1 REVISED

Job No.: JST0119
Route: 44
County: Laclede

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)

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

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STATE OF MISSOURI WILLIAM G. KRUSSEL NUMBER E-27561 REGISTERED PROFESSIONAL ENGINEER 11/09/2026 3:20:20 PM William G. Krussel MO PE-27561	**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION** 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636 ***WSP USA Inc*** *211 NORTH BROADWAY, Suite 2800* *ST LOUIS, MO 63102* Certificate of Authority: 001444 Consultant Phone: 314-206-4444 If a seal is present on this sheet, JSP's have been electronically sealed and dated. JOB NUMBER: JST0119 LACLEDE COUNTY, MO DATE PREPARED: 10/08/2026 ADDENDUM DATE: ***R001: 11/09/2026***
Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: All	

Job No.: JST0119
Route: 44
County: Laclede

JOB
SPECIAL PROVISION

A. General – State JSP-09-03M

1.0 Description. The Federal Government is not participating in the cost of construction of this project.

1.1 This contract requires payment of the prevailing hourly rate of wages for each craft or type of worker required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations. The current State Wage Rates can be found on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT", "Contractor Resources" for the applicable bid opening. This supplemental bidding document has 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.

State Wage Rates

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 2026 Missouri Standard Plans
For Highway Construction

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

B. Contract Liquidated Damages JSP- 13-01E

1.0 Description. Liquidated Damages for failure or delay in completing the work on time for this contract shall be in accordance with Sec 108.8. The liquidated damages include separate amounts for road user costs and contract administrative costs incurred by the Commission. Liquidated Damages specified herein apply to the combination of projects listed in Required Combination of Calls JSP-17-01A. In addition to the Liquidated Damages specified herein, see Liquidated Damages / Liquidated Savings Specified JSP-03-05B for additional damages/savings on a per-Stage basis.

2.0 Period of Performance. Prosecution of work is expected to begin on the date specified below in accordance with Sec 108.2. Regardless of when the work is begun on this contract, all work on all projects shall be completed on or before the date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Job No.: JST0119
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Notice to Proceed: January 19, 2027
Contract Completion Date: December 1, 2028

2.1 Calendar Days. Completion of the projects is required as specified herein. The count of calendar days will begin on the date the contractor starts any construction operations on the project.

Projects	Calendar Days	Daily Road User Cost
See Section 1.0	N/A	$5,400

3.0 Liquidated Damages for Contract Administrative Costs. Should the contractor fail to complete the work on or before the contract completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged contract administrative liquidated damages in accordance with Sec 108.8 in the amount of **$3000** per calendar day for each calendar day, or partial day thereof, that the work is not fully completed. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the specified contract completion date or calendar days.

4.0 Liquidated Damages for Road User Costs. Should the contractor fail to complete the work on or before the contract completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged road user costs in accordance with Sec 108.8 in the amount specified in Section 2.1 for each calendar day, or partial day thereof, that the work is not fully completed. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.

1 REVISED

5.0 Liquidated Damages for Winter Months. ~~Delete Sec 108.8.1.3 (a)~~

Liquidated damages for failure to complete the work on time shall not be waived from ~~November 1~~ December 15th to March 15, both dates inclusive.

C. Work Zone Traffic Management JSP-02-06N

1.0 Description. Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows.

1.1 Maintaining Work Zones and Work Zone Reviews. The Work Zone Specialist (WZS) shall maintain work zones in accordance with Sec 616.3.3 and as further stated herein. The WZS shall coordinate and implement any changes approved by the engineer. The WZS shall ensure all traffic control devices are maintained in accordance with Sec 616, the work zone is operated within the hours specified by the engineer, and will not deviate from the specified hours without prior approval of the engineer. The WZS is responsible to manage work zone delay in accordance with these project provisions. When requested by the engineer, the WZS shall submit a weekly report that includes a review of work zone operations for the week. The report shall identify any problems encountered and corrective actions taken. Work zones are subject to unannounced inspections by the engineer and other departmental staff to corroborate the validity of the WZS's review and may require immediate corrective measures and/or additional work zone monitoring.

1.2 Work Zone Deficiencies. Failure to make corrections on time may result in the engineer suspending work. The suspension will be non-excusable and non-compensable regardless if road user costs are being charged for closures.

2.0 Traffic Management Schedule.

2.1 Traffic management schedules shall be submitted to the engineer for review prior to the start of work and prior to any revisions to the traffic management schedule. The traffic management schedule shall include the proposed traffic control measures, the hours traffic control will be in place, and work hours.

2.2 The traffic management schedule shall conform to the limitations specified in Sec 616 regarding lane closures, traffic shifts, road closures and other width, height and weight restrictions.

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

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

2.5 Traffic Congestion. The contractor shall, upon approval of the engineer, take proactive measures to reduce traffic congestion in the work zone. The contractor shall immediately implement appropriate mitigation strategies whenever traffic congestion reaches an excess of **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.

2.5.1 Traffic Safety.

2.5.1.1 Recurring Congestion. Where traffic queues routinely extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway, the contractor shall extend the advance warning area, as approved by the engineer.

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

3.0 Work Hour Restrictions.

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

Memorial Day
Labor Day
Thanksgiving
Christmas
New Year's Day

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

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

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

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. If a CMS with Communication Interface is required, then the CMS shall be capable of communication prior to installation on right of way. All messages planned for use in the work zone shall be approved and authorized by the engineer or its designee prior to deployment. When permanent dynamic message signs (DMS) owned and operated by MoDOT are located near the project, they may also be used to provide warning and information for the work zone. Permanent DMS shall be operated by the TMC, and any messages planned for use on DMS shall be approved and authorized by the TMC at least 72 hours in advance of the work.

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

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

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

Missouri Highway Patrol 1-800-525-5555 or *55 (cellular)
City of Lebanon Fire: 417-532-2104 Police: 417-532-3131
Laclede County 911 Dispatch
Laclede County Sheriff 417-532-2311
Pulaski County Sheriff 573-774-6196

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 law enforcement agency.

2.2 The contractor shall notify law 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 law enforcement and emergency agencies, a report shall be furnished to the engineer on the status of incident management.

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

E. Project Contact for Contractor/Bidder Questions JSP-96-05A

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

James Beattie, Project Contact
Central District
1511 Missouri Boulevard
Jefferson City, MO 65102

Telephone Number: 573-508-4967
Email: james.beattie@modot.mo.gov

1.1 All questions concerning the bid document preparation can be directed to the Central Office – Design as listed below.

Telephone Number: (573) 751-2876
Email: BCS@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 engineer listed below:

Connor Beck, Resident Engineer
Central District
749 Highway 42
Osage Beach, MO 65065

Telephone Number: 573-645-5925
Email: connor.beck@modot.mo.gov

F. Supplemental Revisions JSP-18-01MM

- 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.

- ***Delete Sec 106.9, including all subsections and substitute the following:***

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

106.9.1 Buy America Requirements for Iron or Steel Products.
The contractor's attention is directed to Title 23 CFR 635.410 *Buy America Requirements*. Where articles, materials or supplies that consist wholly or predominantly of iron or steel or a combination of both are to be permanently incorporated into the contract work, steel and iron material shall be manufactured, from the initial melting stage through the application of coatings, in the USA except for "minimal use" as described herein. Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. Under a general waiver from FHWA the use of pig iron and processed, pelletized, and reduced iron ore manufactured outside of the USA will be permitted in the domestic manufacturing process for steel or iron material.

106.9.1.1 Any sources other than the USA as defined will be considered foreign. The required domestic manufacturing process shall include formation of ingots and any subsequent process. Coatings shall include any surface finish that protects or adds value to the product.

106.9.1.2 "Minimal use" of foreign steel, iron or coating processes will be permitted, provided the cost of such products does not exceed 1/10 of one percent (0.1 percent) of the total contract cost or $2,500.00, whichever is greater. If foreign steel, iron, or coating processes are used, invoices to document the cost of the foreign portion, as delivered to the project, shall be provided and the engineer's written approval obtained prior to placing the material in any work.

106.9.1.3 Buy America requirements include a step certification for all fabrication processes of all steel or iron materials that are accepted per Sec 1000. The AASHTO Product Evaluation and Audit Solutions compliance program verifies that all steel and iron products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and is an acceptable standard per 23 CFR 635.410(d). AASHTO Product Evaluation and Audit Solutions compliant suppliers will not be required to submit step certification documentation with the shipment for some selected steel and iron materials. The AASHTO Product Evaluation and Audit Solutions compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.

106.9.1.3.1 Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and certifications

documenting the manufacturing process for all subsequent fabrication, including coatings. The certification shall include language that certifies all steel and iron materials permanently incorporated in this project was procured and processed domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.

106.9.1.3.2 Items designated as Category 2 will include all other steel or iron products not in Category 1 and permanently incorporated in the project. Category 2 items shall consist of, but not be limited to items such as fencing, guardrail, signing, lighting and signal supports. The prime contractor is required to submit a material of origin form certification prior to incorporation into the project from the fabricator for each item that the product is domestic. The Certificate of Materials Origin form (link to certificate form) from the fabricator must show all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements and be signed by a fabricator representative. The engineer reserves the right to request additional information and documentation to verify that all Buy America requirements have been satisfied. These documents shall be submitted upon request by the engineer and retained for a period of 3 years after the last reimbursement of the material.

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

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

106.9.2 Buy America Requirements for Construction Materials other than iron or steel products.

Construction materials mean articles, materials, or supplies that consist of only one of the items listed. Minor additions of articles, materials, supplies, or binding agents to a construction material do not change the categorization of the construction material. Upon request by the engineer, the contractor shall submit a domestic certification for all construction materials listed that are incorporated into the project.

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

(g) Engineered wood
(h) Drywall

106.9.3 Buy America Requirements for Manufactured Products.
Manufactured products mean articles, materials or supplies that have been processed into a specific form and shape, or combined with other articles, materials or supplies to create a product with different properties than the individual articles, materials or supplies. If an item is classified as an iron or steel product, an excluded material, or other product category as specified by law or in 2 CFR part 184, then it is not a manufactured product. However, an article, material or supply classified as a manufactured product may include components that are iron or steel products, excluded materials, or other product categories as specified by law or in 2 CFR part 184. Mixtures of excluded materials delivered to a work site without final form for incorporation into a project are not a manufactured product.

106.9.3.1 Produced in the United States, in the case of manufactured products, means:
(A) For projects obligated on or after October 1, 2025, the product was manufactured in the United States; and
(B) For projects obligated on or after October 1, 2026, the product was manufactured in the United States and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product.

106.9.3.2 (i) With respect to precast concrete products that are classified as manufactured products, components of precast concrete products that consist wholly or predominantly of iron or steel or a combination of both shall meet the requirements of paragraph (b) of this section. The cost of such components shall be included in the applicable calculation for purposes of determining whether the precast concrete product is produced in the United States.
(ii) With respect to intelligent transportation systems and other electronic hardware systems that are installed in the highway right of way or other real property and classified as manufactured products, the cabinets or other enclosures of such systems that consist wholly or predominantly of iron or steel or a combination of both shall meet the requirements of paragraph (b) of this section. The cost of cabinets or other enclosures shall be included in the applicable calculation for purposes of determining whether systems referred to in the preceding sentence are produced in the United States.

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

- Third-Party Test Waiver for Concrete Aggregate

1.0 Description. Third party tests may be allowed for determining the durability factor for concrete pavement and concrete masonry aggregate.

2.0 Material. All aggregate for concrete shall be in accordance with Sec 1005.

2.1 MoDOT personnel shall be present at the time of sampling at the quarry. The aggregate sample shall be placed in an approved tamper-evident container (provided by the quarry) for shipment to the third-party testing facility.

2.2 AASHTO T 161 Method B Resistance of Concrete to Rapid Freezing and Thawing, shall be used to determine the aggregate durability factor. All concrete beams for testing shall be 3-inch wide by 4-inch deep by 16-inch long or 3.5-inch wide by 4.5-inch deep by 16-inch long. All beams for testing shall receive a 35-day wet cure fully immersed in saturated lime water prior to initiating the testing process.

2.3 Concrete test beams shall be made using a MoDOT approved concrete pavement mix design.

3.0 Testing Facility Requirements. All third-party test facilities shall meet the requirements outlined in this provision.

3.1 The testing facility shall be AASHTO accredited.

3.1.1 For tests ran after January 1, 2025, accreditation documentation shall be on file with the Construction and Materials Division prior to any tests being performed.

3.1.2 Construction and Materials Division may consider tests completed prior to January 1, 2025, to be acceptable if all sections of this provision are met, with the exception of 3.1.1. Accreditation documentation shall be provided with the test results for tests completed prior to January 1, 2025. No tests completed prior to September 1, 2024, will be accepted.

3.2 The testing facility shall provide their testing process, list of equipment, equipment calibration documentation, and testing certifications or qualifications of technicians performing the AASHTO T 161 Procedure B tests. The testing facility shall provide details on their freezing and thawing apparatus including the time and temperature profile of their freeze-thaw chamber. The profile shall include the temperature set points throughout the entirety of the freeze-thaw cycle. The profile shall show the cycle time at which the apparatus drains/fills with water and the cycle time at which the apparatus begins cooling the specimens.

3.3 Results, no more than five years old, from the third-party test facility shall compare within ±2.0 percent of an independent test from another AASHTO accredited test facility or with MoDOT test records, in order to be approved for use (e.g. test facility results in a durability factor of 79, MoDOT's recent durability test factor is 81; this compared within +2 percent). The independent testing facility shall be in accordance with this provision. The comparison test can be from a different sample of the same ledge combination.

3.4 When there is a dispute between the third party durability test results and MoDOT durability test results, the MoDOT durability test result shall govern.

3.5 Test results shall be submitted to MoDOT's Construction and Materials division electronically for final approval. Test results shall include raw data for all measurements of relative dynamic modulus of elasticity and percent length change for each individual concrete specimen. Raw data shall include initial measurements made at zero cycles and every subsequent measurement of concrete specimens. Raw data shall include the cycle count and date each measurement was taken. Test results shall also include properties of the concrete mixture as required by AASHTO T 161. This shall include the gradation of the coarse aggregate sample. If AASHTO T 152 is

used to measure fresh air content, then the aggregate correction factor for the mix determined in accordance with AASHTO T 152 shall also be included.

4.0 Method of Measurement. There is no method of measurement for this provision. The testing requirements and number of specimens shall be in accordance with AASHTO T 161 Procedure B.

5.0 Basis of Payment. No direct payment will be made to the contractor or quarry to recover the cost of aggregate samples, sample shipments, testing equipment, labor to prepare samples or test samples, or developing the durability report.

- *Delete paragraph 15.0 of the General Provision Disadvantaged Business Enterprise (DBE) Program Requirements and substitute the following*:

15.0 Bidder's List Quote Summary. MoDOT is a recipient of federal funds and is required by 49 CFR 26.11 to provide data about its DBE program. All bidders who seek to work on federally assisted contracts must submit data about all DBE and non-DBEs in accordance with Sec 102.7.9. MoDOT will not compare the submitted Bidder's List Quote Summary to any other documents or submittals, pre or post award. All information will be used by MoDOT in accordance with 49 CFR 26.11 for reporting to USDOT and to aid in overall DBE goal setting**.**

- *Add Sec 102.7.9 to include the following:*

102.7.9 Bidder's List Quote Summary. Each bidder shall submit with each bid a summary of all subcontractors, material suppliers, and service providers (e.g. hauling) considered on federally funded projects pursuant to 49 CFR 26.11. The bidder will provide the firm's name, the corresponding North American Industry Classification System (NAICS) code(s) the firm(s) were considered for, and whether or not they were used in the bid. The information submitted should be the most complete information available at the time of bid. The information shall be disclosed on the Bidder's List Quote Summary form provided in the bidding documents and submitted in accordance with Sec 102.10. Failure to disclose this information may result in a bid being declared irregular.

- Revisions to General Conditions of the Contract for Missouri Standard Specifications for Highway Construction

Insert the following definitions into Sec 101.2:

Agent of Contractor. Subcontractors, its employees, assigns, and agents.

Agent of MoDOT. Any private contractors, subcontractors, engineers, or the employees thereof performing work in accordance with the plans and specifications approved by MoDOT.

Commencement of Work. Also defined as the start of construction operations/activities, this is the date the contractor, its employees, agents, and/or assigns first begins performing work pursuant to the terms of the contract, including the furnishing of labor, material, equipment, and other incidentals necessary or convenient to the successful completion of the project and the

carrying out of duties and obligations imposed by the contract. For purposes of clarity, this date shall be deemed to occur on the date certified payroll activities on the project commence.

Exceptions. Work items identified by the engineer, as documented on the semi-final inspection, that are allowed to be completed after the contract completion date but prior to the item-specific completion date established by the engineer. Failure to complete any excepted work item by the item-specific completion date will result in assessment of contract liquidated damages. Designation of exceptions not mandated by the contract is at the sole discretion of the engineer.

Typical exceptions include:

(a) Seasonal items (e.g., sodding, overseeding, establishment of grass for soil stabilization, or tree/shrub plantings)
(b) Tasks that have contractually required or allowed delays (e.g., removal of sediment control devices, waiting periods for signal/lighting systems, pause for retroreflectivity evaluation of pavement markings)
(c) Other tasks in which the engineer determines it is in the best interest of the Commission to allow completion of such task to extend beyond the contract completion date, but within a designated period of time.

Delete Sec 105.10.7, including all subsections and substitute the following:

105.10.7 Final Inspection. Upon apparent completion of the entire project, the engineer will make a Final Inspection of the work to determine acceptance for maintenance in accordance with Sec 105.15.

Delete Sec 105.15, including all subsections and substitute the following:

105.15 Acceptance.

105.15.1 Partial Acceptance. At the discretion of the engineer, portions of the work within a project may be accepted for maintenance prior to the Final Inspection of all work for that project. When a portion of the work or a specific item is partially accepted, the contractor is relieved from maintenance on the identified portion of the work, but this is not the Final Inspection, as defined in Sec 105.15.2, and will not excuse the contractor from liability or responsibility to the Commission for work performed.

105.15.1.1 Acceptance of a Specific Item or Section of Work. Upon completion of any of the items or sections of work listed herein, the contractor may request the engineer's inspection of the work and partial acceptance. If the engineer finds the work to be complete and acceptable, including submittal by the contractor of all required documentation, partial acceptance will be made for that item or section. The following items, complete in place, as determined by the engineer, are eligible for consideration of partial acceptance:

(a) Any section 0.5 mile or more in length.
(b) Any section 0.5 mile or more in length in one direction of a divided highway.
(c) A complete bridge.
(d) An intersection traffic signal system. Partial acceptance may be made for signal equipment prior to the 30-day testing period though any required performance tests and/or guarantees shall remain applicable.
(e) Devices intended to be used for traffic safety and control. Acceptance of traffic safety devices is limited to guardrail, impact attenuation barriers, traffic signal items, signs,

delineators, lighting, concrete barrier walls, concrete bridge parapet, bridge railing, guard cable, crash cushions and fence, which are permanently installed in their final position in accordance with the contract documents.

105.15.1.2 Semi-Final Inspection, Corrections and Exceptions. The contractor shall submit a written request for a semi-final inspection at least seven days prior to the anticipated completion of work, excluding exceptions. If the engineer postpones the inspection beyond the date the contractor completes all work, the period of postponement will be considered an excusable but non-compensable delay.

105.15.1.2.1 Immediately following the semi-final inspection, the engineer will provide the contractor with a list of any remaining items of work, corrections, and exceptions. The count of contract time will continue until all work and corrections are complete. If the engineer determines all work is complete, with no exceptions, the semi-final inspection will be considered the Final Inspection in accordance with Sec 105.15.2.

105.15.1.2.2 Work Complete Date. Upon verification by the engineer that all work, exclusive of exceptions, is complete, the engineer will declare partial acceptance and cease the count of contract time. The count of contract time will resume should the contractor fail to complete one or more exceptions by the required date.

105.15.2 Final Inspection and Acceptance for Maintenance. The contractor shall promptly notify the engineer when all work on a project, including exceptions, is complete. Upon Final Inspection by the engineer and verification that all work on a project is complete, a notice of acceptance for maintenance will be submitted to the contractor. Acceptance for maintenance excludes any items covered by item-specific performance bonds. Final Inspection shall occur not later than ten (10) business days after contractor's notification to the engineer that all corrections and exceptions have been completed. If the Final Inspection has not occurred within the ten (10) business-day time frame, all corrections and exceptions shall be deemed completed and MoDOT will be deemed to have accepted maintenance. If written acceptance for maintenance is not received within twenty (20) business days after the date of the Final Inspection, nor any objections sent to the Agent of MoDOT during this twenty (20) business-day period, the project and the work shall automatically be deemed accepted for maintenance.

105.15.2.1 Following the Final Inspection, the Agent of MoDOT will be 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 design or construction of the work, unless additional work is performed by the Agent of MoDOT on the right of way after Final Inspection.

105.15.2.2 Nothing in these specifications shall be deemed to excuse the contractor of liability or responsibility for any personal injury, death or property damages which may have occurred during the time period from the Commencement of Work through the Final Inspection.

105.15.2.3 Acceptance of a project shall not be construed to relieve the contractor of full responsibility for making good any non-latent defect in work or material found on any section of work prior to final acceptance of the entire project, to alter in any manner the method of payment prescribed in the contract or to constitute a waiver of any claim the Commission might have against the contractor on the entire project.

105.15.2.4 Contracts with Multiple Projects. For contracts that include two or more projects, the contractor may request a separate final inspection and acceptance for maintenance as the work is completed on each project.

105.15.3 Final Acceptance and Payment. Following Final Inspection and acceptance for maintenance, the engineer will prepare the final tabulation of quantities in accordance with Sec 109.8. A final change order, if necessary, and the final tabulation of quantities will be submitted to the contractor for review. Upon receipt of the final tabulation of quantities, the contractor shall promptly submit to the engineer any remaining project documentation including, but not limited to, those listed in Sec 105.15.3.2.

105.15.3.1 A Final Acceptance report will be submitted to the contractor, and final payment will be made, no later than thirty days following concurrence on tabulation of quantities, receipt by the engineer of all project documentation, and verification by the engineer that all material incorporated into the work has been properly inspected. If the final tabulation of quantities determines the contractor was overpaid, the contractor, or in case of default, the surety, shall return the amount of overpayment to the Commission within thirty days of receiving notice of the overpayment from the engineer.

105.15.3.2 When required by the contract, project documentation shall consist of the following:

(a) Contractor's Affidavit Regarding Settlement of Claims (Form C-242)
(b) Final Change Order
(c) DBE Participation List and Final Verification
(d) Affidavit – Compliance with the Prevailing Wage Law

105.15.3.3 Final acceptance will not excuse the contractor's liability or responsibility to the Commission for any latent defects in the work or material incorporated into the work, or for claims relating to any work or material incorporated into the work, except as barred by Sections 537.600 and 537.610, RSMo.

Delete Sec 107.11, including all subsections, and substitute the following:

107.11 Responsibility for Claims for Damage or Injury. The contractor shall be responsible, to the extent imposed by applicable law, for injury, property damage, damage to the Work, or other loss caused by the negligent, wrongful, intentional, reckless, or contractually noncompliant acts or omissions of the contractor or an Agent of Contractor from Commencement of construction activities through Final Inspection and acceptance for maintenance.

107.11.1 The contractor shall not be responsible for damage relating to personal injury or death, arising from the design, condition, or maintenance of the project area prior to commencement of work and after Final Inspection and acceptance of the work, in accordance with Sec 101.2 and 105.15.2, unless any of the following conditions exist:

(a) The work is so defective that it creates an imminent danger to third parties;
(b) A defect in the work was concealed and not discoverable by a reasonable inspection by the Commission;
(c) The agent of MoDOT knew of the dangerous condition and did not disclose it to the Commission; or

(d) The plans or specifications followed were so imperfect or improper that the agent of MoDOT should have known the work to be done thereunder would result in an unsafe condition.

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.

Delete Sec 107.12, including all subsections, and substitute the following:

107.12 Contractor's Responsibility for Work Damages to any portion of the work occurring after the date of Commencement of Work and before the work is deemed approved 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.

107.12.1 The contractor shall immediately give written notice to the engineer of any pedestrian, worker and/or vehicular accident that occurs in or near the work zone. 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.

Delete Sections 107.13, 107.13.1, 107.13.2, 107.13.3, 107.13.3.4, 107.13.5, 107.13.6, 107.13.9, 107.13.10.4, 107.13.10.8, and substitute the following:

107.13 General Insurance Requirements. From the commencement of construction activities through the Final Inspection and acceptance for maintenance of the project by the engineer, the contractor shall procure and maintain at the contractor's expense, 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 Sec 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, its members, the Missouri Department of Transportation, and its employees up to Missouri's sovereign immunity limits. Provided, however, additional insured coverage applies only to liability caused in whole or in part by the acts or omissions of the named insured or those acting on its behalf and does not provide defense or indemnity for liability that Section 537.600, RSMo. places solely on MoDOT or another public entity. Each policy shall be endorsed to not waive sovereign immunity limits. The naming of the Commission, its members, MoDOT, and its employees as

additional insureds under any insurance policy shall not be construed as a waiver of any sovereign, official, or other governmental immunity. The Commission, its members, MoDOT, and its employees reserve the right to assert any sovereign, official, or any other governmental immunities. Nothing in the Section shall be construed to enlarge the liability of the contractor beyond that imposed by applicable law, create a contractual duty to defend or indemnify prohibited by Section 537.600, RSMo, or require insurance coverage for liability that Section 537.600, RSMo places solely upon MoDOT. Insurance coverage and priority shall otherwise be determined in accordance with the applicable policies and endorsements.

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, its members, MoDOT, its employees, agents, and assigns 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. Should work on the project be discontinued, the commercial general liability insurance coverage shall remain in effect for three (3) years after the date of discontinuation, 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 be endorsed to Commission, its members, MoDOT, and its employees, agents, and assigns as additional insureds (the "Additional Insureds").

107.13.4 Contractor's Pollution Liability (CPL) Insurance. The contractor 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. The Commission, its members, MoDOT, and its employees, agents, and assigns shall be endorsed as additional insureds under such policy. The policy shall provide coverage for hauling of waste from the project site to the final disposal location including non-owned disposal sites. Completed operations coverage for pollution liability shall extend a minimum of three (3) years after final acceptance of the project. Contractor shall require any subcontractor that performs environmental remediation, hazardous material removal or related work including the transportation, disposal, or environmental engineering work, to provide contractor's pollution liability insurance with limits and scope of coverage appropriate to the exposure. The Commission, its members, MoDOT, and its employees, agents, and assigns shall be endorsed as additional insured under such policy. The policy shall not contain a cross suits exclusion or other provisions that would eliminate additional insured claims against the contractor or subcontractor.

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, its members, MoDOT, and its employees,

agents, and assigns 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 additional insureds, the Commission, its members, MoDOT, and its employees, agents, and assigns.

107.13.9 Evidence of Insurance. Required evidence of insurance providing confirmation of compliance with these requirements shall consist of a certificate of insurance 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. No later than five (5) business days prior to the Commencement of Work, 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. The aforementioned evidence of insurance shall also be submitted in the same manner no fewer than five (5) business days prior to the effective date of any change or renewal of insurance during the term of the project. 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. 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.

107.13.10.4 Primary and Non-contributory. For any claims related to this contract or insurance requirements herein identified, the contractor's insurance coverage shall be primary insurance with respect to the Commission, its members, 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, unless liability caused in whole or in part by the acts or omissions of the named insured or those acting on its behalf and does not provide defense or indemnity for liability that Section 537.600, RSMo places solely upon MoDOT or another public entity. Priority and allocation shall be governed by the applicable policies and endorsements. MoDOT may not unilaterally alter priority among the contractor's, any subcontractor's, or any additional insured's policies.

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 or agent of 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.

Delete Sec 107.14 and substitute the following:

107.14 Cooperation in Defense. The Agent of MoDOT and MoDOT shall reasonably cooperate in the defense of the other against potential third party claims. This cooperation includes providing reasonable access to relevant records, documents, and personnel. Nothing in this section creates a contractual duty to defend prohibited by RSMo 537.600(5).

Delete Sec 107.18 and substitute the following:

107.18 Basis of Payment. No direct payment will be made for compliance with Sec 107.

- Payment for Excess Piling

Delete Sec 702.6.3 and insert the following:

702.6.3 Pile Cut-Offs. No direct payment will be made for routine pile cut-offs, except as otherwise provided herein.

702.6.3.1 Excess Piling. If the total measured length of installed piling on a given structure, per item, is 85 percent or less of the plan quantity, the difference between plan quantity and installed quantity shall be deemed as excess piling. Reimbursement will be made for excess piling, as determined by the engineer. No reimbursement will be made for piling purchased in excess of plan quantity. The contractor shall provide the engineer with all paid invoices, which may be used to determine an equitable reimbursement. Shipping costs on the invoice will be included in the reimbursement payment, but no handling, overhead or profit will be included. All excess piling shall be removed from the project and retained by the contractor.

- *Delete Sec 102.18.1 and renumber existing Sec 102.18.2 through 102.18.5.4 including all subsections:*

102.18.1 Certification Regarding Disbarment, Eligibility, Indictments, Convictions or Civil Judgments. The president or authorized official of the bidder, under penalty of perjury under the laws of the USA, shall certify that, except as noted in the exceptions, the company or any person associated therewith in the capacity of owner, partner, director, officer, principal investor, project director, manager, auditor or any position involving the administration of federal funds:

(a) Is not currently under suspension, debarment, voluntary exclusion or determination of ineligibility by any federal agency.

(b) Has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past three years.

(c) Does not have a proposed debarment or suspension pending.

(d) Has not been indicted, convicted or had a civil judgment rendered against any of the listed parties by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

102.18.1.1 If there are any exceptions, the bidder shall submit the exceptions on company letterhead, signed by the bidder and inserted inside the bid submitted.

102.18.1.2 Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility.

102.18.1.3 For any exception noted, the bidder shall indicate to whom it applies, the initiating agency, and dates of action.

102.18.1.4 Providing false information may result in criminal prosecution or administrative sanctions.

102.18.2 Certification Regarding Anti-Collusion. In accordance with 23 USC 112, the bidder shall certify, under penalty of perjury, that the bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this contract.

102.18.3 Certification Regarding Lobbying Activities. In accordance with 31 USC 1352, the bidder shall certify that:

(a) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement and the extension, continuation, renewal, amendment or modification of any federal contract, grant, loan or cooperative agreement.

(b) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress or an employee of a member of Congress in connection with this federal contract, grant, loan or cooperative agreement, the bidder shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with the instructions.

102.18.3.1 This certification shall be a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification shall be a prerequisite for making or entering into this transaction imposed by 31 USC 1352. Any person who fails to file the required certification will be subject to a civil penalty of no less than $10,000 and no more than $100,000 for each such failure.

102.18.3.2 The bidder also agrees by submitting a bid that the bidder shall require that the language of this certification be included in all subcontracts that exceed $100,000, and that all such subrecipients shall certify and disclose any lobbying activities accordingly.

102.18.4 Certification Regarding Missouri Domestic Products Procurement Act. This certification will only apply to state-funded projects as noted on the cover of the Request for Bid. The bidder's attention is directed to Sections 34.350 through 34.359 RSMo 2000, which requires all manufactured goods or commodities used or supplied in the performance of the contract or any subcontract to be manufactured, assembled or produced in the USA. Sections 34.350 through 34.359 RSMo will not apply if the total bid is less than $1,000.00.

102.18.4.1 Section 34.355 RSMo requires the vendor or bidder to certify compliance with Section 34.353 RSMo and, if applicable, Section 34.359 RSMo at the time of bidding and prior to payment. Failure to comply with Section 34.353 RSMo during performance of the contract and to provide certification of compliance prior to payment will result in nonpayment for those goods or commodities.

102.18.4.2 The bidder shall certify that all the specified goods or products for which this bid was solicited are manufactured, assembled or produced in the USA. If there are any exceptions, the bidder shall submit a list of the exceptions on company letterhead, signed by the bidder and attached to the inside of the bid submitted. The list shall include the pay item number and the location where the item is manufactured. The bidder shall identify any of the exceptions in the list that are specified goods or products that are treated as manufactured, assembled or produced in the USA under an existing treaty, law, agreement or regulation of the USA regarding export/import restrictions and international trade.

102.18.4.3 The bidder shall notify the contact listed in the Request for Bid of any specified goods or products that cannot be manufactured, assembled or produced in the USA in sufficient quantities or in time to meet the contract specifications.

102.18.4.4 The bidder shall certify that the bid complies with all provisions of Section 34.350 *et seq* RSMo.

Delete Sec 106.10 and substitute the following:

106.10 Missouri Domestic Products Requirement. For state funded projects, as noted on the cover of the contract, material shall be in accordance with Sec 102.18.4.

G. Liquidated Damages / Liquidated Savings Specified JSP-03-05B

1.0 Description. If construction of the Stages of construction (as detailed in project JST0119 Traffic Control plans including work for all projects included in Required Combination of Calls JSP-17-01A) and listed in the table below, are not completed by the calendar days specified, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public.

2.0 Liquidated Damages Specified for Failure to Complete Work on Time. These costs are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the table below per day for each day or partial day thereof, that all contract work within each Stage shall be completed as directed in the contract and on the plans including guardrail and open to traffic, in excess of the limitation as specified elsewhere in the special provision. It will be the responsibility of the engineer to determine the quantity of excess closure time.

2.1 The said liquidated damages specified will be assessed in addition to any other liquidated damages charged under the Missouri Standard Specifications for Highway Construction, as indicated elsewhere in this contract.

2.2 This deduction will continue with no cap until such time as the necessary work is completed and traffic is restored.

3.0 Liquidated Savings Specified for Early Completion. The contractor may receive an incentive payment from the Commission, in addition to all other sums earned under the contract, if the contractor completes the contract work within each Stage. To qualify for this incentive payment, all contract work per Stage shall be completed as directed in the contract and on the plans including guardrail and open to traffic. An incentive payment as specified in the table below will be paid per day for each full day that the work described above is completed prior to the durations specified. The maximum amount paid as liquidated savings will not exceed the amounts specified for each Stage as Liquidated Savings Cap.

3.1 In the event of an excusable delay, including differing site conditions, an extension of the contract completion time will not extend the time specified for determining any liquidated savings or incentive, except that, in its discretion, the Commission may extend the time specified should the delay be directly caused by the Commission. Further, in the event of an excusable delay, if the contractor completes the work providing for liquidated savings or incentive on or before the milestone or other date, that shall not constitute a basis to claim acceleration costs in addition to the liquidated savings or incentive that may be earned.

3.2 The incentive payment described above is made, not as a bonus or gift, but as stipulated compensation in full for reduced risks, delay and inconvenience experienced by the traveling public, and for other reduced costs to the Commission and public resulting from early completion.

Liquidated Damages and Liquidated Savings Table

Construction Stage	Calendar Days	Liquidated Damages per Day	Liquidated Savings per Day	Liquidated Savings Cap
Stage 1 (WB)	150 days from start of Stage construction	$10,000	$10,000	$200,000
Stage 2.1 (EB)	75 days from start of Stage construction	$8,400	$8,400	$84,000
Stage 2.2 (EB)	120 days from start of Stage construction	$8,400	$8,400	$126,000

H. Winter Months Requirements JSP-15-07A

1.0 Description. This project contains work which spans the winter months.

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2.0 Work to be Completed. When the contractor ceases operations for the winter months, any paving operation performed by the contractor shall not result in a lane height differential between adjacent lanes. No crossover traffic shall be allowed over the winter months and each bound shall be returned to two (2) lanes per bound. For the purpose of this specification, winter months shall be defined as November 1 - March 15.

3.0 Maintenance of Pavement Marking. Prior to ceasing operations for winter months, a permanent or temporary stripe shall be provided on any completed length to the point that the original stripe was obliterated or obscured by the contractor's operation. Temporary striped areas shall be re-striped with the remaining route upon performance of the final striping.

4.0 Winter Related Maintenance Activities. The contractor shall have the project in a condition as not to interfere with the plowing of snow. The contractor shall also provide a taper at the end of his paving that will not be damaged by the plowing of snow.

5.0 Basis of Payment. There will be no direct pay for compliance with this provision.

I. Utilities JSP-93-26F

1.0 For informational purposes only, the following is a list of names, addresses, and telephone numbers of the known utility companies in the area of the construction work for this improvement:

Utility Name	Known Required Adjustment	Type
Zacariah Hawk **Laclede Electric Cooperative** 1400 US Route 66 Lebanon, MO 65536 Telephone: 417-741-6336 (Ext. 2212) Email: zhawk@lacledeelectric.com	No	Power
Rich Obremski **Lumen** 11111 Dorsett Rd Maryland Heights, MO 63043 Telephone: 314-378-9931 Email: Richard.obremski@lumen.com	No	Communications
Missouri.Com/Rally Networks 501 S Main St New London, MO 63459 Telephone: 844-384-6266 Email: csr@rallynet.us	No	Communications

1.1 The existence and approximate location of utility facilities known to exist, as shown on the plans, are based upon the best information available to the Commission at this time. This information is provided by the Commission "as-is" and the Commission expressly disclaims any representation or warranty as to the completeness, accuracy, or suitability of the information for any use. Reliance upon this information is done at the risk and peril of the user, and the Commission shall not be liable for any damages that may arise from any error in the information. It is, therefore, the responsibility of the contractor to verify the above listing information indicating

existence, location, and status of any facility. Such verification includes direct contact with the listed utilities.

2.0 Laclede Electric Cooperative

Laclede Electric Cooperative has the following existing facilities within the project limits:

- Aerial facilities crossing the centerline of I-44 at Sta. 1365+71.
    - No impact to these facilities is anticipated.
- Aerial facilities crossing the centerline of I-44 at Sta. 1436+60.
    - No impact to these facilities is anticipated.
- Aerial facilities crossing the centerline of I-44 at Sta. 1446+96.
    - No impact to these facilities is anticipated.
- Aerial facilities crossing the centerline of I-44 at Sta. 1480+45.
    - No impact to these facilities is anticipated.
- Aerial facilities crossing the centerline of I-44 at Sta. 1540+86.
    - No impact to these facilities is anticipated.
- Aerial facilities crossing the centerline of I-44 at Sta. 1542+23.
    - No impact to these facilities is anticipated.
- Aerial facilities crossing the centerline of I-44 at Sta. 1557+07.
    - No impact to these facilities is anticipated.
- Aerial facilities crossing the centerline of I-44 at Sta. 1589+33.
    - No impact to these facilities is anticipated.

The contractor shall coordinate with Laclede Electric Cooperative, as necessary, and take measures to protect in place their existing facilities during construction.

The contractor shall directly contact Laclede Electric Cooperative to verify the locations of their facilities.

MoDOT cannot warrant the information above which was provided by Laclede Electric Cooperative.

4.0 Lumen

Lumen has the following existing facilities within the project limits:

- Buried facilities running in the median between I-44 EB and I-44 WB throughout the project limits. [See second entry below for a deviation in this overall route.]

    - The following provisions apply to all proposed guardrail and proposed high-tension guard cable locations listed below:
        - Care should be taken by Contractor to locate Lumen's facilities prior to guardrail installation at the locations listed below.
        - Contractor to place and/or space guardrail posts as needed to protect these facilities in place.
        - Contractor will be responsible for potholing to determine precise location of Lumen facilities, as needed, to ensure no conflict exists.
        - No direct payment will be made for this provision.

- Proposed removal and replacement of high-tension guardrail cable running parallel to existing Lumen facilities between Sta. 1352+26 and 1358+69.
- Proposed removal and replacement of high-tension guardrail cable running parallel to existing Lumen facilities between Sta. 1416+81 and 1423+21.
- Proposed MGS Guardrail runs parallel to existing Lumen facilities between Sta. 1463+30 and 1467+73.
- Proposed MGS Guardrail runs parallel to existing Lumen facilities between Sta. 1497+03 and 1501+16.
- Proposed MGS Guardrail runs parallel to existing Lumen facilities between Sta. 1501+35 and 1505+64.

- Buried facilities exit the median from a handhole west of the Bear Creek Bridge and cross the eastbound lanes of I-44 at Sta. 1453+47 and turn and run east-west south of the edge of pavement of I-44EB. Facilities turn north and cross EB I-44 again at Sta. 1463+45 and return to a handhole in the median, where they resume their east-west run.

    - Existing Handholes fall in the median outside of the proposed improvements on work on the EB and WB lanes. Cut and grading is minimal at this location and therefore no impact to these facilities is anticipated.

    - The provisions shown above related to the installation of the proposed MGS Guardrail also apply to this section.

The contractor shall coordinate with Lumen, as necessary, and take measures to protect in place their existing facilities during construction.

The contractor shall directly contact Lumen to verify the locations of their facilities.

MoDOT cannot warrant the information above which was provided by Lumen.

5.0 Missouri.Com (Rally Networks)

Missouri.Com/Rally Networks has the following existing facilities within the project limits:

- Aerial facilities crossing the centerline of I-44 at Sta. 1477+93.
    - No impact to these facilities is anticipated.
- Aerial facilities crossing the centerline of I-44 at Sta. 1557+07.
    - No impact to these facilities is anticipated.
- Aerial facilities crossing the centerline of I-44 at Sta. 1589+33.
    - No impact to these facilities is anticipated.

The contractor shall coordinate with Missouri.com/Rally Networks, as necessary, and take measures to protect in place their existing facilities during construction.

The contractor shall directly contact Missouri.com to verify the locations of their facilities.

MoDOT cannot warrant the information above which was provided by Missouri.com.

J. Quality Management NJSP-15-22

1.0 Quality Management. The contractor shall provide Quality Management as specified herein to ensure the project work and materials meets or exceeds all contract requirements.

1.1 The contractor shall provide Quality Control (QC) of the work and material, as specified herein, to ensure all work and material is in compliance with contract requirements. QC staff shall perform and document all inspection and testing. The QC inspectors and testers may be employed by the contractor, sub-contractor, or a qualified professional service provided by the contractor.

1.2 The engineer will provide Quality Assurance (QA) inspection. The role of QA is to verify the performance of QC and provide confidence that the product will satisfy given requirements for quality.

1.3 The contractor shall designate a person to serve as the project Quality Manager (QM). The QM shall be knowledgeable of standard testing and inspection procedures for highway and bridge construction, including a thorough understanding of the Missouri Standard Specifications. The QM shall be responsible for the implementation and execution of the Quality Management Plan and shall oversee all QC responsibilities, including all sub-contract work. The QM shall be the primary point of contact for all quality related issues and responsibilities, and shall ensure qualified QC technicians and inspectors are assigned to all work activities. The QM should be separate from the manager of the work activities to effectively manage a QC program.

1.4 Any QC personnel determined in sole discretion of the engineer to be incompetent, derelict in their duties, or dishonest, shall at a minimum be removed from the project. Further investigation will follow with a stop work notification to be issued until the contractor submits a corrective action report that meets the approval of the engineer.

2.0 Quality Management Plan. The contractor shall develop, implement and maintain a Quality Management Plan (QMP) that will ensure the project quality meets or exceeds all contract requirements, and provides a record for acceptance of the work and material. A sample QMP, which shows minimum requirements, is provided on the MoDOT website at: www.modot.org/quality.

2.1 The QMP shall address all QC inspection and testing requirements of the work as described herein. A draft QMP shall be submitted to the Resident Engineer for review at least two weeks prior to the pre-construction conference. An approved QMP is required at least two weeks prior to the start of work, unless otherwise allowed by the engineer. Physical work on the project shall not begin prior to approval of the QMP by the engineer.

2.2 The approved QMP shall be considered a contract document and any revisions to the QMP will require approval from the engineer.

2.3 The following items shall be included in the Quality Management Plan:

a) Organizational structure of the contractor's project management, production staff, and QC staff, specific to this project.

b) Name, qualifications and job duties of the Quality Manager.

c) A list of all certified QC testers who will perform QC duties on the project, including sub-contract work, and the tests in which they are certified.

d) A list of all QC inspectors who will perform QC inspection duties on the project, including sub-contract work, and the areas of inspection that they will be assigned.

e) A procedure for verifying documentation is accurate and complete as outlined in Section 3.

f) A procedure describing QC Inspections as outlined in Section 4.

g) A procedure describing QC Testing, as outlined in Section 5, including a job specific Inspection and Test Plan (ITP).

h) A procedure describing Material Receiving as outlined in Section 6.

i) A list of Hold Points that are not included in the checklist forms, as outlined in Section 8.

j) A procedure for documenting and resolving Non-Conforming work as outlined in Section 9.

k) A procedure for tracking and documenting revisions to the QMP.

l) A list of any approved changes to the Standard Specifications or ITP, including a reference to the corresponding change order.

m) Format for the Weekly Schedule and Work Plans as outlined in Section 10, including a list of activities that will require pre-activity meetings.

3.0 Project Documentation. The contractor shall establish a Document Control Procedure for producing and uploading the required Quality Management documents to a MoDOT-provided server. The document management software used by MoDOT is Microsoft SharePoint®. Contractors do not need to purchase Microsoft SharePoint®, however, it is recommended that new users acquire some basic training to better understand how to use this software. MoDOT does not provide the software training, but there are several online vendors who do. Contractors are required to use Microsoft Excel® and Microsoft Word® with some documents.

3.1 The contractor shall utilize the file structure and file naming convention provided by MoDOT. A sample file structure is available on the MoDOT website.

3.2 Documents (standard forms, reports, and checklists) referenced throughout this provision are considered the minimum documentation required. They shall be obtained from MoDOT at the following web address: www.modot.org/quality. The documents provided by MoDOT are required to be used in the original format, unless otherwise approved by the engineer. Any alteration to these forms shall be approved by the engineer.

3.3 Timely submittal of the required documents to the MoDOT document storage location is essential to ensure payment can be processed for the completed work. Submittal of the documents is required within 12 hours of the work shift that the work was performed, or on a document-specific schedule approved by the engineer and included in the QMP.

3.4 The contractor shall establish a verification procedure that ensures all required documents are submitted to the engineer within the specified time, and prior to the end of each pay period

for the work that was completed during that period. Payment will not be made for work that does not include all required documents. Minimum documents that might be required prior to payment include: Test Reports, Inspection Checklists, Materials Receiving Reports, and Daily Inspection Reports.

3.5 The contractor shall perform an audit at project closeout to ensure the final collection of documents is accurate and complete.

4.0 Quality Control Inspections. The QMP shall identify a procedure for performing QC inspections. QC inspections shall be performed for all project activities to ensure the work is in compliance with the contract, plans and specifications.

4.1 The QM shall identify the QC inspectors assigned to each work activity. The QC inspectors shall inspect the work to ensure the work is completed in accordance with the plans and specifications, and shall document the inspection by completing the required inspection checklists, forms, and reports provided by MoDOT. Depending on the type of work, the checklists may be necessary daily, or they may follow a progressive work process. The frequency of each checklist shall be stated in the QMP. The contractor may propose alternate versions of checklists that are more specific to the work.

4.2 A Daily Inspection Report (DIR) is required to document pertinent activity on the project each day. This report shall include a detailed diary that describes the work performed as well as observations made by the inspection staff regarding quality control. The report shall include other items such as weather conditions, location of work, installed quantities, tests performed, and a list of all subcontractors that performed work on that date. The report shall include the full name of the responsible person who filled out the report and shall be digitally signed by an authorized contractor representative.

4.3 External fabrication of materials does not require further QC inspection if the product is currently under MoDOT inspection or an approved QC/QA program. QC inspection and testing required in the production of concrete for the project shall be the responsibility of the contractor.

4.4 The contractor shall measure, and document on the DIR, the quantity for all items of work that require measurement. Any calculations necessary to support the measurement shall be included with the documentation. The engineer will verify the measurements prior to final payment.

5.0 Quality Control Testing. The QMP shall identify a procedure for QC testing. The contractor shall perform testing of the work at the frequency specified in the Inspection and Test Plan (ITP).

5.1 MoDOT will provide a standard ITP and the contractor shall modify it to include only the items of work in the contract, including adding any Job Special Provision items. The standard ITP is available on the MoDOT website at www.modot.org/quality. The contractor shall not change the specifications, testing procedures, or the testing frequencies, from the standard ITP without approval by the engineer and issuance of a change order.

5.2 Test results shall be recorded on the standard test reports provided by the engineer, or in a format approved by the engineer. Any test data shall be immediately provided to the engineer upon request at any time, including prior to the submission of the test report.

5.3 The contractor shall ensure that all personnel who perform sampling and/or testing are certified by the MoDOT Technician Certification Program or a certification program that has been approved by MoDOT for the sampling and testing they perform.

5.4 If necessary, an independent third party will be used to resolve any significant discrepancies between QC and QA test results. All dispute resolution testing shall be performed by a laboratory that is accredited in the AASHTO Accreditation Program in the area of the test performed. The contractor shall be responsible for the cost to employ the third party laboratory if the third party test verifies that the QA test was accurate. The Commission shall be responsible for the cost if the third party test verifies that the QC test was accurate.

6.0 Material Receiving. The QMP shall identify a procedure for performing material receiving. Standard material receiving forms will be provided by the engineer.

6.1 The procedure shall address inspections for all material delivered to the site (excluding testable material such as concrete, asphalt, aggregate, etc.) for general condition of the material at the time it is delivered. The material receiving procedure shall record markings and accompanying documentation indicating the material is MoDOT accepted material (MoDOT-OK Stamp, PAL tags, material certifications, etc.).

6.2 All required material documentation must be present at the time of delivery. If the material is not MoDOT accepted, the contractor shall notify the engineer immediately and shall not incorporate the material into the work.

7.0 Quality Assurance. The engineer will perform Quality Assurance inspection and testing (QA) to verify the performance of QC inspection and testing. The frequency of the QA testing will be as shown in the ITP, but may be more frequent at the discretion of the engineer. The engineer will record the results of the QA testing and inspection and will inform the contractor of any known discrepancies.

7.1 QA is responsible for verifying the accuracy of the final quantity of all pay items in the contract. This includes taking measurements on items that require measurement and other items that are found to have appreciable errors.

7.2 QA inspection and test results shall not be used as a substitute for QC inspection and testing.

7.3 QA will be available for Hold Point inspections at the times planned in the Weekly Schedule. The inspections may be re-scheduled as needed, but a minimum 24-hour advance notification from the contractor is required unless otherwise approved by the engineer.

8.0 Hold Points. Hold Points are events that require approval by the engineer prior to continuation of work. Hold Points occur at definable stages of work when the succeeding work depends on a QA review of the preceding work before work can continue.

8.1 A list of minimum Hold Points will be provided by the engineer and shall be included in the QMP. The engineer may make changes to the Hold Point list at any time.

8.2 Prior to all Hold Point inspections, QC shall provide the engineer with the Daily Inspection Reports, Inspection Checklists, Test Reports, and Material Receiving Reports for the work performed leading up to the Hold Point. If the engineer identifies any corrective actions needed during a Hold Point inspection, the corrections shall be completed prior to continuing work. The

engineer may require a new Hold Point to be scheduled if the corrections require a follow-up inspection.

9.0 Non-Conformance Reporting. Non-conformance reports shall be issued by the contractor for work that does not meet the contract requirements. Non-conforming work includes work, testing, materials and processes that do not meet contract requirements. The contractor shall establish a procedure for identifying and resolving non-conforming work as well as tracking the status of the reports.

9.1 Contractor QC staff or production staff should identify non-conforming work and document the details on the Non-Conformance Report form provided by MoDOT. QA staff may also initiate a non-conformance report.

9.2 In-progress work that does not meet the contract requirements may not require a non-conformance report if production staff is aware of the issue and corrects the problem during production. QC or QA may issue a non-conformance report for in-progress work when documentation of the deficiency is considered beneficial to the project record.

9.3 The contractor shall propose a resolution to the non-conforming work. Acceptance of a resolution by the engineer is required before closure of the non-conformance report.

9.4 For recurring non-conformance work of the same or similar nature, a written Corrective Action Request will be issued by QC or QA. The contractor shall then establish a procedure for tracking the corrective action from issuance of the request to implementation of the solution. Approval from the engineer is required prior to implementation of the proposed corrective action. The contractor shall notify the engineer after the approved corrective action has been implemented.

10.0 Work Planning and Scheduling. The contractor shall include Quality Management in all aspects of the work planning and scheduling. This shall include providing a Weekly Schedule, a Work Plan for each work activity, and holding pre-activity meetings for each new activity.

10.1 A Weekly Schedule shall be provided to the engineer each week that outlines the planned project activities for the following two-week period. This schedule shall include all planned work, identification of all new activities, traffic control events, and requested Hold Point inspections for the period. Planned quantity of materials, along with delivery dates should also be included in the schedule.

10.2 A Work Plan shall be submitted to the engineer at least one week prior to the pre-activity meeting. The Work Plan shall include the following: a safety plan, list of materials to be used, work sequence, defined responsibilities for QC testing and inspection personnel, and stages of work that will require Hold Point inspections.

10.3 A pre-activity meeting is required prior to the start of each new activity. The purpose of this meeting is to discuss details of the Work Plan and schedule, including all safety precautions. Those present at the meeting shall include: the production supervisor for the activity, the Quality Manager, QC inspection and testing staff, and QA. The Quality Manager will review the defined responsibilities for QC testing and inspection personnel and will address any quality issues with the production staff. Attendees may join the meeting in person or by phone or video conference.

11.0 Basis of Payment. Payment for all costs associated with developing, implementing and maintaining the Quality Management Plan, providing Quality Control inspection and testing, and

all other costs associated with this provision, will be considered included in the unit price of each contract item. No direct pay will be made for this provision.

K. Alternates for Pavements JSP-96-04G

1.0 Description. This work shall consist of a pavement composed of either Portland cement concrete or asphaltic concrete, constructed on a prepared subgrade in accordance with the standard specifications and in conformity with the lines, grades, thickness and typical cross sections shown on the plans or established by the engineer.

1.1 Separate pay items, descriptions and quantities are included in the itemized proposal for each of the alternates. The bidder shall only bid one of the alternates and leave the contract unit price column blank for any pay item listed for any other alternate. If the bidder leaves any value in the unit price column for another alternate other than the one they are bidding, the bid will be rejected.

2.0 Pavements

2.1 Mainline Pavements

2.1.1 A sum of $1,214,100 will be added by the Commission to the total bid using an asphalt alternate for the *Westbound I-44* pavement for bid comparison purposes to factor in life cycle cost analysis of the roadway. The additional amount added will not represent any additional payment to be made to the successful bidder and is used only for determining the low bid.

2.2 A2 Shoulders

2.2.1 A sum of $182,700 will be added by the Commission to the total bid using an asphalt A2 Shoulder alternate for the *Westbound I-44* pavement for bid comparison purposes to factor in life cycle cost analysis of the roadway. The additional amount added will not represent any additional payment to be made to the successful bidder and is used only for determining the low bid.

2.3 The quantities shown for each alternate reflect the total square yards of pavement surface designated for alternate pavement types as computed and shown on the plans. No additional payment will be made for asphaltic concrete mix quantities to construct the required 1:1 slope along the edge of the pavement, for tack applied between lifts of asphalt nor for prime applied between the rock base and lower lift of asphalt.

2.4 The grading shown on the plans was designed for the concrete pavement alternate.

2.5 Pavement alternates composed of Portland cement concrete shall have contrast pavements for intermittent markings (skips), dotted lines, and solid intersection lane lines. The pavement markings shall comply with Sec 620. No additional payment will be for the contrast pavement markings.

2.6 A bid item for concrete rumble strips is included with this project. If the Contractor elects to use the asphalt alternate, rumble strips shall still be required. Rumble strips on asphalt or concrete surfaces will be paid for as Portland Cement Concrete Shoulder Rumble Strip, per STA.

3.0 Method of Measurement. The quantities of concrete pavement will be measured in accordance with Sec 502.14. The quantities of asphaltic concrete pavement will be measured in accordance with Sec 403.22.

4.0 Basis of Payment. The accepted quantity of the chosen alternate and other associated items will be paid for at the unit price for each of the appropriate pay items included in the contract.

4.1 For projects with previously graded roadbeds, any additional quantities required to bring the roadway subgrade to the proper elevation will be considered completely covered by the pay item for Subgrading and Shouldering.

4.2 For projects with grading in the contract, there will be no adjustment of the earthwork quantities due to adjusting the roadway subgrade for alternate pavements.

L. Optional Pavements JSP 06-06H

1.0 Description. This work shall consist of a pavement composed of either Portland cement concrete or asphaltic concrete constructed on a prepared subgrade. This work shall be performed in accordance with the standard specifications and as shown on the plans or established by the engineer.

2.0 The quantities shown reflect the total square yards of pavement surface designated for each pavement type as computed and shown on the plans.

2.1 No additional payment will be made for asphaltic concrete mix quantities to construct the required 1:1 slope along the edge of the pavement, or for tack applied between lifts of asphalt.

2.2 No additional payment will be made for aggregate base quantities outside the limits of the final surface area as computed and shown on the plans. When A2 shoulders are specified, payment for aggregate base will be as shown on the plans.

2.3 The grading shown on the plans was designed for the *concrete* pavement option. For projects with grading in the contract, there will be no adjustment of the earthwork quantities due to adjusting the roadway subgrade for optional pavements.

2.4 The contractor shall comply with Sections 401 through 403 for the asphalt option and Sections 501 and 502 for the concrete option.

2.5 Pavement options composed of Portland cement concrete shall have contrast pavement marking for intermittent markings (skips), dotted lines, and solid intersection lane lines. The pavement markings shall be in accordance with Section 620. No additional payment will be made for the contrast pavement markings.

2.6 A bid item for concrete rumble strips is included with this project. If the Contractor elects to use the asphalt option, rumble strips shall still be required. Rumble strips on asphalt or concrete surfaces will be paid for as Portland Cement Concrete Shoulder Rumble Strip, per STA.

3.0 Method of Measurement. The quantities of concrete pavement will be measured in accordance with Section 502.14. The quantities of asphaltic concrete pavement will be measured in accordance with Section 403.22.

4.0 Basis of Payment. The accepted quantity of the chosen option will be paid for at the contract unit bid price for Item 403-99.05, Optional Pavement, per square yard.

4.1 For projects with previously graded roadbeds, any additional quantities required to bring the roadway subgrade to the proper elevation will be considered completely covered by the pay item for Subgrading and Shouldering.

4.2 Price Adjustment for Fuel. If the contractor accepts the option for fuel adjustment in the bid proposal, a fuel adjustment will be applied in accordance with Sec 109.14 for the type of pavement constructed.

M. Work Zone Intelligent Transportation System NJSP-15-32A

1.0 General. The Work Zone Intelligent Transportation System (WZITS) shall be a portable, real-time, automated, solar powered system that calculates and displays travel time through work zones. The goal of this system is to provide advance traffic condition information to motorists at key decision points due to construction activity. The information reported to the public will include an accurate drive time through the work zone. This system shall be in operation 24 hours per day, seven days per week, during the construction period.

2.0 Description. This item shall consist of submittal and approval of a Work Zone Intelligent Transportation System plan, furnishing, installing, relocating, and operating a portable, automated, solar powered real-time work zone system ("Work Zone Intelligent Transportation System") meeting the requirements noted herein, and providing a system manager to maintain the system during the duration of the project. The contractor shall assume responsibility for any damaged equipment due to crashes, vandalism, adverse weather, etc. that may occur during the system's deployment.

2.1 The contractor shall furnish and maintain this system for measuring and delivering real-time messages for the work zone.

2.2 The contractor is responsible for coordinating any work in adjacent roadway construction projects.

2.3 The contractor will be responsible to relocate the devices as directed by the engineer. When the equipment is no longer required for this project, the contractor shall remove it and retain ownership.

3.0 System Requirements

3.1 The Work Zone Intelligent Transportation System shall be installed on I-44 within the project limits. It shall consist of the following as a minimum:

- 8 portable changeable message signs
- 8 portable non-intrusive traffic sensors
- 1 central computer

4.0 Smart Work Zone Plan

4.1 General. The contractor shall submit to the engineer for approval a written and illustrated WZITS Plan three (3) weeks prior to mobilization of any component of the WZITS System. The WZITS Plan shall include the items required in this specification. The contractor will not be allowed to start any construction activities that will affect traffic on the project until the WZITS Plan is approved by the engineer.

4.2 Content of the WZITS Plan. The WZITS Plan shall include, as a minimum, the following items:

(a) A detailed plan showing the proposed locations of all WZITS devices and equipment description including make and model.

(b) A description of all proposed thresholds and proposed CMS messages to be implemented.

(c) The name and contact information of the WZITS System Manager.

(d) A detailed description of the proposed methods of communication between WZITS devices and WZITS Central Computer and between WZITS Central Computer and the District Office located at 1511 Missouri Blvd., Jefferson City, Missouri 65102.

(e) Proposed corrective method procedures including response times and notification process.

4.3 Approval of Plan. Approval of the WZITS Plan by the engineer is required prior to the placement of any WZITS devices. Approval is conditional and will be predicated on satisfactory performance during construction. The engineer reserves the right to require the contractor to make changes in the WZITS Plan and operations, at no additional cost to the Commission, including removal of personnel, as necessary, to obtain the quality specified. The contractor shall notify the engineer in writing a minimum of seven (7) calendar days prior to any proposed changes in the WZITS Plan. Proposed changes are subject to approval by the engineer.

5.0 Materials.

5.1 Changeable Message Signs. The Work Zone Intelligent Transportation System shall utilize MoDOT approved portable changeable message signs (CMS) in accordance with Missouri Standard Specifications for Highway Construction section 616 Temporary Traffic Control and 1063 Temporary Traffic Control Devices and Standard Plans for Highway Construction 616.10. Each CMS shall be capable of displaying eight characters on each of three rows. Each CMS power supply shall be properly sized to allow continuous operation for up to ten days during periods of darkness and inclement weather.

5.2 Each CMS shall be integrated with a radio/modem, and/or a traffic sensor or other equipment (e.g. controller) mounted on it and shall act as a single “device” for the purpose of communicating with similarly integrated “devices” and displaying real-time traffic condition information. Each device shall be capable of communicating through radios/modems with other device(s) at upstream or downstream locations. MoDOT District staff must have the ability to override messages displayed on any CMS in the system. This feature must be password protected and on a website separate from MoDOT’s public website.

5.3 Portable Non-Intrusive Traffic Sensors. The Smart Work Zone System traffic sensors shall be side-fired microwave radar type whose accuracy is not degraded by inclement weather and visibility conditions including precipitation, fog, darkness, excessive dust and road debris. These sensors shall be capable of acquiring traffic data from up to six (6) lanes of traffic on a lane-by-lane basis.

5.4 Central Computer. The central computer shall provide the functionality described below:

General

- Provide a Graphical User Interface that is compliant with Windows standards.
- Communication between the central computer and any device shall be independent and *non-reliant* upon communications with any other CMS or sensor.
- Alerts to MoDOT District staff and the engineer shall be provided via pagers and/or e-mail. Alerts shall be sent in the event of device failure or traffic delays over 15 minutes.

Data Processing Software

- The capability to collect and store sensor data.
- The capability to compare traffic data collected from sensors to user-defined thresholds and automatically update one or more CMS's.
- The capability to estimate travel times and automatically update one or more portable CMS's consistent with user-defined thresholds.
- The capability to display alternate route messages consistent with user-defined thresholds.

Data Management

- Storage of speed, volume, occupancy, CMS message history, and travel times as well as appropriate sensor status for each day.

Website

- The contractor will be responsible for hosting the website and obtaining domain names. Possible domain names and overall website design must be submitted to the engineer for approval prior to it being made available.
- The website shall contain an accurate map of the area affected by the work zone, including state highways or routes that may be used as alternates.
- Icons or hyperlinked text should accurately depict the current location of the system components and give real-time information provided by each component. In the event components are moved to a new location, the website must reflect these changes to the system layout.
- Historical data should be password protected and stored on the website for each day the system is in use, with date and time stamps included. The above data shall be available to MoDOT staff at all times for the duration of work zone activity. An electronic copy of all data, including date and duration of system malfunction, shall be provided to MoDOT staff after all work zone activity is completed and the WZITS has been removed.
- The MoDOT District staff and the engineer shall have the capability to override messages, via password protection, from the website.
- Device information shall be provided to MoDOT TMC staff through icons or hyperlinked text representing each device. Detectors should provide real-time speeds at the respective locations and CMS's should provide the current message of each sign.
- The website shall be designed and operated to allow 20 users to access the site at one time.

6.0 System Manager. The contractor shall employ a system manager for the WZITS. The system manager shall be locally available to maintain system components, maintain the website, move portable devices as necessary, and respond to emergency situations. The system manager shall be responsible for coordinating the placement of devices in the project areas. It is the responsibility of the system manager to move system components that interfere with construction operations and relocate the components to another area. The system manager shall supply a local phone number and/or a toll free number to the engineer to contact the system manager or other system representative at any time. The system manager shall not perform any other duties on the jobsite.

7.0 Operational Test. Once the WZITS is installed, it shall undergo a five-day operational test. The operational test shall include a test of the system in operation during a lane closure to ensure that all WZITS equipment (including the changeable message signs, traffic sensors, central computer, communication devices, and website) is operating in a fully functional manner and in accordance with the Smart Work Zone Plan for a duration of at least five (5) calendar days. The contractor shall provide for complete operations support from the vendor during the operational test, and the contractor shall provide verification that the reported drive time through the work zone accurately reflects actual field conditions. If any equipment malfunctions occur for a combined period of four (4) hours or more during this operational test on any day, no credit will be given for that day for the operational test period, and the five-day operational test will reset.

7.1 The contractor shall maintain records of equipment stoppages and resumptions during the five-day operational test for submission to the engineer for his approval. In the event that ten percent or more of the time similar malfunctions occur that affect the proper operation of the WZITS, the engineer may declare a system component defective and require replacement of the equipment at no additional cost. When a system component defect is declared, the five-day operational test shall begin again after all defective equipment is replaced and the system is fully operational.

7.2 Report. The contractor shall submit a report to the engineer detailing the daily activity of the system during the operational test. The report shall indicate the date and time of any activity necessary to maintain operation of the WZITS during the operational test period. Each entry shall include the following information:

- Identity of the equipment on which work was performed
- Cause of equipment malfunction (if known)
- A description of the type of work performed
- Time required to repair equipment malfunction

Once the operational test report is received and approved by the engineer, the WZITS will be considered operational and the system will be accepted for use.

8.0 Method of Measurement. Work Zone Intelligent Transportation System (WZITS) shall be measured by one lump sum and shall be divided into the following payment schedule:

- 35 percent will be paid when all of the WZITS equipment is delivered to the jobsite.
- 25 percent will be paid when the engineer approves the Operational Test Report.
- 20 percent will be paid after 30 calendar days of full system operation.
- 20 percent will be paid after traffic is in its final position, the contractor’s equipment has been removed from the project, and historical data has been provided to the engineer.

8.1 Deduction for Failed System. A percentage of the lump sum will be deducted should the system malfunction for three (3) or more consecutive calendar days or any total of five (5) calendar days in any one calendar month after the approval of the operational test. This deduction will be based on a ratio of calendar days of unsuccessful operation to total calendar days of operation following the approval of the operational test. This deduction will not reduce the total system payment to less than 60 percent of the lump sum.

9.0 Basis of Payment. Payment for submittal and approval of a Work Zone Intelligent Transportation plan, furnishing, installing, relocating, operating, maintaining, testing, monitoring, providing a website, providing historical data, and removal of the Work Zone Intelligent Transportation System (WZITS), including all items required for proper operation of this installation, will be completely covered by the contract unit price for Item Number 616-99.01, "Work Zone Intelligent Transportation System," per lump sum. The lump sum pay item shall be payment for the required Intelligent Work Zones specified in the plans, and the lump sum shall be full payment for all projects listed in Required Combination of Calls JSP-17-01A.

N. Law Enforcement in the Work Zone JSP-15-03

1.0 Description. This project has been selected for use of law enforcement personnel in the work zone to help control traffic and promote safety.

2.0 Traffic Control Plan and Preconstruction Conference. The contractor shall present any variations planned to the Traffic Control Plan to the engineer prior to the preconstruction conference. Law enforcement agency representatives may be present at the preconstruction conference. The preconstruction conference will include discussion about the proposed strategy for use of law enforcement in the work zone. Based upon input from the law enforcement agency personnel, the engineer and the contractor, a strategy will be developed for best use of the law enforcement hours by spacing involvement at various times and durations throughout the life of the project.

3.0 Control of Work. The engineer will contact the law enforcement agency and make all arrangements to schedule this work. The contractor may make suggestions to the engineer for improving the strategy at any time. The engineer will contact the law enforcement agency with any approved changes.

3.1 The engineer will make the final decision on all aspects of law enforcement in the work zone.

4.0 Basis of Payment. The Commission will reimburse the law enforcement agency per terms of the agreement between the two agencies. The contractor will not be part of that agreement and will not be required to participate in the cost. No direct payment will be made to the contractor for any costs associated with this provision.

O. Removal and Delivery of Existing Signs JSP-12-01C

1.0 Description. All Commission-owned signs removed from the project shall be disassembled, stored, transported, and disposed of as specified herein. Sign supports, structures and hardware removed from the project shall become the property of the contractor.

2.0 Disassembly and Delivery.

2.1 All Commission-owned signs, (excluding abandoned billboard signs), designated for removal in the plans, or any other signs designated by the engineer, shall be removed from the sign supports and structures, disassembled, stored, transported, and delivered by the contractor to the recycling center for destruction.

2.2 The contractor shall coordinate and make arrangements with the recycling center for delivery of the signs. Sign panels shall be disassembled and/or cut into sizes as required by the recycling center.

2.3 The contractor shall provide the engineer with a "Sign Delivery Certification" attesting to completion of delivery of all existing sign material from the project to the recycler. In addition, the contractor shall provide to the engineer a final "Sign Certification of Destruction" from the recycler that documents the total pounds of scrap sign material received from the project and attests that all such material will not be re-purposed and will be destroyed in a recycling process. The contractor can locate the required certification statements from the Missouri Department of Transportation website:

https://www.modot.org/forms-contractor-use

2.4 Funds received from the disposal of the signs from the recycling center shall be retained by the contractor.

3.0 Basis of Payment. All costs associated with removing, disassembling and/or cutting, storing, transporting, and disposing of signs shall be considered as completely covered by the contract unit price for 202-20.10, Removal of Improvements, per lump sum.

P. Required Combination of Calls JSP-17-01A

1 REVISED

1.0 Description. The following calls are in required combination of calls and bids shall be submitted for all calls. In accordance with Sec 102.8, if bids are not submitted for all calls listed below, the bids will be considered irregular.

Call	Job Number(s)
261120-~~D06~~ D6B	JST0119
261120-~~D06~~ D6A	JCD0270
261120-~~D06~~ D6A	JCD0343
261120-~~D06~~ D6A	JCD0344

1.1 The combination of the total prices of the bids for all calls listed in Section 1.0 will be used to determine the low bid. A separate contract will be executed for each call.

2.0 Per Sec 108.1.1, the contractor's organization shall perform work amounting to no less than 30 percent of the original contract price. This requirement shall apply separately to each contract in the required combination.

Q. Truck Mounted Attenuator (TMA) for Stationary Activities JSP-23-04

1.0 Description. Provide and maintain Truck Mounted Attenuators (TMAs) in accordance with Sec 612 and as specified herein.

2.0 Construction Requirements. TMAs shall be used for the work activities indicated in the plans or specified herein.

- Stationary Lane Closure on a Divided Highway
- Work on the Shoulder on Divided Highway
- Work in the Vicinity of an Entrance Ramp
- Work in the Vicinity of an Exit Ramp
- During the construction of the Westbound pavement widening or work outside of the traveled way when not under a crossover condition, the contractor shall use a TMA to protect the work area from traffic.

3.0 Method of Measurement. No measurement will be made for TMAs.

4.0 Basis of Payment. Delete Sec 612.5.1 and substitute with the following:

612.5.1 No payment will be made for TMAs used in mobile operations or for any TMAs designated as optional.

612.5.1.1 Payment for TMAs required for stationary work activities will be paid for at the contract unit price for 612-30.01, Truck Mounted Attenuator (TMA), per lump sum. The lump sum payment includes all work activities that require a TMA, regardless of the number of deployments, relocations, or length of time utilized. No payment will be made for repair or replacement of damaged TMAs.

R. Use of Crossovers and Truck Entrances JSP-04-10

1.0 Description. The contractor is advised that at no time shall the contractor be allowed to use the existing median crossovers or install temporary crossovers to turn around during hauling operations or for the moving of equipment. The contractor is also prohibited from constructing any temporary entrances to the mainline of the interstate.

2.0 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 provision.

S. Non-Tracking Tack JSP-24-02A

1.0 Description. This work requires application of tack in accordance with Sec 407 and prevention of tack loss from the surface as specified herein. Tack loss prevention shall be accomplished with successful usage of a MoDOT-approved non-tracking tack, or other acceptable non-tracking means, as approved by the engineer.

2.0 MoDOT-Approved Non-Tracking Tack A list of MoDOT-approved non-tracking tack products is available at MoDOT.org under the Materials Qualified List. Upon request from the contractor, the MoDOT Division of Construction & Materials will consider allowance of other non-tracking products. To be approved, the contractor must successfully demonstrate that the

proposed product meets the non-tracking requirements specified in Section 3.0. The location of a contractor demonstration will only be allowed in areas approved by the engineer. The engineer will make final determination of product acceptance based on observation of the results of the contractor's demonstration.

2.1 Products on the Qualified List have demonstrated successful non-tracking performance on previous projects; however, the Commission does not endorse nor guarantee success of any of the listed products. Success is dependent on the contractor choosing a product that can achieve the desired results while also taking into consideration all factors, including, but not limited to, cure time, weather conditions, surface prep, surface type, material properties, and adherence to manufacturer's instructions. The contractor is responsible for monitoring adherence of the tack to the pavement surface and shall cease operations when tack first begins to show signs of not meeting the requirements of Section 3.0. Corrective action shall be made prior to resuming tacking operations.

3.0 Non-Tracking Requirements. Non-tracking tack shall remain adhered to the pavement surface when exposed to any wheeled or tracked vehicles. The tack shall not track off the surface within 30 minutes of being applied, and shall not stick to the tires, tracks or other parts of paving equipment or vehicles such that the underlying surface becomes visible or void of tack prior to the placement of the hot mix asphalt. The tack shall not track onto any adjacent lanes, pavement markings, driveways, sideroads, etc.

3.1. The contractor shall be responsible for cleaning all tracked tack from adjacent lanes, driveways, sideroads, etc., and shall replace all pavement markings that become coated with tracked tack. This cleaning and replacement requirement applies to both approved and proposed non-tracking products.

4.0 Basis of Payment. Measurement and payment shall be in accordance with Sec 407. The accepted quantity of non-tracking tack coat will be paid for per gallon at the contract unit price for 407-10.07, Tack Coat – Non-Tracking, per gallon. No additional payment will be made for the cost to demonstrate proposed products, for cleaning surfaces due to tracking of tack, or for replacement of pavement marking damaged by tracked tack.

T. Temporary Long-Term Rumble Strips JSP-13-04C

1.0 Description. The work shall include furnishing, installing, maintaining and removing long-term rumble strips, as shown in the plans, or as designated by the engineer.

2.0 Material.

2.1 The long-term rumble strips shall be 10 feet to 12 feet in length, fabricated from a polymer material, and be orange in color.

2.2 The long-term rumble strips shall have a minimum width of 4 inches, but no greater than 6 inches. The long-term rumble strips shall have a minimum thickness of 0.25 inch, but no greater than 0.50 inch.

2.3 The long-term rumble strips shall have a pre-applied adhesive backing for securing to the asphalt or concrete roadway surface.

3.0 Construction. Long-term rumble strips layout and spacing shall be in accordance with the plans or as approved by the engineer. The long-term rumble strips shall be installed and removed in accordance with manufacturer's recommendation. The contractor shall monitor and repair, and maintain if necessary the long-term rumble strips until removed.

3.1 Each set shall consist of five individual strips spaced ten to twelve feet on center.

3.2 The long-term rumble strips removal process shall not damage the roadway surface. If any damage occurs to the pavement during the removal of long-term rumble strips, the contractor shall replace or repair the damaged pavement at no cost to the Commission.

4.0 Method of Measurement. Measurement of long-term rumble strips will be per each complete set of five strips.

5.0 Basis of Payment. The accepted quantity of Temporary Long-Term Rumble Strips sets will be paid for at the contract unit price for 616-20.02, Temporary Long-Term Rumble Strips, per each set. The long-term rumble strips unit bid price shall include the cost of all labor, equipment and materials to install, maintain, and remove the rumble strips.

U. Permanent Aggregate Edge Treatment NJSP-15-40B

1.0 Description. This work shall consist of furnishing and installing a permanent aggregate edge treatment along the edge of shoulder or pavement as shown on the plans or as directed by the engineer.

2.0 Construction Requirements. Aggregate shall be simultaneously deposited and spread on the sub-grade and shall not be deposited on the pavement or shoulder and bladed into place. Aggregate material shall be shaped according to the typical section and compacted until there is no visible evidence of further consolidation.

2.1 Bituminous fog seal shall be applied to sections of the edge treatment shown in the plans or designated by the engineer. Bituminous fog seal will be paid for separately.

3.0 Material Requirements. Material used for the aggregate edge treatment shall be Type 1, 5, or 7 Aggregate in accordance with Sec 1007 or an allowable substitute approved by the engineer. Bituminous cold millings meeting the gradation for Type 1, 5 or 7 Aggregate may be used in lieu of aggregate. Limestone screenings or other material with excessive fines will not be allowed. Material will be accepted based on certification in lieu of testing contingent upon satisfactory results being obtained in the field.

4.0 Measurement by Weight. Measurement of the aggregate edge treatment material shall be per ton and in accordance with Sec 310.5.3.

5.0 Basis of Payment. The accepted quantities of aggregate edge treatment will be paid for at the contract unit price for 304-99.10, Permanent Aggregate Edge Treatment, per ton and will be full compensation for all labor, equipment and material to complete the described work. No fuel adjustment will be made for Permanent Aggregate Edge Treatment.

V. Location of Existing Edge of Traveled Way Joint and Shoulders

1.0 Description. It shall be the contractor's responsibility to accurately determine the location of the existing traveled way / shoulder joint and edge of shoulder at locations where it is necessary to make saw cuts to construct new pavement and shoulders. No compensation will be made for any expenses directly or indirectly incurred, resulting from the contractor's failure to accurately locate them.

2.0 Basis of Payment. No direct payment will be made to the contractor for complying with this provision.

W. Damage to Existing Pavement, Shoulders, Side Roads and Entrances

1.0 Description. This work shall consist of repairing any damage to existing pavement, shoulders, side roads and/or entrances caused by contractor operations. This shall include, but not be limited to damage caused by traffic during contractor operations within the project limits including the work zone advanced signing areas.

2.0 Construction Requirements. Any cracking, gouging or other damage to the existing pavement, shoulders, side roads and/or entrances resulting from construction activities 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 and/or entrances shall be as determined by the engineer.

3.0 Method of Measurement. No measurement of damaged pavement, shoulder areas, damaged side roads and/or entrances as described above shall be made.

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

X. Existing Pavement Underdrain Locations

1.0 Description. Existing pavement underdrain locations shown in the contract documents have been developed from available as-built records and other available information. Actual underdrain locations, lengths, outlet locations, and configurations may vary from those shown in the plans. Additional underdrains may exist that are not shown in the contract documents. The contractor shall verify field conditions and notify the engineer of significant discrepancies encountered during construction. No direct payment will be made for locating or verifying existing underdrain systems, and all associated costs shall be considered incidental to the applicable contract items.

Y. Modified Dowel Bar Spacing

1.0 Description. Modified dowel bar spacings shall be provided at transverse joints for the WB alternate concrete pavement. The modified dowel bar spacings are shown and included in the contract plans. The Special Sheet detail shall govern the dowel bar locations and spacing.

2.0 Construction Requirements. The Contractor shall furnish and install dowel bars in accordance with the plans and all applicable requirements of the Standard Specifications and Standard Plans except as modified herein.

3.0 Method of Measurement. No measurement will be made under this provision.

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

All costs associated with furnishing and installing the dowel bar arrangement, including labor, materials, equipment and incidentals necessary to complete the work shall be covered by the contract unit price of the related and applicable Concrete Pavement pay items.

Z. Rumble Strip Filling

1.0 Description. This work shall consist of filling existing rumble strips within areas designated in the plans or as directed by the engineer to provide a smooth and durable riding surface. The completed work shall eliminate the existing rumble strip profile and provide a surface suitable for the intended roadway use. Filling the existing rumble strips shall be done prior to using the temporary lane configuration.

2.0 Construction Requirements. The contractor shall submit a proposed method for filling existing rumble strips to the engineer for review and approval prior to beginning work.

The contractor may utilize any method capable of providing a durable, stable, and permanent filling of the existing rumble strips. Potential methods may include, but are not limited to:

- Microsurfacing.
- Asphaltic materials.
- Polymer-modified materials.
- Epoxy-based products.
- Milling and resurfacing operations.
- Other engineer-approved methods.

Approval of a proposed method by the engineer shall not relieve the contractor of responsibility for satisfactory performance of the completed work.

The contractor shall prepare the existing pavement surface in accordance with the manufacturer's recommendations and the requirements associated with the selected filling method.

The completed surface shall:

- Completely fill the existing rumble strip depressions.
- Be flush with the adjacent pavement surface.
- Remain bonded to the underlying pavement.

- Provide a smooth riding surface free from segregation, cracking, delamination, settlement, or other defects.

Any areas exhibiting defects shall be repaired or replaced at the contractor's expense.

3.0 Method of Measurement. Rumble Strip Filling will be measured to the nearest linear foot along the centerline of the rumble strip filled and accepted by the engineer.

4.0 Basis of Payment. Payment for the accepted quantity of **RUMBLE STRIP FILLING** will be made as 413-99.03 at the contract unit price per linear foot.

Payment shall be full compensation for furnishing all labor, equipment, materials, surface preparation, application, maintenance, testing, repairs, and incidentals necessary to complete the work.

AA. Revisions to Sec 506.20 Unbonded Concrete Overlays of Concrete Pavements

1.0 DELETE SEC 506.20.1 AND SUBSTITUTE THE FOLLOWING:

506.20.1 Description. This work shall consist of placing an interlayer material (geotextile bond-breaker) on an existing concrete pavement and constructing an unbonded concrete overlay in accordance with the details and locations shown on the plans. The standard unbonded concrete overlay design thickness is 11.5 inches. The 11.5 inch overlay will be constructed similarly to new concrete pavement in terms of joint spacing and use of dowel bars and tie bars. The overlay shall be placed in accordance with Section 502, except as herein stated.

2.0 DELETE SEC 506.20.3.4.2.6 and substitute the following:

506.20.3.4.2.6 Fabric shall be placed at the width of the unbonded concrete overlay as shown on the plans.

3.0 DELETE SEC 506.20.5.2 and substitute the following:

506.20.5.2 Placing Unbonded Concrete Overlay. Placement of the unbonded concrete overlay will be paid for as **506-99.05 Misc. {Unbonded Concrete Overlay Placement 11.5 in.}** per square yard. No direct payment will be made for furnishing labor, equipment, dowels, tie bars and other materials to place, finish, texture and cure the overlay including sawing and sealing, if necessary, the joints, in accordance with the plans and specifications

BB. Misc. Inlet Check

1.0 Description. This work shall consist of furnishing, installing, maintaining, and removing inlet checks and sediment buildup at inlets located within grass medians. The purpose of these inlet checks is to reduce sediment transport and control erosion by filtering stormwater runoff before it enters the enclosed drainage system.

2.0 Construction Requirements. Misc. Inlet Check shall be constructed using biodegradable or synthetic sediment control devices such as wattles, fiber rolls, or equivalent products approved by the engineer. Stakes or anchors shall be used to secure the devices in place, where applicable.

- The Contractor shall inspect inlet checks after each rainfall event and at least once per week.
- Sediment buildup shall be removed when it reaches one-third the height of the device.
- Damaged or displaced inlet checks shall be repaired or replaced within 24 hours.
- Inlet checks shall be removed once permanent erosion control measures are established and approved by the engineer.
- All accumulated sediment shall be removed and disposed of at the Contractor's expense.
- Installation shall ensure that inlet checks do not obstruct inlet openings or cause flooding.

3.0 Method of Measurement. Misc. Inlet Check will be measured per each misc. Inlet check installed.

4.0 Basis of Payment. Accepted Misc. Inlet Checks will be paid for as 806-99.02 at the contract unit price per each. This price shall include all labor, materials, and removal necessary to complete the work as specified.

CC. Relocate Existing Sign Assembly

1.0 Description. This work shall consist of removing, salvaging, relocating and reinstalling existing sign assemblies at the locations shown on the plans. This work shall include all labor, equipment, materials, hardware and incidentals required to complete this work.

2.0 Construction Requirements. The contractor shall carefully remove the existing sign assembly, including sign panel(s), post(s), and associated hardware from the existing location without damage.

The contractor shall protect salvaged materials from damage until reinstallation.

Where shown on the plans, a new foundation shall be constructed in accordance with the current version of Standard Plan 903.03 and paid for separately under Pay Item No. 9031010, Concrete Footings, Embedded per cubic yard.

The contractor shall reinstall the salvaged sign assembly at the location shown on the plans.

Damaged sign panels, posts, brackets, fasteners, or other hardware resulting from the contractor's operations shall be replaced at the contractor's expense and at no additional cost to the Commission.

Upon completion, relocated sign assemblies shall conform to the applicable requirements of the latest edition of the Standard Plans Section 903 and the current version of Standard Plan 903.03.

3.0 Method of Measurement. Measurement of Relocate Existing Sign Assembly will be made per each complete sign assembly relocated.

A sign assembly shall consist of the sign panel(s), post(s), mounting hardware, and all appurtenances necessary for a complete installation.

4.0 Basis of Payment. Accepted Relocate Existing Sign Assembly will be paid for as 903-99.02 per each. This price shall include all labor, materials, and removal necessary to complete the work specified.

DD. Temporary Items for Traffic Control

1.0 Description. This work shall consist of furnishing, installing, maintaining, and removing temporary guardrail systems at locations shown on the plans or as directed by the engineer. The temporary guardrail system shall include:

- Temporary Guardrail
- Temporary Crashworthy End Treatment
- Temporary Bridge Approach Transition Section

and all necessary hardware, posts, connectors, anchorage, grading, and incidental materials required to provide a complete and functioning roadside safety system.

The temporary guardrail system shall be installed to shield roadside hazards during the staged construction operations shown on the plans.

All components of the temporary guardrail system shall be crashworthy and compatible with one another. Installation shall comply with the manufacturer's recommendations and applicable MoDOT Standard Plans, Specifications, and current MASH requirements.

2.0 Construction Requirements.

The contractor shall install the temporary guardrail system at the locations shown on the plans prior to opening traffic to the applicable traffic configuration.

Temporary Bridge Approach Transition Section shall be provided where temporary guardrail connects to existing bridge rail or other barrier systems requiring a transition.

A Temporary Crashworthy End Treatment shall be installed at each exposed end of the temporary guardrail system unless otherwise shown on the plans.

The contractor shall maintain the temporary guardrail system in a functional condition at all times while required for traffic control. Any damaged or non-functional components shall be repaired or replaced immediately at the contractor's expense. Upon completion of the work requiring the temporary guardrail system, or when directed by the engineer, the contractor shall remove the temporary guardrail system and restore the disturbed area to the satisfaction of the engineer. Removal of temporary guardrail, temporary bridge approach transition sections, temporary crashworthy end treatments, posts, hardware, anchorage, and all associated appurtenances shall be considered incidental to the contract unit prices of the respective temporary guardrail system items.

The temporary guardrail system shall remain in place until the applicable traffic configuration is removed or as directed by the Engineer. Any damaged or non-functional components shall be repaired and/or replaced within 24 hours at the contractor's expense.

3.0 Method of Measurement. Temporary Guardrail will be measured to the nearest linear foot along the face of rail from end to end.

Temporary Crashworthy End Treatment will be measured by each.

Temporary Bridge Approach Transition Section will be measured by each.

4.0 Basis of Payment. Payment for Temporary Bridge Approach Transition will be made for 606-99.02 at the contract unit price per each.

Payment for Temporary Guardrail will be made for 606-99.03 at the contract unit price per linear foot.

Payment for Temporary Crashworthy End Treatment (MASH) will be made for 606-99.02 at the contract unit price per each.

The contract unit prices shall be full compensation for furnishing, installing, maintaining, and removing the temporary guardrail system including all materials, hardware, posts, anchorage, grading, connectors and incidental items necessary to complete the work shall be included.

EE. Emergency Full Depth Pavement Repair

1.0 Description. This work consists of furnishing all labor, equipment, materials, traffic control, and incidentals necessary to perform emergency full depth pavement repairs within the project limits as directed by the Engineer within the limits of the projects included in Required Combination of Calls JSP-17-01A.

Emergency full depth pavement repairs shall be used only for pavement failures that occur within traffic carrying lanes during construction staging and are not included in the planned pavement repair quantities shown in the contract plans.

The intent of this provision is to provide a mechanism for repairing unexpected pavement failures that develop under live traffic during construction operations.

2.0 Construction Requirements.

The Engineer shall determine when an emergency full depth pavement repair is required. Emergency full depth pavement repair locations may occur at any location within the project limits where pavement deterioration, punchouts, failures, settlement, faulting, or structural distress creates an unsafe condition for the traveling public or jeopardizes maintenance of traffic.

The Contractor shall remove the failed pavement section and reconstruct the pavement structure as directed by the Engineer.

The repair shall include all materials and work necessary to provide a complete repair, including but not limited to:

- Removal of existing pavement.
- Excavation and disposal of unsuitable material.
- Furnishing and placing aggregate base.
- Subgrade preparation and compaction.
- Furnishing and placing concrete pavement.
- Furnishing and installation of dowel bars.
- Furnishing and installation of tie bars when required.
- Saw cutting.
- Joint sealing.
- Surface restoration.
- Any other incidental work required to complete the repair.

For eastbound roadway repairs, the repaired section shall restore the pavement section consisting of the existing unbonded concrete overlay system.

For westbound roadway repairs, the repaired section shall restore the pavement structure consisting of the existing asphalt overlay, concrete pavement, and aggregate base as directed by the Engineer.

Repair dimensions, pavement thicknesses, and reconstruction limits shall be determined by the Engineer based on field conditions.

3.0 Traffic Control Requirements. Emergency pavement repairs are anticipated to occur within lanes carrying live interstate traffic and may require substantial modifications to the approved traffic control staging. When directed by the Engineer, the Contractor shall temporarily close the affected interstate lane and shift traffic to the adjacent lane and outer roadway system.

The Contractor shall furnish and maintain all traffic control necessary to safely execute the repair operation, including but not limited to:

- Temporary closure of one direction of Interstate 44.
- Detouring traffic onto the outer roadway.
- Temporary traffic shifts.
- Relocation of concrete traffic barriers.
- Furnishing and maintaining temporary signage.
- Portable message signs.
- Drums, channelizers, and delineators.
- Temporary pavement marking modifications.
- Flaggers.
- Temporary lighting when required.
- Nighttime construction operations.
- Any other traffic control measures necessary to safely perform the work.

The Contractor shall submit a proposed traffic control plan to the Engineer for approval prior to implementing any emergency pavement repair requiring modification of the approved traffic control staging. Approval of the traffic control plan shall not relieve the Contractor of responsibility for safely maintaining traffic. All interstate lane closures shall comply with the contract requirements for work zone traffic management and lane closure restrictions.

4.0 Method of Measurement. Misc. emergency full depth pavement repair will be measured by the square yard of completed and accepted repair area. Measurement shall be based on the actual surface area repaired as directed and accepted by the Engineer. Misc. Traffic Control for Emergency Pavement Repair will be measured once per emergency pavement repair occurrence authorized by the Engineer.

5.0 Established Fixed Unit Price. The established fixed unit price for Emergency Full Depth Repair shall be as follows:

Item No.	Description	Unit	Established Fixed Unit Price
613-9905	Misc. Emergency Full Depth Pavement Repair	Sq Yd	$250.00
616-9902	Misc. Traffic Control for Emergency Pavement Repair	Each	$2,000.00

1 REVISED

The established fixed unit prices shown above will be used by the Engineer to determine compensation for authorized emergency pavement repair work. All compensation calculated using these fixed unit prices will be paid under Item No. ~~613-9905~~ 6139916, Misc. Emergency Full Depth Pavement Repair.

Item No. ~~613-9905~~ 6139916, Misc. Emergency Full Depth Pavement Repair, shall be included in the contract at a quantity of one (1) and a unit price of $1.00.

The Contractor shall not submit a bid on the quantity or unit price for Item No. ~~613-9905~~ 6139916.

6.0 Basis of Payment. Payment for accepted quantities of Emergency Full Depth Pavement Repair will be calculated by multiplying the accepted quantity by the established fixed unit price shown in Section 5.0 and by the Commission-established adjustment factor of 1.50.

Payment will be calculated as follows:

Payment = (Accepted Quantities x Fixed Unit Prices) × 1.50

The contract unit price shall be full compensation for:

- Removal of existing pavement.
- Excavation.
- Disposal of material.
- Aggregate base.

- Concrete pavement.
- Dowel bars.
- Tie bars.
- Saw cutting.
- Joint sealing.
- Subgrade preparation.
- Subgrade compaction.
- All other incidental items required to complete the work.

1 REVISED Payment under Item No. ~~613-9905~~ 6139916. Emergency Full Depth Pavement Repair, shall constitute full compensation for furnishing all labor, equipment, materials, traffic control, mobilization, demobilization, supervision, overhead, profit, and incidentals necessary to complete the authorized emergency repair work.

FF. Emergency Guardrail Repair

1.0 Description. This work consists of furnishing all labor, equipment, materials, traffic control, mobilization, and incidentals necessary to perform emergency guardrail repairs within the project limits as directed by the Engineer within the limits of the projects included in the Required Combination of Calls JSP-17-01A.

Emergency guardrail repairs shall be used only for unplanned damage to guardrail systems, guardrail appurtenances, crashworthy end treatments, bridge transition sections, end anchors, and related roadside safety hardware that occurs during construction operations or otherwise requires immediate repair to maintain roadway safety and traffic operations.

Guard cable repairs are not included in this provision.

The intent of this provision is to provide a mechanism for repairing unexpected damage to roadside safety devices which cannot reasonably be repaired under other contract items and which require immediate response during construction operations.

2.0 Construction Requirements.

The Engineer shall determine when an emergency guardrail repair is required.

Emergency guardrail repairs may occur at any location within the project limits where damage to an existing roadside safety system creates an unsafe condition for the traveling public, interferes with maintenance of traffic, or otherwise requires immediate corrective action.

The Contractor shall remove and replace damaged components and restore the guardrail system to a functional condition as directed by the Engineer.

The repair may include, but is not limited to:

- Guardrail panels
- Posts

- Blockouts
- Hardware
- End anchors
- Bridge transition sections
- Crashworthy end treatments
- Delineators
- Excavation and grading
- Disposal of damaged materials
- Surface restoration
- Any other incidental work required to complete the repair.

All materials shall be furnished in accordance with Sec 606.

Replacement components for crashworthy end treatments, end anchors and bridge transition sections shall conform to the manufacturer's approved requirements.

Repair limits and replacement requirements shall be determined by the Engineer based on field conditions.

3.0 Traffic Control Requirements. Emergency guardrail repairs are anticipated to occur adjacent to lanes carrying live interstate traffic and may require substantial modifications to the approved traffic control staging. When directed by the Engineer, the Contractor shall temporarily close the affected interstate lane and shift traffic to the adjacent lane and outer roadway system.

The Contractor shall furnish and maintain all traffic control necessary to safely execute the repair operation, including but not limited to:

- Temporary closure of one direction of Interstate 44.
- Detouring traffic onto the outer roadway.
- Temporary traffic shifts.
- Relocation of concrete traffic barriers.
- Furnishing and maintaining temporary signage.
- Portable message signs.
- Drums, channelizers, and delineators.
- Temporary pavement marking modifications.
- Flaggers.
- Temporary lighting when required.
- Nighttime construction operations.
- Any other traffic control measures necessary to safely perform the work.

The Contractor shall submit a proposed traffic control plan to the Engineer for approval prior to implementing any emergency guardrail repair requiring modification of the approved traffic control staging. Approval of the traffic control plan shall not relieve the Contractor of responsibility for safely maintaining traffic. All interstate lane closures shall comply with the contract requirements for work zone traffic management and lane closure restrictions.

4.0 Method of Measurement. Emergency guardrail repair items will be measured by the unit shown in the Established Fixed Unit Price Schedule. Each authorized repair component furnished, installed, repaired, removed and replaced, or otherwise completed and accepted by the Engineer will be measured under the corresponding item description. No duplicate measurement or payment will be made for the same guardrail component, assembly, removal operation, installation operation, or repair work. The Engineer will determine the applicable item or combination of items based on the work performed.

Misc. Traffic Control for Emergency Guardrail Repair will be measured once per emergency guardrail-repair occurrence authorized by the Engineer, regardless of the number of individual guardrail components repaired as part of that occurrence.

5.0 Established Fixed Unit Prices. Emergency guardrail-repair work will be paid using the individual established fixed unit prices contained in the Emergency Guardrail Repair Fixed Unit Price Schedule included herein:

MISC. TRAFFIC CONTROL ITEMS			
Item Number	Description	Unit	Fixed Unit Price
6169902	MISC. TRAFFIC CONTROL FOR EMERGENCY GUARDRAIL REPAIR	EA	$2,000.00

NEW GUARDRAIL INSTALLATION ITEMS			
Item Number	Description	Unit	Fixed Unit Price
2029902	MISC. TYPE A OR B TERMINAL REMOVAL	EA	$250.00
2029903	MISC. REMOVE GUARDRAIL	LF	$10.00
2149910	GRADING FOR CRASHWORTHY END TERMINAL	LS	$3,500.00
6060110	BULLNOSE GUARDRAIL SYSTEM	EA	$8843.00
6061010	GUARDRAIL TYPE A	LF	$28.00
6061011A	GUARDRAIL TYPE A, 7 FT. POST, 3 FT. - 1.5 IN. SPACING	LF	$44.00
6061050	GUARDRAIL TYPE E, 6 FT. POST, 3 FT. - 1.5 IN. SPACING	LF	50.00
6061051	GUARDRAIL TYPE E, 7 FT. POST	LF	$55.00
6061054	GUARDRAIL TYPE E, 6 FT. POST, 6 FT. - 3 IN. SPACING	LF	$37.00
6061060	MGS GUARDRAIL	LF	$28.00
6061061	MGS GUARDRAIL, 8 FT., 6 FT. – 3 IN. SPACING	LF	$32.00
6061063	MGS GUARDRAIL, 6 FT. POSTS, 3 FT. – 1.5 IN. SPACING	LF	$41.00
6061065	MGS GUARDRAIL, 6 FT. POSTS, 1 FT. – 6.75 IN. SPACING	LF	$64.00
6061067	MGS DOUBLE FACED GUARDRAIL	LF	$46.00
6061068	MGS BRIDGE APPROACH TRANSITION SECTION (MAJOR ROUTE)	EA	$3502.00
6061069	MGS BRIDGE APPROACH TRANSITION SECTION (MINOR ROUTE)	EA	$3375.00
6061070	MGS VERTICAL CONCRETE BARRIER TRANSITION	EA	$3375.00
6061074	MGS HEIGHT AND BLOCK TRANSITION SECTION	EA	$647.00
6061075	MGS LONG SPAN GUARDRAIL SECTION	EA	$3198.00
6061080	MGS END ANCHOR	EA	$1390.00
6061081	MGS BRIDGE ANCHOR SECTION (THRIE-BEAM BRIDGE)	EA	$2728.00
6062200A	BRIDGE ANCHOR SECTION, 6.5 FT. POSTS (SAFETY BARRIER CURB)(ROADWAY AND REHABILITATION WORK ONLY)	EA	$2787.00
6062202A	BRIDGE ANCHOR SECTION, 7.5 FT. POSTS (SAFETY BARRIER CURB)(ROADWAY AND REHABILITATION WORK ONLY)	EA	$2887.00
6062300A	TRANSITION SECTION, 6.5 FT. POSTS	EA	$592.00
6062301A	TRANSITION SECTION, 7.5 FT. POSTS	EA	$614.00
6062303	ASYMMETRICAL TRANSITION SECTION, 6.5 FT. POSTS	EA	$620.00
6062304	ASYMMETRICAL TRANSITION SECTION, 7.5 FT. POSTS	EA	$649.00
6062400	BRIDGE ANCHOR SECTION (THRIE BEAM)	EA	$2728.00
6063000	TERMINAL SECTION – GUARDRAIL	EA	$1484.00
6063014	TYPE A CRASHWORTHY END TERMINAL (MASH)	EA	$2958.00
6063016	TYPE B CRASHWORTHY END TERMINAL	EA	$5158.00
6066610	END ANCHOR	EA	$1262.00
6066620	GUARDRAIL ANCHOR, EMBEDDED	EA	$2217.00
6066630	GUARDRAIL ANCHOR, ROCK FACE	EA	$1650.00
6069902	MISC. INSTALL POST IN SOLID ROCK OR CONC, 6' OR 7' (TYPE A, E OR MGS)	EA	$350.00
6069902	MISC. FLARED TYPE A CRASHWORTHY END TERMINAL	EA	$2365.00

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GUARDRAIL REPAIR ITEMS			
Item Number	Description	Unit	Fixed Unit Price
6069902	MISC. R&R 12.5' BEAM, CONC/CONVEX RADIUS, TY A	EA	$350.00
6069902	MISC. R&R 12.5' BEAM, CONC/CONVEX RADIUS, MGS	EA	$350.00
6069902	MISC. R&R 12.5' W-BEAM PANEL (TYPE A GR)	EA	$162.00
6069902	MISC. R&R 12.5' W-BEAM PANEL (MGS)	EA	$162.00
6069902	MISC. R&R 12.5' BEAM 10 GA. (TYPE E GR)	EA	$356.00
6069902	MISC. R&R 18.75' THRIE BEAM PANEL (MGS)	EA	$485.00
6069902	MISC. R&R 25' THRIE BEAM PANEL (TYPE E GR)	EA	$460.00
6069902	MISC. R&R 25' THRIE BEAM PANEL (MGS)	EA	$460.00
6069902	MISC. R&R 25' W-BEAM PANEL (TYPE A GR)	EA	$281.00
6069902	MISC. R&R 25' W-BEAM PANEL (MGS)	EA	$281.00
6069902	MISC. R&R 6.25' THRIE BEAM PANEL (MGS)	EA	$169.00
6069902	MISC. R&R 6.25' TYPE A TO TYPE E TRANSITION BEAM	EA	$159.00
6069902	MISC. R&R WOOD BLOCK 8X6X17 TRANSITION SECTION	EA	$35.00
6069902	MISC. R&R WOOD BLOCK 12X6X19 TRANSITION SECTION	EA	36.00
6069902	MISC. R&R MGS HEIGHT AND BLOCK TRANSITION SECTION	EA	$772.00
6069902	MISC. REALIGN & USE EXIST POST TYPE A, E OR MGS GR	EA	$25.00
6069902	MISC. RE-TENSION GUARDRAIL SYSTEM	EA	$75.00
6069902	MISC. R&R 12.5' END ANCHOR PANEL	EA	$154.00
6069902	MISC. R&R 12.5' MGS END ANCHOR PANEL	EA	$154.00
6069902	MISC. R&R 12.5' THRIE BEAM RAIL TY E GR	EA	$234.00
6069902	MISC. R&R MGS END ANCHOR	EA	$1313.00
6069902	MISC. R&R 72" FOUNDATION TUBE W/O SOIL PLATE (MGS)	EA	$374.00
6069902	MISC. R&R 46" WOOD POST IN FOUNDATION TUBE (MGS)	EA	$78.00
6069902	MISC. R&R CABLE ASSY W/PIPE, PLATE & ANCHOR (MGS)	EA	$305.00
6069902	MISC. R&R END ANCHOR RAIL	EA	$164.00
6069902	MISC. R&R END ANCHOR CABLE ASSEMBLY	EA	$143.00
6069902	MISC. R&R END SEC (SHOE) TY A GR	EA	$72.00
6069902	MISC. R&R PARTS FOR END SECTION	EA	$105.00
6069902	MISC. R&R GR DELINEATOR 1 SIDE OR 2 SIDE	EA	$12.00
6069902	MISC. R&R STEEL POST 6', MGS	EA	$79.00
6069902	MISC. R&R STEEL POST 6', TY A OR MGS GR	EA	$79.00
6069902	MISC. R&R STEEL POST 6', TY E GR	EA	$89.00
6069902	MISC. R&R STEEL POST 7', TY A GR	EA	$89.00
6069902	MISC. R&R STEEL POST 7', TY E GR	EA	$90.00
6069902	MISC. R&R STEEL POST 8', MGS	EA	$98.00
6069902	MISC. R&R WOOD POST 6', TY A GR	EA	$74.00
6069902	MISC. R&R WOOD POST 7', TY A GR	EA	$84.00
6069902	MISC. R&R STEEL TUBE BLOCK 7X4 BR ANCH	EA	$107.00
6069902	MISC. R&R STEEL SPACER BLOCK (TYPE A GR)	EA	$40.00
6069902	MISC. R&R STEEL BLOCKOUT FOR RADIUS RAIL	EA	$40.00
6069902	MISC. R&R TERMINAL CONNECTOR, TY A OR MGS GR	EA	$115.00
6069902	MISC. R&R TERMINAL CONNECTOR, TY E OR MGS GR	EA	$150.00
6069902	MISC. R&R WOOD/PLASTIC BLOCK 8X6X14 MGS	EA	$21.00
6069902	MISC. R&R WOOD/PLASTIC BLOCK 8X6X14 TY A GR	EA	$21.00
6069902	MISC. R&R WOOD/PLASTIC BLOCK 8X6X21 TY E GR	EA	$25.00
6069902	MISC. R&R WOOD/PLASTIC BLOCK 12X6X14 MGS	EA	$25.00

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BULLNOSE SYSTEM REPAIR ITEMS			
Item Number	Description	Unit	Fixed Unit Price
6069902	MISC. R&R PARTS FOR BULLNOSE SYSTEM	EA	$1050.00
6069902	MISC. R&R 72 IN FOUNDATION TUBE BULLNOSE SYSTEM	EA	$350.00
6069902	MISC. R&R 96 1/16 IN FOUNDATION TUBE BULLNOSE SYSTEM	EA	$451.00
6069902	MISC. R&R POSTS #1-2 BULLNOSE SYSTEM	EA	$87.00
6069902	MISC. R&R POSTS #3-8 BULLNOSE SYSTEM	EA	$101.00
6069902	MISC. R&R POSTS #9-12 BULLNOSE SYSTEM	EA	$100.00
6069902	MISC. R&R 8X6X14 3/16 TAPERED WOOD BLOCK BULLNOSE SYSTEM	EA	$36.00
6069902	MISC. R&R RAIL SECTION #1 BULLNOSE SYSTEM	EA	$1257.00
6069902	MISC. R&R RAIL SECTION #2 BULLNOSE SYSTEM	EA	$768.00
6069902	MISC. R&R RAIL SECTION #3 BULLNOSE SYSTEM	EA	$426.00

END TERMINAL REPAIR ITEMS			
Item Number	Description	Unit	Fixed Unit Price
6069902	MISC. NEW OR R&R REFLECTIVE SHEETING ON END TERMINAL (UNIVERSAL)	EA	$45.00
6069902	MISC. R&R 12.5 FT END SECTION 1ST W-BEAM RAIL (MSKT)	EA	$203.00
6069902	MISC. R&R 9.375 FT 2ND SECTION W-BEAM RAIL (MSKT)	EA	$135.00
6069902	MISC. R&R CABLE ASSY W/ PIPE, PLATE & ANCH (MSKT)	EA	$113.00
6069902	MISC. R&R GROUND STRUT (MSKT)	EA	$115.00
6069902	MISC. R&R NEW IMPACT HEAD (MSKT)	EA	$1075.00
6069902	MISC. REM EXT GR & REUSE EXIST IMPACT HD (MSKT)	EA	$250.00
6069902	MISC. R&R POST #1 HBA TOP (MSKT)	EA	$110.00
6069902	MISC. R&R POST #1 HBA BOTTOM (MSKT)	EA	$308.00
6069902	MISC. R&R POST #2 HBA TOP (MSKT)	EA	$100.00
6069902	MISC. R&R POST #2 HBA BOTTOM (MSKT)	EA	$165.00
6069902	MISC. R&R 12'6" GALV GR PANEL 3'1.5" O/C (SOFTSTOP)	EA	$166.00
6069902	MISC. R&R 12/25/3'1.5:3@6'3:3'1.5/S (SOFTSTOP)	EA	$274.00
6069902	MISC. R&R 6'0 SYT POST/8.5/31" GR HT (SOFTSTOP)	EA	$125.00
6069902	MISC. R&R ANCHOR GUARDRAIL 12'-6" (SOFTSTOP)	EA	$315.00
6069902	MISC. R&R ANGLE STRUT (SOFTSTOP)	EA	$88.00
6069902	MISC. R&R STYP#1 8.5# 4'9-1/2 (SOFTSTOP)	EA	$119.00
6069902	MISC. R&R ANCHOR POST W6X15#X6' (SOFTSTOP)	EA	$411.00
6069902	MISC. R&R IMPACT HEAD (SOFTSTOP)	EA	$1098.00
6069902	MISC. REM EXT GR & REUSE EXIST IMPACT HD (SOFTSTOP)	EA	$253.00
6069902	MISC. R&R CAN TL3 SS646 (SOFTSTOP)	EA	$322.00
6069902	MISC. R&R ANCHOR ANGLE (SOFTSTOP)	EA	$41.00
6069902	MISC. R&R PLATE WASHER (SOFTSTOP)	EA	$35.00
6069902	MISC. R&R KEEPER PLATE (SOFTSTOP)	EA	$30.00
6069902	MISC. R&R ANCHOR PADDLE (SOFTSTOP)	EA	$142.00
6069902	MISC. R&R SLED WELDMENT (TRACC)	EA	$2978.00
6069902	MISC. R&R SHREDDER (TRACC)	EA	$380.00
6069902	MISC. R&R STAGE 2 RIP PLATE 75 IN (TRACC)	EA	$225.00
6069902	MISC. R&R STAGE 3 RIP PLATE 93 IN (TRACC)	EA	$240.00
6069902	MISC. R&R STAGE 3 RIP PLATE (25965G) 87 IN (TRACC)	EA	$230.00
6069902	MISC. R&R STAGE 3 RIP PLATE (25966G) 87 IN (TRACC)	EA	$230.00
6069902	MISC. R&R 2 BAY FENDER PANEL (TRACC)	EA	$280.00
6069902	MISC. R&R NOSEPIECE YELLOW (TRACC)	EA	$355.00

The established fixed unit prices shown in the Emergency Guardrail Repair Fixed Unit Price Schedule will be used by the Engineer to determine compensation for authorized emergency guardrail repair work. All compensation calculated using these fixed unit prices will be paid under Item No. ~~613.9903~~ 6069916, Misc. Emergency Guardrail Repair

1 REVISED

Item No. ~~613.9903~~ 6069916, Misc. Emergency Guardrail Repair, shall be included in the contract at a quantity of one (1) and a unit price of $1.00.

The Contractor shall not submit a bid on the quantity or unit price for Item No. ~~613.9903~~ 6069916.

6.0 Basis of Payment.

Payment for each accepted emergency guardrail-repair item will be calculated as follows:

Payment = (Accepted Quantities x Fixed Unit Prices) x 1.50

Payment under Item No. ~~613.9903~~ 6069916, Misc. Emergency Guardrail Repair, shall constitute full compensation for furnishing all labor, equipment, materials, traffic control, mobilization, demobilization, supervision, overhead, profit, and incidentals necessary to complete the authorized emergency repair work.

No separate payment will be made for work or costs associated with an emergency guardrail repair except as compensated through the established fixed unit prices contained in the Emergency Guardrail Repair Fixed Unit Price Schedule.

GG. Temporary Concrete Traffic Barrier

1.0 Description. The work covered by this provision consists of furnishing, transporting, installing, maintaining, relocating, and removing temporary concrete traffic barrier required for construction of this project.

The project includes newly constructed pavement that shall remain free from damage caused by temporary traffic control devices. Temporary concrete traffic barrier installed on newly constructed pavement shall not be pinned, bolted, doweled, drilled, anchored, or otherwise attached to the pavement.

It is the Contractor's responsibility to account for barrier deflection requirements, staging limitations, and installation requirements when planning and performing the work.

2.0 Construction Requirements. The Contractor shall furnish all temporary traffic barrier required to perform the work shown in the plans and required by the approved traffic control staging.

The Contractor shall provide a barrier system that meets contract requirements and accommodates the deflection characteristics of the selected barrier system without attachment to newly constructed pavement.

The Contractor shall be solely responsible for furnishing barrier systems meeting contract requirements and maintaining traffic control throughout all stages of construction.

3.0 Alternate Barrier Systems. If the Contractor proposes to utilize a barrier system other than temporary concrete traffic barrier shown in the plans, a written request shall be submitted to the Engineer for review and approval.

The request shall be submitted to the Engineer and shall include:

- Product information and manufacturer specifications.
- Crash testing documentation demonstrating compliance with the currently applicable MASH criteria.
- Details regarding installation and anchorage requirements.
- Proposed traffic control modifications required by the alternative system.
- Any impacts towards roadway operations, worker safety, staging, or project schedule.

Submission of an alternative barrier system does not imply acceptance.

The Engineer shall be the sole judge as to the acceptability of the proposed alternative barrier system. No alternative barrier system shall be used until written approval has been provided by the Engineer. The Contractor shall not be entitled to additional compensation, time extensions, or adjustments to contract quantities associated with the use of an approved alternative barrier system.

4.0 Method of Measurement. Temporary concrete traffic barrier and all associated appurtenances shall be measured in accordance with Sec 617 and the applicable contract pay items.

No separate measurement will be made for compliance with the requirements of this provision.

5.0 Basis of Payment. All costs associated with securing, furnishing, transporting, installing, maintaining, relocating, and removing temporary concrete traffic barrier, including any costs associated with obtaining approval of alternative barrier systems and complying with the requirements of this provision, shall be considered completely covered by the applicable contract pay items included in the contract and no additional payment will be made.

HH. Excavating and Disposing of Unsuitable Materials

1.0 Description. This work shall consist of excavating unsuitable material as defined in Sec 203.4.5. Excavating and Disposing Unsuitable Material (Small Area) shall be defined as areas having a volume of less than 500 CUYD, with Excavating and Disposing Unsuitable Material (Large Area) having a volume greater than 500 CUYD.

2.0 Construction Requirements. Excavation and disposal of unsuitable material shall be in accordance with Sec 203.4.15. Rock Fill used for backfill for Excavating and Disposing of Unsuitable Material areas, shall include all costs associated with both furnishing and placing the rock fill.

3.0 Method of Measurement. Measured for Excavating and Disposing Unsuitable Material shall be in accordance with Sec 203.8.2.

4.0 Basis of Payment. Payment for Excavating and Disposing Unsuitable Material (Small Area) will be made at fixed unit price of $15.00 per cubic yard. Payment for Excavating and Disposing Unsuitable Material (Large Area) will be made at fixed unit price of $10.00 per cubic yard. Payment for Rock Fill will be made at fixed unit price of $45.00 per cubic yard.

Item No.	Units	Description
206.99.07	CUYD	Excavating and Disposing of Unsuitable Material (Small Area)
206.99.07	CUYD	Excavating and Disposing of Unsuitable Material (Large Area)
214.30.00	CUYD	Placing Rock Fill

1 ADDED

II. Sealing Concrete Joints

1.0 Description. All sawed and non-sawed transverse and longitudinal joints, including adjacent surfaces, shall be surface-prepared and sealed with a penetrating concrete sealer in accordance with Section 703.3.8 and as specified herein. This provision applies to all concrete pavements, unbonded concrete overlays, optional (PCC) pavements, and portions of concrete shoulders, as defined herein, constructed after September 15th of the current calendar year. The longitudinal joint between the full-depth concrete pavement or concrete overlay slab and the shoulder is included. Sealing of transverse joints shall extend six inches onto the shoulder, beyond the longitudinal joint between the pavement slab and shoulder, when the shoulder is concrete. When the shoulder is asphalt, sealing of the asphalt surface is not required.

2.0 Construction Requirements. At a minimum, surface preparation for sealing includes pressure washing all slurry and curing membrane from the sawed joints and the adjacent pavement/shoulder surfaces that are within 6 inches of each side of the joints. Any additional surface prep instructions from the sealer manufacturer shall also be followed.

2.1 Sealer Application. Allow the pavement surface and joints to dry per manufacturer's instructions prior to application of sealer. Apply sealer such that it coats the interior of the sawed joint and covers no less than 6 inches of the pavement/shoulder surface on each side of the joint. Broadcast spraying of the surface will not be considered a sufficient method to penetrate the joints.

2.2 Preparation work for sealing including pressure washing shall be done after the pavement has been textured or diamond ground.

3.0 Material Requirements. The approved penetrating sealer shall be in accordance with Section 1053.

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1 ADDED

6.0 Basis of Pavement. No additional payment will be made for Sealing Concrete Joints. All costs for compliance with this provision shall be considered included in the cost for concrete pavements and concrete overlays.