture \ weight \ (not \ including \ GTR)$

 $P_{GTR} = percent \ GTR \ by \ total \ mixture \ weight$

 $G_{sb} = bulk \ specific \ gravity \ of \ the \ combined \ aggregate \ (not \ including \ GTR)$

 $G_{CTR} = GTR$ specific gravity

8.4 G_{se} shall be calculated as follows:

$$G_{se} = \frac{(100 - P_b - P_{GTR})}{\left(\frac{100}{G_{mm}} - \frac{P_b}{G_b} - \frac{P_{GTR}}{G_{GTR}}\right)}$$

8.5 Pbe shall be calculated as follows:

$$P_{be} = P_b - \frac{P_{ba}}{100} * (P_s + P_{GTR})$$

9.0 Minimum GTR Amount. The minimum dosage rate for GTR shall be 5 % by weight of total binder for an acceptable one bump grade or 10 % by weight of total binder for an acceptable two bump grade as detailed in the following table. Varying percentage blends of GTR and approved additives may be used as approved by the engineer with proven performance and meeting the specified requirements of the contract grade.

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Contract Binder Grade	Percent Effective Virgin Binder Replacement Limits	Required Virgin Binder Grade	Minimum GTR Dosage Rate
PG 76-22	0 - 20	PG 70-22	5 %
		PG 64-22	10 %
PG 70-22	0 - 30	PG 64-22	5 %
		PG 58-28	10 %
PG 64-22	0 – 40*	PG 58-28	5 %
		PG 52-34	10 %
PG 58-28	0 – 40*	PG 52-34	5 %
		PG 46-34	10 %

^{*} Reclaimed Asphalt Shingles (RAS) may be used when the contract grade is PG 64-22 or PG 58-28. RAS replacement shall follow the 2 x RAS criteria when calculating percent effective binder replacement in accordance Sec 401.

Buy America

In addition to Section 106.9 of the Missouri Standard Specifications for Highway Construction, the following requirements will also be in effect for this project.

- **1.0 Description.** The Bipartisan Infrastructure Law (BIL) was enacted on November 15, 2021. The BIL includes Build America, Buy America Act Publication L. No. 117-58. This provision expands the Buy America requirements beyond what is currently only required for steel and iron products. The steel and iron provisions have not changed with the new bill. Cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives are excluded from this requirement. All other materials and manufactured products permanently incorporated into the project will be subject to Buy America requirements. There are three categories requiring Buy America Certification:
 - a) Iron and steel no changes to the current specification requirements.
 - b) Manufactured products these are currently exempted under the 1983 waiver from FHWA.
 - c) Construction materials consisting primarily of:
 - Non-ferrous metals;
 - Plastic and polymer-based products (including polyvinylchloride, composite build materials, and polymers used in fiber optic cables);
 - Glass (including optic glass);
 - Lumber; or
 - Drywall

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1.1 All products and or materials will only be classified under one of these categories and not under multiple categories. It is the prime contractor's responsibility to assure all submittals required for Buy America are submitted to the Engineer prior to the products and or materials being incorporated in the job. The implementation of this policy will be in effect for all projects awarded after November 10, 2022.

- **1.2** New items designated as construction materials under this requirement will require the prime contractor to submit a material of origin form certification prior to incorporation into the project. The Certificate of Material origin form (link to certificate form) from the supplier and/or fabricator must show all steps of the manufacturing being completed in the United States. The Certificate of Material form shall be filed with the contract documents.
- **1.3** Any minor miscellaneous construction material items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. The certification shall read "I certify all materials permanently incorporated in this project covered under this provision have been to the best of my knowledge procured and all manufactured domestically." The certification shall be signed by an authorized representative of the prime contractor.
- **1.4** The National Transportation Product Evaluation Program (NTPEP) compliance program verifies that some non-iron and steel products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and an acceptable standard per 23 CFR 635.410(d). NTPEP compliant suppliers will not be required to submit step certification documentation with the shipment for some selected non-iron and steel materials. The NTPEP compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.
- **2.0 Basis of Payment.** Any costs incurred by the contractor by reason of compliance with the above requirements shall be considered as included in and completely covered by the unit price bid for the various items of work included in the contract.

Delete Sec 403.19.2 and substitute the following:

403.19.2 Lots. The lot size shall be designated in the contractor's QC Plan. Each lot shall contain no less than four sublots and the maximum sublot size shall be 1,000 tons. The maximum lot size shall be 4,000 tons for determination of pay factors. Sublots from incomplete lots shall be combined with the previous complete lot for determination of pay factors. When no previous lot exists, the mixture shall be treated in accordance with Sec 403.23.7.4.1. A new lot shall begin when the asphalt content of a mixture is adjusted in accordance with Sec 403.11.

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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. <u>Additional Flaggers</u>

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.

K. Bridge Deck Drains

- **1.0 Description.** The contractor shall block all bridge deck drains in such a way to prevent all materials from entering the drains and areas under the bridge.
- **2.0** Basis of Payment. No direct payment will be made for blocking bridge deck drains.

L. Drainage Structures

- **1.0 Description.** In addition to specificaction 409.5.6, the contractor shall take special care to prevent loose aggregate from entering pavement drainage structures including, but not limited to curb inlets.
- **2.0 Basis of Payment.** No direct payment will be made for blocking drainage structures.

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M. <u>Water Quality Control Measures in Consideration of Sensitive Species and Priority Waters</u>

- **1.0 Description.** Tavern Creek and the Gasconade River are designated priority and sensitive aquatic species water and may serve as habitat for sensitive species, some of which are federally-listed threatened or endangered.
- **2.0 Restrictions**. To avoid any negative impacts to these species and their habitat, water quality shall be protected from construction and maintenance impacts.
 - **2.1** Erosion and sediment controls must be utilized to ensure no runoff or material enters streams and other water bodies from incidental roadway construction.
 - **2.2** Material, water or residue shall not be allowed to enter the stream or floodplain. This shall include, but is not limited to, grading, hydro-blasting, cold milling, sandblasting, scraping, paving or over-coating.
 - **2.3** Vehicles or equipment around the stream shall be inspected daily, prior to use, for leaks or other potential water quality hazards. Any leaks or other water quality hazards on equipment shall be repaired and cleaned off of the equipment prior to use around the stream.
 - **2.4** No staging, storage, or refueling of equipment shall be allowed within 300 feet of bridges A7086 and A6656.
- **3.0 Basis of Payment.** No direct payment will be made to the Contractor to recover the cost of labor, materials, or equipment required to comply with the above requirements.