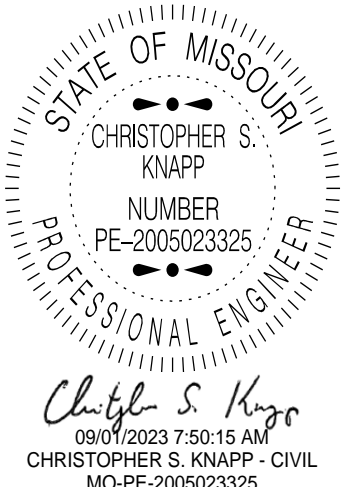


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(Job Special Provisions shall prevail over General Special Provisions whenever in conflict therewith.)

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Job No. JNE0143
Routes I-70, 61
Montgomery, Lincoln,
Warren Counties

| | |
|--|---|
|  09/01/2023 7:50:15 AM CHRISTOPHER S. KNAPP - CIVIL MO-PE-2005023325 | MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636 |
| | If a seal is present on this sheet, JSP's have been electronically sealed and dated. |
| | JOB NUMBER: JNE0143 MONTGOMERY, WARREN LINCOLN COUNTIES, MO DATE PREPARED: 8/31/2023 |
| | ADDENDUM DATE: |
| Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: ALL | |

JOB
SPECIAL PROVISIONS

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 under "Doing Business with MoDOT", "Contractor Resources". Effective Wage Rates will be posted 10 days prior to the applicable bid opening. These supplemental bidding documents have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

1.2 The following documents are available on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to July 2023 Missouri Standard Plans
For Highway Construction

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

B. Project Contact for Contractor/Bidder Questions

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

Christopher Knapp
Transportation Project Manager – NE District
Phone: (573) 248-2586
Email: christopher.knapp@modot.mo.gov

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

Lincoln Keen
Assistant Construction & Materials Engineer – NE District
Phone: (660) 341-4384
Email: lincoln.keen@modot.mo.gov

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

C. Scope of Work

1.0 The scope of work for this project is to provide concrete pavement repair on an as needed basis in response to sudden occurrences, such as physical damage by the elements, or as a result of wear and tear. The work will be prescribed through individual Job Orders issued to the contractor by the engineer for each work location.

2.0 A work location for this contract shall be limited to a 2-mile section of roadway. A 2-mile section shall be defined as 2 miles in one direction on a divided highway or 2 miles in both directions on an undivided highway.

3.0 The project limits for the work will be along the following Interstate Routes and Counties: I-70 in Montgomery and Warren Counties and US 61 in Lincoln County.

4.0 Job Orders will only be issued for work to be performed from April 1 to November 30, unless otherwise mutually agreed upon between the contractor and the engineer.

5.0 The Commission is not bound to issue a minimum or maximum number of Job Orders during the contract term. It is the intent, however, to meet the anticipated budget, as noted elsewhere within this proposal. Award of contract does not guarantee any Job Orders during the duration of the contract.

D. Job Order Contract

1.0 A Job Order Contract is an indefinite quantity contract pursuant to which the contractor shall perform the work itemized in a Job Order at individual work locations throughout the project limits. The contractor shall perform all tasks itemized in the Job Order.

2.0 The engineer will identify the required work at an individual work location in collaboration with the contractor at a Joint Scope Meeting. The engineer will provide the contractor with a draft Detailed Scope of Work which the contractor shall review. Once the detailed Scope of Work is agreed upon, the engineer will issue a Job Order to the contractor. At any given time the contractor may be performing more than one Job Order.

3.0 The contract includes a list of fixed cost pay items with fixed unit prices. Payment for the work will be determined by multiplying the fixed unit prices by the Adjustment Factor. The

contractor shall bid the Adjustment Factor to be applied to the fixed unit prices. The total cost of an individual Job Order will be determined by multiplying the fixed unit price of each fixed cost pay item by the Adjustment Factor.

4.0 Definitions.

4.1 Detailed Scope of Work. A written document that sets forth the work the contractor is obligated to perform in connection with a particular Job Order.

4.2 Job Order. A written order from the engineer to the contractor directing the work required at an individual work location in accordance with the Detailed Scope of Work within the Job Order Completion Time.

4.3 Job Order Completion Time. The time within which the contractor must complete the Detailed Scope of Work for a particular Job Order.

4.4 Fixed Cost Pay Item. Work for which a description and fixed cost is set forth in the fixed cost pay item list.

4.5 Non-Fixed Cost Pay Item. Work for which a description and fixed cost is not set forth in the pay item list. Payment for non-fixed cost pay items will be determined in accordance with Sec 109.4.2, 109.4.3, or 109.4.4. Non-fixed cost pay items will be paid using an Adjustment Factor of 1.000.

E. Procedures for Developing a Job Order

1.0 Initiation of a Job Order. The engineer will notify the contractor of a potential Job Order by issuing a Notice of Joint Scope Meeting. The notification will be issued by electronic mailing, unless the engineer approves other arrangements. The contractor shall confirm receipt of all job orders by the same means as issued.

1.1 The contractor shall attend the Joint Scope Meeting and be prepared to discuss, at a minimum:

- a. The general scope of the work;
- b. Existing conditions, presence of waterways, wetlands, or other natural resources;
- c. Presence of hazardous materials;
- d. Methods and alternative for accomplishing the work;
- e. Access to the site;
- f. Staging area availability/location;
- g. Requirements for catalog cuts, technical data, samples and shop drawings;
- h. Requirements for professional services, including sketches, drawings, and specifications;
- i. Hours of operation;
- j. Anticipated working days and schedule;
- k. Liquidated damages;
- l. Specific quality requirements for equipment and material;
- m. List of anticipated Subcontractors and Material Suppliers.

1.2 Upon completion of the joint scoping process, the engineer will prepare a draft detailed Scope of Work referencing any sketches, drawings, photographs, and specifications required to document accurately the work to be accomplished. The contractor shall review the proposed detailed Scope of Work and request any desired changes or modifications thereto. When an acceptable detailed Scope of Work has been completed, the engineer will issue a Draft Job Order.

1.3 The contractor does not have the right to refuse to perform any Job Order or any work identified in a Job Order. If the contractor refuses to perform any Job Order or any work identified in a Job Order, the contractor may be considered to be in default in accordance with Sec 108.

2.0 Preparation of the Job Order. The engineer will prepare a Draft Job Order and submit the order to the contractor for final review. The contractor and the engineer will jointly review the Draft Job Order and finalize the order. Establishment of pricing for any non-fixed cost pay items shall be in accordance with Sec 109.4.2 or 109.4.3. If no agreement to pricing can be made then the work will proceed with payment for non-fixed cost items under Sec 109.4.4.

2.1 When the engineer and contractor have agreed to the scope of work and Fixed Cost and Non-Fixed Cost tasks to be performed, the engineer will finalize the official Job Order and submit a signed Job Order for the contractor to review and sign. The affixed signatures by the engineer and the contractor shall bind the Job Order. If the contractor is not clear or in disagreement with the terms of the Job Order he shall NOT sign the Job Order, but shall work with the engineer to clear up any discrepancies in the work to be done. If the contractor fails to execute the Job Order, the contractor may be considered to be in default in accordance with Sec 108.

3.0 The Commission reserves the right to cancel or reject a Job Order for any reason. The Commission also reserves the right not to issue a Job Order if that is determined to be in the best interests of the Commission. The contractor shall not recover costs arising out of or related to the development of the Job Order including but not limited to the costs to attend the Joint Scope Meeting, review the Detailed Scope of Work, subcontractor costs, and the cost to review the Job Order Proposal with the Commission.

4.0 Job Order Issuance. The Job Order will be signed by the engineer and delivered to the contractor. The Job Order will reference the Detailed Scope of Work and set forth the amount to be paid and the time to complete the work.

5.0 Notice to Proceed. Each Job Order will include a notice to proceed, which will stipulate the date the contractor is expected to begin work. The notice to proceed date will normally be within 14 calendar days after the job order is issued.

5.1 The contractor shall provide 5-days notification prior to start of repair work for all Job Orders.

F. Term of Contract

1.0 The term of this contract shall be for the period commencing January 1, 2024 and shall end December 31, 2024.

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

2.0 The contract may be extended under the original terms and contract prices for the period commencing January 1, 2025 and shall end December 31, 2025 for a maximum contract term of two (2) 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 no later than December 1 of the current contract year. The contractor shall provide written notification of acceptance or rejection of the extension of this contract no later than January 1 of the current contract year. If the option for extending the contract is exercised by MoDOT, a time adjustment change order will be issued by the Commission to extend the contract to the new term limits. The contractor shall increase the performance contract bond to an amount equal to the original contract amount plus the extended contract amount (i.e., double the original bond amount).

G. Fixed Unit Price List

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

2.0 Fixed Unit Price List for Concrete Pavement Repair Job Orders.

| MISC. TRAFFIC CONTROL ITEMS | | | |
|-----------------------------|--|------|------------------|
| Item Number | Description | Unit | Fixed Unit Price |
| 6169902 | MISC. ADDITIONAL TRUCK MOUNTED ATTENUATOR (TMA) | EA | \$750.00 |
| 6169904 | MISC. ADDITIONAL CONSTRUCTION SIGNS | SF | \$3.00 |
| 6169902 | MISC. ADDITIONAL CHANNELIZER (TRIMLINE) | EA | \$9.00 |
| 6169902 | MISC. ADDITIONAL TYPE III MOVEABLE BARRICADE | EA | \$75.00 |
| 6169902 | MISC. ADDITIONAL DIRECTIONAL INDICATOR BARRICADE | EA | \$18.75 |
| 6169902 | MISC. ADDITIONAL FLASHING ARROW PANEL | EA | \$390.00 |
| 6169902 | MISC. SEQUENTIAL FLASHING WARNING LIGHT | EA | \$50.00 |
| 6169902 | MISC. ADDITIONAL CMS (CONTRACTOR FURNISHED/RETAINED) | EA | \$1,200.00 |
| 6169902 | SINGLE LANE CLOSURE | EA | \$3,000.00 |
| 6169902 | DOUBLE LANE CLOSURE | EA | \$3,900.00 |
| 6169902 | INTERIOR LANE CLOSURE | EA | \$3,900.00 |
| 6169902 | TRIPLE LANE CLOSURE | EA | \$4,500.00 |
| 6169902 | RAMP CLOSURE | EA | \$1,800.00 |
| 6169902 | MISC. 1-LANE 2-WAY OPERATION W/ FLAGGERS | EA | \$3,000.00 |

| CONCRETE PAVEMENT ITEMS | | | |
|-------------------------|--|-------------|-------------------------|
| <u>Item Number</u> | <u>Description</u> | <u>Unit</u> | <u>Fixed Unit Price</u> |
| 3039905 | 18 IN. ROCK BASE (REMOVAL, FURNISH & PLACE) | SY | \$50.00 |
| 6059903 | UNDERDRAINAGE 6 IN. PERF. PLASTIC PIPE W/ GEOTEXTILE | LF | \$7.25 |
| 6131012 | SUBGRADE COMPACTION | SY | \$5.25 |
| 6131013 | TYPE 1 OR 5 AGGREGATE | SY | \$6.50 |
| 6131014 | FULL DEPTH SAW CUTS | LF | \$7.25 |
| 6131015 | DOWEL BAR (DRILL,FURN. & INSTALL) | EA | \$8.00 |
| 6131017 | DOWEL BAR (FURN. & INSTALL W/ BASKET) | EA | \$7.00 |
| 6131018 | TIE BAR (DRILL, FURN. & INSTALL) | EA | \$7.00 |
| 6132014 | CLASS A PARTIAL DEPTH REPAIR SAW CUTS | LF | \$5.00 |
| 6139905 | FULL DEPTH REPAIR (10 -100 SY) > 12" | SY | \$195.00 |
| 6139905 | FULL DEPTH REPAIR (10 -100 SY) < 12" | SY | \$185.00 |
| 6139905 | FULL DEPTH REPAIR (100.1 - 500 SY) > 12" | SY | \$125.00 |
| 6139905 | FULL DEPTH REPAIR (100.1 - 500 SY) < 12" | SY | \$120.00 |
| 6139905 | FULL DEPTH REPAIR (> 500 SY) < 12" | SY | \$105.00 |
| 6139905 | FULL DEPTH REPAIR (> 500 SY) > 12" | SY | \$110.00 |
| 6139905 | REMOVAL OF CONCRETE MATERIAL FOR PARTIAL DEPTH REPAIR (0-200 SY) | SY | \$110.00 |
| 6139905 | REMOVAL OF CONCRETE MATERIAL FOR PARTIAL DEPTH REPAIR (> 200 SY) | SY | \$90.00 |
| 6139907 | FURN./PLACING MATERIAL FOR PARTIAL DEPTH REPAIR(0-50 CY) | CY | \$525.00 |
| 6139907 | FURN./PLACING MATERIAL FOR PARTIAL DEPTH REPAIR (> 50 CY) | CY | \$425.00 |
| 6189902 | MOBILIZATION – FULL DEPTH REPAIR | EA | \$4,800.00 |
| 6252003 | SLAB JACKING MATERIAL HIGH DENSITY POLYURETHANE | LB | \$5.25 |
| 7049904 | BRIDGE DECK APPROACH SLAB REPAIR (FULL DEPTH) | SF | \$40.00 |
| 7049904 | BRIDGE DECK APPROACH SLAB REPAIR (PARTIAL DEPTH) (OVER 200 SF) | SF | \$35.00 |
| 7049904 | BRIDGE DECK APPROACH SLAB REPAIR (PARTIAL DEPTH) (0-200 SF) | SF | \$70.00 |

H. Adjustment Factor

1.0 Description. The Adjustment Factor includes business and construction related costs as defined in this specification. It is the responsibility of the contractor to verify the unit prices provided in this contract and to modify their Adjustment Factor accordingly.

1.1 Business Costs. Business related costs consist of profit, overhead costs, subcontractor profit and overhead, taxes, finance costs, and other costs including but not limited to;

- (a) insurance, bonds and indemnification
- (b) project meetings, training, management and supervision
- (c) project office staff and equipment
- (d) employee or subcontractor wage rates that exceed prevailing wages

- (e) fringe benefits, payroll taxes, worker's compensation, insurance costs and any other payment mandated by law in connection with labor that exceeds the labor rate allowances
- (f) Business risks such as the risk of low than expected volumes of work, smaller than anticipated Job Orders, poor subcontractor performance, and inflation or material cost fluctuations

1.2 Construction Costs. Construction related costs include but are not limited to;

- (a) personnel safety equipment
- (b) security requirements
- (c) excess material waste
- (d) daily and final clean-up
- (e) costs resulting from inadequate supply of materials, fuel, electricity, or skilled labor
- (f) costs resulting from productivity loss
- (g) working in extreme and adverse weather conditions
- (h) any other discreet items of work required to complete a particular Job Order

1.3 General Costs. The above lists are not exhaustive and are intended to provide general examples of cost items to be included in the contractor's Adjustment Factor as defined in the contract.

2.0 Adjustment Factor. The Adjustment Factor may include daytime, nighttime, and/or weekend hours as identified by the Engineer.

2.1 Daytime hours are defined as ½ hour after sunrise to ½ hour before sunset. If the contractor works outside of the defined daytime hours, the contractor shall provide lighting equipment at no additional cost to the Commission.

3.0 Nighttime Work. If the engineer determines traffic volumes are such that work cannot be performed during the daytime, without significant traffic impacts, the Job Order will specify nighttime repair operations.

4.0 Weekend Work. If the Engineer determines traffic volumes are such that work cannot be performed Monday through Friday without significant traffic impacts, the Job Order will specify weekend repair operations.

I. Bidding the Adjustment Factor

1.0 The bidder shall complete the bid form by writing in the Adjustment Factor. The Adjustment Factor shall be specified to three decimal places. Note that this is a contract pay item for contractor payment, not work items.

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

| | | | | |
|---|---|---|---|---|
| 1 | . | 1 | 9 | 8 |
|---|---|---|---|---|

OR

| | | | | |
|---|---|---|---|---|
| 0 | . | 9 | 8 | 7 |
|---|---|---|---|---|

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

J. Contract Award

1.0 The Commission will evaluate the bids with the intent of awarding the contract to the lowest responsible bidder. The budget for this project will have a minimum budget of \$0 dollars and an anticipated maximum of \$600,000 dollars. If the contract is extended in accordance with the TERM OF CONTRACT JSP, the anticipated budget will be no more than two times the maximum amount.

2.0 The lowest bid will be determined by multiplying the Adjustment Factor by the anticipated budget for the adjustment factor. For purposes of bidding this contract, the estimated percentage of work performed during Daytime hours is 10%, Nighttime hours is 90%, and Weekend hours is 0%. The dollar quantities provided in the bid form are anticipated budgets and are not intended to represent the actual value of work that will be assigned.

K. Bonds

1.0 The amount of the Bid Bond shall be 5% of the anticipated budget for this project.

2.0 The amount of the Performance Bond shall be 100% of the anticipated budget for this project.

L. Notice to Proceed

Delete Sec 108.2 and substitute the following:

108.2 Notice to Proceed. For each Job Order, the engineer will include a notice to proceed, which will stipulate the date the contractor is expected to begin work. The notice to proceed date will normally be 14 calendar days after the job order is issued.

M. Contract Time for Completion of Job Order

1.0 Contract Time for Completion of Job Order. The time for the completion of the job order will be 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.

2.0 Completion By Calendar Days. The contractor shall complete all work described in each job order within seven (7) calendar days of the notice to proceed date.

3.0 Contract Time Extension for Change in the Work. If a change in the work on a job 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.

4.0 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 job order, the contractor will be allowed an extension of contract time 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.

5.0 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.

N. Completing the Work

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

2.0 When installed quantities differ from the estimated quantities in the issued Job Order, the as built quantities in the final Job Order will address the quantity variation(s) for final payment. When quantities are not specified in the Detailed Scope of Work, the Job Order Price will be deemed to be lump sum for such work.

3.0 The contractor shall employ and supply a sufficient force of workers, materials and equipment and shall progress the work with such diligence so as to ensure completion of the Detailed Scope of Work within the Job Order completion Time or within such extended time for completion as may be granted by the engineer.

4.0 In order to assist in reviewing the Job Order Price Proposal, the contractor shall as part of the Job Order Proposal prepare and submit to the engineer for approval, a progress schedule showing the order in which the contractor proposes to carry on the work, the date of which it will start the major items of work (including but not limited to excavation, drainage, paving, structures, mobilization, soil erosion and sediment control, etc.) and the critical features (including procurement of materials, plant and equipment) and the contemplated dates for completing the same.

O. Final Inspection and Acceptance of the Work

Delete Sec 105.10.7 through 105.10.7.2 and substitute the following:

105.10.7 Final Inspection. Upon completion of the required work for each Job Order, the contractor shall notify the engineer by phone or electronic mailing, and the engineer will perform an inspection. If the engineer determines all work required by the contract has been satisfactorily completed, the engineer will make the acceptance for maintenance and notify the contractor in writing of the date of acceptance for maintenance.

105.10.7.1 Work determined to be unsatisfactory by the engineer and not accepted shall be corrected to acceptable standards at the contractor's sole cost. All items that are unsatisfactory

shall be corrected within the specified working days for each job order. If needed for correction of unsatisfactory work, the contractor will be given an extension of contract time in an amount equal to the number of working days remaining in the job order at the time the engineer was notified for inspection. No contract time extension will be made for notification made prior to completion of the work. Any time extension given will be considered a non-compensable delay. Upon completion of the corrections, the contractor shall notify the engineer for a re-inspection.

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

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

P. Liquidated Damages for Failure or Delay in Beginning Work and/or Completing Work on Time

1.0 Description. If the contractor, or in case of default, the surety fails to begin or complete the work required in a job order within the time specified, or within such extra time as may be allowed by the contract, the contractor shall be charged with liquidated damages in the amount of **\$250 per day** for each day or partial day that the job order remains incomplete in excess of the specified time. The amount specified is agreed upon, not as a penalty, but as liquidated damages for loss to the Commission and the public. This amount will be deducted from any amount due under the contract. These damages will apply to each individual job order for which the contractor fails to complete the work on time. The contractor and surety shall be liable for all liquidated damages. Permitting the contractor to continue the work after the expiration of the specified time or any extension of time will not constitute a waiver by the Commission of any contractual rights. It shall be the responsibility of the engineer to determine the quantity of excess time.

2.0 Sec 108.8.1 through 108.8.1.3 shall not apply to this contract.

3.0 These liquidated damages will not be charged for Saturdays, Sundays, national, and state holidays established by law.

Q. Contract Payments

1.0 The contractor shall request payment by submitting an invoice to the engineer. The invoice shall be for the job orders completed and shall be itemized by job order number. A summary of all contract items used, contract unit prices, and total cost shall be included with the invoice.

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

1.2 Material Allowance. No material allowance will be made for this contract.

R. Work Zone Traffic Management

1.0 Description. The contractor may be responsible for the work zone traffic management as mutually agreed upon by the contractor and engineer for each individual Job Order. Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows.

2.0 Traffic Management Schedule.

2.1 The contractor shall notify the engineer at least 48 hours prior to performing any work at each work site. The notification shall include all information needed to identify traffic impacts such as work location, anticipated work hours, traffic control plan type, required lane or shoulder closures, anticipated duration of the work, etc. The contractor shall designate a contact person who is available for the duration of the work to resolve any traffic impact issues resulting from the contractor's operations. The engineer will make appropriate notification to the public, MoDOT customer service, and MoDOT work crews of the contractor's operations. The contractor shall notify the engineer as soon as practical any postponement due to weather, material, or other circumstances and shall notify the engineer when the work has been rescheduled.

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 reopened to traffic.

3.0 Maintenance of Traffic.

3.1 Traffic shall be maintained through the work zone using the existing pavement in accordance with the traffic control plans. No detours or lane shifts onto shoulders will be allowed unless otherwise approved by the engineer.

3.2 Provisions shall be made to allow the movement of emergency vehicles through the limits of construction at all times.

3.3 During non-working hours the contractor shall have all lanes of traffic open for all routes, ramps, and side roads. All channelizers and other traffic control devices shall be removed from the roadway during non-working hours unless otherwise approved by the engineer.

4.0 Traffic Congestion and Delay. The contractor shall, upon approval of the engineer, take proactive measures to reduce traffic congestion in the work zone. The contractor shall be responsible for maintaining the existing traffic flow through the job site during the work. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent queues from occurring again.

5.0 Traffic Safety.

5.1 Where traffic queues routinely extend to within 1000 feet (300 m) of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet (150 m) of the ROAD WORK AHEAD, or similar, sign on an undivided highway, the contractor shall extend the advance warning area, as approved by the engineer.

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

6.0 Work Hour Restrictions.

6.1 All work shall be scheduled to avoid major sporting events, conventions, concerts, and similar special events as specified by the engineer. During the term of this contract, there are six major holiday weekends: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. All lanes shall be scheduled to be open to traffic during these holiday periods, from 12:00 noon on the last working day preceding the holiday until 9:00 a.m. on the first working day subsequent to the holiday, unless otherwise designated by the engineer.

6.2 During non-working hours the contractor shall have all lanes of traffic open for all routes, ramps, and side roads. Working hours for holidays shall be determined by the engineer.

6.3 Due to the wide variance in traffic volumes throughout the contract area, it is not possible to give specific work hours for the term of the contract. Each Job Order will specify work hours or work hour restrictions based on the repair location, this may include peak hour restrictions. The following table provides general guidance as to the most restrictive schedule for when work on or adjacent to the roadway may be allowed.

| <u>Traffic Control Plan Type</u> | <u>Work Hours (Monday thru Friday)</u> |
|----------------------------------|--|
| Single Lane Closure | 7:30 p.m. to 4:30 a.m. |
| Double Lane Closure | Hours and days as approved by the engineer |
| Ramp Closure | Hours and days as approved by the engineer |

Specific work hours for an individual work location shall be according to the mutually agreed upon schedule in the Job Order.

7.0 Work Within Another Work Zone. The engineer may determine it is in the best interest of the Commission and the traveling public to have the work designated in the job order performed within another contractor's work zone or within a MoDOT work zone. If the work is designated to be performed within another work zone, the contractor shall coordinate and perform the work in accordance with Sec 105.6.

8.0 Ramp Closure. Ramp closures shall be minimized and shall be approved by the engineer a minimum of five days prior to the closure. Only one ramp closure will be permitted in a particular interchange or complex at one time. Work on acceleration / deceleration lanes will not

require ramp closure unless approved by the engineer. Detour traffic handling details will be as specified by the engineer. Major ramp closures may require detour signing with other ramp closures only requiring use of changeable message signs (CMS) for detours. If the engineer determines detour signing is required, all necessary detour trailblazing placards will be furnished, installed, and covered by others. The contractor shall furnish all CMS required by the engineer. The contractor shall be responsible for uncovering and covering the trailblazing placards as work progresses.

9.0 Changeable Message Signs. The contractor shall provide changeable message signs notifying motorists of future traffic disruption and possible traffic slow down one week before traffic is shifted to a detour. The changeable message sign installation shall be placed at a location as approved or directed by the engineer.

10.0 Basis of Payment. All items necessary to complete the traffic control will be paid for at the fixed unit price multiplied by the Adjustment Factor, as mutually agreed upon in the Job Order.

S. Traffic Control Plan Types

1.0 Description. The following traffic control plan types shall be used for the job orders issued for this contract.

2.0 Plan Types.

2.1 Single Lane Closure. A single lane closure shall be performed by furnishing, installing, and removing the following set of traffic control devices:

| | |
|---------|---|
| 2 each | Road Work Ahead |
| 2 each | Right (Left) Lane Closed Ahead |
| 2 each | Reduced Speed Limit Ahead (Symbol) |
| 1 each | Right (Left) Lane Closed |
| 1 each | Merge with Right (Left) Arrow |
| 2 each | Speed Limit XX MPH |
| 2 each | Work Zone (Plaque) |
| 2 each | Speed Limit XX (Normal Speed) |
| 14 each | Directional Indicator Barricade |
| 30 each | Channelizer (Trim Line) |
| 2 each | Flashing Arrow Panel (One Truck Mount for TMA) |
| 1 each | Truck Mounted Attenuator |
| 1 each | Changeable Message Sign (Contractor Furnished / Retained) |

2.2 Double Lane Closure. The contractor shall obtain approval from the engineer prior to any double lane closure. A double lane closure shall be performed by furnishing, installing, and removing the following set of traffic control devices:

| | |
|--------|------------------------------------|
| 2 each | Road Work Ahead |
| 2 each | 2 Right (Left) Lanes Closed Ahead |
| 2 each | Reduced Speed Limit Ahead (Symbol) |
| 2 each | Right (Left) Lane Closed |

| | |
|----------|---|
| 2 each | Merge with Right (Left) Arrow |
| 4 each | Speed Limit XX MPH |
| 4 each | Work Zone (Plaque) |
| 2 each | Speed Limit XX (Normal Speed) |
| 28 each | Directional Indicator Barricade |
| 100 each | Channelizer (Trim Line) |
| 3 each | Flashing Arrow Panel (One Truck Mount for TMA) |
| 1 each | Truck Mounted Attenuator |
| 1 each | Changeable Message Sign (Contractor Furnished / Retained) |

2.3 Ramp Closure. The contractor shall obtain approval from the engineer a minimum of five days prior to any ramp closure. A ramp closure shall be performed by furnishing, installing, and removing the following set of traffic control devices. Uncovering and covering any detour trailblazing placards furnished and installed by others is included in the work.

| | |
|---------|---|
| 2 each | Road Work Ahead |
| 2 each | Ramp Closed Ahead |
| 2 each | Reduced Speed Limit Ahead (Symbol) |
| 2 each | Detour Ahead |
| 2 each | Speed Limit XX MPH |
| 2 each | Work Zone (Plaque) |
| 1 each | Road Closed |
| 2 each | Speed Limit XX (Normal Speed) |
| 14 each | Directional Indicator Barricade |
| 40 each | Channelizer (Trim Line) |
| 2 each | Flashing Arrow Panel (One Truck Mount for TMA) |
| 1 each | Truck Mounted Attenuator |
| 2 each | Changeable Message Sign (Contractor Furnished / Retained) |
| 3 each | Type III Movable Barricade |

3.0 Additional Traffic Control Devices. The engineer may determine that signs, channelizers, and Type III Movable Barricades in addition to those devices shown in the plans are necessary to safely accommodate traffic. These additional devices may be needed for merging ramp traffic, detours, multiple bridges, or other special cases to supplement the specified lane closure devices. The contract provides a fixed cost for any additional traffic control items.

4.0 Flaggers. Flaggers may be required when working at intersecting streets or ramps as directed by the engineer. No direct payment will be made for flaggers.

5.0 Method of Measurement and Basis of Payment.

5.1 Measurement of lane closures will be made per Job Order. Payment will be made for a maximum of one (1) of each lane closure type at a specific work location, within the maximum 2 mile range, per job order. Payment will not be made for any lane closure that does not result in productive repair work as determined by the engineer. Additional lane closures may be installed by the contractor at the contractor's expense. The accepted quantity of each lane closure will be paid for at the fixed unit price for:

| | | |
|----------------|---------------------|------|
| Item 616-99.02 | Single Lane Closure | Each |
| Item 616-99.02 | Double Lane Closure | Each |
| Item 616-99.02 | Ramp Closure | Each |

multiplied by the Adjustment Factor, as mutually agreed upon in the Job Order.

5.2 Measurement of additional traffic control devices will be made per Job Order. Payment for the devices shall include furnishing, installing, and removing the additional devices at a specific work site. No payment will be made for additional devices used by the contractor without prior approval of the engineer. The accepted quantity of additional traffic control devices will be paid for in accordance with the fixed unit price list, multiplied by the Adjustment Factor, as mutually agreed upon in the Job Order.

T. Work Plan and Schedule for Accomplishing Work

Delete Sec 108.4 through 108.4.4 and substitute the following:

108.4 Work Plan and Schedule. Prior to or at the preconstruction conference, the contractor shall provide a proposed work plan and typical schedule for accomplishing work. The work plan shall include a written list of equipment and personnel that the contractor intends to use in executing the work.

108.4.1 The work plan will be reviewed by the engineer to determine in general if adequate personnel and equipment appear to be available to complete the work within the required number of calendar days. If the engineer determines the work plan is inadequate, the engineer and contractor shall meet for a joint review of the plan to correct and adjust the plan and schedule as necessary. A revised work plan and schedule shall be provided by the contractor prior to commencing the work.

108.4.2 If multiple job orders are issued with overlapping completion periods, the priority of the work will be jointly determined by the engineer and the contractor, with final approval of the work plan by the engineer. The work schedule and work priorities will be determined by the needs of the Commission and not the contractor's convenience of work location.

108.4.3 No direct payment will be made for furnishing the work plan or revisions.

108.4.4 The contractor shall determine the most feasible work plan and schedule consistent with the requirements of the contract. The engineer's approval of contractor's work plan is not intended to be acknowledgment or representation that it is reasonable or will accomplish the work within a particular time or at a particular cost.

U. Emergency Provisions and Incident Management

1.0 The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from the police or other emergency agencies for incident management. In case of traffic accidents or the need for police to direct or restore traffic flow through the job site, the contractor shall notify police or

other emergency agencies immediately as needed. The engineer shall also be notified when the contractor requests emergency assistance.

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

| | |
|---------------------------|----------------|
| Missouri Highway Patrol | (573) 751-1000 |
| MoDOT Customer Service | 1-888-275-6636 |
| MoDOT Incident Response | 1-800-892-7332 |
| Montgomery County Sheriff | (573) 564-3378 |
| Warren County Sheriff | (636) 456-4332 |
| Lincoln County Sheriff | (636) 528-8546 |

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

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

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

V. Utilities

1.0 It is the inherent risk of the work under this contract that the contractor may encounter utilities above and/or below the ground or in the vicinity of any given job order which may interfere with their operations. The contractor expressly acknowledges and assumes this risk even though the nature and extent is unknown to both the contractor and the Commission at the time of bidding and award of the contract. The effect in cost or time of the presence of utilities above, below or in the vicinity of the contractor's work under this contract shall not be compensable.

W. Delay Provisions

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

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

X. Mobilization

Delete Sec 618.2 and substitute the following:

618.2 Basis of Payment. Payment shall be made for mobilization as provided for in the Job Order as follows:

| | | |
|----------------|--------------------------------|------|
| Item 618-99.02 | Mobilization-Full Depth Repair | Each |
|----------------|--------------------------------|------|

Y. Pavement Marking

1.0 Description. The contractor will **not** be responsible for placing and maintaining pavement marking on pavement undergoing repair operations unless mutually agreed upon in the Job Order.

Z. Eliminated Materials

1.0 Materials required by the Detailed Scope of Work and not incorporated into the work due to changes caused by field conditions or revisions to the design by the Commission after the material was ordered or purchased will be reimbursed at the material portion of the Pre-priced Task, or if there is no Pre-priced Task, then its material cost minus salvage value, or the material cost plus delivery costs.

AA. Sample Job Orders

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

1.1 Job Order Sample 1: Repair Area = 3 - 6' X 12', full depth pavement repairs. Existing pavement thickness is 10" concrete. All repairs are located within a 1-mile long, 2-lane segment of the interstate with all repairs in the same lane. Location does not have significant daytime peak hour ADT so off-peak nighttime work is not required to accommodate a daytime lane closure.

| Item Description | | Quantity | |
|--|----------|------------------|--------------------|
| Full Depth Saw Cuts | \$7.25 | 108 LF | \$783.00 |
| Dowel Bars (Drilling, Furnishing, and Installation) | \$8.00 | 60 Each | \$480.00 |
| Full Depth Pvm. Repair (10 – 100 SY) Less than or equal to 12" Thick | \$185.00 | 24.0 SY | \$4,440.00 |
| Mobilization – Full Depth Pavement Repair | \$4,800 | 1 Each | \$4,800.00 |
| | | Subtotal: | \$10,503.00 |
| Adjustment Factor | 1.150 | | |
| | | TOTAL: | \$12,078.45 |

1.2 Job Order Sample 2: Repair Area = 8 - 9' X 24', full depth pavement repairs. Existing pavement thickness is 14" composite asphalt over concrete (8" concrete + 6" asphalt overlay). All repairs are located within a 1-mile long, 2-lane segment of the interstate with the repairs across the entire width of the 2-lane segment. Since the repairs are in both lanes the work will be required over two separate days since the contractor can occupy only one lane of the roadway. Location is a high ADT location so off-peak nighttime hours are required with reopening to traffic before the next morning rush period.

| Item Description | Fixed Unit Price | Quantity | Price |
|--|------------------|------------------|--------------------|
| Full Depth Saw Cuts | \$7.25 | 768 LF | \$5,568.00 |
| Dowel Bars (Drilling, Furnishing, and Installation) | \$8.00 | 320 Ea | \$2,560.00 |
| Full Depth Pvm. Repair (100.1 – 500 SY) Greater than 12" Thick | \$125.00 | 192.0 SY | \$24,000.00 |
| Mobilization – Full Depth Pavement Repair | \$4,800.00 | 1 Each | \$4,800.00 |
| | | Subtotal: | \$36,928.00 |
| Adjustment Factor | 1.200 | | |
| | | TOTAL: | \$44,313.60 |

1.3 Job Order Sample 3: Repair Area = 1 - 400' X 14', full depth pavement repair. Existing pavement thickness is 11" composite asphalt over concrete (8" concrete + 3" asphalt overlay). The entire section is badly deteriorated and has been patched multiple times so the entire outside lane and a portion of the outside shoulder will be removed and reconstructed. Location is a high ADT location, but due to the length of repair two continuous closure days will be required to complete the work. To accommodate traffic a weekend closure will be used so the entire 400' section can be removed and replaced at one time without reopening. The existing aggregate base and subgrade is in poor/unstable condition.

| Item Description | Fixed Unit Price | Quantity | Price |
|--|------------------|------------------|---------------------|
| Full Depth Saw Cuts | \$7.25 | 3,457 LF | \$25,063.25 |
| Subgrade Compaction (6 in. Depth) | \$5.25 | 622.2 SY | \$3,266.55 |
| Type 1 or 5 Aggregate for Base (4 in. Thick) | \$6.50 | 622.2 SY | \$4,044.30 |
| Dowel Bars (Drilling, Furnishing, and Installation) | \$8.00 | 24 Each | \$192.00 |
| Dowel Bars (Furnishing and Installing with Baskets) | \$7.00 | 300 Each | \$2,100.00 |
| Tie Bars (Drilling, Furnishing, and Installation) | \$7.00 | 160 Each | \$1,120.00 |
| Full Depth Pvm. Repair (Greater than 500 SY) Less than or equal to 12" Thick | \$105.00 | 622.2 SY | \$65,331.00 |
| Mobilization – Full Depth Pavement Repair | \$4,800.00 | 1 Each | \$4,800.00 |
| | | Subtotal: | \$105,917.10 |
| Adjustment Factor | 1.200 | | |
| | | TOTAL: | \$127,100.52 |

1.4 Job Order Sample 4: Repair Area = 3 - 24' X 14', 2 - 18' X 12', 5 - 12' X 18' full depth pavement repairs. Pavement thickness is 12" composite asphalt over concrete (8" concrete + 4" asphalt overlay). All repairs are located within a 2-mile, 3-lane segment of the interstate with the repairs scattered across the entire width of the 3-lane segment. Since the repairs are in all three lanes, the work will be required over two separate days since the contractor must leave at least one lane of the roadway open for traffic. A double lane closure is allowed during off-peak hours. Location is a high ADT location so off-peak nighttime hours are required with reopening to traffic before the next morning rush period.

| Item Description | | Quantity | |
|---|------------|------------------|--------------------|
| Full Depth Saw Cuts | \$7.25 | 1,356 LF | \$9,831.00 |
| Dowel Bars (Drilling, Furnishing, and Installation) | \$8.00 | 272 Ea | \$2,176.00 |
| Full Depth Pvm. Repair (100.1 – 500 SY) Less than or equal to 12" Thick | \$120.00 | 279.9 SY | \$33,588.00 |
| Mobilization – Full Depth Pavement Repair | \$4,800.00 | 1 Each | \$4,800.00 |
| | | Subtotal: | \$50,395.00 |
| Adjustment Factor | 1.200 | | |
| | | TOTAL: | \$60,474.00 |

BB. Supplemental Revisions JSP-18-01Z

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

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

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

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

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

6.0 Construction Requirements. Mixes containing GTR shall have a target mixing temperature of 325 F or as directed by the GTR additive supplier. The additive supplier's recommendations shall be followed to allow for GTR binder absorption/reaction. This may include holding mix in the silo to allow time for binder to absorb into the GTR. Rolling operations may need to be modified.

7.0 Mix Design Test Method Modification. A formal mixing procedure from the additive supplier shall be provided to the contractor and engineer that details the proper sample preparation, including blending GTR with the binder or other additives. Samples shall be prepared and fabricated in accordance with this procedure by the engineer and contractor throughout the duration of the project.

8.0 Mix design Volumetrics. Mix design volumetric equations shall be modified as follows:

8.1 Additional virgin binder added to offset GTR absorption of binder shall be counted as part of the mix virgin binder

8.2 GTR shall be included as part of the aggregate when calculating VMA of the mix.

8.2.1 GTR SPG shall be 1.15

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

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

where:

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

P_{bmV} = percent virgin binder by total mixture weight

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

P_{GTR} = percent GTR by total mixture weight

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

G_{GTR} = GTR specific gravity

8.4 G_{se} shall be calculated as follows:

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

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.

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:

- Iron and steel – no changes to the current specification requirements.
- Manufactured products – these are currently exempted under the 1983 waiver from FHWA.

c) Construction materials consisting primarily of:

- Non-ferrous metals;
- Plastic and polymer-based products (including polyvinylchloride, composite build materials, and polymers used in fiber optic cables);
- Glass (including optic glass);
- Lumber; or
- Drywall

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

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

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

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

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

Delete Sec 403.19.2 and substitute the following:

403.19.2 Lots. The lot size shall be designated in the contractor's QC Plan. Each lot shall contain no less than four sublots and the maximum subplot size shall be 1,000 tons. The maximum lot size shall be 4,000 tons for determination of pay factors. Sublots from incomplete

lots shall be combined with the previous complete lot for determination of pay factors. When no previous lot exists, the mixture shall be treated in accordance with [Sec 403.23.7.4.1](#). A new lot shall begin when the asphalt content of a mixture is adjusted in accordance with [Sec 403.11](#).

CC. Definition of Special "99 Number" Pay Items

1.0 The contract contains special "99-number" pay items. The Commission's automated bidding system is limited by the number of characters allowed for each special item description. This section further defines the work required for those pay items.

| <u>ITEM NO.</u> | <u>ITEM DESCRIPTION</u> |
|-----------------|---|
| 303.99.05 | 18 IN. ROCK BASE (REMOVAL, FURNISH & PLACE) Excavate subgrade and provide 18" rock base for replacing existing damaged or clogged base layer under PCC slab repair. |
| 605.99.03 | UNDERDRAINAGE – 6 IN. PERF PLASTIC PIPE W/ GEOTEXTILE Provide 6" perforated plastic pipe, wrapped with geotextile, in base layer for cross drainage under PCC slab repair. |

DD. Damage to Existing Pavement

1.0 Description. This work shall consist of repairing any damage to existing pavement, ramps and/or shoulders caused by contractor operations. This shall include damage caused either directly or indirectly by contractor operations, including but not be limited to, damage caused by the traffic during contractor operations.

2.0 Construction Requirements. Any cracking, gouging, or other damage to the existing pavement, ramps and/or shoulders, side roads, or entrances from general construction shall be repaired within twenty four (24) hours of the time of damage at the contractor's expense. Repair of the damaged pavement, shoulders, side roads, or entrances shall be as determined by the engineer.

3.0 Method of Measurement. No measurement of damaged pavement, ramps or shoulder areas as described above shall be made.

4.0 Basis of Payment. No payment will be made for repairs to existing pavement, ramps and/or shoulders damaged by contractor operations.

EE. Full Depth Pavement Repair Requirements

1.0 Description. This work shall consist of all labor, equipment, and materials necessary to repair existing pavement by performing full depth pavement repairs as specified in the job order or as approved by the engineer. All work shall be in accordance with Sec 613 except as herein modified.

2.0 Construction Requirements.

2.1 At least one lane of traffic shall remain open continuously along the full length of the repair location. For roadway segments with three or more lanes the engineer may determine that two or more lanes may be closed during the work. The determination of lane closure configuration and times that lanes may be closed will be determined by the engineer.

2.2 All concrete shall be in accordance with Sec 613.10.2.3.

2.3 All repairs over 15 feet in length shall be straightedged in accordance with Sec 610.

3.0 Material Requirements.

3.1 The contractor shall certify, by letter with the first load of the day that the material complies with Sec 501.2.1.

3.2 In addition to the requirements of Sec 501.8.11, all batch tickets shall include batch weights, admixture type and admixture quantities.

4.0 Additional or Reduced Work. If additional repair work is necessary beyond what is specified in the job order or the required repair is not as extensive as originally viewed, the contractor shall contact the engineer for authorization to proceed with the additional or reduced work. The contractor shall note that with this authorization to proceed with additional or reduced work may change which unit bid item is used to calculate final payment depending on final repair quantities. Any work performed without authorization of the engineer shall be at the contractor's expense.

5.0 Method of Measurement. Measurement will be in accordance with Sec 613 and as follows. Final measurement of the completed repair area will not be made except for authorized changes during construction, or where appreciable errors are found in the quantity specified in the job order. Any revision or correction will be computed and added to or deducted from the job order quantity.

6.0 Basis of Payment. Accepted quantities of full depth pavement repair will be paid for at the fixed unit price multiplied by the Normal, Nighttime or Weekend Adjustment Factor, as mutually agreed upon in the Job Order in accordance with Sec 613.

6.1 Payment for the accepted quantity of Full Depth Pavement Repair on a Job Order with greater than 500 Square Yards and with a thickness greater than 12 inches will be made at an adjusted unit price in accordance with Sec 104.3.

FF. Concrete Masonry Repair

Delete paragraphs 704.4.1.6.2 and substitute the following:

704.4.1.6.2 Deck Repairs. The minimum depth of repair for repairing concrete deck (half-soling), approach slab repair or modified deck repair shall expose the upper layer of the top mat of reinforcing steel. All repair areas shall completely expose 100 percent of the reinforcing steel providing one inch (25 mm) clearance around all bars, regardless of observed bond or condition.

Delete paragraph 704.5.1 and substitute the following:

704.5.1 Repairing concrete deck (half-soling), approach slab repair, deck repair with void tube replacement, full depth repair, modified deck repair, superstructure repair (unformed) and substructure repair (formed and unformed) will be measured to the nearest square foot (0.1 m²).

Amend Sec 704 to include the following:

704.3.10 Approach Slab Repair. This work shall consist of partial removal and replacement of approach slab concrete in the required areas.

GG. Previous Job Order Information

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

HH. Railroad Requirements

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

2.0 Should the contractor violate this condition of no railroad involvement, all terms and conditions of the interaction with the Railroad shall be solely between the Railroad and the contractor.