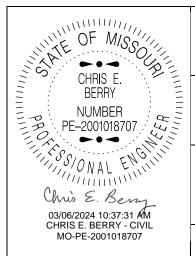
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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: J9S3833 VARIOUS COUNTIES, MO DATE PREPARED: 1/3/2024

ADDENDUM DATE:

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

<u>JOB</u> SPECIAL PROVISIONS

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

1.0 Any project specific questions shall be directed to the to the following contact:

Pete Berry, Project Contact Southeast District 3956 E. Main Street Willow Springs, MO 65793

Telephone Number: (417) 469-6242 Email: <u>Pete.Berry@modot.mo.gov</u>

2.0 Upon award and execution of the contract, the successful bidder/contractor shall forward all questions and coordinate the work with the contract administrator. The contract will be administered and inspected by the engineer/contract administrator listed below:

Donald Hills, Resident Engineer Poplar Bluff Project Office 282 County Road 523 Poplar Bluff, MO 63901

Telephone Number: (573) 703-6435 Email: <u>Donald.Hills@modot.mo.gov</u>

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

C. Scope of Work

- **1.0** The scope of work for this project is to provide ADA improvements/repairs. The work will be prescribed through individual Job Orders issued to the contractor by the engineer for each work location.
- **2.0** The work boundaries for the terms of the contract include all Commission owned routes in the following counties:

Bollinger Iron Stoddard Perry Butler Revnolds Texas Madison Cape Girardeau Ripley Wayne Mississippi Carter New Madrid Scott Wright Douglas Oregon Shannon Dunklin Ozark St. François Howell Pemiscot Ste. Genevieve

- **3.0** The Commission will evaluate the bids with the intent of awarding the contract to the lowest responsible bidder. The minimum budget for this project is \$0 and the maximum anticipated budget is \$100,000.
- **4.0** The Commission is not bound to issue a minimum or maximum number of Job Orders during the contract term. It is the intent, however, to meet the anticipated budget, as noted elsewhere within this proposal. Award of contract does not guarantee any job orders during the duration of the contract.

D. Job Order Contract

- **1.0** A Job Order Contract is an indefinite quantity contract pursuant to which the contractor shall perform the work itemized in a Job Order at individual work locations throughout the project limits. The contractor shall perform all tasks itemized in the Job Order.
- **2.0** The engineer will identify the required work at an individual work location in collaboration with the contractor at a Joint Scope Meeting. The engineer will provide the contractor with a draft Detailed Scope of Work which the contractor shall review. Once the detailed Scope of

Work is agreed upon, the engineer will issue a Job Order to the contractor. At any given time the contractor may be performing more than one Job Order.

3.0 The contract includes a list of fixed cost pay items with fixed unit prices. Payment for the work will be determined by multiplying the fixed unit prices by the Adjustment Factor. The contractor shall bid the Adjustment Factor to be applied to the fixed unit prices. The total cost of an individual Job Order will be determined by multiplying the fixed unit price of each fixed cost pay item by the Adjustment Factor.

4.0 Definitions.

- **4.1 Detailed Scope of Work.** A written document that sets forth the work the contractor is obligated to perform in connection with a particular Job Order.
- **4.2 Job Order.** A written order from the engineer to the contractor directing the work required at an individual work location in accordance with the Detailed Scope of Work within the Job Order Completion Time.
- **4.3 Job Order Completion Time.** The time within which the contractor must complete the Detailed Scope of Work for a particular Job Order.
- **4.4 Fixed Cost Pay Item.** Work for which a description and fixed cost is set forth in the fixed cost pay item list.
- **4.5 Non-Fixed Cost Pay Item.** Work for which a description and fixed cost is not set forth in the pay item list. Payment for non-fixed cost pay items will be determined in accordance with Sec 109.4.2, 109.4.3, or 109.4.4. Non-fixed cost pay items will be paid using an Adjustment Factor of 1.000.

E. Procedures for Developing a Job Order

- **1.0 Initiation of a Job Order.** The engineer will notify the contractor of a potential Job Order by issuing a Notice of Joint Scope Meeting. The notification will be issued by electronic mailing or facsimile machine at the discretion of the engineer to the contractor, unless the engineer approves other arrangements. The contractor shall confirm receipt of all job orders by the same means as issued. Notification for accelerated repair work can be initiated by telephone.
- **1.1** The contractor shall attend the Joint Scope Meeting and be prepared to discuss, at a minimum:
 - a. The general scope of the work;
 - b. Existing conditions, presence of waterways, wetlands, or other natural resources;
 - c. Presence of hazardous materials;
 - d. Methods and alternative for accomplishing the work;
 - e. Access to the site:
 - f. Staging area availability/location;
 - g. Requirements for catalog cuts, technical data, samples and shop drawings;
 - h. Requirements for professional services, including sketches, drawings, and specifications;
 - i. Hours of operation;

- j. Anticipated working days and schedule;
- k. Liquidated damages;
- I. Specific quality requirements for equipment and material;
- m. List of anticipated Subcontractors and Material Suppliers.
- **1.2** Upon completion of the joint scoping process, the engineer will prepare a draft detailed Scope of Work referencing any sketches, drawings, photographs, and specifications required to document accurately the work to be accomplished. The contractor shall review the detailed Scope of Work and request any desired changes or modifications thereto. When an acceptable detailed Scope of Work has been completed, the engineer will issue a Draft Job Order.
- **1.3** The contractor does not have the right to refuse to perform any Job Order or any work identified in a Job Order. If the contractor refuses to perform any Job Order or any work identified in a Job Order, the contractor may be considered to be in default in accordance with Sec 108.
- **2.0 Preparation of the Job Order.** The engineer will prepare a Draft Job Order and submit the order to the contractor for final review. The contractor and the engineer will jointly review the Draft Job Order and finalize the order. Establishment of pricing for any non-fixed cost pay items shall be in accordance with Sec 109.4.2 or 109.4.3. If no agreement to pricing can be made then the work will proceed with payment for non-fixed cost items under Sec 109.4.4.
- **2.1** When the engineer and contractor have agreed to the scope of work and Fixed Cost and Non-Fixed Cost tasks to be performed, the engineer will finalize the official Job Order and submit a signed Job Order for the contractor to review and sign. The affixed signatures by the engineer and the contractor shall bind the Job Order. If the contractor is not clear or in disagreement with the terms of the Job Order he shall NOT sign the Job Order, but shall work with the engineer to clear up any discrepancies in the work to be done. If the contractor fails to execute the Job Order, the contractor may be considered to be in default in accordance with Sec 108.
- **3.0** The Commission reserves the right to cancel or reject a Job Order for any reason. The Commission also reserves the right not to issue a Job Order if that is determined to be in the best interests of the Commission. The contractor shall not recover costs arising out of or related to the development of the Job Order including but not limited to the costs to attend the Joint Scope Meeting, review the Detailed Scope of Work, subcontractor costs, and the cost to review the Job Order Proposal with the Commission.
- **4.0 Job Order Issuance.** The Job Order will be signed by the engineer and delivered to the contractor. The Job Order will reference the Detailed Scope of Work and set forth the amount to be paid and the time to complete the work.
- **5.0 Notice to Proceed.** Each Job Order will include a notice to proceed, which will stipulate the date the contractor is expected to begin work. The notice to proceed date will normally be within 14 calendar days after the job order is issued.
- **5.1** The contractor shall provide 5-days notification for all other Job Orders.

F. <u>Term of Contract</u>

1.0 The term of this contract shall be for the period commencing June 03, 2024 and shall end May 31, 2025.

1.1 Any work already ordered or in progress when the contract term ends shall be completed in accordance with the provisions, price proposals and timelines established in the issued Job Order(s), or liquidated damages will be assessed against the contractor in accordance with the provisions of this contract.

G. Fixed Unit Price List

1.0 Description. A fixed unit price list containing unit prices associated with ADA improvements/repairs is listed below. Fixed unit prices are for complete and in-place construction and include all labor, equipment and material required to complete the construction task. All labor, material, equipment and work required by a specification shall be considered part of the fixed unit price, unless otherwise stated elsewhere in this contract. Pay limits will be defined in the approved Job Order.

2.0 Fixed Unit Price List for ADA Improvements/Repairs Job Orders.

Item Number	Description	Unit	Fixed Unit Price
2029905	MISC. REMOVAL OF IMPROVEMENTS	S.Y.	\$10.00
2071000	LINEAR GRADING CLASS 1	STA.	\$440.00
6081010	CONCRETE CURB RAMP	S.Y.	\$80.00
6081012	TRUNCATED DOMES	S.F.	\$25.00
6083006	6 IN. CONCRETE MEDIAN STRIP	S.Y.	\$152.00
6084023	SIDEWALK HAND-RAILING WITHOUT BALUSTERS	L.F.	\$150.00
6084024	SIDEWALK HAND-RAILING WITH BALUSTERS	L.F.	\$150.00
6085007	PAVED APPROACH, 7 IN.	S.Y.	\$59.00
6085008	PAVED APPROACH, 8 IN.	S.Y.	\$89.00
6086004	CONCRETE SIDEWALK, 4 IN.	S.Y.	\$50.00
6086007	CONCRETE SIDEWALK, 7 IN.	S.Y.	\$56.00
6086008	CONCRETE SIDEWALK, 8 IN.	S.Y.	\$65.00
6091010	CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE S	L.F.	\$42.00
6091011	CONCRETE CURB (OVER 6 IN. HEIGHT) TYPE S	L.F.	\$44.00
6091041	CONCRETE GUTTER TYPE A	L.F.	\$59.00
6091051	CURB AND GUTTER TYPE A	L.F.	\$48.00
6091052	CURB AND GUTTER TYPE B	L.F.	\$48.00
6092011	INTEGRAL CURB (6 IN. HEIGHT AND UNDER) TYPE A	L.F.	\$30.00

6092015	INTEGRAL CURB TYPE O	L.F.	\$30.00
6092021	INTEGRAL CURB (OVER 6 IN. HEIGHT) TYPE A	L.F.	\$32.00
6149902	MISC. BICYCLE SAFE GRATE	EACH	\$960.00
6149902	MISC. DRAINAGE COVER PLATE	EACH	\$660.00
6161005	CONSTRUCTION SIGNS	S.F.	\$3.00
6161008	ADVANCED WARNING RAIL SYSTEM	EACH	\$45.00
6161009	FLAG ASSEMBLY	EACH	\$6.00
6161025	CHANNELIZER (TRIM LINE)	EACH	\$9.00
6161030	TYPE III MOVEABLE BARRICADE	EACH	\$75.00
6161033	DIRECTIONAL INDICATOR BARRICADE	EACH	\$18.75
6161040	FLASHING ARROW PANEL	EACH	\$390.00
6161055	SEQUENTIAL FLASHING WARNING LIGHT	EACH	\$50.00
6161098A	CHANGEABLE MESSAGE SIGN WITHOUT COMMUNICATION INTERFACE, CONTRACTOR FURNISHED, CONTRACTOR RETAINED	EACH	\$1,200.00
6169902	MISC. RIGHT LANE CLOSURE AT INTERSECTION (WORK ON NEAR OR FAR SIDE)	EACH	\$1,500.00
6169902	MISC. RIGHT LANE CLOSURE AT INTERSECTION (WORK ON FAR SIDE ONLY)	EACH	\$800.00
6169902	MISC. ONE-LANE TWO-WAY OPERATION WITH FLAGGER	EACH	\$1,000.00
6169902	MISC. RIGHT LANE CLOSURE	EACH	\$1,500.00
6169902	MISC. SHOULDER WORK	EACH	\$800.00
6189902	MISC. MOBILIZATION	EACH	\$1,000.00
6200012	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN. WHITE	L.F.	\$14.50
6200036	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK	EACH	\$185.00
8061006	ALTERNATE DITCH CHECK	L.F.	\$16.00
8061007A	CURB INLET CHECK	EACH	\$230.00
8061019	SILT FENCE	L.F.	\$4.00

H. Adjustment Factors

- **1.0 Description.** Adjustment Factors include business and construction related costs as defined in this specification. It is the responsibility of the contractor to verify the unit prices provided in this contract and to modify their Adjustment Factors accordingly.
- **1.1 Business Costs.** Business related costs consist of profit, overhead costs, subcontractor profit and overhead, taxes, finance costs, and other costs including but not limited to;
 - (a) insurance, bonds, and indemnification
 - (b) project meetings, training, management, and supervision

- (c) project office staff and equipment
- (d) employee or subcontractor wage rates that exceed prevailing wages
- (e) fringe benefits, payroll taxes, worker's compensation, insurance costs and any other payment mandated by law in connection with labor that exceeds the labor rate allowances.
- (f) Business risks such as the risk of low than expected volumes of work, smaller than anticipated Job Orders, poor subcontractor performance, and inflation or material cost fluctuations.
- **1.2 Construction Costs.** Construction related costs include but are not limited to;
 - (a) personnel safety equipment
 - (b) security requirements
 - (c) excess material waste
 - (d) daily and final clean-up
 - (e) costs resulting from inadequate supply of materials, fuel, electricity, or skilled labor
 - (f) costs resulting from productivity loss
 - (g) working in extreme and adverse weather conditions
 - (h) any other discreet items of work required to complete a particular Job Order.
- **1.3 General Costs.** The above lists are not exhaustive and are intended to provide general examples of cost items to be included in the contractor's Adjustment Factors as defined in the contract.
- **2.0 Normal Work Adjustment Factor.** The Adjustment Factor for *Normal Working Hours* includes work conducted from 6:00 a.m. to 7:30 p.m. Monday through Friday.
- **2.1** In addition to the time period specified in 2.0, work performed during *Normal Working Hours* must also be done during daylight hours, unless the contractor provides the necessary lighting equipment. Daylight hours are defined as $\frac{1}{2}$ hour after sunrise to $\frac{1}{2}$ hour before sunset. If the contractor chooses to work during *Normal Working Hours*, but outside of the defined daylight hours, the contractor shall provide lighting equipment at no additional cost to the Commission.
- **3.0** All work shall be scheduled to avoid major holidays. During the term of this contract there are six major holiday periods: Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas, and New Year's Day. All lanes shall be scheduled to be open to traffic during these holiday periods, from 12:00 noon on the last working day preceding the holiday until 9:00 a.m. on the first working day subsequent to the holiday, unless designated as *Weekend Work* by the engineer.
- I. <u>Bidding the Normal Work Adjustment Factor</u>
- **1.0** The bidder shall complete the bid form for *Normal Working Hours*. The Adjustment Factor shall be specified to three decimal places. Note that these are contract pay items for contractor payment, not work items.

EXAMPLE: The Adjustment Factors shall be entered as the following example illustrates.

1	1	9	8	
	OF	₹		
0	9	8	7	

Note: The Adjustment Factors used are for example purposes only and are not an indication of factors being bid by the contractor.

J. Contract Award

- **1.0** The Commission will evaluate the bids with the intent of awarding the contract to the lowest responsible bidder. The anticipated budget for this project is \$100,000.
- **2.0** The lowest bid will be determined by multiplying the Adjustment Factor by the anticipated budget for the Adjustment Factor.

EXAMPLE: The initial contract value is determined by entering the Adjustment Factor as the following example illustrates:

Item Description	Approximate	Unit	Unit Price		Unit Price Bid Amoun		nt
	Quantity		Dollar C	Cts	Dollar	Cts	
6189916	100,000	DLR	1.1	50	\$115	5,000	
Adjustment Factor							
Bid Total					\$115,00	00.00	

Note: The Adjustment Factor that is used is for example purposes only and are not indications of factors being bid by the contractor.

K. Bonds

- **1.0** The amount of the Bid Bond shall be 5% of the anticipated budget for this project.
- **2.0** The amount of the Performance Bond shall be 100% of the anticipated budget for this project.

L. Notice to Proceed

Delete Sec 108.2 and substitute the following:

- **108.2 Notice to Proceed.** For each Job Order, the engineer will include a notice to proceed, which will stipulate the date the contractor is expected to begin work. The notice to proceed date will normally be 14 calendar days after the job order is issued.
- **108.2.1** Job orders that require an accelerated response will normally have a notice to proceed of 5 calendar days after the job order is issued. Response time for accelerated repairs will commence at the time telephone contact is made with the contractor.

M. Completing the Work

1.0 The contractor shall perform any task in the fixed unit price list for the fixed unit price multiplied by the quantity, multiplied by the Adjustment Factor. The contractor shall perform the Detailed Scope of Work for the Job Order Price as calculated in accordance with the procedure for developing Job Orders set forth herein.

- **2.0** When installed quantities differ from the estimated quantities in the issued Job Order, the as built quantities in the final Job Order will address the quantity variation(s) for final payment. When quantities are not specified in the Detailed Scope of Work, the Job Order Price will be deemed to be lump sum for such work.
- **3.0** The contractor shall employ and supply a sufficient force of workers, materials and equipment and shall progress the work with such diligence so as to ensure completion of the Detailed Scope of Work within the Job Order completion Time or within such extended time for completion as may be granted by the engineer.
- **4.0** In order to assist in reviewing the Job Order Price Proposal, the contractor shall as part of the Job Order Proposal prepare and submit to the engineer for approval, a progress schedule showing the order in which the contractor proposes to carry on the work, the date of which it will start the major items of work (including but not limited to excavation, drainage, paving, structures, mobilization, soil erosion and sediment control, etc.) and the critical features (including procurement of materials, plant and equipment) and the contemplated dates for completing the same.

N. ADA Compliance and Final Acceptance of Constructed Facilities JSP-10-01C

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

www.modot.org/business/contractor resources/forms.htm

2.1 The ADA Checklist is not to be considered all-inclusive, nor does it supersede any other contract requirements. The ADA checklist is a required guide for the contractor to use during the construction of the pedestrian facilities and a basis for the commission's acceptance of work. Prior to work being performed, the contractor shall bring to the engineer's attention any planned work that is in conflict with the design or with the requirement shown in the checklist. This notification shall be made in writing. Situations may arise where the checklist may not fully address all requirements needed to construct a facility to the full requirements of current ADA law. In those situations, the contractor shall propose a solution to the engineer that is compliant with current ADA law using the following hierarchy of resources: 2010 ADA Standards for Accessible Design, Draft Public Rights of Way Accessibility Guidelines (PROWAG) dated November 23, 2005, MoDOT's Engineering Policy Guidelines (EPG), or a solution approved by the U.S. Access Board.

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

3.0 Coordination of Construction.

- **3.1** Prior to construction and/or closure on an existing pedestrian path of travel, the contractor shall submit a schedule of work to be constructed, which includes location of work performed, the duration of time the contractor expects to impact the facility and an accessible signed pedestrian detour compliant with MUTCD Section 6D that will be used during each stage of construction. This plan shall be submitted to the engineer for review and approval at or prior to the pre-construction conference. Accessible signed detours shall be in place prior to any work being performed that has the effect of closing an existing pedestrian travel way.
- **3.2** When consultant survey is included in the contract, the contractor shall use their survey crews to verify that the intended design can be constructed to the full requirements as established in the 2010 ADA Standards. When 2010 ADA Standards do not give sufficient information to construct the contract work, the contractor shall refer to the PROWAG.
- **3.3** When consultant survey is not included in the contract, the contractor shall coordinate with the engineer, prior to construction, to determine if additional survey will be required to confirm the designs constructability.
- **4.0 Final Acceptance of Work.** The contractor shall provide the completed ADA Checklist to the engineer at the semi-final inspection. ADA improvements require final inspection and compliance with the ADA requirements and the ADA Checklist. Each item listed in the checklist must receive either a "YES" or an "N/A" score. Any item receiving a "NO" will be deemed noncompliant and shall be corrected at the contractor's expense unless deemed otherwise by the engineer. Documentation must be provided about the location of any non-compliant items that are allowed to remain at the end of the construction project. Specific details of the noncompliant items, the ADA requirement that the work was not able to comply with, and the specific reasons that justify the exception are to be included with the completed ADA Checklist provided to the engineer.
- **4.1** Slope and grade measurements shall be made using a properly calibrated, 2 foot long, electronic digital level approved by the engineer.
- **5.0 Basis of Payment.** The contractor will receive full pay of the contract unit cost for all sidewalk, ramp, curb ramp, median, island, approach work, cross walk striping, APS buttons, pedestrian heads, detectible warning systems and temporary traffic control measures that are completed during the current estimate period as approved by the engineer. Based upon completion of the ADA Checklist, the contractor shall complete any necessary adjustments to items deemed non-compliant as directed by the engineer.
- **5.1** No direct payment will be made to the contractor to recover the cost of equipment, labor, materials, or time required to fulfill the above provisions, unless specified elsewhere in the contract documents.

O. <u>ADA Material Testing Frequency Modifications</u> JSP-23-01

1.0 Description. This provision revises the Inspection and Testing Plan (ITP) for the construction of ADA compliant features to better match the nature of the work. The Quality Control (QC) testing frequency for the Sections identified below are to be revised as specified.

- **2.0 Compaction Test on Base Rock Under Sidewalk, Curb Ramps and Paved Approaches.** (Revises ITP Sec 304.3.4) The required test frequency will be one per 600 tons.
- **3.0 Gradation Test on Base Rock Under Sidewalk, Curb Ramps and Paved Approaches.** (Revises ITP Sec 304.4.1) The required frequency will be one per 500 tons.
- **4.0 Concrete Plant Checklists.** (Revises ITP Sec 501) Submittal of the 501 Concrete Plant Checklist will be once per week when the contractor is only pouring curb, sidewalk, paved approaches, and curb ramps.
- **5.0** Concrete Median, Median Strip, Sidewalk, Curb Ramps, and Curb. (Revises ITP Sec 608) The required frequency will be the first truckload for the project and each 100 CUYDs for air and slump thereafter. Strength will be verified by use of cylinders or maturity meters at a minimum rate of one per 100 CUYD.
- **6.0 Paved Approaches.** (ITP Sec 608) The required testing of one test from the first truckload per day and each 100 CUYDs for air and slump will remain per ITP. Strength will be verified by use of cylinders or maturity meters at a minimum rate of one per 100 CUYD.
- **7.0 Curb Concrete.** (Revises ITP Sec 609) The required frequency will be the same as Sec 5.0 above.
- **8.0 Basis of Payment.** No direct payment will be made to the contractor to fulfill the above requirements.

P. Final Inspection and Acceptance of the Work

Delete Secs 105.10.7 through 105.10.7.2 and substitute the following:

- **105.10.7 Final Inspection.** Upon completion of the required work for each Job Order, the contractor shall notify the engineer by phone, facsimile, or electronic mailing, and the engineer will perform an inspection. If the engineer determines all work required by the contract has been satisfactorily completed, the engineer will make the acceptance for maintenance and notify the contractor in writing of the date of acceptance for maintenance.
- **105.10.7.1** Work determined to be unsatisfactory by the engineer and not accepted shall be corrected to acceptable standards at the contractor's sole cost. All items that are unsatisfactory shall be corrected within the specified working days for each job order. If needed for correction of unsatisfactory work, the contractor will be given an extension of contract time in an amount equal to the number of working days remaining in the job order at the time the engineer was notified for inspection. No contract time extension will be made for notification made prior to completion of the work. Any time extension given will be considered a non-compensable delay. Upon completion of the corrections, the contractor shall notify the engineer for a re-inspection.

105.10.7.2 Following a Job Order final inspection, the contractor, subcontractors, and suppliers are relieved of any new or additional liability to third parties for personal injury, death, or property damages which may be alleged to result from the performance of the work required by that job order, unless additional work on the right of way is required by the engineer.

105.10.7.3 Nothing in this section shall be deemed to excuse the contractor of liability or responsibility for any personal injury, death, or property damages which may arise from acts or the failure to act prior to the final inspection of the work required by the Job Order.

Q. <u>Liquidated Damages for Failure or Delay in Beginning Work and/or Completing Work on</u> Time

- **1.0 Description.** If the contractor, or in case of default, the surety fails to begin the work by the notice to proceed date or fails to complete the work within the mutually agreed schedule included in each job order, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to, increased construction administration cost, potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of **\$1000 per day** for each full day that the work is not started and **\$1000 per day** for each full day that the work is not completed within the required time periods. It shall be the responsibility of the engineer to determine the quantity of excess time.
- **2.0** The said liquidated damages specified for beginning work and/or completing work will be assessed in addition to any other applicable liquidated damages specified elsewhere in the contract documents.

R. Liquidated Damages Specified for Lane Closures – Contract Administration Costs

1.0 Description. The contractor shall be required to have all lanes open to unrestricted traffic and free of any equipment by the time specified in Job Order for each closure location. Should the contractor fail to have the roadway completely open, and free of any equipment by the time specified in Job Order, the Commission, the traveling public, state and local police and governmental authorities will be damaged in various ways, including but not limited to potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. These damages will be assessed based on each Job Order amount and the chart below.

Con	Damages per Day	
From	Up To and Including	Damages per Day
\$0	\$100,000	\$100
\$100,001	\$500,000	\$250
\$500,001	\$1,000,000	\$500
\$1,000,001	\$2,500,000	\$750
\$2,500,001	\$5,000,000	\$1,500
\$5,000,001	\$20,000,000	\$2,000
\$20,000,001	over	\$3,000

- **1.1** The said liquidated damages specified will be assessed in addition to any other liquidated damages charged under the Missouri Standard Specifications for Highway Construction, as indicated elsewhere in this contract.
- **1.2** This deduction will continue until such time as the necessary work is completed and traffic is restored.
- **2.0** A contingency plan mutually agreed upon by the contractor and the engineer shall be established at the joint meeting and documented in each Job Order in the event of a delay of the scheduled traffic opening time due to weather or other unforeseen circumstances.

S. Contract Payments

1.0 The engineer will make semi-monthly payment estimates in writing for the Job Orders completed and final inspected during the semi-monthly interval and the value thereof at the price established in the Job Order, including any necessary adjustments. The semi-monthly estimates will include deductions from the contractor's invoice for any liquidated damages applicable to any of the Job Orders.

T. Work Zone Traffic Management

1.0 General. 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:

2.0 Traffic Management Schedule.

2.1 The contractor shall notify the Engineer at least 48 hours prior to performing any work at each work site with the exception of first priority repairs. The notification shall include all information needed to identify traffic impacts such as work location, anticipated work hours, traffic control plan type, required lane or shoulder closures, anticipated duration of the work, etc. The Engineer will make appropriate notification to the public, MoDOT customer service, and

MoDOT work crews of the contractor's operations.

2.2 The contractor shall notify the Engineer at the actual time of closing any lane or shoulder and shall again notify the Engineer when the lane or shoulder is reopened to traffic.

- **2.3** The contractor shall notify the Engineer as soon as practical any postponement due to weather, material, or other circumstances and shall renotify the Engineer when the work has been rescheduled.
- **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 work and the contractor is prepared to diligently pursue the work until the closed lane is reopened to traffic.

3.0 Maintenance of Traffic.

- **3.1** Traffic flow shall be maintained through the work zone using the existing pavement in accordance with the traffic control plans. No detours or lane shifts onto shoulders will be allowed unless otherwise approved by the Engineer.
- **3.2** Provisions shall be made to allow the movement of emergency vehicles through the limits of the work at all times.
- **3.3** During non-working hours the contractor shall have all lanes of traffic open for all routes, ramps, and side roads. All channelizers and other traffic control devices shall be removed from the roadway during non-working hours unless otherwise approved by the Engineer.
- **4.0 Traffic Congestion and Delay.** The contractor shall, upon approval of the Engineer, take proactive measures to reduce traffic congestion in the work zone. The contractor shall be responsible for maintaining the existing traffic flow through the job site during the work. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent queues from occurring again.

5.0 Traffic Safety.

- **5.1** Where traffic queues routinely extend to within 1000 feet (300 m) of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet (150 m) 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.
- **5.2** When a traffic queue extends to within 1000 feet (300 m) of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet (150 m) of the ROAD WORK AHEAD, or similar, sign on an undivided highway due to non-recurring congestion, the contractor shall deploy a means of providing advance warning of the traffic congestion, as approved by the Engineer. The warning location shall be no less than 1000 feet (300 m) and no more than 0.5 mile (0.8 km) in advance of the end of the traffic queue on divided highways and no less than 500 feet (150 m) and no more than 0.5 mile (0.8 km) in advance of the end of the traffic queue on undivided highways.

6.0 Traffic Control Plan Types. The Engineer will designate in the job order the type of traffic control plan (TCP) necessary to perform the work. If the Engineer determines more than one type of TCP is needed to perform the work, the additional plan or plans will be specified in the job order. The various types of TCP's and the traffic control devices required for each TCP are shown on the plans. The contractor shall furnish adequate channelizing devices as shown on the plans. Trim line or drum-like channelizers shall be required for all TCP's regardless of daytime or nighttime operations. Cones will not be allowed for use on this contract.

- **7.0 Additional Traffic Control Devices.** The Engineer may determine that devices in addition to those shown on the TCP's are necessary to safely accommodate traffic. These devices may be needed for merging ramp traffic, side streets, or other special cases. Additional devices may include signs, channelizers for side streets, directional indicator barricades (DIBS), flashing arrows, and/or truck mounted attenuators. The additional devices shall be used within the work zone as directed by the Engineer. The Engineer will designate in the job order the type of additional traffic control devices necessary to perform the work.
- **8.0 Work Within Another Work Zone.** The Engineer may determine it is in the best interest of the Commission and the traveling public to have the work designated in the job order performed within another contractor's work zone or within a MoDOT work zone. If the work is designated to be performed within another work zone, the contractor shall coordinate and perform the work in accordance with Sec 105.6.
- **9.0 Basis of Payment.** Payment will be made at the contract unit price for each of the pay items included in the contract and will be considered full compensation for all labor, material, and equipment necessary to manage traffic per the designated traffic control plan or as otherwise directed by the Engineer.
- **9.1** Payment will be made once for each traffic control plan type specified for each work location regardless of the number of times the traffic control devices are installed, relocated, and removed while work progresses. Payment for each traffic control plan includes the cost of all channelizers as shown on the plans. Cones will not be allowed for use on this contract.
- **9.2** Payment will be made once for the actual amount of additional traffic control devices specified for each work location regardless of the number of times the devices are installed, relocated, and removed while work progresses.
- **9.3** No traffic control plan payment will be made when work is performed within another work zone unless additional traffic control devices are required to safely accommodate traffic.

U. Delay Provisions

1.0 If the contractor is delayed in the commencement, prosecution or completion of the work by any act of the Commission, or by any cause beyond the contractor's control, then the contractor will be entitled to an extension of time. If the contractor is delayed or prevented from working on a particular date as a result of a delay, error or omission of the Commission, and the contractor incurs unavoidable labor costs as a direct result thereof because the contractor did not have enough time to cancel or divert its labor force, then the contractor will be reimbursed for such costs. For each worker so paid, the contractor will be reimbursed the amount paid the worker. Also, the contractor will be reimbursed for construction tasks required as a direct result of such delay, error or omission, such as closing off areas of work. No other costs shall be paid as a result of a delay or late cancellation.

1.1 If the contractor fails to provide 48-hour notification prior to start of accelerated work or 5-days notification for all other Job Orders this provision will not apply.

V. <u>Sample Job Orders</u>

1.0 The following are example Job Orders intended to be illustrations that may be used as a guide for formulating the bid of the Work Adjustment Factor. For each example Job Order, the appropriate items that would be used and the quantities are computed based upon the sample work that would be completed in the Job Order. The contractor shall be reminded these are Job Order samples and the quantity totals in actual Job Orders, if issued, may be more or less than that depicted below or be totally different from the samples illustrated.

1.1 Job Order Sample 1:

Item Description	Fixed Unit Price	Quantity	Price
MISC. Shoulder Work	\$800.00	1 Each	\$800.00
MISC. Removal of Improvements	\$10.00	55.6 S.Y.	\$556.00
Linear Grading Class 1	\$440.00	1.0 STA.	\$440.00
Concrete Curb Ramp	\$80.00	5.3 S.Y.	\$424.00
Truncated Domes	\$25.00	10 S.F.	\$250.00
Concrete Sidewalk, 4 in.	\$50.00	51.1 S.Y.	\$2,555.00
Curb Inlet Check	\$230.00	1 Each	\$230.00
MISC.Mobilization	\$1,000.00	1 Each	\$1,000.00
		Subtotal:	\$6,255.00
Work Adjustment Factor	1.150		
		TOTAL:	\$7,193.25

W. 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 engineer 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 C	(636) 300-2800
Missouri Highway Patrol Troop E	(573) 840-9500
Missouri Highway Patrol Troop G	(417) 469-3121

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 payment will be made to the contractor to recover the cost of the communication equipment, labor, materials or time required to fulfill the above provisions.

X. Utilities

- **1.0** It is the inherent risk of the work under this contract that the contractor may encounter utilities above and/or below the ground or in the vicinity of any given job order which may interfere with their operations. The contractor expressly acknowledges and assumes this risk even though the nature and extent is unknown to both the contractor and the Commission at the time of bidding and award of the contract. The effect in cost or time of the presence of utilities above, below or in the vicinity of the contractor's work under this contract shall not be compensable.
- **2.0** The contractor will be responsible and is required to call for utility locates prior to performing any excavation work within any project limits for a given job order. Calling for utility locates will not relieve the contractor of his liability for utility damages caused by excavating operations performed by the contractor and/or any of his subcontractors. The contractor shall be solely responsible for all costs, fines, and penalties associated with the repair of any damaged utility caused by the actions of the contractor and/or any subcontractor within the given job order limits.
- **2.1** It shall be noted by the contractor that MoDOT is a member of Missouri One Call (800 Dig Rite). Some work on this project may be in the vicinity of MoDOT utility facilities, which includes but is not limited to traffic signal cables, highway lighting circuits, ITS cables, cathodic protection cables, etc. Prior to beginning work, the contractor shall request locates from Missouri One Call. The contractor shall also complete the Notice of Intent to Perform Work form located at the Missouri Department of Transportation website:

www.modot.mo.gov/asp/intentToWork.shtml

The contractor shall submit the form over the web (preferred method) or by fax to the numbers on the printed form. The notice must be submitted a minimum of 2 and a maximum of 10 working days prior to excavation just as Missouri One Call requires.

3.0 Any representation of the presence of utilities on any bidding document provided or job order issued under this contract is disclaimed by the Commission. The contractor fully understands this disclaimer when determining the basis of their bid for this contract. The contractor agrees to hold the Commission harmless in the presents or absents of any utility within the limits of any job order resulting from this contract.

Y. Supplemental Revisions JSP-18-01AB

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

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 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 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 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 de-vulcanized 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

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

$$G_{Sb~(JMF)} = \frac{(100 - P_{bmv})}{\left(\frac{P_S}{G_{Sb}} + \frac{P_{GTR}}{G_{GTR}}\right)}$$

where:

 $G_{Sb\ (JMF)} = bulk$ specific gravity of the combined aggregate including GTR $P_{bmv} = percent\ virgin\ binder\ by\ total\ mixture\ weight$ $P_{S} = percent\ aggregate\ by\ total\ mixture\ weight\ (not\ including\ GTR)$ $P_{GTR} = percent\ GTR\ by\ total\ mixture\ weight$ $G_{Sb} = bulk\ specific\ gravity\ of\ the\ combined\ aggregate\ (not\ including\ GTR)$ $G_{GTR} = GTR\ specific\ gravity$

8.4 G_{se} shall be calculated as follows:

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

8.5 P_{be} shall be calculated as follows:

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

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.

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 76-22	0 - 20	PG 64-22	10 %
PG 70-22	0. 20	PG 64-22	5 %
PG 70-22	0 - 30	PG 58-28	10 %
PG 64-22	0 – 40*	PG 58-28	5 %
PG 04-22		PG 52-34	10 %
PG 58-28	0 – 40*	PG 52-34	5 %
FG 50-20 U = 40	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.

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.

Delete Sec 106.9 in its entirety and substitute the following:

106.9 Buy America Requirements.

Buy America Requirements are waived if the total amount of Federal financial assistance applied to the project, through awards or subawards, is below \$500,000.

106.9.1 Buy America Requirements for Iron and Steel.

On all federal-aid projects, the contractor's attention is directed to Title 23 CFR 635.410 *Buy America Requirements*. Where steel or iron products are to be permanently incorporated into the contract work, steel and iron material shall be manufactured, from the initial melting stage through the application of coatings, in the USA except for "minimal use" as described herein. Furthermore, any coating process of the steel or iron shall be performed in the USA. Under a general waiver from FHWA the use of pig iron and processed, pelletized, and reduced iron ore manufactured outside of the USA will be permitted in the domestic manufacturing process for steel or iron material.

106.9.1.1 Buy America Requirements for Iron and Steel for Manufactured items.

A manufactured item will be considered iron and steel if it is "predominantly" iron or steel. Predominantly iron or steel means that the cost of iron or steel content of a product is more than 50 percent of the total cost of all its components.

- **106.9.2** Any sources other than the USA as defined will be considered foreign. The required domestic manufacturing process shall include formation of ingots and any subsequent process. Coatings shall include any surface finish that protects or adds value to the product.
- **106.9.3** "Minimal use" of foreign steel, iron or coating processes will be permitted, provided the cost of such products does not exceed 1/10 of one percent (0.1 percent) of the total contract cost or \$2,500.00, whichever is greater. If foreign steel, iron, or coating processes are used, invoices to document the cost of the foreign portion, as delivered to the project, shall be provided and the engineer's written approval obtained prior to placing the material in any work.
- **106.9.4** Buy America requirements include a step certification for all fabrication processes of all steel or iron materials that are accepted per Sec 1000. The AASHTO Product Evaluation and Audit Solutions compliance program verifies that all steel and iron products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and is an acceptable standard per 23 CFR 635.410(d). AASHTO Product Evaluation and Audit Solutions compliant suppliers will not be required to submit step certification documentation with the shipment for some selected steel and iron materials. The AASHTO Product Evaluation and Audit Solutions compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.
- **106.9.4.1** Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and certifications documenting the manufacturing process for all subsequent fabrication, including coatings. The certification shall include language that certifies the following. That all steel and iron materials permanently incorporated in this project was procured and processed domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.
- **106.9.4.2** Items designated as Category 2 will include all other steel or iron products not in Category 1 and permanently incorporated in the project. Category 2 items shall consist of, but not be limited to items such as fencing, guardrail, signing, lighting and signal supports. The prime contractor is required to submit a material of origin form certification prior to incorporation into the project from the fabricator for each item that the product is domestic. The Certificate of Materials Origin form (link to certificate form) from the fabricator must show all steps of

manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements and be signed by a fabricator representative. The engineer reserves the right to request additional information and documentation to verify that all Buy America requirements have been satisfied. These documents shall be submitted upon request by the engineer and retained for a period of 3 years after the last reimbursement of the material.

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

106.9.5 When permitted in the contract, alternate bids may be submitted for foreign steel and iron products. The award of the contract when alternate bids are permitted will be based on the lowest total bid of the contract based on furnishing domestic steel or iron products or 125 percent of the lowest total bid based on furnishing foreign steel or iron products. If foreign steel or iron products are awarded in the contract, domestic steel or iron products may be used; however, payment will be at the contract unit price for foreign steel or iron products.

106.9.6 Buy America Requirements for Construction Materials other than iron and steel materials. Construction materials means articles, materials, or supplies that consist of only one of the items listed. Minor additions of articles, materials, supplies, or binding agents to a construction material do not change the categorization of the construction material. Upon request by the engineer, the contractor shall submit a domestic certification for all construction materials listed that are incorporated into the project.

- (a) Non-ferrous metals
- (b) Plastic and Polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables)
- (c) Glass (including optic glass)
- (d) Fiber optic cable (including drop cable)
- (e) Optical fiber
- (f) Lumber
- (g) Engineered wood
- (h) Drywall

106.9.6.1 Minimal Use allowance for Construction Materials other than iron or steel.

"The total value of the non-compliant products is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project." The contractor shall submit to the engineer any non-domestic materials and their total material cost to the engineer. The contractor and the engineer will both track these totals to assure that the minimal usage allowance is not exceeded.

106.9.7 Buy America Requirements for Manufactured Products.

Manufactured products means:

(a) Articles, materials, or supplies that have been:

- (i) Processed into a specific form and shape; or
- (ii) Combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies.
- (b) If an item is classified as an iron or steel product, a construction material, or a section 70917(c) material under § 184.4(e) and the definitions set forth in this section, then it is not a manufactured product. However, an article, material, or supply classified as a manufactured product under § 184.4(e) and paragraph (1) of this definition may include components that are construction materials, iron or steel products, or section 70917(c) materials.
- **106.9.7.1** Manufactured products are exempt from Buy America requirements. To qualify as a manufactured product, items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.
- **106.9.7.2** Manufactured items are covered under a general waiver to exclude them from Buy America Requirements. To qualify for the exemption the components must comprise of 55% of the value of materials in the item. The final assembly must also be performed domestically.

Delete Sec 109.14.1 thru Sec 109.14.8 and substitute the following:

109.14.1 Monthly Fuel Index. Each month, the Monthly Fuel Index will be established as the average retail price per gallon for Ultra Low Sulfur Diesel for the Midwest (PADD 2) area as posted on the first Monday of the month by the U.S. Energy Information Administration (EIA). Should the posted price not be available for any reason, the MoDOT State Construction and Materials Engineer will use reasonable methods, at their sole discretion, to establish the Monthly Fuel Index on an interim basis until the EIA resumes its publication.

109.14.2 Fuel Adjustment Calculation.

B = Base Fuel Index = Monthly Fuel Index in the month in which the project was let

C = Current Index = Monthly Fuel Index in the month in which the work was performed

U = Units of work performed within the current pay estimate period (applicable pay units)

F = Total Fuel Usage Factor (gal./applicable pay units)

Fuel Adjustment (Dollars) = $(C - B) \times U \times F$

- 109.14.3 Each pay estimate period, a fuel adjustment payment or deduction will be applied for the quantity of work performed that period on each qualifying pay item. For calculation of the fuel adjustment, work performed on the first day of a month will generally be included with the second estimate in the previous month to keep fuel adjustments in sync with MoDOT's normal payment estimate period schedule. The Commission reserves the right to include work performed on the first day of the month with the current month to accommodate financial accounting termini, such as the beginning of the state and federal fiscal years (July 1 and October 1).
- **109.14.4** If the bidder wishes to be bound by these specifications, the bidder shall execute the acceptance form in the proposal. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the price adjustment for fuel.

Disposal of Blast Media and Paint Residue

1.0 Description. Whereas Sec 1081.10 requires delivery of Blast Media and Paint Residue (BMPR) produced from bridge coating activities to The Doe Run Company for recycling, and considering the amount of BMPR produced on all active MoDOT projects statewide at any given point in time may exceed the recycling capacity of Doe Run, this provision allows for an alternate method of disposal of BMPR. The contractor, at its discretion, can choose this disposal option or the Doe Run recycle option, when both are available. When Doe Run is not currently capable or agreeable to accept the BMPR, this alternate disposal option shall be considered mandatory, and at no additional cost to the Commission.

- **2.0 Disposal in Landfill.** In lieu of delivery to Doe Run for recycling, BMPR material shall be disposed in the appropriate type of approved landfill, as determined by Toxicity Characteristic Leaching Procedure (TCLP) testing. The material must be TCLP tested to determine if it contains a level of hazardous waste such that requires disposal in a hazardous waste landfill. A sampling plan for testing shall be submitted to MoDOT for review and concurrence. Sampling shall be performed by the contractor. MoDOT will witness the sampling to ensure it is conducted per the plan submitted.
- **2.1** The contractor shall submit the collected samples to a qualified third-party testing facility to perform TCLP testing. If the sample indicates that the BMPR material qualifies as hazardous waste, then the materials represented by that sample shall be delivered to a licensed hazardous waste landfill for disposal. The contractor shall be responsible for hiring a licensed hazardous waste transporter to transport the hazardous waste to the landfill. The contractor shall comply with all applicable laws and regulations for storage and shipping of the hazardous waste material. If the testing indicates that the BMPR material qualifies as a special waste, it shall be taken to a certified landfill for disposal. The contractor shall be responsible for the transportation of the special waste material to the certified landfill. The requirement to ship the BMPR material by barrels will be waived. Any alternate containers utilized shall comply with all applicable laws and regulations for shipping this type of special waste material. Copies of all shipping manifests, landfill disposal agreements, and any other legally required documentation shall be provided to the engineer.
- **3.0 Basis of Payment.** No payment will be made for any costs associated with this landfill disposal option, including, but not limited to, sampling, testing, delivery, temporary storage, or disposal fees.

Z. <u>Damage to Existing Pavement</u>

- **1.0 Description.** This work shall consist of repairing any damage to existing pavement, ramps and/or shoulders caused by contractor operations. This shall include damage caused either directly or indirectly by contractor operations, including but not be limited to, damage caused by the traffic during contractor operations.
- **2.0 Construction Requirements.** Any cracking, gouging, or other damage to the existing pavement, ramps and/or shoulders, side roads, or entrances from general construction shall be repaired within twenty four (24) hours of the time of damage at the contractor's expense. Repair

of the damaged pavement, shoulders, side roads, or entrances shall be as determined by the engineer.

- **3.0 Method of Measurement.** No measurement of damaged pavement, ramps or shoulder areas as described above shall be made.
- **4.0 Basis of Payment.** No payment will be made for repairs to existing pavement, ramps and/or shoulders damaged by contractor operations.

AA. <u>Mobilization</u>

Delete Sec 618.2 and substitute the following:

618.2 Method of Measurement and Basis of Payment. Mobilization will be measured and paid for once on each Job Order regardless of the number of work days required to complete the work.

Item 618-99.02 Mobilization Each

BB. Railroad Requirements

- **1.0** The right of way of various Railroads, herein called "Railroad", are located within the limits of this project. However, this project has been developed with the specific intention that no involvement with the Railroad's facilities, traffic or right of way is required for the performance of the contractual work herein. The work to be performed over the Railroad's right of way shall not interfere with the Railroad's operations or facilities. Under these circumstances, the requirements of Sec 104.12.3, Sec 104.12.8 through 104.12.10.5 (inclusive), and Sec 107.13.4 shall not apply.
- **2.0** Should the contractor violate this condition of no railroad involvement, all terms and conditions of the interaction with the Railroad shall be solely between the Railroad and the contractor.

CC. Previous Job Order Information

1.0 Previous Job Orders. Job order information, consisting of quantities and pay items that were issued for past contracts will be available from the Project Contact upon the bidder's written request. This information does not constitute part of the bid or contract documents. It is provided for the bidder's use during bid preparation, and shall not be considered a representation of actual job orders to be issued during construction for this contract. Furnishing this information does not relieve a bidder or contractor from the responsibility of estimating the number and types of job orders that will be issued for future contracts. The bidder or contractor shall assume the risk of error if the information is used for any purposes for which the information was not intended. The Commission makes no representation as to the accuracy or reliability of the information, since the information may not be representative of the sealed contract documents. Any assumptions the bidder or contractor may make from this information is at the bidder or contractor's risk; none are intended by the Missouri Highways and Transportation Commission. The bidder or contractor assumes the sole risk of liability or loss if the bidder or contractor does rely on this information to its detriment, delay or loss.

DD. <u>Final Cleanup and Seeding Requirements</u>

- **1.0** On completion of project all associated debris and rubbish shall be removed from the premises.
- **1.2** The contractor shall be responsible for restoring any ground disturbed during the operations of the contract to its original condition. This includes seeding and mulching disturbed soil as needed. A commercially available cool-season seed mix will be allowed, or as directed by engineer. A commercially available fertilizer will be allowed, or as directed by engineer, and shall be applied in accordance with manufacturer's recommendations.
- **2.0 Method of Measurement.** Final measurement of the work required for the above provision will not be made.
- **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 provision.

EE. <u>Environmental Review Requirement</u>

- **1.0 Description**. This project includes as-yet undetermined locations throughout southeast Missouri.
- **1.1** This area of the state contains many communities of conservation concern and protected cultural and historic resources. It is the intent of this JSP, to maintain compliance with state and federal law. In order to achieve this goal, it is important it avoid negative impacts to any sensitive or protected resources that may be present, locations and impact of work must be reviewed by MoDOT Historic Preservation Specialists before issuance of a Job Order.
- **1.2** Work within the 100-year floodplain or regulatory floodway may require a floodplain development permit from the State Emergency Management Agency (SEMA). Locations and impact of work must be reviewed by a MoDOT Environmental Specialist before issuance of a Job Order.
- **2.0 Notification**. When a location is selected for a Job Order at any of the locations included in this project, the engineer shall contact the Environmental and Historic Preservation section so the specialists listed below may review each location for impacts to sensitive and protected resources. The notification shall include the project location (county, route, and log mile or KMZ file), project impact (clearing, grading, stabilization), project timeline (start date, construction days), and locations of all easements and new right of way. This review and subsequent clearance of each location shall occur prior to issuance of a Job Order. Completion of the work to delineate the environmentally sensitive area shall be the first order of work on the project. If the contractor fails to comply with this provision, MoDOT will suspend the project until the issue is resolved. No time extensions will be granted due to the contractor's failure to comply with this provision.

Please notify:

Marianne.McGlinn@modot.mo.gov

Karen Daniels (Historic Preservation) Office: 573-526-7346 Cell: 573-508-2209

Karen.Daniels@modot.mo.gov

Samantha Sawyer (Environmental) Office Cell: 573-508-4780 Samantha.Sawyer@modot.mo.gov

3.0 Basis of Payment. No direct pay shall be provided for any labor, equipment, time, or materials necessary to complete this work. The contractor shall have no claim, or basis for any claim or suit whatsoever, resulting from compliance with this provision.

FF. Protective Measures for Ditch Work In Illinois Chorus Frog Breeding Areas

- **1.0 Description.** There are areas of herpetofaunal significance along and adjacent to the project corridor. Roadside ditches, wet fields, and streams have been shown to support populations of Illinois chorus frog, a species of conservation concern and candidate for federal listing. General breeding dates for Illinois chorus frog are February to early April; tadpoles develop into sub-adult frogs by May or June. To ensure protection of this species and other sensitive aquatic species that may be present, the following seasonal restrictions must be adhered to.
- **2.0 Restrictions.** Personnel shall take all precautions to prevent negative impacts to aquatic and semi-aquatic species along the project corridor, including Illinois chorus frog. If a ditch adjacent to the roadway has standing water, then any work in the ditch (including land disturbance, grading, equipment/vehicle staging and storage, or refueling) shall take place between mid-summer (July 15) and winter (January 15), in order to minimize potential impacts to Illinois chorus frog.
- **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.

GG. Protection Measures for Recharge Areas of Protected Species

- **1.0 Description.** Portions of this project area include designated Ozark cavefish and grotto sculpin recharge areas. To ensure the protection of these endangered species, as well as other sensitive species that may be present in these areas, the following restrictions should be applied for work taking place within the recharge areas.
- **2.0 Restrictions.** Personnel shall take the following precautions when working within the designated recharge area to eliminate/minimize the potential for contamination of the groundwater system.
- **2.1 Debris Control.** Construction debris, as well as petroleum products, paint, other chemicals, will be prevented from entering the water or otherwise contaminating the streamside environment. Reports of any accidental releases of petroleum products, or other contaminants that could harm fish and other aquatic life, will be reported immediately to the MoDOT Environmental Section. See attachment "Hazardous Waste and Endangered Species Contacts" for the list of contacts and phone numbers. If no MoDOT contact is available at the provided

numbers, contact the Missouri Department of Natural Resources (573-634-2436) AND the United States Fish and Wildlife Service contaminants specialists Dave Mosby (573-234-2132 extension 113, cell 573-999-2747). These numbers shall be readily available on the job site at all times. Personnel or their Supervisors shall be responsible for immediate reporting in the event of a spill.

For work on bridges over waterways, personnel shall take precautions to prevent construction materials/debris from falling into the waterway beneath these structures. Personnel shall plug all bridge drains and implement any other measures necessary to prevent any construction materials/debris or overspray/liquid from getting into the waterways. Silt fence, or other treatment as specified by the engineer, shall be placed at all four bridge corners to prevent any construction materials/debris from washing off the roadway or the bridge and flowing down the bank into the waterway.

- **2.2 Spill Prevention.** MoDOT personnel shall not refuel, conduct material transfers, or perform maintenance on equipment while the equipment is located within or over any visible stream channels (wet or dry) or sinkholes. Equipment shall not be parked in these areas. Use best management practices while fueling and maintaining equipment to prevent spills and to catch any material that is accidentally spilled. MoDOT has an approved State Operating Permit and a Pollution Prevention Plan developed in coordination with, and approved by, the Missouri Department of Natural Resources. MoDOT will assure strict adherence to this Permit and Plan throughout the course of the project. Any violation of the Plan will result in temporary suspension of work until corrective measures are implemented to comply with this provision. Personnel shall keep equipment properly maintained to avoid spills and leaks. Personnel shall inspect equipment before it is brought to the job site, and must replace or repair any faulty equipment.
- **2.3 Spill Containment.** A spill is defined as fuel, lubricants, paints, solvents, etc. reaching the ground where the fluid could be absorbed into the ground or run-off into an absorbent ground area. Initial reporting of any spill shall be made to MoDOT Environmental Section. See attachment "Hazardous Waste and Endangered Species Contacts" for the list of contacts and phone numbers. If no MoDOT contact is available at the provided numbers, contact the Missouri Department of Natural Resources (573-634-2436) AND the United States Fish and Wildlife Service contaminants specialists Dave Mosby (573-234-2132 extension 113, cell 573-999-2747). These numbers shall be readily available on the job site at all times. Personnel or their Supervisors shall be responsible for immediate reporting in the event of a spill.

Personnel shall maintain absorbent material and other containment measures capable of containing any spill of less than 50 gallons. Such measures could consist of earthen berms, spill absorbing materials, and any other approved methods used for spill control. Personnel shall also have a mobile spill kit on-site throughout the course of the project. All empty containers of lubricants, fuels, and solvents shall be properly disposed.

2.4 Erosion Control. Erosion control measures shall be implemented in order to reduce suspended solids, turbidity and downstream sedimentation that may enter the ecosystem of any cave, surface water, or ground water sink. MoDOT will ensure strict adherence to the design, placement and maintenance of such temporary and permanent erosion control measures as stated in Division 800, Section 806 et seq., <u>Missouri Standard Specifications for Highway</u> Construction.

Pollution refers to sedimentation and contamination. As described above, MoDOT has a <u>State Operating Permit</u> and a <u>Pollution Prevention Plan</u> that were developed in coordination with, and approved by, the Missouri Department of Natural Resources. Section III of the Plan prohibits MoDOT from polluting any waters of the state. The <u>Pollution Prevention Plan</u> shall be implemented throughout the duration of the project.

- **2.5 Weather Requirements.** To eliminate/minimize the potential for contamination of the groundwater system, no operations shall be performed within designated recharge areas if it is raining or if the National Weather Service forecast is predicting any form of precipitation within ten (10) hours after the proposed completion time of the operation. Section 620 of the Engineering Policy Guide also provides minimum temperature requirements for pavement marking applications, insuring effective application of various pavement marking materials.
- **3.0 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 special provisions except as specified elsewhere in the contract document.

HAZARDOUS WASTE AND ENDANGERED SPECIES CONTACTS

Updated 1/20/2021

Spill Reporting Procedures in Cave Recharge Areas and Work Over Streams:

Standard spill reporting procedures apply, which include first sending an email to the group "spillreporting@modot.mo.gov." Contacts for Hazardous Waste staff are as follows:

- NW, NE, CD (Howard, Boone, Callaway, Cole, Gasconade, Osage): Kevin Kelly: 573-526-2904 (office), 573-508-7678 (cell)
- KC, SW, CD (Cooper, Moniteau, Morgan, Miller, Camden, Laclede): Ethank Musick: 573-522-5562 (office), 573-508-6907 (cell)
- SE, STL, CD (Maries, Pulaski, Phelps, Crawford, Washington, Dent):
 Andy Stivers: 573-526-3599 (office), 573-395-6439 (cell)
- Melissa Scheperle, Environmental Compliance Manager: 573-526-6684 (office), 573-508-2848 (cell)

In addition, spills within cave recharge areas or over active streams shall also be reported to the following Threatened and Endangered Species contacts:

Contacts for T&E:

- Bree McMurray, Senior Environmental Specialist: 573-526-0606 (office), 573-639-0876 (cell)
- If Bree is unavailable:
 - o Chris Shulse, Environmental Compliance Manager: 573-526-6678 (office), 573-406-2207 (cell)
 - Melissa Scheperle, Environmental Compliance Manager: 573-526-6684 (office), 573-508-2848 (cell)

- Michael Meinkoth, Interim Environmental and Historic Preservation Manager: 573-526-3593 (office), 573-508-2224 (cell)
- If all listed Environmental T&E staff are unavailable, default to USFWS Contaminants Specialist contacts:
 - Dave Mosby: 573-234-2132, ext. 113 (office), 573-476-9552 (work cell), 573-999-2747 (personal cell)
 - Leslie Lueckenhoff: 573-234-5020 (work), 573-353-3016 (cell)

HH. Bicycle Safe Grates

- **1.0 Description.** This work shall consist of replacing existing grates with bike safe grates at the locations as directed by the Engineer.
- **1.1** The roadway grates shall be replaced with a grate that meets current bike safe standards and will be paid for per below item numbers.
- **1.2** Due to the irregularity and differing configurations of the existing grates, all grates shall be field measured by the contractor and an appropriate size shall be provided as approved by the engineer.
- **1.3** The grates shall be oriented so that the openings run perpendicular to the direction of travel or the openings shall be small enough to prevent a bicycle wheel from falling into the openings.
- **2.0 Basis of Payment.** The contract fixed unit price will include all labor, equipment, materials (including concrete), and incidentals necessary to furnish and install new frames and grates. The grates shall be flush with the existing pavement and all materials needed to make any horizontal and vertical adjustments will be included in the unit price. The price will also include all cost for removing and providing areas for disposing of existing frames and grates.

Item No.TypeDescription6149902EachMisc. Bicycle Safe Grate

II. <u>Misc. Drainage Cover Plate</u>

- **1.0 Description.** This work shall consist of placing a drainage cover plate at the locations directed by the Engineer.
- **1.1** The concrete gutters in the path of the sidewalks shall be covered with pedestrian safe plates for safe passage over the gutter while still providing drainage for the roadway.
- **1.2** The plates shall be constructed of A36 steel with a thickness of ¼" and meet all requirements as set forth for a safe pedestrian surface as established by R302.7 in the Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG). The steel plate shall be secured by one bolt anchored in the concrete at each corner of the plate. Slots shall be provided to allow for expansion and contraction.
- **2.0 Basis of Payment.** The contract fixed unit price will include all labor, equipment, materials, and incidentals necessary to furnish and install a new drainage cover plate.

Item No. 6149902 **Type** Each

DescriptionMisc. Drainage Cover Plate