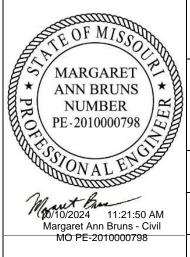
County: St. Louis & St. Charles

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636

EFK Moen

13523 Barrett Parkway, Suite 250 St. Louis, MO 63021

Certificate of Authority: 001578 Consultant Phone: 314-394-3100

If a seal is present on this sheet, JSP's have been electronically sealed and dated.

JOB NUMBER: J6I3538 ST. LOUIS COUNTY, MO DATE PREPARED: 6/19/2024

ADDENDUM DATE:

Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: $\mbox{\rm All}$

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JOB SPECIAL PROVISION

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

- **1.0 Description.** The Federal Government is participating in the cost of construction of this project. All applicable Federal laws, and the regulations made pursuant to such laws, shall be observed by the contractor, and the work will be subject to the inspection of the appropriate Federal Agency in the same manner as provided in Sec 105.10 of the Missouri Standard Specifications for Highway Construction with all revisions applicable to this bid and contract.
- 1.1 This contract requires payment of the prevailing hourly rate of wages for each craft or type of work required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations and requires adherence to a schedule of minimum wages as determined by the United States Department of Labor. For work performed anywhere on this project, the contractor and the contractor's subcontractors shall pay the higher of these two applicable wage rates. State Wage Rates, Information on the Required Federal Aid Provisions, and the current Federal Wage Rates are available on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT", "Contractor Resources". Effective Wage Rates will be posted 10 days prior to the applicable bid opening. These supplemental bidding documents have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.
- **1.2** The following documents are available on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to July 2024 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-13-01D

- **1.0 Description.** Liquidated Damages for failure or delay in completing the work on time for this contract shall be in accordance with Sec 108.8. The liquidated damages include separate amounts for road user costs and contract administrative costs incurred by the Commission.
- **2.0 Period of Performance.** Prosecution of work is expected to begin on the date specified below in accordance with Sec 108.2. Regardless of when the work is begun on this contract, all work on all projects 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.

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Notice to Proceed Date: January 6, 2025 Contract Completion Date: May 1, 2026

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

Project Calendar Days Daily Road User Cost NA \$7,600

- **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, or on or before the project completion date 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 \$2,000 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, project 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, or on or before the project completion date specified in Section 2.1, whichever occurs first, the contractor will be charged road user costs in accordance with Sec 108.8 in the amount specified in Section 2.1 for each calendar day, or partial day thereof, that the work is not fully completed. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.
- C. Work Zone Traffic Management JSP-02-06N
- **1.0 Description.** Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows.
- 1.1 Maintaining Work Zones and Work Zone Reviews. The Work Zone Specialist (WZS) shall maintain work zones in accordance with Sec 616.3.3 and as further stated herein. The WZS shall coordinate and implement any changes approved by the engineer. The WZS shall ensure all traffic control devices are maintained in accordance with Sec 616, the work zone is operated within the hours specified by the engineer, and will not deviate from the specified hours without prior approval of the engineer. The WZS is responsible to manage work zone delay in accordance with these project provisions. When requested by the engineer, the WZS shall submit a weekly report that includes a review of work zone operations for the week. The report shall identify any problems encountered and corrective actions taken. Work zones are subject to unannounced inspections by the engineer and other departmental staff to corroborate the validity of the WZS's review and may require immediate corrective measures and/or additional work zone monitoring.
- **1.2 Work Zone Deficiencies.** Failure to make corrections on time may result in the engineer suspending work. The suspension will be non-excusable and non-compensable regardless if road user costs are being charged for closures.
- 2.0 Traffic Management Schedule.

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

- **2.2** The traffic management schedule shall conform to the limitations specified in Sec 616 regarding lane closures, traffic shifts, road closures and other width, height and weight restrictions.
- **2.3** The engineer shall be notified as soon as practical of any postponement due to weather, material or other circumstances.
- **2.4** In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work. Lanes shall not be closed until material is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed lane is opened to traffic.
- **2.5 Traffic Congestion.** The contractor shall, upon approval of the engineer, take proactive measures to reduce traffic congestion in the work zone. The contractor shall immediately implement appropriate mitigation strategies whenever traffic congestion reaches an excess of **10 minutes** to prevent congestion from escalating 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.
- **2.6 Transportation Management Plan.** The contractor Work Zone Specialist (WZS) shall review the Transportation Management Plan (TMP), found as an electronic deliverable on

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MoDOT's Online Plans Room and discuss the TMP with the engineer during the preconstruction conference. Throughout the construction project, the WZS is responsible for updating any changes or modifications to the TMP and getting those changes approved by the engineer a minimum of two weeks in advance of implementation. The WZS shall participate in the post construction conference and provide recommendations on how future TMPs can be improved.

2.7 Traffic Management Center (TMC) Coordination. The Work Zone Specialist (WZS) or their designee shall contact by phone the MoDOT Traffic Management Center (Gateway Guide TMC at 314-275-1513) within five minutes of a lane or ramp closure beginning and within five minutes of a lane or ramp closure being removed. The WZS shall make this phone call 24 hours a day, 365 days of the year since the MoDOT Traffic Management Center are always staffed.

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 be aware that traffic volume data indicates construction operations on the roadbed between the following hours will likely result in traffic queues greater than 15 minutes. Based on this, the contractor's operations, excluding the long-term lane closure and crossover shown in Stage 1 and Stage 2, will be restricted accordingly unless it can be successfully demonstrated the operations can be performed without a 10 minute queue in traffic. It shall be the responsibility of the engineer to determine if the above work hours may be modified. Working hours for evenings, weekends and holidays will be determined by the engineer. The contractor may work during the following listed hours:

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Interstate 64 **Westbound Single** Lane Closure: 7:00 p.m. - 9:00 a.m.
Interstate 64 **Westbound Double** Lane Closure: 10:00 p.m. - 5:00 a.m.

Interstate 64 **Eastbound Single** Lane Closure: 5:00 p.m. - 5:00 a.m.
Interstate 64 **Eastbound Double** Lane Closure: 7:00 p.m. - 5:00 a.m.

- **3.3** Any work requiring a reduction in the number of through lanes of traffic shall be completed during nighttime hours, except as defined in Section 3.2 above. Nighttime hours shall be considered to be 8:00 p.m. to 5:00 a.m. for this project.
- **3.4** 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 \$1,000 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.
- **3.4.1** 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.

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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. Liquidated Damages Specified JSP-93-28

- **1.0 Description.** If the westbound I-64 Boone Bridge rehabilitation work is not complete and 4 westbound lanes are not open to traffic prior to <u>December 1st</u>, 2025, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to, increased construction administration cost, potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of \$7,600 per <u>day</u> for each full <u>day</u> that **the westbound I-64 Boone Bridge rehabilitation work** is not complete and 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 excess closure time.
- **1.1** The said liquidated damages specified will be assessed regardless of whether it would otherwise be charged as liquidated damages under the Missouri Standard Specification for Highway Construction, as amended elsewhere in this contract.

E. Liquidated Damages Specified JSP-93-28

- **1.0 Description.** If **4 eastbound lanes are not open to traffic** prior to <u>December 10th, 2025</u>, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to, increased construction administration cost, potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of **\$7,600** per <u>day</u> for each full <u>day</u> that **4 eastbound lanes are 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 excess closure time.
- **1.1** The said liquidated damages specified will be assessed regardless of whether it would otherwise be charged as liquidated damages under the Missouri Standard Specification for Highway Construction, as amended elsewhere in this contract.

F. Order of Work

- **1.0 Description.** The notice to proceed in January of 2025 shall be limited to ordering equipment and materials and temporary lane/shoulder closures. The contractor shall not cross over Westbound I-64 traffic into the eastbound I-64 lanes until after April 1st, 2025 or after MoDOT Bridge has completed their inspection on the eastbound and westbound I-64 bridge structures, whichever is later.
- 2.0 See also Bridge Special Provision "MoDOT Access for Bridge Inspections."

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3.0 No direct payment shall be made for the compliance with this provision.

G. <u>Emergency Provisions and Incident Management</u> 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 Troop C 636-300-2800			
Local Police:			
St. Charles County: 636-949-3000	City of Chesterfield: 636-529-8210		
Fire Protection Districts:			
Monarch: 314-514-0900	Cottleville: 636-447-6655		

- **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.

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

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

Michael Blattner, Project Contact St. Louis District 1590 Woodlake Drive Chesterfield, MO 63017-5712

Phone Number: 314-453-1751

Email: Michael.Blattner@modot.mo.gov

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

I. <u>Utilities</u>

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:

<u>Utility Name</u>	Known Required Adjustment	<u>Type</u>
Lumen Enterprise Technology Rich Obremski 1 Solutions Parkway Town & Country, MO 63017 Phone: (314) 378-9931 - cell Email: Richard.Obremski@lumen.com	See 2.0	Fiber

- **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** Lumen Enterprise Technology has buried fiber throughout the project limits. Coordination with Lumen during locates will be needed to determine the exact depth of the Lumen National Facilities near or adjacent to full depth pavement widening.

Contractor shall directly contact Lumen Enterprise Technology to verify location of facilities. The contractor shall coordinate construction activities with Lumen Enterprise Technology and take measures to ensure the integrity of the existing facilities are not disturbed. The contractor shall protect the integrity of any existing facility in close proximity to contract work while performing construction activities.

There will be no direct pay for compliance to any of the above provisions.

The Commission cannot warrant the information above which was provided by Lumen Enterprise Technologies.

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J. Supplemental Revisions JSP-18-01DD

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

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

Stormwater Compliance Requirements

- **1.0 Description.** This provision requires the contractor to provide a Water Pollution Control Manager (WPCM) for any project that includes land disturbance on the project site and the total area of land disturbance, both on the project site, and all Off-site support areas, is one (1) acre or more. Regardless of the area of Off-site disturbance, if no land disturbance occurs on the project site, these provisions do not apply. When a WPCM is required, all sections within this provision shall be applicable, including assessment of specified Liquidated Damages for failure to correct Stormwater Deficiencies, as specified herein. This provision is in addition to any other stormwater, environmental, and land disturbance requirements specified elsewhere in the contract.
- **1.1 Definitions.** The project site is defined as all areas designated on the plans, including temporary and permanent easements. The project site is equivalent to the "permitted site", as defined in MoDOT's State Operating Permit. An Off-site area is defined as any location off the project site the contractor utilizes for a dedicated project support function, such as, but not limited to, staging area, plant site, borrow area, or waste area.
- **1.2 Reporting of Off-Site Land Disturbance.** If the project includes any planned land disturbance on the project site, prior to the start of work, the contractor shall submit a written report to the engineer that discloses all Off-site support areas where land disturbance is planned, the total acreage of anticipated land disturbance on those sites, and the land disturbance permit number(s). Upon request by the engineer, the contractor shall submit a copy of its land disturbance permit(s) for Off-site locations. Based on the total acreage of land disturbance, both on and Off-site, the engineer shall determine if these Stormwater Compliance Requirements shall apply. The Contractor shall immediately report any changes to the planned area of Off-site land disturbance. The Contractor is responsible for obtaining its own separate land disturbance permit for Off-site areas.
- **2.0 Water Pollution Control Manager (WPCM).** The Contractor shall designate a competent person to serve as the Water Pollution Control Manager (WPCM) for projects meeting the description in Section 1.0. The Contractor shall ensure the WPCM completes all duties listed in Section 2.1.

2.1 Duties of the WPCM:

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(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 webbased 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

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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 in its entirety and substitute the following:

106.9 Buy America Requirements.

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

106.9.1 Buy America Requirements for Iron and Steel.

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

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

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

- **106.9.2** Any sources other than the USA as defined will be considered foreign. The required domestic manufacturing process shall include formation of ingots and any subsequent process. Coatings shall include any surface finish that protects or adds value to the product.
- **106.9.3** "Minimal use" of foreign steel, iron or coating processes will be permitted, provided the cost of such products does not exceed 1/10 of one percent (0.1 percent) of the total contract cost or \$2,500.00, whichever is greater. If foreign steel, iron, or coating processes are used, invoices to document the cost of the foreign portion, as delivered to the project, shall be provided and the engineer's written approval obtained prior to placing the material in any work.

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

106.9.4.1 Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and certifications documenting the manufacturing process for all subsequent fabrication, including coatings. The certification shall include language that certifies the following. That all steel and iron materials permanently incorporated in this project was procured and processed domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.

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

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

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

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

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

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

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

106.9.7 Buy America Requirements for Manufactured Products.

Manufactured products means:

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

Pavement Marking Paint Requirements for Standard Waterborne and Temporary

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1.0 Description. High Build acrylic waterborne pavement marking paint shall be used in lieu of standard acrylic waterborne pavement marking paint for all Standard Waterborne Pavement Marking Paint items and all Temporary Pavement Marking Paint items. Paint thickness, bead type, bead application rate, retroreflectivity requirements, and all other specifications shall remain as stated in the Missouri Standard Specifications for Highway Construction, except as otherwise amended in the contract documents.

2.0 Material Requirements. Material requirements for Sec 620.20.2.5 Standard Waterborne Paint, and Sec 620.10.2 Temporary Pavement Marking Paint shall be per Sec 1048.20.1.2 High Build Acrylic Waterborne Pavement Marking Paint.

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

15.0 Data Collection from Bidders for DBE and Non-DBE Subcontractors, Suppliers, Manufacturers and/or Brokering used and not used in bids during the reporting period. MoDOT is a recipient of federal funds and is required by 49 CFR 26.11, to provide data about its DBE program. The information shall consist of all subcontractor quoting received for actual use and of consideration by the prime bidder. MoDOT will be requesting this information from bidding prime contractors and will provide prime bidders a form to submit the data by the last day of each month for the current letting. The information shall only include the names of both DBE and non-DBE companies that the prime bidders received quotes. MoDOT will then contact the DBEs and non-DBE subcontractors and request additional information from DBE and non-DBE subcontractors including current year of gross receipts and number of years in business. The information provided by the prime bidders shall not include any bid quote pricing regardless if it was used or not. This information will aid MoDOT in the determination of the availability of DBEs and will be used in subsequent availability studies.

K. <u>Lump Sum Temporary Traffic Control</u> JSP-22-01A

1.0 Delete Sec 616.11 and insert the following:

616.11 Method of Measurement. Measurement for relocation of post-mounted signs will be made to the nearest square foot of sign area only for the signs designated for payment on the plans. All other sign relocations shall be incidental. Measurement for construction signs will be made to the nearest square foot of sign area. Measurement will be made per each for each of the temporary traffic control items provided in the contract.

616.11.1 Lump Sum Temporary Traffic Control. No measurement will be made for temporary traffic control items grouped and designated to be paid per lump sum. The list of lump sum items provided in the plans or contract is considered an approximation and may be subject to change based on field conditions. This is not a complete list and may exclude quantities for duplicate work zone packages used in simultaneous operations. The contractor shall provide all traffic control devices required to execute the provided traffic control plans for each applicable operation, stage, or phase. No measurement will be made for any additional signs or devices needed except for changes in the traffic control plan directed by the engineer.

2.0 Delete Sec 616.12 and insert the following:

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616.12 Basis of Payment. All temporary traffic control devices authorized for installation by the engineer will be paid for at the contract unit price for each of the pay items included in the contract. Whether the devices are paid individually, or per lump sum, no direct payment will be made for the following:

- (a) Incidental items necessary to complete the work, unless specifically provided as a pay item in the contract.
- (b) Installing, operating, maintaining, cleaning, repairing, removing, or replacing traffic control devices.
- (c) Covering and uncovering existing signs and other traffic control devices.
- (d) Relocating temporary traffic control devices, including permanent traffic control devices temporarily relocated, unless specifically included as a pay item in the contract.
- (e) Worker apparel.
- (f) Flaggers, AFADs, PFDs, pilot vehicles, and appurtenances at flagging stations.
- (g) Furnishing, installing, operating, maintaining, and removing construction-related vehicle and equipment lighting.
- (h) Construction and removal of temporary equipment crossovers, including restoring preexisting crossovers.
- (i) Provide and maintaining work zone lighting and work area lighting.
- **616.12.1 Lump Sum Temporary Traffic Control.** Traffic control items grouped together in the contract or plans for lump sum payment shall be paid incrementally per Sec 616.12.1.1. Alternately, upon request from the contractor, the engineer will consider a modified payment schedule that more accurately reflects completion of traffic control work. No payment will be made for any additional signs or devices needed except for changes in the traffic control plan directed by the engineer. Additional items directed by the engineer will be paid for in accordance with Sec 109.4. No adjustment to the price will be made for overruns or underruns of other work or for added work that is completed within existing work zones.
- **616.12.1.1 Partial payments**. For purposes of determining partial payments, the original contract amount will be the total dollar value of all original contract line items less the price for Lump Sum Temporary Traffic Control (LSTTC). If the contract includes multiple projects, this determination will be made for each project. Partial payments will be made as follows:
 - (a) The first payment will be made when five percent of the original contract amount is earned. The payment will be 50 percent of the price for LSTTC, or five percent of the original contract amount, whichever is less.
 - (b) The second payment will be made when 50 percent of the original contract amount is earned. The payment will be 25 percent of the price for LSTTC, or 2.5 percent of the original contract amount, whichever is less.

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(c) The third payment will be made when 75 percent of the original contract amount is earned. The payment will be 20 percent of the price for LSTTC, or two percent of the original contract amount, whichever is less.

(d) Payment for the remaining balance due for LSTTC will be made when the contract has been accepted for maintenance or earlier as approved by the engineer.

616.12.1.2 Temporary traffic control will be paid for at the contract lump sum price for Item:

Item No.	Unit	Description
616-99.01	Lump Sum	Misc. Lump Sum Temporary Traffic Control

L. Misc. Construction Requirements

- **1.0 Clearing and Grubbing.** No direct pay shall be made for any clearing or grubbing required to construct this project.
- **2.0 Field Verification.** Plan details for this contract work are based upon available plans, utility maps, and field surveys performed in conjunction with plan preparation for this proposed work. No warranty is made on either the accuracy or completeness of these available documents. It is the contractor's (bidder's) responsibility to assess the actual field conditions and verify the location of all utilities and verify whichever dimensions are required for the performance of the work. In addition, the contractor shall be matching existing cross slopes (unless otherwise noted in the plans) and is responsible for adjusting actual propose drainage structures, if necessary, from those shown in the construction documents. No direct payment shall be made for any expense incurred by the contractor for his/her compliance with this provision.
- **3.0** Hauling over Streets. Streets over which hauling is performed shall be kept reasonably clean of spillers or tracked-on materials at all times and shall be thoroughly cleaned of such materials daily, within one hour after the suspension of hauling operations if said street is used by the traveling public. The contractor must be aware that emergency vehicles may be required to pass during hauling operations and the contractor shall be in a position to allow passage of such emergency vehicles. No direct payment shall be made for any expense incurred by the contractor for his/her compliance with this provision.
- **4.0 Remove and Reset Guardrail.** The existing guardrail may be removed for shoulder replacement. Once the shoulder work is complete, the removed guardrail shall be reinstalled and reconnected to the existing bridges. This may include the bridge anchor transition sections, crashworthy end terminals, and end anchors. No direct payment shall be made for this work.
- **5.0 Fourteen-foot Sign PSST Posts.** The contractor shall cut the PSST posts to an appropriate length to install the new or existing sign(s) at a reasonable height in compliance with Sec 903, the standard plans, and as shown on the plans. No direct payment will be made for the contractor making adjustments to field fit the new sign posts.
- **6.0 Earthwork/Linear Grading Quantities.** Linear Grading Class 2 was used for all the shoulder removal and replacement with full depth pavement and base. The class A excavation, embankment in place, compacting embankment, compacting in cut pay items were used for installing temporary pavement widening. Class A Excavation and Compacting embankment pay items are used for the temporary pavement widening removal and the site restoration.

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7.0 Excess Material. The contractor shall be aware that approximately **1500 cubic yards** of excess material will need to be hauled away after removing the temporary grading from the temporary pavement widening. The contractor shall be responsible for transporting and disposing of the excess material off the Commission's right of way. No direct pay will be made for this provision.

8.0 Temporary Traffic Control

- **8.1 Covering and uncovering existing signs.** The contractor shall be aware there will be several overhead truss signs that will need to be covering during the traffic staging for bridge rehabilitations. The labor, materials, equipment necessary for covering and uncovering these conflicting signs shall be incidental to the temporary traffic control work. No direct payment shall be made for this work.
- **8.2 Surface for Impact Attenuators.** The contractor shall be aware that impact attenuators are shown on compacted earth berm (10:1 maximum). See both the "Pre-Bridge Work" plan sheets near the overpasses and on the stage 1 and stage 2 traffic control sheets. The contractor shall be responsible for providing the grading and surface required or recommended by the manufacturer of their chosen impact attenuator. No additional payment shall be made for additional labor, equipment or materials for this work.

9.0 Existing Conditions

- **9.1 Slotted Drains.** The contractor shall be aware that there are at least two (2) slotted drainages on eastbound I-64 inside shoulder within the limits of the shoulder replacement. The contractor shall exercise caution to avoid disturbing the existing slotted drains during the shoulder replacement. Should the contractor damage any part of the slotted drain, the contractor shall replace the whole in-kind at the contractor's expense.
- **9.2 Existing drainable base, "gravity base", Type 1 Rock Blanket**. The contractor shall be aware that there is an underdrain and trench drainage under the median of I-64. The contractor shall exercise caution to avoid disturbing the underdrains, trench drain, drainage fabric, etc. Should the contractor disturb or damage the drainage fabric or underdrain pipe, or trench drainage (as shown on the J6P1436 project as-builts), the contractor shall be responsible for replacing inkind or as directed by the engineer at the contractor's expense.
- **10.0 Basis of Payment.** No direct payment shall be made for the compliance with the provisions above unless specified elsewhere in the contract documents.

M. 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.

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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.

N. <u>Truck Mounted Attenuator (TMA) for Stationary Activities</u>

- **1.0 Description.** Provide and maintain Truck Mounted Attenuators (TMA) in accordance with Sec 612 and as specified herein.
- **2.0 Construction Requirements.** Truck Mounted Attenuators (TMA) shall be used for the work activities indicated in the plans or specified herein.
- **2.1** Any stationary operations needed to construct the Pavement Widening on Eastbound I-64 from Station 55+00 to Station 105+00.
- **3.0 Method of Measurement.** No measurement will be made for Truck Mounted Attenuators (TMA).
- **4.0 Basis of Payment.** Payment for TMAs required for stationary work activities will be paid for at the contract unit bid price for **Item 612-30.01**, **Truck Mounted Attenuator (TMA)**, **per lump sum.**
- **4.1** 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 direct payment shall be made for repair or replacement of damaged TMAs.

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4.2 No direct payment shall be made for truck mounted attenuators (TMAs) used in mobile operations or for any TMAs designated as optional.

4.3 No direct payment shall be made for construction signs mounted to truck mounted attenuators (TMAs) as shown on the traffic control plans.

O. Optional Temporary Pavement Marking Paint NJSP-18-07F

- **1.0 Description.** This provision provides the contractor with the option to either complete all Permanent Pavement Marking Paint (PPMP) prior to the time limits specified herein or to apply Temporary Pavement Marking Paint (TPMP) in accordance with Sec 620.10.2 (4 in. width) in all locations shown on the plans as PPMP and delay application of the PPMP until the spring of 2026, as allowed herein. PPMP is defined as Standard Waterborne Paint and High Build Waterborne Paint and does not include Sec 620.20.3 Durable Pavement Markings.
- **1.1** No application of PPMP shall occur between October 1, 2025 and March 1, 2026, both dates inclusive, except as stated herein. When the contractor has begun application of PPMP prior to October 1, 2025, and weather limitations stated in Sec 620.20.2.4 can be met, the contractor may complete the PPMP within the first seven (7) calendar days of October. If all (100%) of the PPMP is not completed on or before October 7, 2025, all previously applied PPMP, including any painted markings applied prior to October 1, shall be considered TPMP, and the contractor shall complete the remaining marking with TPMP, and then re-apply PPMP in all planned locations after March 1, 2026. All PPMP shall be completed prior to June 1, 2026. No additional payment will be made for PPMP that is later determined to be TPMP due to the contractor's failure to complete the PPMP within the time specified.
- **1.2 Use of TPMP Prior to October 1.** The contractor has the option to apply TPMP in lieu of PPMP prior to October 1, 2025, even when there is sufficient time to complete the PPMP prior to October 1, 2025. For example, the contractor may choose to use TPMP as a base coat for the PPMP on open-graded surfaces in order to achieve higher retroreflectivity readings on the surface coat as compared to a single application.
- **1.2.1** The contractor has the option of using TPMP in lieu of Temporary Raised Pavement Markers if applied each day that existing markings are obliterated.
- **2.0 Construction Requirements.** TPMP shall be accurately placed in the final planned location and shall be completely covered by the final application of PPMP. Any failure to comply with this requirement shall be corrected by removal of the misplaced pavement markings at the contractor's expense and without marring of the pavement surface.
- **2.1** Prior to application of the PPMP on TPMP, TPMP shall be fully cured in accordance with the manufacturer's recommendation, or for a period of 12 hours, whichever is greater.
- **3.0 Weather Limitations.** All weather limitations specified in Sec 620 for PPMP and TPMP shall apply. Cold Weather Pavement Marking Paint, in accordance with Sec 620.10.6, shall be used for TPMP when specified weather limitations do not allow the use of waterborne paint. No additional payment will be made for the use of Cold Weather Pavement Marking Paint as TPMP. Cold Weather Pavement Marking Paint is not an allowable substitute for PPMP and shall subsequently be covered with PPMP.

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4.0 Time Exception. If application of PPMP is to be delayed to the spring of 2026, the contractor shall submit a request to the engineer for a time exception and shall provide a revised work schedule that shows the planned completion of the PPMP.

- **4.1** Upon receipt of the time exception request in Section 4.0, the engineer will list "Application of Permanent Pavement Marking Paint" as an exception on the Semi-Final Inspection form, thus granting an exception to the count of contract time thru June 1, 2026, solely for the purpose of delaying application of PPMP. This time exception shall not apply to any time needed to complete any other work items. Liquidated Damages, as specified elsewhere in this contract, shall remain in effect for all other work items not completed by the contract time limits, as specified elsewhere in this contract, and for PPMP not completed by June 1, 2026.
- **5.0 Method of Measurement**. No final measurement will be made for TPMP.
- **6.0 Basis of Payment.** Full payment for TPMP will be made at the contract lump sum price even when PPMP is completed prior to the time limitation and TPMP is not used or only partially used.
- **6.2** If a \$0 bid is entered for TPMP, no payment will be made should TPMP become necessary.

Item Number	Description	Unit
620-99.01	Temporary Pavement Marking Paint	LS

- P. <u>ADA Compliance and Final Acceptance of Constructed Facilities</u> JSP-10-01C
- **1.0 Description.** The contractor shall comply with all laws pertaining to the Americans with Disabilities Act (ADA) during construction of pedestrian facilities on public rights of way for this project. An ADA Checklist is provided herein to be utilized by the contractor for verifying compliance with the ADA law. The contractor is expected to familiarize himself with the plans involving pedestrian facilities and the ADA Post Construction Checklist prior to performing the work.
- **2.0 ADA Checklist.** The contractor can locate the ADA Checklist form on the Missouri Department of Transportation website:

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

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

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

3.0 Coordination of Construction.

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

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Q. ADA Compliant Moveable Barricades

1.0 Description. This work shall consist of providing moveable barricades to satisfy the requirements of the pedestrian traffic control plans as shown in the bidding documents. The contractor will be responsible for moving the pedestrian barricades to coincide with their planned order of work.

- **2.0 Construction Requirements.** The contractor shall use a movable barricade that meets the requirements as established by the ADA. The pedestrian barricades shall be of self-supporting type having a minimum length of 6 feet per unit. The face of the barricade shall not extend into adjacent sidewalk considered open for pedestrian use. The contractor will be responsible for setting and maintaining the pedestrian barricades until all of the proposed improvements have been constructed.
- **3.0 Method of Measurement.** Measurement for ADA Compliant Moveable Barricade will be made per each for each 6 feet (min.) unit provided.
- **4.0 Basis of Payment.** Payment for all work necessary to fulfill the requirements noted above shall be considered completely covered in the contract unit price for **Pay Item No. 616-99.02**, **Misc. ADA Compliant Type III Moveable Barricade**, **per each**. No direct payment will be made for any necessary relocation of the ADA compliant barricade.

R. Katy Trail State Park

1.0 Description. The approximate 60-ft wide Katy Trail State Park right-of-way intersects the I-64 alignment on the St. Charles County side of the existing bridge. This provision provides specific requirements and restrictions relative to access across and work operation in the vicinity of the State Park.

2.0 General Requirements.

- **2.1** The Contractor shall be required to minimize encroachment on the Katy Trail State Park right-of-way during all phases of the work associated with this contract. The Contractor shall coordinate all construction activities in the vicinity of the Katy Trail with the Missouri Department of Natural Resources (MoDNR), who will be solely responsible for approving access across and on the Katy Trail and the timing and duration of trail closures, except as otherwise permitted in this Special Provision. For purposes of this contract "in the vicinity of the Katy Trail" applies to any land based or overhead operations within 150 feet of the centerline of the existing trail. The Contractor shall provide MoDNR at least one month prior to starting work which requires encroachment on or access across the Katy Trail right-of-way. Unless otherwise approved by MoDNR, encroachments on the Katy Trail State Park right-of-way will only be permitted during daylight hours between November 1 and April 1 or during night-time hours.
- **2.2 Trail Closures.** The Katy Trail is open to public use only during daylight hours (defined as the period from thirty minutes before sunrise to thirty minutes after sunset).
- **2.3** During those hours when the trail is officially closed the Contractor will be permitted access across the trail in accordance with these Special Provisions and/or other arrangements made between the Contractor and MoDNR.

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2.4 During those periods when the Katy Trail is officially open, closure of the trail will be prohibited anytime between thirty minutes before sunrise and 8:00 a.m. and between 5:00 p.m. and thirty minutes after sunset on weekdays or during daylight hours on weekends and holidays.

- **2.5** Temporary closures not exceeding thirty minutes will be permitted between 8:00 a.m. and 5:00 p.m. on non-holiday weekdays with a maximum of two such closures being permitted with a minimum of 4 hours between such closures on any given day, unless otherwise approved by MoDNR. During these temporary closures, users of the facility will be restricted from entering the construction zone by appropriately placed flagmen, as approved by the Engineer.
- **2.6** Temporary closures exceeding thirty minutes between 8:00 a.m. and 5:00 p.m. on non-holiday weekdays may be permitted, as approved by MoDNR. Unless otherwise approved by MoDNR, a bypass or detour in accordance with this Special Provision shall be in place during all temporary closures exceeding thirty minutes.
- **2.7** In order to obtain concurrence and to coordinate public notification and safety, the Contractor shall submit to MoDNR, thirty days prior to the commencement of work, a tentative schedule of work activities (including starting and completion dates) that may require temporary closure of the trail exceeding thirty minutes as described above. The Engineer and MoDNR will coordinate notification regarding construction activities which will impact trail users.
- **2.8 Katy Trail Bicycle Ride.** Closure of the Katy Trail will not be allowed during the annual June Katy Trail Bicycle Ride for the date(s) the riders are anticipated to be in St. Charles County.
- 2.9 Trail Detours and Protective Structures. The Contractor shall make every effort to allow passage of trail users through the construction zone, whenever it is safe to do so. Such efforts may include the construction of temporary trail detours within the construction zone or the construction of a temporary protective structure over the trail. The location, geometry and construction details of trail detours and temporary structures will require approval of MoDNR and the Engineer. The vertical and horizontal clearances provided by any temporary structure shall be as required by MoDNR. The surface of trail detours shall be compatible with MoDNR standards.
- **2.10 Protection of Facilities.** In performing the work under this Contract, the Contractor will not be permitted to move equipment and material along the length of any portion of the trail, but will only be permitted to cross the trail at designated locations within the construction work zone. The location and width of such crossing areas will be as approved by the Engineer in coordination with MoDNR.
- **2.11** The Contractor is encouraged to provide protection to the trail to minimize damage within the construction zone. The Contractor shall be responsible for repairing damage done to the trail and any temporary detours as a result of the Contractor's construction activities. Such repairs will be performed in a timely manner such that the trail and any temporary detours are always maintained to MoDNR standards. The Engineer will furnish the Contractor a copy of MoDNR trail specifications as a minimum guide for making trail repairs.
- **2.12 Trail User Safety.** The Contractor shall maintain an acceptable environment for trail users, even those on the trail outside the normal daytime hours of operation, safe from the hazards of the construction activities performed during the duration of this contract. The Contractor shall store all construction materials such that they are not accessible to trail users.

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2.13 Signage. Thirty (30) days prior to commencing any work in the vicinity of the trail, the Contractor shall post several signs, the number and location of which shall be coordinated with MoDNR and the Engineer, along the trail and at access points to notify users of the possibility of construction delays. The exact placement, size and content of these signs shall be as approved by MoDNR and the Engineer. The Engineer reserves the right to prepare explanatory pamphlets for distribution to Katy Trail users and to request that the Contractor's flagmen distribute such pamphlets during all periods of trail closure.

- **2.14 Clearing and Drainage.** Limited tree clearing within the trail right-of-way will be permitted as approved by MoDNR. The Contractor is responsible for maintaining the existing drainage patterns relative to the trail and providing adequate drainage, as approved by the Engineer, related to any detours or bypasses.
- **3.0 Temporary Access Agreement.** The Contractor shall prepare and submit for approval a Katy Trail State Park Temporary Access Agreement (no-cost) to the MoDNR contact listed below. The Contractor shall not access the trail prior to MoDNR approving and executing the Temporary Access Agreement. A blank copy of said agreement is included in the electronic deliverables.
- **3.1 MoDNR Contact.** The contact for MoDNR for any aspect of construction activities as related to the KatyTrail State Park is as follows:

Mr. Quinn Kellner Section Manager, MoDNR (636) 899-1135 (office) (314) 807-1511 (mobile)

Email: quinn.kellner@dnr.mo.gov

- **4.0 Method of Measurement.** No measurement will be made for this item.
- **5.0 Basis of Payment.** All costs incurred by the Contractor in complying with the various requirements shall be completely covered by the contract unit prices bid for the various items of work in the contract.

S. Monarch Levee and Trail

- **1.0 Description.** The Monarch Levee abuts the I-64 roadway embankment on the south side of the Missouri River adjacent to the end span of the existing WB Boone Bridge. The Missouri Greenway (Monarch Levee) Trail enters MoDOT Right-of-way near the south bank of the Missouri River east of the WB Boone Bridge, crosses under I-64, then turns southwest and exits MoDOT right-of-way on top of the Monarch Levee. This Special Provision provides specific requirements and restrictions relative to impacts to this levee and trail.
- **2.0 General Requirements.** There is no work associated in this contract to be performed within the levee itself or in close proximity to the levee. There is no subsurface or excavation work to be performed as part of this project.
- **2.1** The Missouri Greenway Trail is owned by Great Rivers Greenway and maintained by the City of Chesterfield.
- 3.0 Construction Requirements.

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3.1 The Monarch Levee shall not be used as a construction access road. Access along the Levee or on the levee faces will not be permitted. Access to and across the levee shall be restricted to within the right-of-way, and in accordance with the requirements of this Special Provision.

- **3.2** At a minimum of thirty days prior to commencing work within the vicinity of the levee, the Contractor shall submit a work plan to the Engineer, to the Monarch Levee District and to the United States Army Corps of Engineers. The work plan will present in detail the Contractor's proposal for working in the vicinity of the levee, including specific pieces of equipment and their locations, the location and material make-up and construction of work platforms and access roads, and the description and details of all other construction related items that could impact the levee. Work shall not commence in the vicinity of the levee until after the work plan is approved by the Engineer, by the Monarch Levee District and by the United States Army Corps of Engineers.
- **3.3 Trail Closures.** The Missouri Greenway Trail is open to public use only during daylight hours (defined as the period from thirty minutes before sunrise to thirty minutes after sunset).
- **3.3.1** During those hours when the trail is officially closed the Contractor will be permitted access across the trail in accordance with these Special Provisions and/or other arrangements made between the Contractor, Great Rivers Greenway (GRG), and the City of Chesterfield.
- **3.3.2** During those periods when the Trail is officially open, closure of the trail will be prohibited anytime between thirty minutes before sunrise and 8:00 a.m. and between 5:00 p.m. and thirty minutes after sunset on weekdays or during daylight hours on weekends and holidays.
- **3.3.4** Temporary closures not exceeding thirty minutes will be permitted between 8:00 a.m. and 5:00 p.m. on non-holiday weekdays with a maximum of two such closures being permitted with a minimum of 4 hours between such closures on any given day, unless otherwise approved by the Engineer. During these temporary closures, users of the facility will be restricted from entering the construction zone by appropriately placed flagmen.
- **3.3.5** Temporary closures exceeding thirty minutes between 8:00 a.m. and 5:00 p.m. on non-holiday weekdays may be permitted, as approved by the Engineer. Unless otherwise approved by the Engineer, a bypass or detour in accordance with this Special Provision shall be in place during all temporary closures exceeding thirty minutes.
- **3.3.6** In order to obtain concurrence and to coordinate public notification and safety, the Contractor shall submit to GRG and the City of Chesterfield, thirty days prior to the commencement of work, a tentative schedule of work activities (including starting and completion dates) that may require temporary closure of the trail exceeding thirty minutes as described above. The Engineer, GRG and the city will coordinate notification regarding construction activities which will impact trail users.
- **3.3.7 Trail Detours and Protective Structures.** The Contractor shall make every effort to allow passage of trail users through the construction zone, whenever it is safe to do so. Such efforts may include the construction of temporary trail detours within the construction zone or the construction of a temporary protective structure over the trail. The location, geometry and construction details of trail detours and temporary structures will require approval of GRG, City of Chesterfield and the Engineer. The vertical and horizontal clearances provided by any temporary

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structure shall be as required by GRG. The surface of trail detours shall be compatible with GRG standards.

- **3.3.8 Protection of Facilities.** In performing the work under this Contract, the Contractor will not be permitted to move equipment and material along the length of any portion of the trail, but will only be permitted to cross the trail at designated locations within the construction work zone. The location and width of such crossing areas will be as approved by the Engineer.
- **3.3.9** The Contractor is encouraged to provide protection to the trail to minimize damage within the construction zone. The Contractor shall be responsible for repairing damage done to the trail and any temporary detours as a result of the Contractor's construction activities. Such repairs will be performed in a timely manner such that the trail and any temporary detours are always maintained to GRG standards. GRG design standards are available on the GRG website at https://greatriversgreenway.org/design-guidelines/trail-design/.
- **3.3.10 Post-Project Inspection.** The Contractor shall arrange with the Engineer, City of Chesterfield and Great Rivers Greenway a post-construction inspection of the trail to assess condition and determine what damage, if any, will require repair.
- **3.4 Trail User Safety.** The Contractor shall maintain an acceptable environment for trail users, even those on the trail outside the normal daytime hours of operation, safe from the hazards of the construction activities performed during the duration of this contract. The Contractor shall store all construction materials such that they are not accessible to trail users.
- **3.5 Signage.** Thirty days prior to commencing any work in the vicinity of the trail, the Contractor shall post several signs, the number and location of which shall be coordinated with GRG, the City of Chesterfield and the Engineer, along the trail and at access points to notify users of the possibility of construction delays. The exact placement, size and content of these signs shall be as approved by GRG and the Engineer. The Engineer reserves the right to prepare explanatory pamphlets for distribution to Trail users and to request that the Contractor's flagmen distribute such pamphlets during all periods of trail closure.
- **4.0 Levee District Contact.** The contact for the Monarch Levee District is:

Ms. Karen Frederich, P.E., CFM Horner & Shifrin. Inc.

Phone: (636) 849-4456

Email: ksfrederich@hornershifrin.com

4.1 Trail Contacts. The contacts for the Missouri Greenway Trail are:

Mr. Ben Grossman
Director of Greenway Operations, GRG

Phone: (314) 932-4920

Mr. TW Dieckmann

Parks Director, City of Chesterfield

Phone: (636) 812-9503

5.0 Method of Measurement. No measurement will be made for this item.

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6.0 Basis of Payment. All costs associated with all work required to comply with the requirements of this Special Provision will be considered incidental to other items of work under this contract.

T. Removal of Bridge Debris

- **1.0 Description.** Environmental surveys of the Missouri River for pallid sturgeon and Meramec River for mussels and endangered fish species were not conducted at the project location because debris is not anticipated to fall into the water. If debris including, but not limited to, sand from sandblasting, water from hydroblasting, paint chips, runoff from painting/sealing processes, etc. falls into the water, the project will be required to shut down while biologists determine if there are any threatened or endangered species at the site and while MoDOT's environmental section reassesses impacts to those species.
- **1.1** The contractor shall make provisions to prevent debris and materials from falling below the bridges. If this does occur and if deemed necessary by the engineer, it shall be removed as directed by the engineer at the contractor's expense.
- **1.2** The contractor shall prevent any debris and materials from falling into the river or wetland below the bridge.
- **1.3** Any damage sustained by the remaining structures as a result of the contractor's operations shall be repaired or the material replaced as determined by the engineer at the contractor's expense.
- **1.4** If the contractor's operation requires work below the deck, directly above the river or wetland below the bridge, the contractor shall notify the engineer who will then contact MoDOT's Environmental Section for further review.
- **2.0 Basis of Payment.** No direct payment will be made for any expense incurred by the contractor by reason of compliance with the specific requirements of the provision, including any delay, inconvenience, or extra work except for those items for which payment is included in the contract.

U. Coordination with Other Projects

1.0 Description. The contractor shall coordinate traffic management between the following projects within the same project limits:

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1.1 This list of projects is not all inclusive. The contractor shall be aware that there may be other projects including, but not limited to, utility, County, City, private, MoDOT maintenance, permit, or other projects that may impact project construction or traffic control in the vicinity of this project. It shall be the responsibility of the contractor to determine what, if any projects other than the ones listed above may impact this project and work to coordinate construction and traffic management efforts between this project and any other project involved.

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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 provisions, unless specified elsewhere in the contract documents.

V. <u>Pavement Marking Removals</u>

- **1.0 Description.** Pavement marking removal shall be in accordance with Section 620.50 and specifically as follows.
- **2.0 Construction Requirements.** Removal of all pavement marking within the projects limits shall be as shown on the plans or as approved by the engineer. Pavement marking shall be completely removed to the satisfaction of the engineer with minimal damage to the pavement. The contractor shall use an approved **water blasting method** to remove the pavement marking on <u>concrete and asphalt surfaces</u>. No more than five percent (5%) of the existing marking shall remain. The pavement surface shall not be left scarred with an image that might mislead traffic. Any excess damage or scarring of the pavement shall be repaired at the contractor's expense. It shall be the contractor's responsibility to determine what type of material needs to be removed.
- **3.0 Method of Measurement.** The contractor shall be advised that the first sentence within Section 620.50.3.2 shall be removed and replaced with the following: If the width of the lane marking stripe to be removed is either 4-inches or 6-inches in width, no additional pay factor, based upon 4-inches, shall be included or paid removals unless the striping width is greater than 6-inches. Final measurement will not be made except for authorized changes during construction or where appreciable errors are found in the contract quantity. The revision or correction will be computed and added to or deducted from the contract quantity.
- **4.0 Basis of Payment.** The accepted quantity of pavement marking removal including all labor, equipment, and material necessary to remove the existing marking will be paid for at the contract unit price for the following pay item:

Item Number	Description	Unit
620-70.01	Pavement Marking Removal	LF

W. Inlaid Raised Pavement Markers

- **1.0 Description.** This work shall consist of furnishing and installing inlaid pavement markers as shown on the plans or as directed by the engineer. An inlaid pavement marker shall consist of a retro-reflective pavement marker installed below the pavement surface. The marker shall be installed with a cradle device which supports the reflector at the proper depth below the pavement and attached to the pavement with adhesive. In addition to cutting a location for the marker, a slot shall be grooved into the pavement both before and after the marker for visibility of the marker and drainage. Final product shall have two markers in place at each location.
- **2.0 Material.** All material shall be in accordance with the following.
- **2.1 Marker.** The marker shall have two retro-reflective lenses white facing traffic and red facing opposing / wrong way traffic to reflect incident light from opposite directions. The lens shall be hermetically sealed and permanently bonded to the marker base. The manufacturer's

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identification shall be molded in the face of the marker lens or on the marker body so as to be visible after installation. The reflector color shall be as shown on the plans.

- **2.1.1** The marker shall have nominal dimensions of 2.0 x 5.0 x 0.7 inches. The reflective surface of each lens shall be a nominal 1.93 square inches in area.
- **2.1.2** In addition to the requirements described, the marker/cradle system shall be National Transportation Product Evaluation Program (NTPEP) approved. The marker shall receive at a minimum an average rating of 3.0 for lens and visibility after one year of exposure on both concrete and asphalt test decks. A written request for qualification shall be sent by the manufacturer to Construction and Materials with the following information:
 - (a) Brand name of the product.
 - (b) A copy of the actual test results from NTPEP.
 - (c) Certification that the material meets this specification and is intended for use as described.
 - (d) Specific installation instructions.
- **2.2** Adhesive. The adhesive used to bond the marker to the pavement shall be an epoxy approved by the engineer or meet the manufacturers specifications.
- 3.0 Construction Requirements.
- **3.1 Reflector placement.** A cradle shall be used to hold the marker at the correct nominal depth of 0.12 inch. The cradle shall be made of polycarbonate plastic and the net weight of the cradle and marker shall be less than 5 ounces. When installed, the marker shall be perpendicular to traffic.
- **3.2 Pavement groove.** There shall be a groove cut both in advance and behind the marker using diamond tipped blades. The entire groove shall be cut in accordance with the manufacturer's recommendations. The groove should be straight to within 1/2 inch in 10 feet. The width of the groove shall be 5 inches or per manufacturer's specifications.

The overall length of the groove cut in the pavement surface shall be 9 feet, with markers placed 3.5 feet from either end and spaced 2.0 feet apart.

- **3.3 Installation.** The groove and the bottom surface of the marker shall be free of scale, dirt, rust, oil, grease, or any other contaminant that might reduce bonding to the adhesive.
- **3.3.1** The adhesive used to install the marker shall be machine applied unless otherwise approved by the engineer. The machine mixer and applicator shall be capable of accurately and uniformly proportioning the components. The mixing chamber shall produce an epoxy adhesive of uniform color with no visible evidence of streaks on the surface or within the mixed epoxy adhesive.
- **3.3.2** No markers shall be installed when the ambient temperature is below 50 F (10 C), the relative humidity is above 80 percent, or the pavement surface is wet.

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3.3.3 Newly placed bituminous pavement surfaces shall be allowed to cure for a minimum of seven days prior to installing reflectors.

- **3.3.4** A longitudinal adjustment to the location of a marker shall be made in order to avoid damage to deteriorated pavement or transverse joints. In locations where concrete and bituminous surfaces abut, markers shall be installed in the concrete surface.
- **3.3.5** The pavement shall be accurately cut to the marker manufacturer's specifications. The depth of the groove where the marker is to be placed shall be in accordance with manufacturer's specifications.
- **3.3.6** If necessary, installation grooves on crowned pavements, superelevated pavements, or ramps shall be cut as needed to provide proper marker fit.
- **3.3.7** The groove shall be clean and dry prior to application of the adhesive.
- **3.3.8** There shall be no adhesive on the lens or top of the marker.
- **3.3.9** When hand mixing of epoxy adhesive is permitted, no more than one quart (L) of epoxy adhesive shall be mixed at one time. The marker shall be installed within five minutes after mixing operations are started.
- **3.3.10** The installed marker shall be protected from traffic until the adhesive has cured according to manufacturer's recommendations. If, after the manufacturer's recommended cure time, epoxy adhesive can be penetrated by a screwdriver or other pointed instrument, the marker shall be removed, cleaned, and reinstalled.
- **4.0 Method of Measurement.** Final measurement will not be made except for authorized changes during construction or where appreciable errors are found in the contract quantity. When required, measurement of inlaid pavement markers will be measured per each. The revision or correction will be computed and added to or deducted from the contract quantity.
- **5.0 Basis of Payment.** The accepted quantity of inlaid pavement markers will be paid at the contract unit price for:

Item No.	Units	Description	
620-99.02	Each	Inlaid Pavement Marker Installation	

5.1 Payment for the Inlaid Pavement Marker Installation per each includes all labor, equipment, and materials necessary to fulfill the requirements of the above provision. The cost of grooving, adhesive, and installation of <u>two pavement markers per groove</u> will be included in the unit cost <u>per groove installation</u>.

X. Drainage Maintenance During Construction

1.0 Description. The contractor is required to maintain drainage during all stage construction and to ensure that the existing drainage system continues to convey all storm water until the staged construction is completed.

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1.1 Weld Drainage Gates. This work shall consist of modifying the existing inlet grates on I-64 inside and outside shoulders as shown on the plans, such that the grates be fixed to the frame of the inlet in a manner that allows traffic to traverse the inlet without the probability of the grate separating from the frame during traffic.

- **1.1.1** The inlets shall be clean out and flushed prior to welding the grate.
- **1.1.2** Welds shall be removed <u>prior to</u> completion of project.
- **1.2 Damaged Grate Inlets.** It is anticipated that some of the grates could be damaged by traffic driving directly over them. The contractor shall remove any damaged grates and replace them as needed. Should the grate AND frame be damaged, the contractor shall also replace the inlet top. See special provision "Inlet Top Replacement" below.
- **2.0 Construction Requirements.** The contractor shall comply with Section 206, 614 and 730.
- **2.1** All work including method and materials required to attached the grate to the frame shall be approved by the engineer prior to work being performed.
- **4.0 Method of Measurement.** Final measurement will not be made.
- **5.0 Basis of Payment.** Payment will be made for compliance with this provision including all labor, equipment and material necessary at the contract unit price for the following pay item:

Item Number	Description	Unit
730-99.01	Weld Drainage Grates	LS
614-11.21	Curved Vane Grate and Frame (4-ft x 2-ft or 1200mm x 600mm)	EA
206-35.00	Culvert Cleanout	EA

Y. Inlet Top Replacement

- **1.0 Description.** This work shall consist of removing the existing parallel bar inlet tops, grates and bearing plates or existing curved vane inlet tops, grates and bearing plates and replace with curved vane grate tops, grates, and bearing plates at locations shown on the plans.
- **2.0 Materials.** Steel reinforcing shall be required around the new lid as detailed in Standard Plan 731.10 for Drop Inlet Covers. All other materials shall meet requirements as identified in Section 731 and Division 1000 of the Standard Specifications. No direct pay will be made for steel reinforcing, providing and installing dowel bars or ties bars as noted on the plans or Standard Plans. No direct pay for installing dowels bars or ties bars into existing concrete as indicated in the Standard Plans.
- **3.0 Construction Requirements.** The contractor shall field verify the size of the inlet and required grate opening area prior to ordering the corresponding curved vane grate covers, drop inlet tops, grates, and bearing plates. The contractor shall sawcut the existing pavement or shoulder around the inlet to provide the concrete pad around the inlet top in accordance with the dimensions shown on the plans. If needed, the inlet shall be adjusted to the proper elevation. The contractor shall also repair any damage to the inlet, inlet invert, or pipe connection to the inlet.

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4.0 Basis of Payment. Payment for compliance with this provision, including all labor, materials, time and equipment, will be considered completely covered by the following contract item:

Item Number	Unit	Description
614-99.02	EA	Misc. Inlet Top Replacement

- **4.1** No direct pay for tiebars and dowel bars.
- **4.2** No direct pay for removing and replacing concrete pavement, base and median barrier.

Z. Median Barrier Replacement

- **1.0 Description.** This work shall consist of removing the existing median barrier and replacing with Type C concrete barrier as shown on the plans.
- **2.0 Material Requirements.** All materials used by the contractor shall be in compliance with Sec 617.
- **3.0 Construction Requirements.** The contractor shall comply with Sec 617 and herein.
- **3.1** The contractor shall remove concrete and reinforcing steel to the limits shown on the plans using a method that creates a clean vertical cut thru the concrete and steel.
- **3.2 Additional removal.** The contractor shall be required to remove an additional 5 to 10 feet of existing barrier. With reasonable care, the contractor shall remove only the concrete and expose the horizontal reinforcing steel. The exact length of horizontal reinforcing steel to be exposed shall be determined by the engineer. The contractor shall expose and clean off the steel without damaging it. Approximately 80-90% of the steel surface shall be free of concrete and other contaminants.
- **3.3.** The new joint between existing and new concrete material shall be vertical and as smooth as possible.
- **4.0 Basis of Payment.** Payment for compliance with this provision, including all labor, materials, time and equipment, will be considered completely covered by the following contract item:

Item Number	Unit	Description
617-30.00	LF	Concrete Traffic Barrier, Type C

AA. Signing

- **1.0 Description.** This work shall consist of relocating existing signs to new posts at the locations shown on the plans.
- **2.0 Material Requirements.** All materials shall comply with Missouri Standard Specifications for Highway Construction Section 903.

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3.0 Construction Requirements. All construction shall comply with Missouri Standard Specifications for Highway Construction Section 903 and the Missouri Standard Plans for Highway Construction, unless otherwise shown on the plans.

- **3.1 Remove & Relocate Sign Assembly to new Post & Foundation.** The contractor shall install new sign support post(s) at the locations shown and then mount relocated existing signs to the new post(s). If after their removal the sign or sign assembly is not required to be temporary mounted, the sign(s) shall be stored in a location that is approved by the engineer. Removal of the existing posts and footings are paid for under other pay items in these special provisions. All work shall be in accordance with the construction requirements of Section 903. The contractor shall remove the existing post(s) and foundation(s) in accordance with Sec 202.
- **3.2** The contractor shall exercise reasonable care in the handling of the signs and posts to be relocated during the removal stage. Should any of the relocated signs be damaged by the contractor's negligence, it shall be replaced at the contractor's expense.
- **3.3 Post lengths for PSST post.** The post lengths provide in the quantities are for bidding purposes only. The contractor shall be responsible for determining post lengths to provide the minimum vertical clearance shown on the standard plans. Field cutting of posts will be required as needed.
- **4.0 Method of Measurement.** Measurement for any concrete footings, structural steel posts, pipe posts, perforated square steel tubes and anchor sleeves, and breakaway assemblies will be made in accordance with Missouri Standard Specifications for Highway Construction Section 903, except here within:
- **4.1** Measurement shall be made per each for relocating and mounting existing signs to new posts.
- **5.0 Basis of Payment.** Payment for furnishing and installing sign, relocating signs and/or post shall include all materials, equipment, tools, labor, and work incidental thereto, and shall be considered to be completely covered by the contract unit price for the following:

Item Number	Unit	Description
903-99.02	Each	Remove and Relocate Existing Sign(s) to New Post

BB. Site Restoration

- **1.0 Description.** Restore to its original condition any disturbed area at sites including, but not limited to items such as, pavement markings, guardrail, sidewalk, ramp, bus stop pad, sprinklers, pull box, conduit, and pole base installations. Restoration shall be accomplished by placing material equivalent to that of the adjacent undisturbed area. Disturbed unpaved areas shall be fertilized and either seeded and mulched or sodded as directed by the engineer. The engineer will have the final authority in determining the acceptability of the restoration work.
- **2.0 Materials.** Any areas of concrete paved ditch, pavement and shoulders as well as any similar improvements shall be replaced with improvements of similar composition and thickness. Removals shall be achieved by means of full depth saw cut, the resulting subgrade compacted to minimum density requirements and topped with 4 inches of compacted aggregate base course prior to replacement of surface materials. Concrete materials used in replacement shall be

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approved by the engineer. A commercial asphalt mix may be used for replacement of asphaltic surfacing upon approval of the engineer.

- **2.1** Unless quantities and pay items for removal and subsequent replacement of improvements are contained in the plans for a specific location of removal work, no direct payment will be made for full depth saw cutting and the removal and subsequent replacement of asphalt, pavement, shoulders etc. This work will be considered as included in the various unit bid prices established in the contract, and no additional payment will be made.
- **2.2** If the contractor elects and receives approval from the engineer for alternate trench and/or pull box locations, any areas of concrete slope protection, sidewalk, pavement, shoulders, islands and medians as well as any similar improvements consisting of asphaltic concrete materials removed in conjunction with their construction shall be replaced with improvements of similar composition and thickness. Removals shall be achieved by means of full depth saw cuts, the resulting subgrade compacted to minimum density requirements and topped with 4 inches of compacted aggregate base course prior to replacement of surface materials. Concrete materials used in replacement, shall be approved by the engineer. A commercial asphalt mix may be used for replacement of asphaltic surfacing upon approval of the engineer.
- **2.3** Any sidewalks and curb ramps that are disturbed as described in this provision shall be replaced to meet current ADA standards.
- **2.4** All guardrail post holes remaining from the removal of existing guardrail posts in existing concrete or asphalt pavement or ditch shall be backfilled with a granular material and sealed with a ½ inch hot-poured elastic type material in accordance with Section 1057 or as approved by the Engineer. Any concrete or asphalt pavement or ditch damaged in the process of fulfilling this provision shall be replaced in kind and considered incidental to the installation of the new guardrail at the disturbed location
- **2.5** Areas that are used by the contractor for jobsite trailers, equipment and materials storage, or used for project staging areas that are disturbed shall be cleaned up and restored to a condition that is both acceptable to the engineer and, at a minimum, equivalent to the existing site condition.
- **3.0 Basis of Payment.** The cost of restoration of disturbed areas will be incidental to the unit price of the items associated with the disturbance. No direct payment will be made for any materials, equipment, time, or labor, which is performed under this provision.

CC. Concrete Washout

1.0 Description. Concrete washout BMPs shall be established in designated areas for this project if concrete production or delivery is occurring. Washout BMPs can be non-leaking plastic or clay/bentonite lined pits, a straw bale enclosure lined with plastic, a storage tank or prefabricated BMP or other structure approved by the engineer or inspector. Designated washout areas should be located at least 50 feet away from storm drains, ditches, streams or other water bodies. Washouts should be monitored like other BMPs to ensure there are no leaks and that they are operating effectively. They should be cleaned out when they reach 75% of their design capacity. Care should be taken to ensure these structures do not overflow during storm events. Upon completion of concrete washout on the project, the engineer or inspector should ensure proper disposal of washout materials. Washout liquids can be allowed to evaporate or be pumped out and properly disposed of. They cannot be discharged into storm drains, ditches, streams or

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other bodies of water. Dried concrete can be broken up and used as clean fill on the project, recycled or properly disposed of by other means.

2.0 Basis of Payment. No direct payment will be made to the contractor for installing, maintaining, and removing concrete washout facilities or for properly disposing of materials. The cost of complying with this requirement shall be completely covered in the contract unit price of the concrete pay items included in the contract.

DD. Coordination with ITS Staff and Utility Locates

- **1.0 Description.** Any work that will impact the existing communications network must be coordinated with the Commission's St. Louis District ITS staff. This includes but not limited to removal and replacement of any existing communications equipment, adding new devices and changes to power sources or disconnects. Minor modifications to the existing communications network can have significant impacts on the system and operation of other ITS and traffic signal systems.
- **1.1** MoDOT is a member of MO-One-Call System. Prior to any excavation or work within MoDOT Right-Of-way, the contractor must contact MO-One Call at 1-800-DIG-RITE and request for Utility Locates within noted project limits. If the scope of work contains modification, addition and/or expansion of existing underground MoDOT ITS, lighting, or signal facilities, the contractor must notify the MoDOT Utilities Locate staff prior to any work, in order for MoDOT to update MoDOT utility location records with Missouri One Call.
- **2.0 Contact.** The contractor shall notify the ITS group via an email to SLITS@modot.mo.gov at least two (2) days before any work that may impact the existing network communications. The contractor shall include the Job#, location and brief scope of work in the email's subject line. The engineer shall be notified prior to making contact with ITS staff. For MoDOT Utility location updates, the contractor must contact MoDOT TMC at 314-275-1500 and ask for Utility Locate Section at least seven (7) calendar days before performing any work.
- **3.0** The ITS and network devices located within the project limits are a crucial part of the traffic operation system for this area. It is imperative that the downtime be kept to a minimum when adding, removing, or modifying any existing ITS and network devices. This may require the contractor to perform work that will affect existing network devices during nighttime and/or weekend hours, at the discretion of the Engineer. Allowable timeframes for this work will be subject to the need for ITS devices in the area to be used to manage other traffic impacting work zones.
- **4.0 Basis of Payment.** No direct payment shall be made for compliance with this provision.

EE. MoDOT ITS Equipment Within Project Limits

1.0 Description. MoDOT owned fiber optic cable and conduit, critical MoDOT power supplies and power cables, and pull boxes for fiber and power cabling and other above and underground ITS (Intelligent Transportation System) facilities are present within the limits of this project. Damage or interruption of these items can cause extensive outages to the MoDOT network.

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2.0 Construction Requirements. The contractor shall exercise reasonable care while completing work near these facilities, and shall take steps necessary to protect these facilities from damage for all items that are not specifically identified as being removed and/or relocated in the plans. Should any of the existing wiring or conduit be damaged by the contractor, it shall be replaced at the contractor's expense and the system in full operation within **4** hours of when the damage occurred. If it is mutually agreed upon between the Commission and the Contractor that the repairs will require more than **4** hours to complete, a mutually agreed upon time for repairs to be complete will be determined.

- **2.1** The contactor shall not modify any existing network or electrical connections within equipment cabinets, unless coordinated with MoDOT ITS staff. Existing connections include, but are not limited to, fiber jumpers, CAT5(e) cables, power supplies, and power strips. The connection to specific fiber and copper ports on network equipment shall also not be modified, unless coordinated with MoDOT ITS staff, as the network equipment has been configured specifically for each equipment cabinet. Significant network outages and unnecessary troubleshooting to investigate outages can occur, even with minor changes to existing connections within the cabinet.
- **3.0 Liquidated Damages.** In the event of damage, if the system is not repaired and in full operation within **4** hours of the damage occurring, or within the timeframe agreed upon, the contractor will be charged with a liquidated damage specified in the amount of \$100.00_per hour for each full hour that the system is not fully operational. This damage will be assessed independently of the liquidated damages specified elsewhere in the contract.
- **3.1** The MoDOT Engineer will also have the option of issuing a work order for MoDOT's on-call ITS Maintenance contractor to make repairs, if it is the Engineer's opinion that the contractor creating the damage will not be able to make repairs in a timely manner. Contractor's reimbursement for MoDOT expense for this option shall be in addition to the liquidated damages.
- **4.0** Basis of Payment. No direct payment shall be made for compliance with this provision.

FF. Conduit and Pull Box System Adjustment or Repair

- **1.0 Description.** At locations noted on the plans, the contractor shall adjust the conduit system routing or repair the existing conduit system. Conduit system routing adjustment may involve raising or lowering the conduit in place or minor horizontal adjustments to avoid other construction. Adjustment may require installing new conduit and splicing it to existing conduit. When existing cabling cannot be removed, split duct conduit shall be used. Adjustments to the existing conduit system may also involve removal of existing pull boxes or adjusting existing pull boxes to the new grade. Removal of existing pull boxes, when applicable, will be paid for by the removal of improvement bid item. Existing pull box adjustment to new grade, as shown in plans, is a separate pay item (see below). If applicable, relocating the existing cabling into the adjusted conduit system will be paid for by the fiber installation and relocation pay item.
- **2.0 Materials.** The materials used shall be per MoDOT Approved Product List (APL) and meet all MoDOT Specifications. If the materials are not in the APL, the contractor shall submit the material specification documents to the Engineer and the ITS group (via an email to SLITS@modot.mo.gov) for review and approval before construction.

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2.1 Couplings. Coupler used to join new conduits to existing conduits shall be designed by the manufacturer to join conduits of the type and size to be joined.

- **2.2** Use PVC conduit meeting the requirements of Sec 1060.
- **2.3** Use HDPE conduit meeting the requirements of Sec 1060. Use orange conduit for communication cable and black for power cable.
- **2.4 Split Duct Conduit.** Split duct conduit shall be designed by the manufacturer for repairing damaged conduits in a manner that will protect the cabling. The split duct material shall be approved by the Engineer.
- 3.0 Construction Requirements.
- **3.1 Construction** requirements shall conform to Sec 902.16.
- **3.2** The Contractor shall submit in writing his anticipated method of splicing the conduit to the Engineer for approval prior to performing the work.
- **3.3 Adjust Existing Pull Box to New Grade.** As shown on the plans, the contractor shall adjust the existing pull box elevation to match new finished grade. This work shall be coordinated with the grading, paving and other work for a safe condition.
- **3.4** If the existing conduit system contains fiber optic cable, before and after fiber testing, using the OTDR (Optical Time-Domain Reflectometer) is required to ensure the existing fiber cable is not degraded. The fiber testing reports shall be submitted to the ITS group via an email to SLITS@modot.mo.gov. If the fiber cable is degraded, the fiber optic cable shall be replaced between splice points approved by the Engineer.
- **3.5** At locations where connection of a new trenched conduit to an existing conduit is shown, or require, a watertight connection shall be made using a mechanical coupler.
- **3.6 Pull Box Removal.** If an existing pull box must be removed, the existing pull box shall be carefully broken up and removed without damaging existing conduits or cabling. Once the new conduit is installed and connected to the existing conduit, the void around the conduit shall be backfilled with Grade A crushed stone or gravel to 6 inches above the conduit. Above the stone or gravel complete backfilling with clean fill free of large stones or rubble.
- **3.7** If the existing conduit and cabling are shallow to the surface and within new sidewalk construction segment, the contractor shall hand dig or break up the existing sidewalk by hand and carefully without damaging the existing conduit and cable, lower the existing conduit at least 10 inches from bottom of proposed sidewalk, backfilled with Grade A crushed stone or gravel to 6 inches above the conduit and then construct the new sidewalk.
- **3.8** Before backfilling around the adjusted or repaired conduit, the St. Louis District ITS Group must be contacted and given time to inspect the conduit. Notify the ITS group that the location is ready for inspection via email to SLITS@modot.mo.gov. Send pictures of the adjusted or repaired conduit. Based on the pictures, the ITS Group may approve backfilling or may make a site visit. Do not backfill until email approval is provided.

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3.9 The contractor shall backfill excavated areas with clean fill free of large stones or rubble. The finished grade shall match the surrounding grade to maintain existing drainage patterns and the work area will be restored to match the surrounding area.

- **3.10** The contractor shall exercise reasonable care relocating MoDOT ITS Assets. Damage to any MoDOT facilities within the area of work caused by the contractor will be deemed by the Engineer as either "non-emergency" or "emergency" upon notification of the damages. Repair to damages will be performed as follows:
 - a) Non-Emergency: Contractor will have 4 hours to propose a repair plan to the Engineer for a complete repair within 3 business days.
 - b) Emergency: Upon notification of the damage, Contractor must immediately submit a repair plan to the Engineer which will take no more than 4 hours to respond on-site and complete repairs within 48 hours of notification of damage.
 - c) In either case, if the proposed plan is unacceptable for any reason to MoDOT, repairs will be made by MoDOT with all costs billed to the Contractor.
- **3.11** The ITS conduit systems located within the project limits are a crucial part of the traffic operation system for this area. It is imperative that the downtime be kept to a minimum when replacing, removing, or modifying any existing ITS facilities.
- **4.0 Method of Measurement.** Measurement of Conduit and Cable Adjustment at Pullboxes will be per each pullbox adjusted to grade, regardless of the number of rigid conduits entering each pullbox.
- **5.0 Basis of Payment.** Measurement and payment for work covered by this specification includes equipment, tools, materials, necessary to install and splice existing conduit sufficient for pulling new cable. Payment will be made as follows:

Item No.	Туре	Description	
910-99.02	Each	Conduit and Cable Adjustments at Pullboxes	
910.99.02	Each	Pull Box Adjustment	
910-99.03	LF	Conduit Repair	

GG. ITS Pull Box

1.0 Description. Furnish and install ITS Pull Boxes with concrete pads as shown on the plans.

2.0 Materials.

- **2.1 Pull Box.** ITS pull box shall meet the requirements in Section 1062 of the Missouri Standard Specifications for Highway Construction.
- **2.2 Ground Rod.** Ground rods shall be listed according to UL requirements as detailed in the Standard UL 467, Grounding and Bonding Equipment, and meet the requirements of NEC 250. Use electrodes that are solid copper or copper-bonded steel.

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2.3 Concrete Pad. The contractor shall install a non-reinforced concrete pad around the ITS pull box as shown in the plans. The concrete used shall be a Class 'B' concrete as described within Section 501 of the Standard Specifications.

Basis of Payment. Measurement and payment for ITS Pull Boxes includes excavation, materials, construction, backfill and all miscellaneous hardware required for a fully operational system. Payment will be made as follows:

Item No.	Туре	Description
910-99.02	Each	Misc. ITS Pull Box, Class 2, with Concrete Apron
910-99.02	Each	Misc. ITS Pull Box, Class 5, with Concrete Apron