

Job No.: JSTM0036

Route: Various

County: Various

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)


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

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	<p><b>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</b> 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636</p>
	<p>JOB NUMBER: JSTM0036 VARIOUS COUNTIES, MO DATE PREPARED: March 21, 2023</p>
<p>Date: 4/24/2023</p>	<p>ADDENDUM DATE:</p>
<p>Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: All</p>	

JOB  
SPECIAL PROVISION

A. General - Federal 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](http://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](http://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. Scope of Work

**1.0 General Requirements.** The Contractor shall lift, align, and underseal concrete bridge approach slabs and pavements with polyurethane material on an as needed, if needed basis for the Missouri Highway and Transportation Commission (MHTC) and Missouri Department of Transportation (MoDOT), in accordance with the provisions and requirements stated herein.

**1.1** The Contractor shall provide all services to the sole satisfaction of the Engineer.

**1.2** The Bidder shall understand and agree that MoDOT shall make no guarantee as to the amount of services that may be required annually.

**1.3** MoDOT reserves the right to obtain “like or similar” services as specified herein from other providers, exclusive of the contract, when use of such products is deemed in the best interest of MoDOT.

**1.4** Unless otherwise specified herein, the Contractor shall furnish all material, labor, facilities, equipment, and supplies necessary to provide the services required herein.

**2.0 Specific Requirements.** The Contractor shall provide services to lift, align, and underseal concrete bridge approach slabs and pavements with polyurethane material to provide a smooth transition from the approach roadway to the bridge structure at various locations on the MoDOT’s highway system.

**2.1** The Contractor shall provide the specified services in accordance with Sec 625 Slab Stabilization, and as modified herein.

**2.1.1 High Density Polyurethane Foam (HDPF).** Certify that the material conforms to the following requirements listed in this section:

PROPERTY	TEST	RESULTS
a) Density, lbs./cu. ft.	ASTM D1622	3.5 - 4.5
b) Compressive Strength, psi (min.)	ASTM D1621	55
c) Tensile Strength, psi (min.)	ASTM D1623	90
d) Shear Strength, psi (min.)	ASTM C273	45
e) Flexural Strength, psi (min.)	ASTM D790	90
f) Closed Cell content (%)	ASTM D6226	+85

**2.1.2** HDPF shall reach 90% compressive strength within 30 minutes of injection. The material used shall be a two-part 1:1 by volume HDPF, such as URETEK 486 STAR or equivalent.

**2.1.3** The material shall be water blown, not chemically blown. The material shall be a polyurethane-forming mixture, having water insoluble diluents, which permits the formation of polyurethanes in the presence of water. Water insoluble diluents shall provide polyurethane foam with improved dimensional stability properties. The presence of water insoluble diluents and the characteristics and properties listed above must be certified by the manufacturer.

**2.2 Certification.** The certification for compliance with the testing requirements identified in paragraph 2.1.1 must be submitted to the Project Contact prior to the pre-activity meeting outlined in paragraph 2.8. The certification must have independent test results that show the material properties meeting the specification requirements. The MSDS for all pertinent production material shall be included with the certification.

**2.2.1** If certification of the HDPF is not available through the manufacturer, the Contractor shall arrange testing with an independent third-party testing laboratory to certify the HDPF conforms to the requirements in paragraph 2.1.1. The Contractor shall arrange with the Project Contact a time and date for the Project Contact’s representative to be present during

preparation/forming of the test specimens. No direct payment will be made for the certification requirements of this provision.

**2.2.2** The certified HDPF must be from the same material components proposed to be used throughout the duration of the contract. The Batch/Lot number of the resin components certified shall be included on the certification.

**2.2.3 Certification Acceptance.** Acceptance of the polyurethane material certification will be based on the HDPF meeting the testing requirements identified in paragraph 2.1.1. HDPF shall meet all of the required specifications and be preapproved by the Engineer prior to the first work order.

**2.3 Pumping Units.** At a minimum, a truck shall be equipped with two mounted pumping units capable of injecting the polyurethane material at a controlled rate below the concrete slab. The pumping units shall be equipped with certified flow meters to precisely measure the amount of each component injected, so that the ratio by volume is maintained for quality control and a certified volume of injected polymer material obtained for proper payment. The units shall be equipped with pressure and temperature control devices capable of maintaining proper temperature and proportionate mixing of the two chemical components. Certification from the manufacturer (or independent third party) demonstrating that each flow meter intended for use has been tested within the past 12 months and must be submitted to the Project Contact prior to the pre-activity meeting.

**2.4** The Contractor shall use a fast-setting material to permit the roadway to be opened to traffic within one (1) hour after the slab has been repositioned.

**2.5** MoDOT shall provide traffic control while the Contractor is providing the specified services.

**2.6** If the Contractor lifts the slab more than what is indicated in Sec 625.20 and fails to make appropriate corrections, liquidated damages in the amount specified in these JSPs will be assessed. If the Contractor fails to make the necessary corrections within a time period specified by the Commission's Representative, all costs undertaken by MoDOT that are necessary to make repairs shall be assessed to the Contractor.

**2.7 Delivery Requirements.** The Contractor shall deliver the services and associated products specified herein to statewide locations to be identified during the contracting period.

**2.7.1** Services must be completed within 30 days after receipt of order. The contractor shall provide a 7-calendar day notice to the Engineer before providing services.

**2.7.2** Commission staff will issue work orders and coordinate schedules of performing work with the Contractor, in order to plan traffic control, logistics of mobilizing crew/material/equipment to each task site, and actual performance of work. Task scheduling may consider multiple tasks in sequence to promote efficiency of operations. Commission staff will issue a work order for each task, including the proposed schedule and an estimated cost. This estimated cost shall be adjusted by the contractor for actual quantities of material used and shall be submitted on an invoice for each work order, upon completion.

**2.7.2.1** The amount of high-density polyurethane material necessary to lift, align, and underseal concrete bridge approach slabs and pavements shall be measured by the certified flow meters

referenced in paragraph 2.3, in pounds, and reported on the Contractor's invoice upon completion of each work order.

**2.7.2.2** The Contractor shall provide verification of the flow meter measurements on each invoice by submitting timestamped photographic evidence of the beginning flow meter readings and ending flow meter readings for each component at each location.

**2.8 Pre-Activity Meeting.** A pre-activity meeting is required in advance of the Contractor initiating any work under this contract. If the contract renewal options are selected, a pre-activity meeting is required at the start of each renewal. The purpose of this meeting(s) is to review construction details and acceptance of the polyurethane material to be used during the contract period. Discussion topics may also include safety precautions, QC testing, traffic impacts, work schedules and invoice submittals.

#### C. Work Zone Traffic Management

**1.0 Description.** Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows. MoDOT staff will perform any required traffic control, including establishment of work zones. Information is provided to the bidder/contractor to clearly understand any restrictions/limitations related to work zones and scheduling

**1.1 Work Zone Conflict Resolution.** Any conflict resolution shall be in accordance with Sec 616.4. Failure to make corrections on time may result in the engineer suspending work. The suspension will be non-excusable and non-compensable regardless if road user costs are being charged for closures.

#### **2.0 Traffic Management Schedule.**

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

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

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

deliverables on MoDOT's Online Plans Room. The contractor may refer to the Work Zone Analysis Spreadsheet for detailed information on traffic delays.

## **2.4 Traffic Safety.**

**2.4.1.1 Recurring Congestion.** Where traffic queues routinely extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway, the contractor shall coordinate with MoDOT staff to extend the advance warning area.

**2.4.1.2 Non-Recurring Congestion.** When traffic queues extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway infrequently, the contractor shall coordinate with MoDOT staff to deploy a means of providing advance warning of the traffic congestion. The warning location shall be no less than 1000 feet and no more than 0.5 mile in advance of the end of the traffic queue on divided highways and no less than 500 feet and no more than 0.5 mile in advance of the end of the traffic queue on undivided highways.

## **3.0 Work Hour Restrictions.**

**3.1** Except for emergency work, as determined by the engineer, and long term lane closures required by project phasing, all lanes shall be scheduled to be open to traffic during the five major holiday periods shown below, from 12:00 noon on the last working day preceding the holiday until 6:00 a.m. on the first working day subsequent to the holiday unless otherwise approved by the engineer.

Memorial Day  
Labor Day  
Thanksgiving  
Christmas  
New Year's Day

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

12:00 noon July 2, 2021 – 6:00 a.m. July 5, 2023  
12:00 noon July 3, 2024 – 6:00 a.m. July 5, 2024  
12:00 noon July 3, 2025 – 6:00 a.m. July 7, 2025

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

**3.3** The contractor shall not alter the start time, ending time, or a reduction in the number of through lanes of traffic or ramp closures without advance notification and approval by the engineer. The only work zone operation approved to begin 30 minutes prior to a reduction in through traffic lanes or ramp closures is the installation of traffic control signs. Should lane closures be placed or remain in place, prior to the approved starting time or after the approved ending time, 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 delays, with a resulting cost to the traveling public. These damages are not easily computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of **\$1000 per 15 minute increment** for each 15 minutes that the temporary lane closures are in place and not open to traffic in excess of the limitation as specified elsewhere in this special provision. It shall be the responsibility of the engineer to determine the quantity of unapproved closure time.

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

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

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

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

**5.0 Basis of Payment.** No direct payment will be made to the contractor to recover the cost of equipment, labor, materials or time required to fulfill the above provisions, unless specified elsewhere in the contract document. All authorized changes in the traffic control plan shall be provided for as specified in Sec 616.

#### **D. Supplemental Revisions JSP-18-01X**

Compliance with [2 CFR 200.216 – Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment.](#)

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

Stormwater Compliance Requirements



**1.0 Description.** This provision requires the contractor to provide a Water Pollution Control Manager (WPCM) for any project that includes land disturbance on the project site and the total area of land disturbance, both on the project site, and all Off-site support areas, is one (1) acre or more. Regardless of the area of Off-site disturbance, if no land disturbance occurs on the project site, these provisions do not apply. When a WPCM is required, all sections within this provision shall be applicable, including assessment of specified Liquidated Damages for failure to correct Stormwater Deficiencies, as specified herein. This provision is in addition to any other stormwater, environmental, and land disturbance requirements specified elsewhere in the contract.

**1.1 Definitions.** The project site is defined as all areas designated on the plans, including temporary and permanent easements. The project site is equivalent to the "permitted site", as defined in MoDOT's State Operating Permit. An Off-site area is defined as any location off the project site the contractor utilizes for a dedicated project support function, such as, but not limited to, staging area, plant site, borrow area, or waste area.

**1.2 Reporting of Off-Site Land Disturbance.** If the project includes any planned land disturbance on the project site, prior to the start of work, the contractor shall submit a written report to the engineer that discloses all Off-site support areas where land disturbance is planned, the total acreage of anticipated land disturbance on those sites, and the land disturbance permit number(s). Upon request by the engineer, the contractor shall submit a copy of its land disturbance permit(s) for Off-site locations. Based on the total acreage of land disturbance, both on and Off-site, the engineer shall determine if these Stormwater Compliance Requirements shall apply. The Contractor shall immediately report any changes to the planned 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	$\leq 0.01\%$
Fiber Content	ASTM D5603	$\leq 0.5\%$
Moisture Content	ASTM D1509	$\leq 1.0\%^*$
Mineral Filler	AASHTO M17	$\leq 4.0\%$

\*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  $\pm 3$  percent of the amount required. The system shall automatically adjust the feed rate to always maintain the material within this tolerance and shall have a convenient and accurate means of calibration. The system shall provide in-process monitoring, consisting of either a digital display of output or a printout of feed rate, in pounds per minute, to verify feed rate. The supply system shall report the feed in 1-pound increments using load cells that will enable the user to monitor the depletion of the GTR. Monitoring the system volumetrically will not be allowed. The feeder shall interlock with the aggregate weight system and asphalt binder pump to maintain correct mixture proportions at all production rates.

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

**4.1 Batch Plants.** GTR shall be added to aggregate in the weigh hopper. Mixing times shall be increased per GTR manufacturer recommendations

**4.2 Drum Plants.** The feeder system shall add GTR to aggregate and liquid binder during mixing and provide sufficient mixing time to produce a uniform mixture. The feeder system shall ensure GTR does not become entrained in the exhaust system of the drier or plant and is not exposed to the drier flame at any point after introduction.

**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** VMA shall be calculated as follows:

$$VMA = 100 - G_{mb} \left( \frac{P_s}{G_{sb}} + \frac{P_{GTR}}{G_{GTR}} \right)$$

where:

$P_s$  = percent aggregate by total mixture weight

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

$G_{sb}$  = bulk specific gravity of the combined aggregate

$G_{GTR}$  = GTR specific gravity

**8.4**  $G_{se}$  shall be calculated as follows:

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

**8.5**  $P_{be}$  shall be calculated as follows:

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

**9.0 Minimum GTR Amount.** The minimum dosage rate for GTR shall be 5 % by weight of total binder for an acceptable one bump grade or 10 % by weight of total binder for an acceptable two bump grade as detailed in the following table. Varying percentage blends of

GTR and approved additives may be used as approved by the engineer with proven performance and meeting the specified requirements of the contract grade.

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

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

***Delete Sec 107 in its entirety and substitute the following:***

**107.1 Laws to be Observed** The contractor shall know, observe and comply with all federal and state laws, local laws, codes, ordinances, orders, decrees and regulations existing at the time of or enacted subsequent to the execution of the contract that in any manner affect the prosecution of the work, except as specified in the contract or as directed by the engineer. The Contractor shall also ensure that any subcontractor know, observe and comply with all federal and state laws, local laws, codes, ordinances, orders, decrees and regulations as outlined above. The contractor and surety shall indemnify and save harmless the State, the Commission, the Commission's agents, employees and assigns from any claim or liability arising from or based on the violation of any such law, code, ordinance, regulation, order or decree, except any local regulations, decrees, orders, codes or ordinances directed by the contract.

**107.1.1 Contract and Legal Inconsistency** The engineer shall be notified immediately in writing if any discrepancy or inconsistency is discovered between the contract and any law, ordinance, regulation, order or decree.

**107.1.2 Local Building and Zoning Codes or Ordinances** The projects of the Commission are not typically subject to local building or zoning codes or ordinances. Therefore, the contractor usually need not obtain a local building or zoning permit or variance for work done exclusively as the Commission's contractor on the Commission's project and the Commission's right of way. Other local codes or ordinances may not apply to the Commission, and thus to the contractor as well. If any questions arise concerning whether the contractor shall comply with a local code, ordinance, decree or order of any type, the contractor shall advise the engineer of the problem immediately, for resolution by the engineer. This provision will not exempt the contractor from the requirement of thoroughly researching and determining, before submitting a bid on the contract and from complying with, all federal, state or local laws, regulations, codes, ordinances, decrees or orders that may apply to the contract work. The Commission will not be responsible for the contractor's failure to be informed before bidding as to the federal, state and

local laws, regulations, codes, ordinances, decrees or orders that may govern the contract work, or for the contractor's failure to determine before bidding which of these do not govern the contract work.

**107.1.3 Authentication of Certain Documents** If plans, plats, detailed drawings or specifications for falsework, cofferdams or any other work are required to be submitted to the engineer, the documents shall be signed, sealed and stamped in accordance with the laws relating to the practice of architecture and professional engineering in the State of Missouri (Chapter 327, RSMo).

**107.2 Permits, Licenses and Taxes** Except as otherwise provided in the contract, the contractor shall procure all permits and licenses, shall pay all charges, fees and taxes, and shall give all notices necessary and incidental to the due and lawful prosecution of the work. No direct payment will be made for the cost of complying with this requirement.

**107.3 Patented or Copyrighted Devices, Material and Processes.** If the contractor is required or desires to use any design, device, material or process covered by letters, patent, copyright, service or trademark, the contractor shall arrange and provide for such use by suitable agreement with the patentee or owner, and a copy of the agreement may be required by the Commission. The contractor and surety shall indemnify and save harmless the State, the Commission, the Commission's agents, employees and assigns from any suits, claims or damages arising from the infringement upon or use of any patented, copyrighted or registered design, device, material, process or mark.

**107.4 Safety and Sanitary Provisions** The contractor shall at all times take necessary precautions to protect the life and health of all persons employed on the project or, who at the direction of the contractor are present on the right of way. The contractor shall be familiar with the latest accepted accident prevention methods and shall provide necessary safety devices and safeguards accordingly. The Commission will refuse to provide inspection services at plants or work sites where adequate safety measures are not provided and maintained.

**107.4.1 Apparel.** All workers within highway right of way shall wear approved ANSI/ISEA 107 Performance Class 2 or 3 safety apparel and more specifically as follows:

**107.4.1.1** During daytime activities, flaggers shall wear a high visibility hard hat, safety glasses, a Performance Class 3 top OR a Performance Class 2 top, and safety footwear. Hard hats other than high visibility orange or green shall be covered with a high visibility covering.

**107.4.1.2** During daytime activities, workers shall wear a hard hat, safety glasses, a Performance Class 3 top OR a Performance Class 2 top, and safety footwear.

**107.4.1.3** During nighttime activities, flaggers shall wear a high visibility/reflective hard hat, safety glasses, a Performance Class 3 top AND Class E bottoms, OR Performance Class 2 top AND Class E bottoms, and safety footwear. Hard hats shall be reflective or covered with a high visibility covering.

**107.4.1.4** During nighttime activities, workers shall wear a hard hat, safety glasses, a Performance Class 3 top OR Performance Class 2 top AND Class E bottoms, and safety footwear.

**107.4.2** The contractor shall provide and maintain in a neat and sanitary condition, such accommodations for the use of employees as may be necessary to comply with the requirements and regulations of any agency having jurisdiction over public health and sanitation. The contractor shall permit no public or private nuisance.

**107.4.3** All sanitary facilities and safety devices shall be furnished free to employees and no direct payment will be made for such facilities or devices.

**107.5 Public Convenience and Safety** The contractor shall conduct the work in a manner that will ensure, as far as practical, the least obstruction to traffic and shall provide for the convenience and safety of the general public and residents along and adjacent to the highway in an adequate and satisfactory manner.

**107.5.1 Obstructions Prohibited** Fire hydrants on and adjacent to the highway shall be kept accessible to firefighting apparatus at all times, and no obstruction shall be placed within 15 feet of any such hydrant. Footways, gutters, sewers, outlets, inlets and portions of highways adjoining the work under construction shall not be obstructed. Pavements over which hauling is performed shall be kept clean of spilled or tracked-on material at all times when in use by traffic.

**107.5.2 Objects Potentially Affecting Navigable Airspace.** The contractor shall comply with all federal regulations pertaining to constructing, erecting or installing any object, temporary or permanent, which could potentially affect navigable airspace.

**107.5.3 Material and Equipment.** During construction hours, equipment, material and vehicles utilized in construction of the project will only be permitted on shoulders, medians or pavements where the locations are closed to traffic, properly signed and occupied by ongoing construction operations, unless otherwise approved by the engineer. Except in cases of emergency, construction equipment, material and vehicles will not be permitted on pavements or shoulders being utilized by traffic. If the contract specifies time periods the contractor will not be permitted to perform work, construction equipment or vehicles shall not enter or leave the construction area via the pavements handling traffic nor be operated on the pavements handling traffic within the construction area during the restricted time periods. During non-construction hours, construction equipment, material and vehicles will not be permitted within 30 feet of the edge of the pavement or shoulders carrying traffic unless the equipment, material and vehicles are located in a properly protected area, an off-site storage area or as otherwise directed by the engineer.

**107.5.4 Distractions to the Traveling Public in Work Zones.** In order to avoid distracting operators of vehicles traveling on the roadway, the Contractor and its sub-contractors shall not bring or display any signs, flags, logos, emblems, advertising, or any other communicative device on construction equipment that is large enough to be legible from the main traveled way of the highway in the work zone or on highway right of way. This prohibition does not apply to any sign, logo or emblem placed on Contractor equipment identifying the owner or manufacturer of the equipment or to any official highway signs approved by the Commission pursuant to 227.220 RSMo.

**107.6 Bridges over Navigable Waters.** All work on navigable waters shall be conducted such that free navigation of the waterways will not be interfered with and that existing navigable depths will not be impaired except as allowed by permit issued by the USCG or the USACE.



**107.7 Use of Explosives.** All blasting operations shall be conducted under the direct supervision of a licensed blaster as required by the Missouri Blasting Safety Act. When explosives are used in the prosecution of the work, the contractor shall use the utmost care to prevent bodily injury and property damage. The contractor shall be responsible for damage resulting from the use of explosives. The engineer will have the authority to suspend any unsafe blasting operation. The contractor shall be familiar and comply with the rules and regulations of any city, county, state or federal agency or any other agency that may have jurisdiction in the handling, loading, transporting, storage and use of explosives. All places used for explosives storage shall be marked clearly "DANGEROUS EXPLOSIVES".

**107.7.1** Before beginning work, the contractor shall furnish the engineer letters of approval for the proposed operation from the appropriate regulating agencies. The contractor shall notify in writing the appropriate fire protection jurisdiction of the intent to store, transport or use explosives and shall provide proof of notice to the engineer. The contractor shall provide the engineer with copies of all permits, blasting logs and seismic monitoring data.

**107.7.2** The contractor shall notify in advance each property owner, tenant and public utility company having structures or facilities close to the work of any intention to use explosives.

**107.7.3** Removal of any item or material of any nature by blasting shall be done in such a manner and at such time as to avoid damage affecting the integrity of the design and to avoid damage to any new or existing structure, whether on Commission right of way or private property, included in or adjacent to the work. Unless the contract documents or the engineer restricts such operation, the contractor shall be responsible for determining a method of operation to ensure the desired results and the integrity of the completed work.

**107.7.4** The contractor and surety shall indemnify and save harmless the State, the Commission, the Commission's agents, employees and assigns from any claim related to the possession, transportation, storage or use of explosives.

## **107.8 Preservation of Monuments and Artifacts.**

**107.8.1 Monuments.** The contractor shall not disturb or damage any land monument or property landmark unless authorized by the engineer.

**107.8.2 Human and Archaeological Remains.** The contractor shall report to the engineer the discovery of human remains, artifacts, fossils and other items of historical, archaeological or geological significance discovered within the right of way during construction. Such items will remain in the Commission's custody and shall not be removed from the site unless directed by the engineer. The preservation and handling of such items shall be in accordance with [Sec 203.4.8.](#)

**107.9 Forest and Park Protection.** Environmental and sanitary laws and regulations regarding the performance of work within or adjacent to state or national forests or parks shall be obeyed. The contractor shall keep the project site in an orderly condition, dispose of all refuse, obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks and other structures in accordance with the regulations and instructions issued by the forest or park supervisor. The contractor shall require employees and subcontractors, independently, and at the request of forest officials, to prevent and suppress forest fires, and to notify a forest official of the location and extent of any fire.

**107.10 Environmental Protection.** The contractor shall comply with all federal, state and local laws and regulations controlling pollution of the environment. Pollution of streams, lakes, ponds and reservoirs with fuels, oils, bitumens, chemicals or other harmful material and pollution of the atmosphere from particulate and gaseous matter shall be avoided.

**107.10.1** Fording of streams and fill for temporary work not specified on design plans will not be permitted unless the plan for such operation is authorized by the Corps of Engineers, meets the approval of the engineer, complies with the current MoDOT Pollution Plan and results in minimum siltation to the stream. Temporary stream crossings shall not be constructed unless specifically designated as a condition of the Corps of Engineers Section 404 permit or a permit is obtained, and the temporary stream crossing is in accordance with [Sec 806](#).

**107.10.2** When work areas or pits are located in or adjacent to streams, the areas shall be separated from the main stream by a dike or barrier to keep sediment from entering the stream. Care shall be taken during the construction and removal of such barriers to minimize siltation of the stream.

**107.10.3** Disposal of Portland cement concrete residue and wash water, water from aggregate washing, or other operations producing sediment laden runoff shall be treated in accordance with Sec 806.

**107.10.4** Oil distributors or tanker trucks used for the transport or application of any petroleum-based products, and that have a capacity greater than 1,320 gallons, shall not be left unattended on MoDOT right of way within the project limits during non-construction hours unless secondary containment is deployed as per the Spill Prevention Control and Countermeasure rule. Parking of these vehicles on MoDOT right of way outside of the project limits, or on any MoDOT owned property, shall not be allowed without the aforementioned secondary containment and prior authorization from the engineer.

**107.11 Responsibility for Claims for Damage or Injury.** The contractor and insurance company shall indemnify and save harmless the State, the Commission, the Commission's agents, employees and assigns from all claims or suits made or brought for bodily injury, death or property damage, arising from performance of the work to the extent of:

(a) The negligent acts or omissions of the contractor, subcontractors, suppliers or their respective officers, agents or employees.

(b) The creation or maintenance of a dangerous condition of or on the Commission's property or right of way, which condition occurred due to the acts or omissions of the contractor, subcontractors, suppliers or their respective officers, agents or employees or for which the contractor had knowledge of or could have had knowledge of the condition in time to warn of or repair said condition.

(c) The failure of the contractor, subcontractors, suppliers or their respective officers, agents or employees, to perform the work in accordance with the plans and specifications.

**107.11.1** The contractor will not be required to defend, indemnify or hold harmless any other person, including the State, the Commission, or the Commission's agents, employees or assigns for any acts, omissions or negligence of other persons.

**107.11.2** Neither the Commission nor the contractor, by execution of a contract, shall intend to or create a new or enlarge an existing cause of action in any third party. This provision shall not be interpreted to create any new liability that does not exist under the law, or to waive or extinguish any defense that either party to this contract or their respective agents and employees may have to an action or suit by a third party.

**107.12 Contractor's Responsibility for Work** From the earlier of the date of commencement of the work or the effective date of the notice to proceed, and until any work is accepted by the engineer, the work shall be in the custody and under the charge and care of the contractor. Issuance of a payment estimate on any part of the work done will not be considered as final acceptance of any work completed up to that time.

**107.12.1** Damages to any portion of the work before the work is completed and accepted, caused by the action of the elements or from any other reason, shall be repaired or replaced at the contractor's expense. The contractor, at the contractor's option, may insure against any such damages. The Commission may, in its discretion, make such a payment, determined in accordance with [Sec 109.4](#), for damage to the work due to unforeseeable causes beyond the control of, and without fault or negligence on the part of the contractor, unless the contractor has been reimbursed for such damages by the contractor's insurer. Prior to reimbursement, the contractor shall furnish documentary evidence of all efforts to recover such repair costs.

**107.12.2** The contractor shall immediately give written notice to the engineer of any pedestrian, worker and/or vehicular accident. The contractor may be directed by the engineer to repair permanent Commission facilities that have been damaged by events that are beyond the control of the contractor. Reimbursement will be provided by the Commission, determined in accordance with [Sec 109.4](#), for the actual direct cost of labor, equipment and material, exclusive of overhead, indirect or consequential costs of profit. The Commission may elect to make such repairs in lieu of the contractor.

**107.13 General Insurance Requirements.** The Contractor shall procure and maintain at the Contractor's expense until Final Acceptance of the project by the engineer, insurance for all damages and losses imposed by law and assumed under the contract, of the kinds and in the amounts specified in [Secs 107.13.1](#) through [107.13.8](#).

**107.13.1 Sovereign Immunity Limits for Missouri Public Entities.** The Contractor shall procure and maintain at least minimum insurance coverages to meet the sovereign immunity limits for Missouri public entities as calculated by the Missouri Department of Insurance and published annually in the Missouri Register pursuant to Section 537.610 RSMo., for Secs 107.13.2 through 107.13.5, unless specified otherwise for each type of insurance coverage. Each policy shall provide additional insured status for the Missouri Highways and Transportation Commission (Commission), the Missouri Department of Transportation (MoDOT) and its employees up to Missouri's sovereign immunity limits.

**107.13.2 Commercial General Liability Insurance.** The Contractor shall procure, and maintain during the term of the project, commercial general liability insurance with coverage at least as broad as Insurance Services Office (ISO) policy form CG 00 01. The general aggregate limit shall, by endorsement or otherwise, provide a designated aggregate limit solely for this project using ISO form CG 25 03 05 09 or an equivalent form. General liability policies shall be endorsed to add the Commission, MoDOT, and its employees as additional insureds (the "Additional Insureds") using Insurance Services Office forms CG 20 10 or the equivalent under such policy. For construction contracts, an endorsement providing completed operations

coverage to the Additional Insureds, ISO form CG 20 37 or the equivalent, is also required. This form, CG 20 37, shall be endorsed on each subsequent commercial general liability policy issued to the Contractor for three (3) years after final acceptance of the project. The contractor could provide extended completed operations for specific project needs. Discontinued operations coverage shall be provided for three (3) years when applicable. Coverage shall not be reduced by insured versus insured exclusions or by explosion, collapse and underground (XCU) exclusions.

**107.13.3 Commercial Automobile Liability Insurance.** The Contractor shall procure and maintain automobile liability coverage at least as broad as ISO policy form CA 00 01 covering owned, hired, and non-owned autos. The policy shall include as insureds anyone liable for the conduct of an insured as described by policy provision or by endorsement added to the policy.

**107.13.4 Contractor's Pollution Liability (CPL) Insurance.** The Contractor performing excavation, remediation, hazardous materials removal, or any other work involving potential pollution arising from construction operations shall procure and maintain contractor's pollution liability insurance for liability arising out of sudden, accidental, and gradual pollution and remediation. The policy shall have minimum limits of \$1,000,000 and the Commission, MoDOT and its employees shall be endorsed as additional insureds under such policy. The policy shall provide coverage for the hauling of waste from the project site to the final disposal location, including non-owned disposal sites. Products/completed operations coverage for pollution liability insurance shall extend a minimum of three (3) years after final acceptance of the project. Coverage shall be included on behalf of the insured for covered claims arising out of the actions of independent contractors. If the insured is using subcontractors, the Policy must include work performed "by or on behalf" of the insured. Policy shall specifically provide for a duty to defend on the part of the insurer.

**107.13.5 Aircraft Liability Insurance.** If aircraft, including unmanned aircraft, will be used on the project, Contractor shall provide, or cause to be provided, aircraft liability insurance protecting against claims for damages resulting from such use in all cases where any aircraft that is owned, leased or chartered by any Contractor-Related Entity used on the Project. The policy shall have minimum limits of \$1,000,000 and the Commission, MoDOT and its employees shall be additional insureds on the policy by endorsement or policy provision. The use of any aircraft in performance of the Work, the aircraft crew, flight path and altitude, including landing of any aircraft on the Site or on any property owned by the Commission, MoDOT or other parties at interest, shall be subject to review and written acceptance by the Commission prior to any such usage. If any aircraft are leased or chartered with crew and/or pilot, evidence of non-owned aircraft liability insurance will be acceptable to meet these requirements but must be provided prior to use of the aircraft. For use of unmanned aircraft vehicles, the contractor may provide insurance either through an aircraft liability insurance policy, or by endorsement to the Contractor's commercial general liability insurance policy and excess liability policies. Use of unmanned aircraft must comply with all state and federal rules and regulations, including FAA requirements.

**107.13.6 Excess or Umbrella Liability Insurance.** The Contractor may satisfy the required limits for Secs 107.13.2 through 107.13.5 by use of excess or umbrella liability insurance policies in any combination that meets the contract limits requirements. Such policies shall include as insureds, the Missouri Highways and Transportation Commission (Commission), the Missouri Department of Transportation (MoDOT) and its employees.

**107.13.7 Workers' Compensation Insurance.** The Contractor shall provide evidence to the engineer that the Contractor has obtained workers' compensation insurance and employers liability insurance as required by the state or is exempt and provides proper documentation to the engineer. Coverage shall include all statutory workers' compensation benefits to Contractor employees who may sustain work-related injury, death or disease. If applicable, commensurate with the requirements of the U.S. Longshore and Harbor Workers' Compensation Act (USL&H) and the Jones Act, with a minimum limit of \$2,000,000 per occurrence and in the aggregate, or as may be specified by law, for each. The required insurance must be endorsed to include a waiver of subrogation in favor of the Commission, MoDOT and its employees.

**107.13.8 Railroad Protective Liability Insurance.** In addition to other forms of required insurance, the Contractor shall provide railroad protective liability insurance when any of the Contractor's work is to be performed within any railroad right of way and in some cases may be required when the project improvements are near a railroad right of way. The name or names of the railroad companies known to be in the vicinity of the contract improvements will be specified in each contract, but the contractor shall confirm the railroad companies impacted and the final insurance needed with each railroad. The minimum limits of the insurance indicated by each railroad to the Commission will be included in the contract bid documents for informational purposes, but the contractor shall be bound by each individual railroad company requirements. Each railroad agency has final determination in the content and coverage limits of the policies required. No work will be permitted within any railroad's right of way until the railroad involved has reviewed and approved the insurance policy. Any day upon which the Contractor cannot perform work due to such a policy not being approved by the railroad will not be counted as a contract day under [Sec 108.7](#).

**107.13.9 Evidence of Insurance.** Required evidence of insurance providing confirmation of compliance with these requirements shall consist of a certificate of insurance, an endorsement to any workers compensation policy waiving the subrogation by the insurer, and any endorsements adding the Commission, MoDOT and its employees as additional insureds where specified. "Blanket" or "automatic" additional insured endorsements providing additional insured coverage "where required by contract," may be used, provided that such forms provide coverage at least as broad as provided by the specified endorsement forms required. The contractor and any subcontract work shall not commence under the contract until the contractor obtains the applicable insurance coverage required and receives approval for such insurance from the engineer. All evidence of insurance for the prime contractor, including certificates of insurance and required endorsements, and notices shall be submitted electronically by the insurance agent to [ContractorSupport@MoDOT.mo.gov](mailto:ContractorSupport@MoDOT.mo.gov). The Contractor shall promptly furnish the engineer with a complete copy of its policy upon request. Failure to furnish evidence of proper insurance, or complete insurance policies when requested, may result in the suspension of work as provided in [Sec 108](#), and may result in other claims or actions for breach of contract or otherwise, as may be recognized at law or in equity.

**107.13.9.1 Work Performed by Subcontract.** Prior to its commencement of the applicable work, the contractor shall cause each of its subcontractors to provide insurance that complies with the requirements for contractor-provided insurance. Contractor's determination of such insurance shall not be interpreted as relieving Contractor or its insurer of any liability otherwise imposed on Contractor or its insurers under these Contract Documents. The Contractor shall promptly furnish the engineer with a complete copy of its subcontractor policies upon request. Failure to furnish evidence of proper insurance, or complete insurance policies when requested, may result in the suspension of work as provided in [Sec 108](#), and may result in other claims or actions for breach of contract or otherwise, as may be recognized at law or in equity.



### **107.13.10 Other Conditions and Requirements**

**107.13.10.1 Acceptability of Insurance Companies.** All insurers must be authorized to transact business under the laws of the State of Missouri and hold an AM Best rating of no less than A-: VI.

**107.13.10.2 Waiver of Right of Recovery.** All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against the Commission, MoDOT and its employees or shall specifically allow the Contractor, or others providing insurance evidence in compliance with these specifications, to waive their right of recovery prior to a loss. Contractor hereby waives its own right of recovery against the Commission, MoDOT and its employees.

**107.13.10.3 Enforcement of Contract Provisions (non estoppel).** Contractor acknowledges and agrees that any actual or alleged failure on the part of the Commission, MoDOT or its employees to inform Contractor of non-compliance with any requirement imposes no additional obligations on the Commission, MoDOT or its employees, nor does it waive any rights hereunder.

**107.13.10.4 Primary and Non-contributory.** For any claims related to this contract, the Contractor's insurance coverage shall be primary insurance with respects to the Commission, MoDOT and its employees as the additional insureds. Any other insurance or self-insurance maintained by any of these parties shall be excess of the Contractor's insurance and shall not contribute with the Contractor's insurance.

**107.13.10.5 Specifications not Limiting.** Requirements of specific coverage features, or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type.

**107.13.10.6 Notice of Cancellation and Change in Insurance Carrier.** Contractor agrees to oblige its insurance agent or broker, and insurers by endorsement to the policy, to provide to the engineer with thirty (30) days advance notice of cancellation, except for nonpayment for which ten (10) days' notice is required, or nonrenewal of coverage for each required coverage. If any policy is canceled or the insurance carrier is planned to change before the contract work is complete, a satisfactory replacement policy shall be obtained and in force, with notice and evidence of insurance submitted to the engineer, prior to the effective date of cancellation of the former policy.

**107.13.10.7 Self-insured Contractors and Self-insured Retentions.** A self-insured contractor will not be considered to comply with these specifications unless approved by the engineer prior to beginning work. A contractor with insurance policies arranged with self-insured retentions must be declared to and approved by the engineer prior to beginning work. The Commission reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible or other policy type.

**107.13.10.8 Timely Notice of Claims.** Contractor shall give the engineer prompt and timely notice of claims made or suits instituted that arise out of or result from Contractor's performance under this Agreement, and that involve or may involve coverage under any of the required liability

policies. The Commission and MoDOT will provide timely notice to the contractor of any claims or lawsuits that it receives. If the Commission demands that the contractor defend the suit and/or indemnify the Commission, the contractor or its insurance company shall acknowledge that demand within 20 days of receiving it and the contractor shall respond within a total of 45 days of the claim receipt the intent of the contractor to defend.

**107.13.10.9 Exhaustion of Policy Limits.** It shall be the contractor's responsibility to notify the engineer promptly when any provided insurance limits are not able to be maintained during the contract period or provide verification that additional coverage or excess coverage is also available.

**107.14 Cooperation in Defense.** The indemnified party shall cooperate with the indemnifying party in the defense of a third-party claim subject to the foregoing, (1) the indemnified party shall not have any obligation to participate in the defense of or to defend any third-party claim, and (2) the indemnified party's defense of or its participation in the defense of any third-party claim shall not in any way diminish or lessen its right to indemnification as provided in this section.

**107.15 Third Party Liability.** Neither the State of Missouri, including the Commission, nor the contractor, by execution of the contract including these specifications, intend to create a right of action in a third-party beneficiary, except as specifically set out in these specifications and the contract. It is not intended by any required contractual liability in the contract or in these specifications that any third-party beneficiary has a cause of action arising out of the condition of the project when completed in accordance with the plans and accepted by the Commission.

**107.16 Personal Liability of Public Officials.** There shall be no personal liability upon the Chief Engineer, or any member, employee, or agent of the Commission in carrying out any of the provisions of the contract or in exercising any power or authority granted to the individual, it being understood that in such matters the individual acts as an agent and representative of the State, with official and public duty doctrine immunity. If any provision of the contract appears to impose a duty on such an individual, the duty will remain exclusively that of the Commission and will not be a personal duty or obligation of the individual.

**107.17 Contractors That Are Not Resident In Missouri.** Any contractor that is not a permanent resident of or domiciled in Missouri shall provide to the Commission proof of compliance with the Missouri "nonresident employers" financial assurance laws at Sections 285.230 to 285.234, RSMo, before the contractor performs any work on a project.

**107.17.1** A nonresident contractor that is a "transient employer" as that term is defined in Section 285.230.1, RSMo, and 12 CSR 10-2.017(1)(A), shall file with the Commission a photocopy of the contractor's current transient employer's certificate of registration issued by the Missouri Department of Revenue before performing any work on a project. A nonresident contractor that is not classified by the Missouri Department of Revenue as a "transient employer" because the nonresident contractor has properly registered with the Missouri Department of Revenue and the Missouri Division of Employment Security, and has filed and paid Missouri state income taxes for more than 24 consecutive months, shall file with the Commission a photocopy of the contractor's certificate of registration, issued by the Missouri Department of Revenue, that it is not a "transient employer" before performing any work on a project.

**107.17.2** The contractor shall require a nonresident subcontractor to file with the Commission a photocopy of the subcontractor's current transient employer's or alternate certificate of

registration, as issued by the Missouri Department of Revenue, before that subcontractor performs any work on a project.

**107.17.3** Any nonresident contractor or subcontractor that fails to file the financial assurance forms with the Missouri Department of Revenue as required by Missouri law will be prohibited from contracting for or performing labor on any project for a period of one year.

**107.18 Basis of Payment.** No direct payment will be made for compliance with [Sec 107](#), except as provided by [Sec 618](#).

#### Buy America

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

**1.0 Description.** The Bipartisan Infrastructure Law (BIL) was enacted on November 15, 2021. The BIL includes Build America, Buy America Act Publication L. No. 117-58. This provision expands the Buy America requirements beyond what is currently only required for steel and iron products. The steel and iron provisions have not changed with the new bill. Cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives are excluded from this requirement. All other materials and manufactured products permanently incorporated into the project will be subject to Buy America requirements. There are three categories requiring Buy America Certification:

- g) Iron and steel – no changes to the current specification requirements.
- h) Manufactured products – these are currently exempted under the 1983 waiver from FHWA.
- i) Construction materials consisting primarily of:
  - Non-ferrous metals;
  - Plastic and polymer-based products (including polyvinylchloride, composite build materials, and polymers used in fiber optic cables);
  - Glass (including optic glass);
  - Lumber; or
  - Drywall

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

**1.2** New items designated as construction materials under this requirement will require the prime contractor to submit a material of origin form certification prior to incorporation into the project. The Certificate of Material origin form ([link to certificate form](#)) from the supplier and/or fabricator must show all steps of the manufacturing being completed in the United States. The Certificate of Material form shall be filed with the contract documents.



**1.3** Any minor miscellaneous construction material items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. The certification shall read "I certify all materials permanently incorporated in this project covered under this provision have been to the best of my knowledge procured and all manufactured domestically." The certification shall be signed by an authorized representative of the prime contractor.

**1.4** The National Transportation Product Evaluation Program (NTPEP) compliance program verifies that some non-iron and steel products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and an acceptable standard per 23 CFR 635.410(d). NTPEP compliant suppliers will not be required to submit step certification documentation with the shipment for some selected non-iron and steel materials. The NTPEP compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.

**2.0 Basis of Payment.** Any costs incurred by the contractor by reason of compliance with the above requirements shall be considered as included in and completely covered by the unit price bid for the various items of work included in the contract.

***Delete Sec 617.20.3 and substitute the following:***

**617.20.3 Certification.** Prior to use the contractor shall submit to the engineer a manufacture's certification of crashworthiness per NCHRP 350 or MASH 2016 for portable concrete barrier or other approved temporary barrier. Type F three-loop temporary concrete barrier is required to meet NCHRP 350 requirements regardless of manufacturing date and may be used until January 1, 2030. All other temporary barriers manufactured prior to January 1, 2023 may be used until January 1, 2030. All other temporary barriers manufactured after January 1, 2023 shall meet MASH 2016 crash test requirements.

***Delete Sec 1063.2 and substitute the following:***

**1063.2 General Requirements.** All temporary traffic control devices shall be manufactured as shown on the plans and as specified, in accordance with MUTCD requirements and shall be NCHRP 350 or MASH 2016 compliant. FHWA Category 1 temporary traffic control devices are not required to be crash tested unless modified. Non MASH 2016 FHWA Category 2 temporary traffic control devices and appurtenances manufactured prior to January 1, 2023 may be used until January 1, 2026. Non MASH 2016 FHWA Category 3 temporary traffic control devices and appurtenances manufactured prior to January 1, 2023 may be used until January 1, 2030. All other FHWA Category 2 and Category 3 temporary traffic control devices and appurtenances manufactured after January 1, 2023 shall meet MASH 2016 Test Level 3 crash test requirements. Type F three-loop temporary concrete barrier is required to meet NCHRP 350 requirements regardless of manufacturing date and may be used until January 1, 2030. MASH 2016 FHWA Category 4 temporary traffic control devices should be used when available. Nominal dimensions will be permitted for dimensional lumber where applicable. All temporary traffic control devices shall exhibit good workmanship and shall be free of objectionable marks or defects that affect appearance or serviceability. The brand name or model number shall be permanently identified on each traffic control device.

Alternate Weather Limitations for Plant Mix Bituminous Surface Leveling

**1.0 Description.** Weather limitations for Plant Mix Bituminous Surface Leveling mixtures shall be as specified in Sec 402.10.1 except as otherwise allowed herein.

**1.1** When all remedial actions listed in Section 2.0 have been implemented by the contractor, at no additional cost to the Commission, the alternate weather limitations in Section 1.2 shall apply in lieu of Sec 402.10.1

**1.2 Alternate Weather Limitations.** Bituminous mixtures shall not be placed (1) when either the air temperature or the temperature of the surface on which the mixture is to be placed is below 40 F, or (2) on any wet surface or frozen pavement. Temperatures shall be obtained in accordance with MoDOT Test Method TM 20.

**2.0 Remedial Actions.**

- a) Reclaimed Asphalt Pavement (RAP) content in the mix does not exceed 20% asphalt binder replacement.
- b) No Reclaimed Asphalt Shingles (RAS) are added to the mix.
- c) A material transverse vehicle is utilized to transfer the mix from the haul trucks to the paver.
- d) Warm mix technology shall be incorporated into the mix (either by chemical additive or foaming), as approved by the engineer.

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

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

Natalie Roark, P.E., Project Contact  
Central Office  
830 MoDOT Dr.  
Jefferson City, MO 65101

Telephone Number: (573) 526-4316  
Email: [natalie.roark@modot.mo.gov](mailto:natalie.roark@modot.mo.gov)

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

**F. Emergency Provisions and Incident Management JSP-90-11A**

**1.0** The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from law enforcement 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 law enforcement or other emergency agencies immediately as needed. The area engineer's office shall also be notified when the contractor requests emergency assistance.

**2.0** The contractor shall call the 911 emergency telephone number for ambulance, fire or police services for accidents or emergency situation within the project limits.

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

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

G. Liquidated Damages for Winter Months JSP-04-17A

Delete Sec 108.8.1.3 (a)

Liquidated damages for failure to complete the work on time shall not be waived from December 15 to March 15, both dates inclusive.

H. Contract Time for Completion of Work

**Delete Sec 108.7 and substitute the following:**

**108.7 Contract Time for Completion of the Work.** The time for the completion of the work is specified by calendar days. Time is an essential element of the contract, and it is therefore important that the work be pursued vigorously to completion.

**108.7.1 Completion by Calendar Days.** The contractor shall complete all work described in each work order within thirty (30) calendar days of the notice to proceed date.

**108.7.2 Contract Time Extension for Change in the Work.** If a change in the work on a work order is ordered by the engineer, the contractor will be allowed an extension of contract time when it can be established that the additional work required more time. In such cases, the actual time required, as determined by the engineer, will be allowed.

**108.7.3 Contract Time Extension for Traffic Control Restrictions.** If a traffic control time restriction ordered by the engineer changes the contractor's work schedule on a work order, the contractor will be allowed an extension of contract time on that work order item when it can be established that the restriction prevented the contractor from performing the work within the contract time. In such cases, the actual restriction time, as determined by the engineer, will be allowed.

**108.7.4 Contract Time Extension for Unsuitable Weather.** The contractor will not be entitled to any extension of contract time because of unsuitable weather conditions unless authorized in writing by the engineer as an excusable, non-compensable delay under Sec 108.14.1.

I. Notice to Proceed

**Delete Sec 108.2 and substitute the following:**

**108.2 Notice to Proceed.** For each work 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 the third day following issuance of the work order, exclusive of Saturdays, Sundays, and holidays. The notice to proceed starting on the third day is an allowance for processing the work order and scheduling the work.

J. Nighttime Repair Operations

**1.0** If the engineer determines traffic volumes are such that work cannot be performed during the daytime without significant traffic impacts, the work order will specify nighttime repair operations. For the purposes of this contract, nighttime hours shall be 7:00 p.m. to 6:00 a.m.

**2.0** If nighttime hours are specified in the work order, the contractor shall provide the necessary lighting and take the necessary precautions to protect the workers and work from harm. Lighting shall be positioned so as not to impair the vision of any drivers, or unnecessarily illuminate private residences.

**3.0** If the work order does not otherwise restrict nighttime hours, the contractor may, with the approval of the engineer, perform some or all of the repair operations during nighttime hours. No payment will be made for nighttime operations or any additional traffic control devices required for nighttime operations.

K. Payment

**Delete Secs 109.7 - 109.9.2 and substitute the following:**

**109.7 Partial Payments.**

**109.7.1** The contractor shall request payment by submitting a monthly invoice to the engineer. The invoice shall be for the work orders completed in the previous month and shall be itemized by work order number. A monthly summary of all contract items used, contract unit prices, and total cost shall be included with the invoice.

**109.7.2** The engineer will make monthly payment estimates in writing of the work orders completed and final inspected during the previous month and the value thereof at the contract unit prices. The monthly estimates will include deductions from the contractor's invoice for any liquidated damages applicable to any of the work orders. Payment will be made and time of the payment will be based upon the engineer's estimate.

L. Liquidated Damages

**1.0** The Bidder shall agree and understand that providing the lifting, aligning, and undersealing concrete bridge approach slabs and rigid pavements in accordance with the requirements stated herein is considered critical to the efficient operations of MoDOT. However, since the amount of actual damages would be difficult to establish in the event the Bidder fails to comply with the contractual requirements, the Bidder shall agree and understand that the amount identified below as liquidated damages shall be reasonable and fair under the circumstances.

**1.1** In the event the Contractor fails to provide the specified services for lifting, aligning, and undersealing concrete bridge approach slabs and pavements in accordance with the contractual

requirements specified herein, the Contractor shall be assessed liquidated damages in the amount of \$500 per day for each such delinquent day. Materials that do not meet specifications will require all of the rejected materials to be removed at the Contractor's expense. Materials not removed by the Contractor will result in liquidated damages being charged in the amount of \$500.00 per day for each day the rejected materials are not removed.

**1.2** The Contractor shall further agree and understand that such liquidated damages shall either be deducted from the total amount due the Contractor or paid by the Contractor as a direct payment to MoDOT, at the sole discretion of MoDOT.

M. Invoicing and Payment Requirements

**1.0** The Contractor shall submit an itemized invoice to the applicable requesting address for the completion of services, as specified herein.

**1.1** Each invoice should be itemized in accordance with items listed on the purchase order and/or contract. The statewide financial management system has been designed to capture certain receipt and payment information. Therefore, each invoice submitted must reference the purchase order number and must be itemized in accordance with items listed on the purchase order. Failure to comply with this requirement may delay processing of invoices for payment.

**1.2** The Contractor shall be paid in accordance with the firm, fixed prices stated on the pricing page(s) of this document after completion of services specified herein and acceptance by MoDOT. Payment shall be made for actual pounds of slab lifting urethane foam, as bid for each applicable District location, installed in satisfaction of each task order.

**1.3** Other than the payment specified above, no other payments or reimbursements shall be made to the Contractor for any reason whatsoever.

**1.4** MoDOT is exempt from paying Missouri Sales Tax, Missouri Use Tax and Federal Excise Tax.

**1.5** Unless otherwise provided for in the solicitation documents, payment for all equipment, supplies, and/or services required herein shall be made in arrears. The Missouri Highways and Transportation Commission (MHTC) shall not make any advance deposits.

**1.6** The MHTC assumes no obligation for equipment, supplies, and/or services shipped or provided in excess of the quantity ordered. Any unauthorized quantity is subject to the MHTC's rejection and shall be returned at the contractor's expense.

**1.7** The MHTC reserves the right to purchase goods and services using the state-purchasing card.

N. Term of Contract

**1.0** The term of this contract shall be for the period commencing **June 22, 2023** and ending **June 30, 2024**, subject to its possible extension for three (3) additional years.

**1.1** Any work already ordered or in progress when the contract term ends shall be completed in accordance with the provisions of this contract, even though no new work can then be ordered under this contract. That work shall be completed in the time period provided elsewhere in this contract, for the fees and rates provided in this contract, or liquidated damages will be assessed against the contractor in accordance with the provisions of this contract.

**2.0** The contract may be extended three times under the original terms with modified contract quantities and pricing mutually agreed upon by both parties for a **maximum contract term of four (4) years**. If, in the sole discretion of the Commission, the Commission desires to extend the contract, the contractor will be given written notification of the extension. The contractor shall provide the Project Contact written notification of acceptance or rejection of the extension of this contract within two (2) weeks of receiving the written notification from the Commission. In the event the Contractor requests a price increase with the contract extension, the Contractor must provide a written request and documentation justifying the need for a price increase, and the amount of such price increase. The Project Contact will review the Contractor's written request with documentation and decide if a price increase is to be granted. If both parties do not agree on the terms of the price increase, the contract will not be extended. If the option for extending the contract is exercised by the Commission, a time adjustment change order will be issued by the Commission to extend the contract to the new term limits.

**3.0 Non-Exclusivity:** The Commission reserves the right to obtain like or similar services of this or other providers when use of such services is deemed in the best interest of the Commission.

O. Environmental Requirements

**1.0 Description.** This Job Special Provision provides notes on a variety of environmental protection measures required for various job order contracting activities. Please follow EPG guidance on recommended work practices, as well as the specific notes provided in this document. These notes apply throughout the entire state, except for the T&E Species Guidance – Cave Recharge Areas section, which applies to cave recharge areas in nine counties across southern Missouri (Greene, Jasper, Lawrence, Newton, Christian, Barry, Stone, Perry, and Taney Counties).

**2.0 Restrictions.** The following restrictions will ensure that MoDOT adheres to all environmental regulations as required by federal law.

**2.1 Tree Clearing.** Due to bat tree management requirements, no tree clearing is permitted for any activity, without prior coordination with MoDOT Environmental.

**2.2 Spill Reporting.** Follow EPG general guidance on spill containment/reporting. Standard spill reporting includes contacting Central Office Hazardous Waste and other Environmental Specialists.

**2.3 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.

**2.4 Repairs on or near Bridges.** 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 fencing, 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.

Work shall not be allowed below the ordinary high water elevation. Personnel shall not drive or place any equipment in any waterway. Coordination with the Design - Environmental Section, and permitting and consultation with regulatory agencies, is required prior to any proposed activity below ordinary high water elevation.

Petroleum products, paint, other chemicals and construction debris shall 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 Spill Reporting Procedures, above. These numbers shall be readily available on the job site at all times and the Personnel or their Supervisors shall be responsible for immediate reporting in the event of a spill.

**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.

P. Restrictions for Migratory Birds NJSP-16-06A

**1.0 Description.** Swallows or other bird species protected by the Migratory Bird Treaty Act may be nesting under the bridge or bridges that will be repaired under this contract.

**2.0 Restrictions.** To comply with the Migratory Bird Treaty Act, nests of protected species cannot be disturbed when active (eggs or young are present). Generally, nests are active between April 1 and July 31, but active nests can be present outside of these dates.

**2.1 MoDOT to Maintain Prior to the Notice to Proceed.** The bridge, or bridges, associated with the work for this contract have been evaluated and any inactive nests found have been removed by MoDOT staff. MoDOT staff will maintain the structures to be free of nests until the Notice to Proceed date. At the notice to proceed, the contractor shall be responsible to maintain the structures to be free of nests until the work on the applicable bridge, or bridges, is complete.

**3.0 Avoidance Measures.** The contractor shall not disturb active nests or destroy adults, eggs or young birds. In an effort to comply with the Migratory Bird Treaty Act, the contractor operations will be limited to the options established in the following sections.

**3.1 Inactive or Partially Constructed Nests.** If nests are present and MoDOT determines that the nests are inactive or partially constructed, the contractor may remove the nests provided that the colony's inactive or partially constructed nests are completely removed by March 15 and the contractor maintains a nest free condition until the bridge work is complete. Dry removal methods shall be used when practicable. If dry removal is not practicable, hydro cleaning may be used if approved by the Engineer and only if water is free of blasting grit, chemicals, or detergents, and applied using pressure less than 5,000 PSI. Clean water such as that from municipal water treatment plants or wells shall be used. Use of source water from Waters of the State (i.e., streams or lakes), is allowable, if the appropriate methods to prevent the possible spread of invasive aquatic species are implemented.

**3.2 Water and Equipment Used for Hydro cleaning.** Aquatic invasives such as zebra mussels and some algae species have infested several bodies of water in the United States and can be transported by vessels (barges, boats, tugs, tankers, etc.) and equipment (tanks, tubing, pumps, etc.) that have been used in areas that contain these invasive species. If equipment is not properly inspected and treated to prevent the spread of invasives, these species can be introduced into areas not currently known to have a population. These invasive species are detrimental to existing ecosystems and can outcompete native species. To assist in preventing the introduction and spread of aquatic invasive species through MoDOT projects in Missouri streams and lakes, the following precautions shall be followed.

**3.2.1 Use of Water from Streams, Lakes or Ponds.** Contractors shall not use water for nest removal from streams, lakes or ponds, unless they have implemented appropriate methods to prevent the possible spread of invasive aquatic species. Water sources from municipal water treatment plants or wells may be used without following these measures provided the equipment to be used has not previously contained waters from streams, lakes or ponds. If the equipment has previously contained waters from other streams or lakes, the following measures must be implemented prior to use.

**3.2.1.1 Equipment Washing.** Prior to the use or re-use of equipment following any use with water from streams, lakes or ponds, all equipment shall be washed and rinsed thoroughly with hard spray (power wash) and hot (minimum 120° F) water, for at least one minute.

**3.2.1.2 Equipment Treating or Drying.** Equipment shall be treated or dried in one of the following manners.

**3.2.1.2.1** Equipment interior and/or other surfaces shall be treated with a 10% bleach solution to kill any aquatic nuisance species. This solution must also be run through all intake lines and hoses, to sterilize interior components. When chlorine treatment is used, all chlorine runoff from equipment washing must be collected and properly treated and/or disposed of in accordance with Sec 806.

**3.2.1.2.2** Equipment interior and/or other surfaces shall be treated with 140° F water for a minimum of 10 seconds contact on all surfaces. 140 ° F water must also be run through all intake lines and hoses, to purge any standing water.

**3.2.1.2.3** Equipment shall be flushed of all non-municipal water, and dried thoroughly, in the sun before using in or transporting between streams and lakes. Dry times will depend on the season the equipment is being used. Equipment must dry a minimum of 7 days for June-September, 18 days for March-May; 18 days for October-November, and 30 days for December-February. The drying method should be reserved as a last resort option.

**3.2.2** Prior to use of equipment, contractors shall provide the MoDOT inspector written documentation of the equipment's geographic origin (including the water body it was last used in), as well as defining the specified treatment method used to adequately ensure protection against invasive species. The written documentation will include a statement indicating the contractor is aware of these provisions and will also treat the equipment appropriately after completion of the project.

**3.3 Active Nests.** The contractor may work on the bridge if active nests are present, as long as the work does not impact or disturb the birds and/or nests. At a minimum, work shall not be



performed within 10 feet of an active nest; however, the contractor is responsible for ensuring their activities do not impact the nests, eggs, or young.

**4.0 Additional Responsibilities.** If active bird nests remain after all reasonable avoidance measures have been taken, or if bird nests are observed during project construction, the contractor shall notify the Resident Engineer and contact the MoDOT Environmental Section (573-526-4778) to determine if there are other allowable options.

Q. Sensitive Streams or Waterbodies near Project Area

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

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

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

R. Protection Measures for Recharge Areas of Protected Species

**1.0 Description.** Portions of this project area include designated Ozark cavefish and Tumbling Creek cave snail 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 below the "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 following:

Missouri Department of Natural Resources 573-634-2436

United States Fish and Wildlife Service:

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.

**2.1.1 Bridges.** 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.** The contractor 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 below the "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 following:

Missouri Department of Natural Resources 573-634-2436

United States Fish and Wildlife Service:

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.

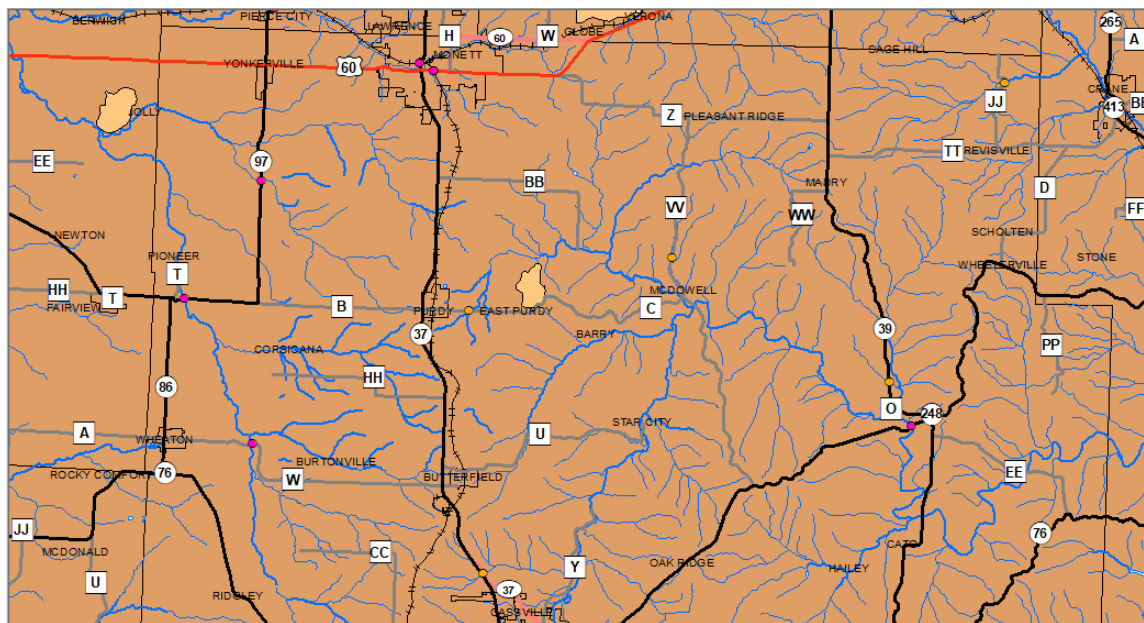
**2.4 Erosion Control.** Erosion control measures shall be implemented in order to reduce suspended solids, turbidity and downstream sedimentation that may enter the ecosystem of any cave, surface water, or ground water sink. MoDOT will ensure strict adherence to the design, placement and maintenance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

Pollution refers to sedimentation and contamination. As described above, MoDOT has a State Operating Permit and a Pollution Prevention Plan 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 Pollution Prevention Plan shall be implemented throughout the duration of the project.

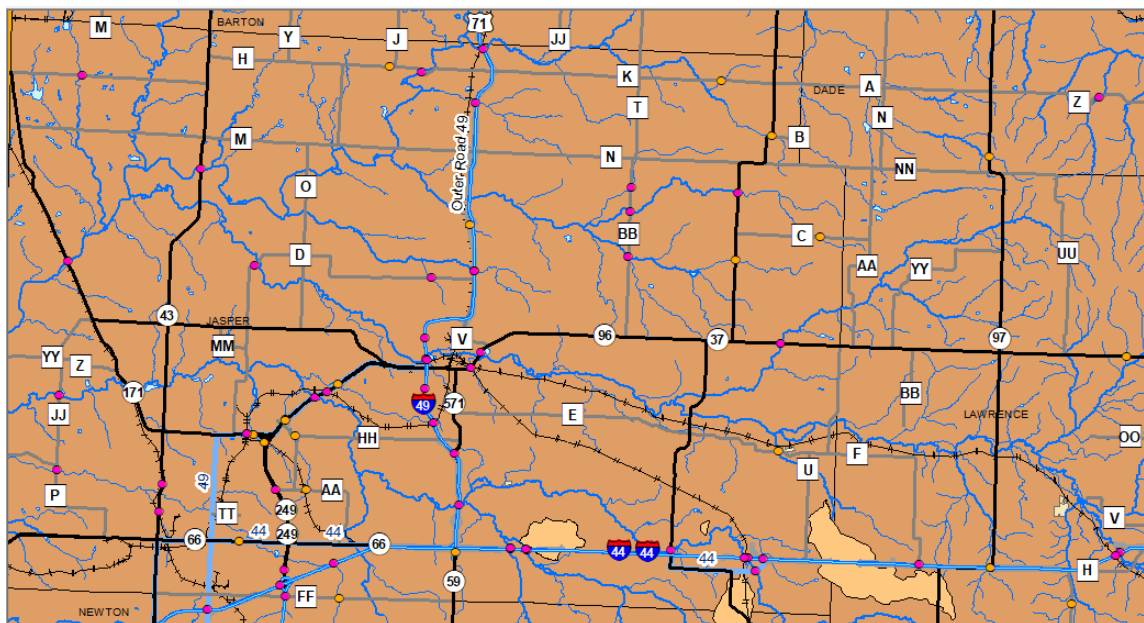
**2.5 Weather Requirements.** To eliminate/minimize the potential for contamination of the groundwater system, no operations shall be performed within designated recharge areas if it is raining or if the National Weather Service forecast is predicting any form of precipitation within ten (10) hours after the proposed completion time of the operation.

**2.5.1 Temperature Requirements.** 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.



Newton County Recharge Area 2021

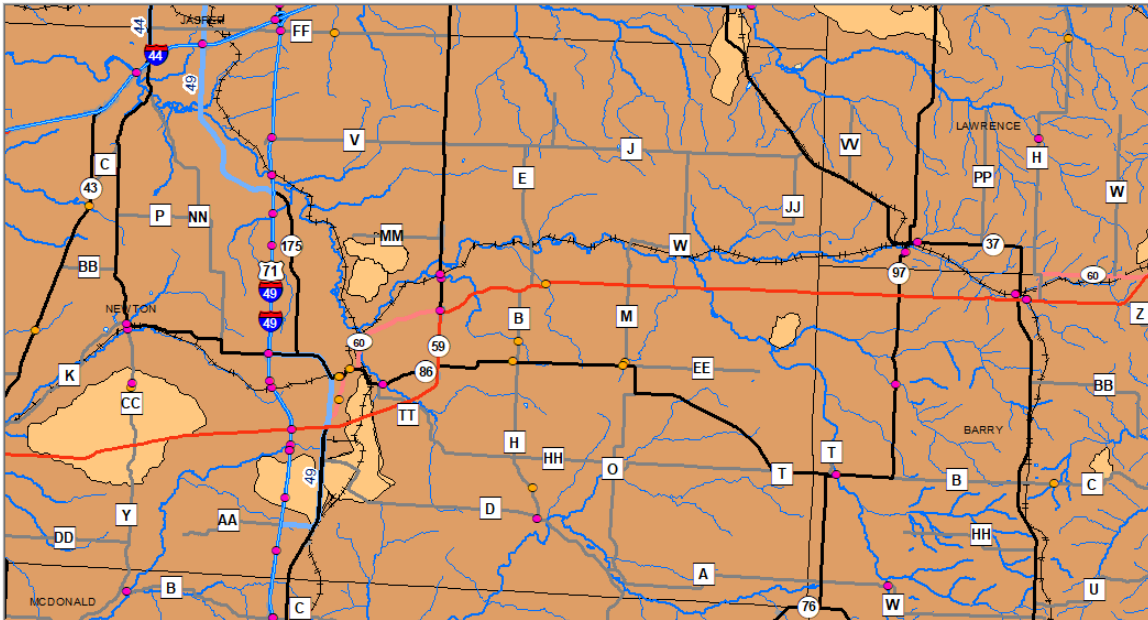


Jasper County Recharge Area 2021

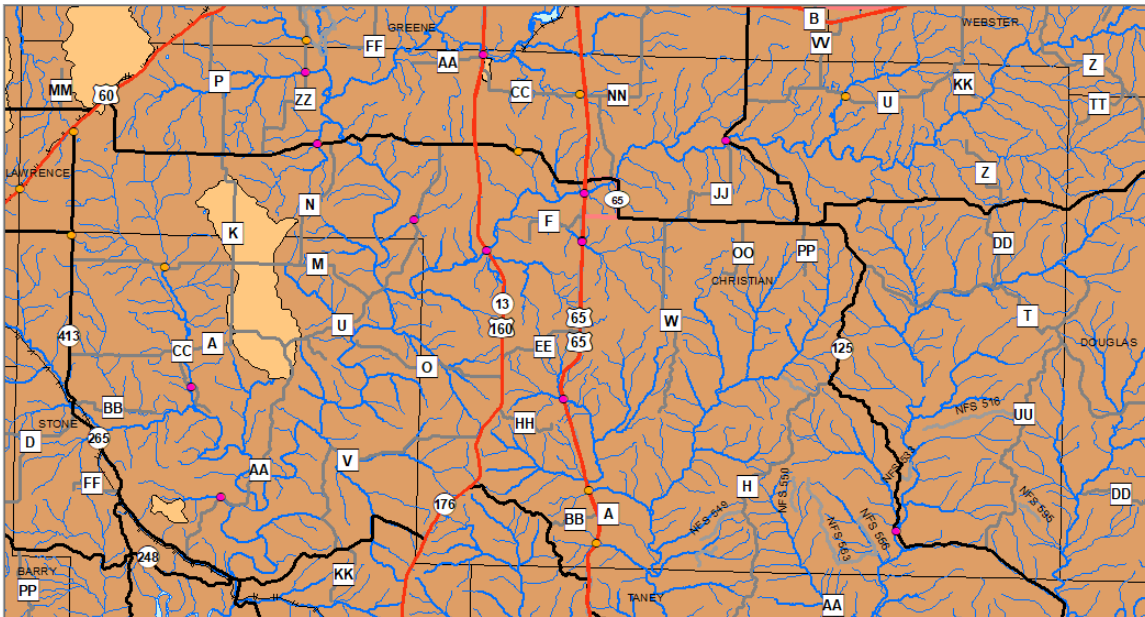
Job No.: JSTM0036

Route: Various

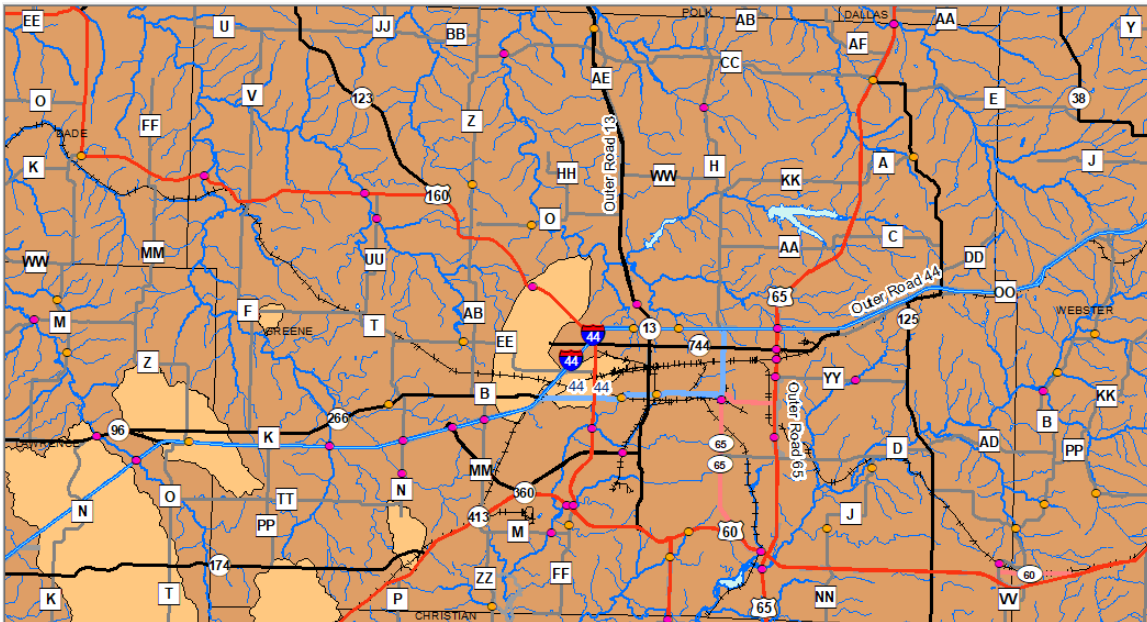
County: Various



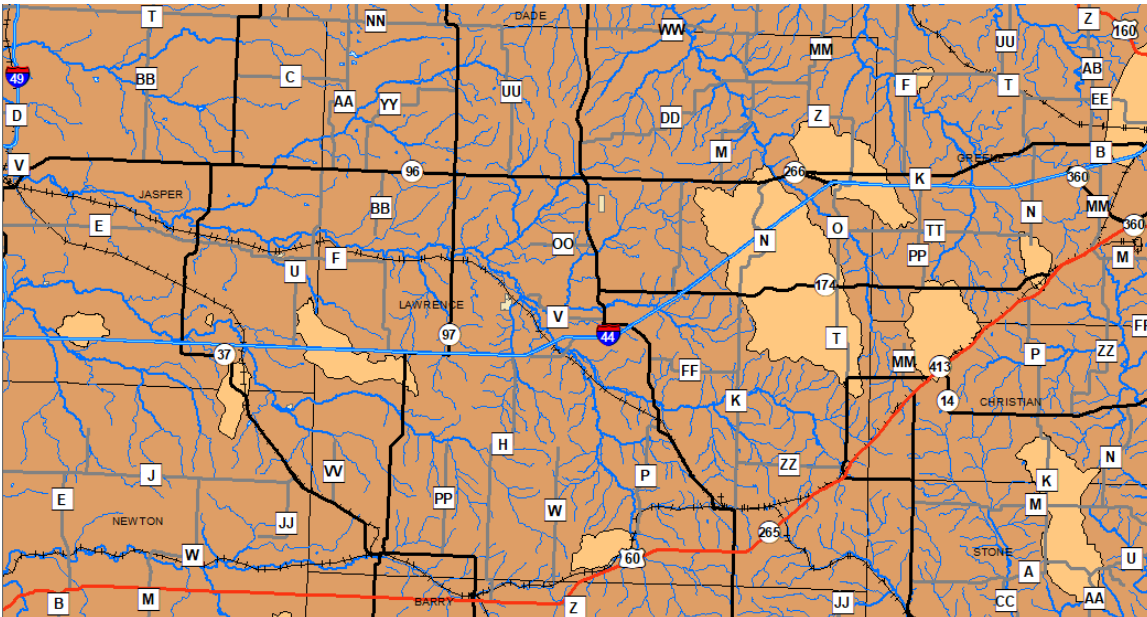
Barry County Recharge Area 2021



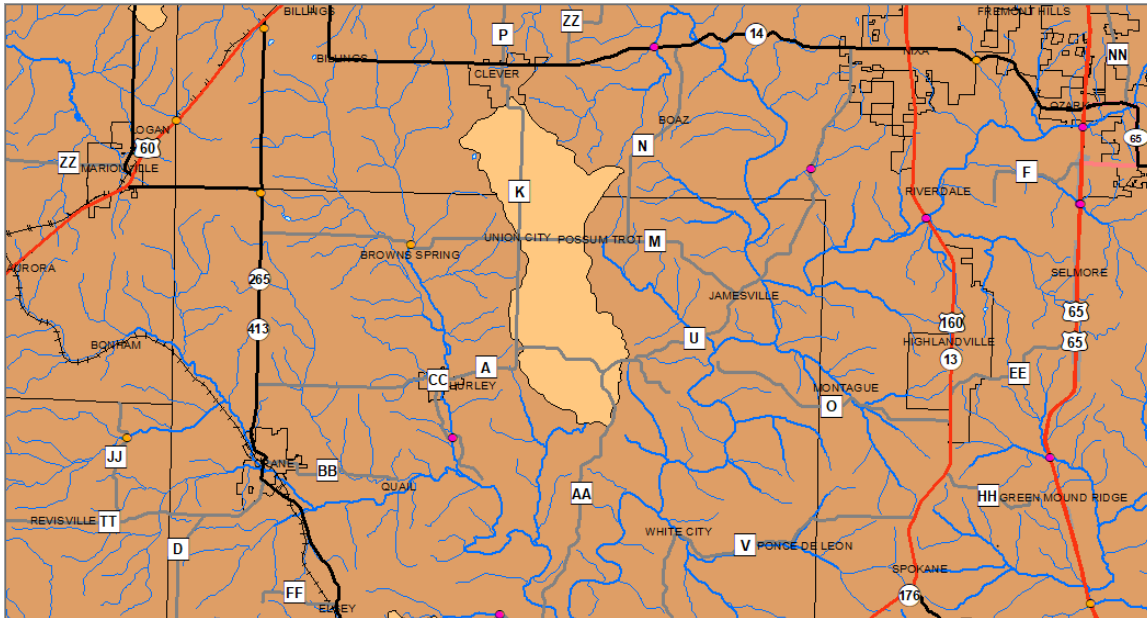
Christian County Recharge Area 2021



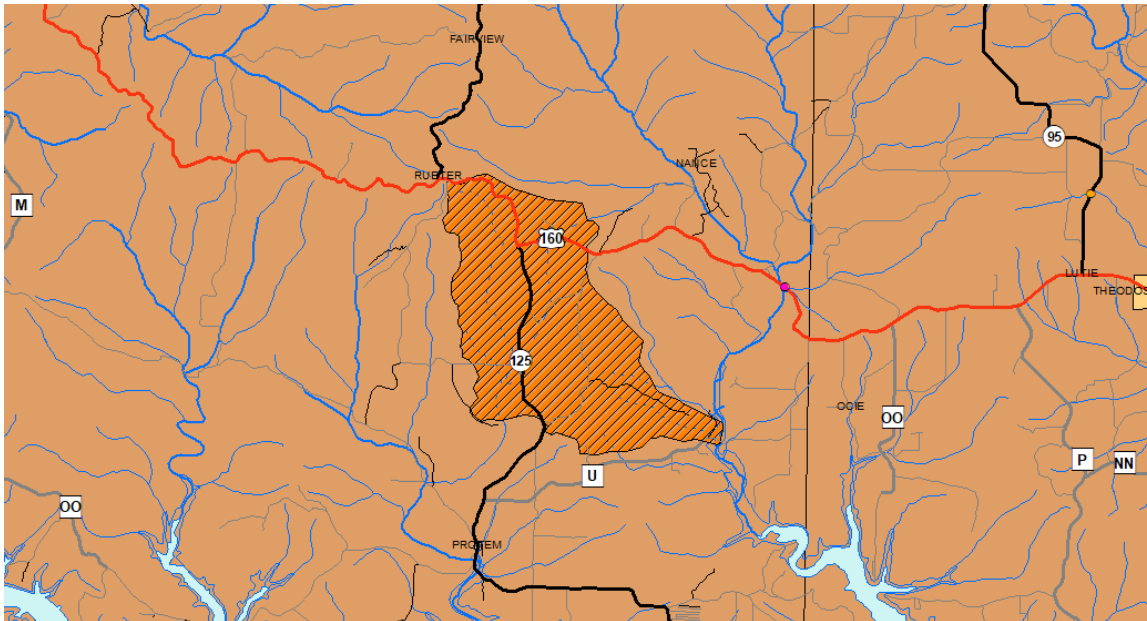
Greene County Recharge Areas 2021



Lawrence County Recharge Areas 2021



Stone County Recharge Areas 2021



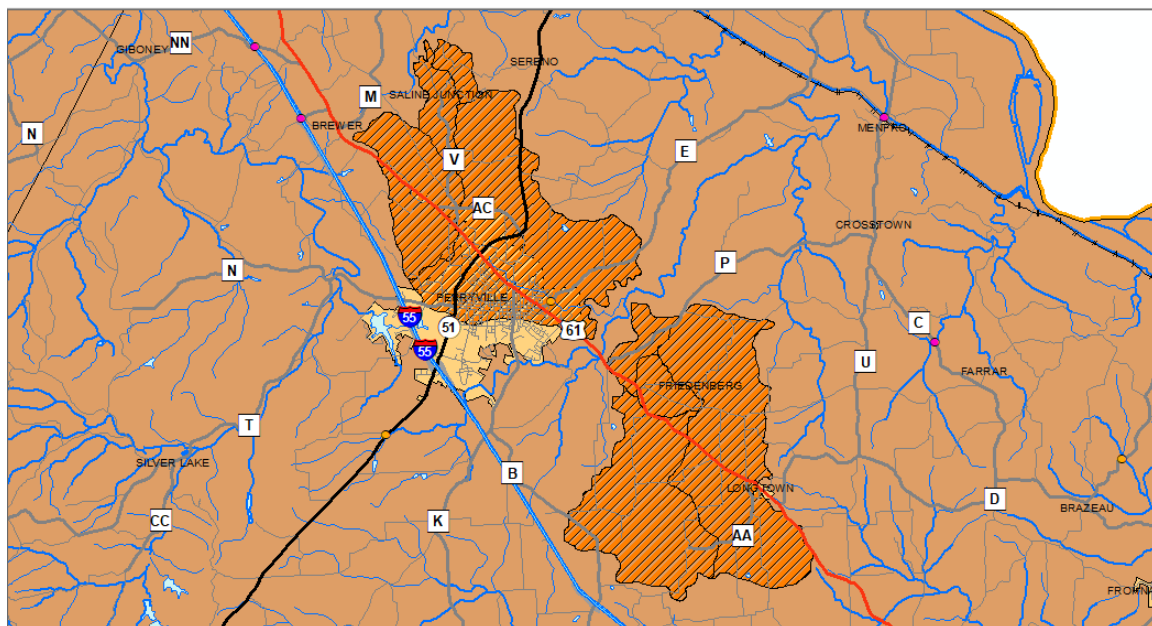
Taney County Recharge Area 2021



Job No.: JSTM0036

Route: Various

County: Various



Perry County Recharge Area 2021



## HAZARDOUS WASTE AND ENDANGERED SPECIES CONTACTS

Updated 2/18/2022

### 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”** ([spillreporting@modot.mo.gov](mailto:spillreporting@modot.mo.gov)).

#### Contacts for Hazardous Waste:

- 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)
- **Kyle Grayson**, Environmental Compliance Manager: 573-526-5648 (office), 573-508-3255 (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), 573-508-2205 (cell)
- If Bree is unavailable:
  - **Chris Shulse**, Environmental Compliance Manager: 573-526-6678 (office), 573-406-2207 (cell)
  - **Kyle Grayson**, Environmental Compliance Manager: 573-526-5648 (office), 573-508-3255 (cell)
  - **Melissa Scheperle**, Environmental and Historic Preservation Manager: 573-526-6684 (office), 573-508-2848 (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)

For the **Tumbling Creek Cave area**, the primary contact/local owner is:

- **Tom Aley**, Ozark Underground Lab, Protom MO: 417-785-4289

## Missouri Department of Transportation Hazardous Waste Contact Information

Manager: Melissa Scheperle (Melissa.Scheperle@modot.mo.gov, 573-526-6684)



<u>District</u>	<u>Contact Specialist</u>	<u>Email Address</u>	<u>Phone</u>
1 - NW - Northwest	Kevin Kelly	Kevin.Kelly@modot.mo.gov	573-526-2904
2 - NE - Northeast	Kevin Kelly	Kevin.Kelly@modot.mo.gov	573-526-2904
3 - KC - Kansas City	Ethan Musick	Ethan.Musick@modot.mo.gov	573-522-5562
4 - CD Central District	various	various	
5 - SL - St. Louis	Andy Stivers	Andy.Stivers@modot.mo.gov	573-526-3599
6 - SW - Southwest	Ethan Musick	Ethan.Musick@modot.mo.gov	573-526-5562
7 - SE - Southeast	Andy Stivers	Andy.Stivers@modot.mo.gov	573-526-3599

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