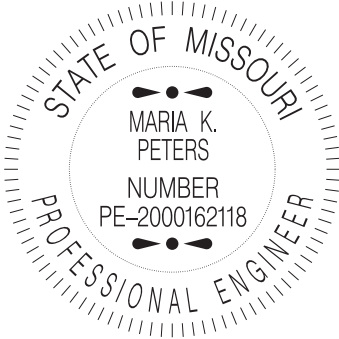


Job No.: J5S3261
 Route: AE/TT-94-Main St.
 County: Callaway/Cole

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)

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

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 <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636</p>
	<p>If a seal is present on this sheet, JSP's have been electronically sealed and dated.</p>
	<p>JOB NUMBER: J5S3261 Callaway/Cole COUNTY, MO DATE PREPARED: 9/17/19</p>
	<p>ADDENDUM DATE:</p>
<p>Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: All</p>	

JOB
SPECIAL PROVISION

A. General - Federal JSP-09-02E

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 2019 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

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 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.

Notice to Proceed: February 10, 2020
Completion Date: December 1, 2020

2.1 Calendar Days. The count of calendar days will begin on the date the contractor starts any construction operations on the project.

Job Number	Calendar Days	Daily Road User Cost
J5S3261	78	\$2300

3.0 Liquidated Damages for Contract Administrative Costs. Should the contractor fail to complete the work on or before the completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged contract administrative liquidated damages in accordance with Sec 108.8 in the amount of **\$250** 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 above specified 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 completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged road user costs in accordance with Sec 108.8 in the amount specified in Section 2.1 for each calendar day, or partial day thereof, that the work is not fully completed. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.

C. Work Zone Traffic Management

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

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

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

2.0 Traffic Management Schedule.

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

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

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

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

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

2.5.2 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 to 15 minute or above threshold. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, 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.

2.5.3 Traffic Safety.

2.5.3.1 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.

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

3.0 Work Hour Restrictions.

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

Memorial Day
Labor Day
Thanksgiving
Christmas
New Year's Day

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

12:00 noon July 2, 2020 – 10:00 p.m. July 5, 2020
12:00 noon July 2, 2021 – 6:00 a.m. July 6, 2021
12:00 noon July 1, 2022 – 6:00 a.m. July 5, 2022

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

3.3 Route AE/TT bridge will be completely closed to traffic, with the exception of the ramps, for all bridge rehab work for a maximum number of 7 days. See plan sheets for detour information.

3.4 There shall be no lane closures on W. Main and McCarty St. Ramp during the months of January, 2020 through May, 2020.

3.5 Work at the W. Main bridge A4662 location, including traffic control set up, shall not begin until after the Independence Day restriction stated above. W. Main bridge rehab work, requiring the closure of Route 54 lanes, shall be completed during the hours listed below.

Route 54 EB: 7:00 p.m. to 6:00 a.m. Daily
Route 54 WB: 7:00 p.m. to 6:00 a.m. Daily

3.6 Work on all 3 bridge locations may be completed concurrently.

3.7 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 **\$500 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.

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

4.0 Detours and Lane Closures.

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

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

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

D. Order of Work – West Main Bridge A4662

1.0 Description. The first order of work for the contractor shall be to install and activate the GRIDSMART Video Detection System prior to any other items of work on the West Main Bridge over US 54 in Cole County. This detection system is necessary to maintain traffic flow through the work zone on the bridge and prevent backups onto US 54.

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

E. Emergency Provisions and Incident Management

1.0 The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from the police or other emergency agencies for incident management. In case of traffic accidents or the need for police to direct or restore traffic flow through the job site, the contractor shall notify police or other emergency agencies immediately as needed. The 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 police services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol 573-751-1000		
City of New Bloomfield	City of Jefferson	City of Hermann
Fire: 573-592-2486	Fire: 573-634-6401	Fire: 573-486-5618
Police: 573-896-4678	Police: 573-634-6400	Police: 573-486-2081

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

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

3.0 No direct 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.

F. Project Contact for Contractor/Bidder Questions

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

Mia Peters, Project Contact
 Central District
 1511 Missouri Blvd.
 Jefferson City, MO 65102

Telephone Number: 573-751-7690
 Email: maria.peters@modot.mo.gov

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

G. Utilities

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>	<u>Known Required Adjustment</u>	<u>Type</u>
Ameren Missouri Electric Contact: Tammy Kolb 573-681-7515 tkolb@ameren.com	None	Electric
Ameren Missouri Gas Contact: Jake Martin 573-291-1978 jmartin7@ameren.com	None	Gas
Callabyte Technology Contact: Brent Long 573-642-3326 cecservice@callawayelectric.com	None	Communications
Callaway County PWSD 1 Contact: Brad Scrivner 573-896-4788 callawaywater@yahoo.com	None	Water
Callaway Electric Cooperative Contact: Brent Long 573-642-3326 cecservice@callawayelectric.com	None	Electric

Centurylink Contact: Tonjia Baldwin 573-415-6308 Tonjia.baldwin@centurylink.com	None	Communications
City of Jefferson Wastewater Contact: Eric Seaman 573-634-6410 eseaman@jeffcitymo.org	None	Sewer, Storm Sewer
Level 3 Now Centurylink Contact: Derek Broeker 636-847-4747 derek.broeker@centurylink.com	None	Communications
Mediacom Contact: Robert Boner 573-443-1536 rboner@mediacomcc.com	None	Communications
Missouri American Water Co. Contact: Scott Brewer 573-262-7062 scott.brewer@amwater.com	None	Water
MoDOT Central District Contact: Jason Morff 573-690-2467 jason.morff@modot.mo.gov	None	Electric, Communications, Traffic Signals
MNA Bluebird Contact: David Frazier 816-237-2125 david.frazier@bluebirdnetwork.com	None	Communications
Socket Telecom Contact: Todd Pulis 573-818-4778 tpulis@socket.net	None	Communications

1.1 Known Utility Facilities: The Contractor shall be aware there are numerous utilities present along this corridor. The extents of the utility conflicts are unknown. However if conflicts are encountered the Contractor shall be required to move their operation to another location until the utility can be relocated or the Engineer determines another course of action. There shall be no delay claims until such time the Contractor has no place to work except in areas of utility conflict and as approved by the engineer. The contractor shall be proactive in the discovery of utility conflicts. The contractor is recommended, after award of the project, to have all utilities marked along the project to visually see where conflicts may occur. Any conflicts discovered and cleared before construction begins will help the contractor's progress on the

project. MoDOT utilities staff will assist in relocation of utilities if necessary. There will be no direct pay for compliance to the above specification.

1.2 Various utilities listed above have overhead lines in the project limits in the vicinity of the Contractor's work. The Contractor shall use caution when working near any overhead lines and shall contact the utility companies at least two (2) weeks in advance if line protection is necessary. The Contractor shall be responsible for any damage to the overhead lines. There will be no direct pay for compliance to the above specification.

H. Supplemental Revisions JSP-18-01H

Stormwater Compliance Requirements

1.0 Description. This provision requires the contractor to provide a Water Pollution Control Manager (WPCM) for any project that includes areas of land disturbance that will total one (1) acre or greater on the project site at any point in time. 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.

1.1 Applicability. The project site consists of all areas designated on the plans, including temporary and permanent easements. This provision does not apply to Contractor staging, plant, or borrow areas that are not located on MoDOT right of way (Off-site). The Contractor is responsible for obtaining its own separate land disturbance permit for Off-site areas. This provision is in addition to any other stormwater, environmental, and land disturbance requirements specified elsewhere in the contract.

2.0 Water Pollution Control Manager (WPCM). The Contractor shall designate a competent person to serve as the Water Pollution Control Manager (WPCM) for projects meeting the description in Section 1.0. The Contractor shall ensure the WPCM completes all duties listed in Section 2.1.

2.1 Duties of the WPCM:

- (a) Be familiar with the stormwater requirements including the current MoDOT State Operating Permit for construction stormwater discharges/land disturbance activities; MoDOT's statewide Stormwater Pollution Prevention Plan (SWPPP); the Corps of Engineers Section 404 Permit, when applicable; the project specific SWPPP, the Project's Erosion & Sediment Control Plan; all applicable special provisions, specifications, and standard drawings; and this provision;
- (b) Successfully complete the MoDOT Stormwater Training Course within the last 4 years. The MoDOT Stormwater Training is a free online course available at MoDOT.org;
- (c) Attend the Pre-Activity Meeting for Grading and Land Disturbance and all subsequent Weekly Meetings in which grading activities are discussed;
- (d) Oversee and ensure all work is performed in accordance with the Project-specific SWPPP and all updates thereto, or as designated by the Engineer;

- (e) Review the project site for compliance with the Project SWPPP, as needed, from the start of any grading operations until final stabilization is achieved, and take necessary actions to correct any known deficiencies to prevent pollution of the waters of the state or adjacent property owners prior to the engineer's weekly inspections;
- (f) Review and acknowledge receipt of each MoDOT Inspection Report (Land Disturbance Inspection Record) for the Project within forty eight (48) hours of receiving the report and ensure that all Stormwater Deficiencies noted on the report are corrected within 7 days of the stormwater inspection or any extended period of time granted by the Engineer.

3.0 Pre-Activity Meeting for Grading/Land Disturbance and Required Hold Point. A Pre-Activity Meeting for Grading/Land Disturbance shall be held prior to the start of any land disturbance operations. No land disturbance operations shall commence prior to the Pre-Activity Meeting except work necessary to install perimeter controls and entrances. Discussion items at the pre-activity meeting shall include a review of the Project SWPPP, the planned order of grading operations, proposed areas of initial disturbance, identification of all necessary BMPs that shall be installed prior to commencement of grading operations, and any issues relating to compliance with the Stormwater requirements that could arise in the course of construction activity at the project.

3.1 Hold Point. Following the pre-activity meeting for Grading/land disturbance and subsequent installation of the initial BMPs identified at the pre-activity meeting, a Hold Point shall occur prior to the start of any land disturbance operations to allow the engineer and WPCM the time needed to perform an on-site review of the installation of the BMPs to ensure compliance with the SWPPP is met. Land disturbance operations shall not begin until authorization is given by the engineer.

4.0 Inspection Reports. Weekly and post run-off inspections will be performed by the engineer and each Inspection Report (Land Disturbance Inspection Record) will be entered into a web-based Stormwater Compliance database. The WPCM will be granted access to this database and shall promptly review all reports, including any noted deficiencies, and shall acknowledge receipt of the report as required in Section 2.1 (f.).

5.0 Stormwater Deficiency Corrections. All stormwater deficiencies identified in the Inspection Report shall be corrected by the contractor within 7 days of the inspection date or any extended period granted by the engineer when weather or field conditions prohibit the corrective work. If the contractor does not initiate corrective measures within 5 calendar days of the inspection date or any extended period granted by the engineer, all work shall cease on the project except for work to correct these deficiencies, unless otherwise allowed by the engineer. All impact costs related to this halting of work, including, but not limited to stand-by time for equipment, shall be borne by the Contractor. Work shall not resume until the engineer approves the corrective work.

5.1 Liquidated Damages. If the Contractor fails to complete the correction of all Stormwater Deficiencies listed on the MoDOT Inspection Report within the specified time limit, the Commission will be damaged in various ways, including but not limited to, potential liability, required mitigation, environmental clean-up, fines and penalties. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of \$2,000 per day for failure to correct one or more of the Stormwater Deficiencies listed on the Inspection Report within the specified time

limit. In addition to the stipulated damages, the stoppage of work shall remain in effect until all corrections are complete.

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

I. Contractor Quality Control NJSP-15-42

1.0 The contractor shall perform Quality Control (QC) testing in accordance with the specifications and as specified herein. The contractor shall submit a Quality Control Plan (QC Plan) to the engineer for approval that includes all items listed in Section 2.0, prior to beginning work.

2.0 Quality Control Plan.

- (a) The name and contact information of the person in responsible charge of the QC testing.
- (b) A list of the QC technicians who will perform testing on the project, including the fields in which they are certified to perform testing.
- (c) A proposed independent third party testing firm for dispute resolution, including all contact information.
- (d) A list of Hold Points, when specified by the engineer.
- (e) The MoDOT Standard Inspection and Testing Plan (ITP). This shall be the version that is posted at the time of bid on the MoDOT website (www.modot.org/quality).

3.0 Quality Control Testing and Reporting. Testing shall be performed per the test method and frequency specified in the ITP. All personnel who perform sampling or testing shall be certified in the MoDOT Technician Certification Program for each test that they perform.

3.1 Reporting of Test Results. All QC test reports shall be submitted as soon as practical, but no later than the day following the test. Test data shall be immediately provided to the engineer upon request at any time, including prior to the submission of the test report. No payment will be made for the work performed until acceptable QC test results have been received by the engineer and confirmed by QA test results.

3.1.1 Test results shall be reported on electronic forms provided by MoDOT. Forms and Contractor Reporting Excel2Oracle Reports (CRE2O) can be found on the MoDOT website. All required forms, reports and material certifications shall be uploaded to a Microsoft SharePoint® site provided by MoDOT, and organized in the file structure established by MoDOT.

3.2 Non-Conformance Reporting. A Non-Conformance Report (NCR) shall be submitted by the contractor when the contractor proposes to incorporate material into the work that does not meet the testing requirements or for any work that does not comply with the contract terms or specifications.

3.2.1 Non-Conformance Reporting shall be submitted electronically on the Non-Conformance Report form provided on the MoDOT Website. The NCR shall be uploaded to the MoDOT SharePoint® site and an email notification sent to the engineer.

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

4.0 Work Planning and Scheduling.

4.1 Two-week Schedule. Each week, the contractor shall submit to the engineer a schedule that outlines the planned project activities for the following two-week period. The two-week schedule shall detail all work and traffic control events planned for that period and any Hold Points specified by the engineer.

4.2 Weekly Meeting. When work is active, the contractor shall hold a weekly project meeting with the engineer to review the planned activities for the following week and to resolve any outstanding issues. Attendees shall include the engineer, the contractor superintendent or project manager and any foreman leading major activities. This meeting may be waived when, in the opinion of the engineer, a meeting is not necessary. Attendees may join the meeting in person, by phone or video conference.

4.3 Pre-Activity Meeting. A pre-activity meeting is required in advance of the start of each new activity, except when waived by the engineer. The purpose of this meeting is to review construction details of the new activity. At a minimum, the discussion topics shall include: safety precautions, QC testing, traffic impacts, and any required Hold Points. Attendees shall include the engineer, the contractor superintendent and the foreman who will be leading the new activity. Pre-activity meetings may be held in conjunction with the weekly project meeting.

4.4 Hold Points. Hold Points are events that require approval by the engineer prior to continuation of work. Hold Points occur at definable stages of work when, in the opinion of the engineer, a review of the preceding work is necessary before continuation to the next stage.

4.4.1 A list of typical Hold Point events is available on the MoDOT website. Use of the Hold Point process will only be required for the project-specific list of Hold Points, if any, that the engineer submits to the contractor in advance of the work. The engineer may make changes to the Hold Point list at any time.

4.4.2 Prior to all Hold Point inspections, the contractor shall verify the work has been completed in accordance with the contract and specifications. If the engineer identifies any corrective actions needed during a Hold Point inspection, the corrections shall be completed prior to continuing work. The engineer may require a new Hold Point to be scheduled if the corrections require a follow-up inspection. Re-scheduling of Hold Points require a minimum 24-hour advance notification from the contractor unless otherwise allowed by the engineer.

5.0 Quality Assurance Testing and Inspection. MoDOT will perform quality assurance testing and inspection of the work, except as specified herein. The contractor shall utilize the inspection checklists provided in the ITP as a guide to minimize findings by MoDOT inspection staff. Submittal of completed checklists is not required, except as specified in 5.1.

5.1 Inspection and testing required in the production of concrete for the project shall be the responsibility of the contractor. Submittal of the 501 Concrete Plant Checklist is required.

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

H. Restrictions for Migratory Birds – Route AE Bridge A3451

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

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

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

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

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

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

3.2.1.1 Tank Washing. Prior to the use or re-use of water hauling equipment following any use with water from streams, lakes or ponds, all equipment shall be washed and rinsed thoroughly with hard spray (power wash) or HOT (104° F) water, e.g. at a truck wash facility.

3.2.1.2 Tank Drying or Treating. Tanks shall be dried or treated in one of the following manners.

3.2.1.2.1 The equipment shall be dried thoroughly, 5-7 days, in the sun before using in or transporting between streams, lakes, and ponds.

3.2.1.2.2 All interior tank surfaces shall be treated with 140° F water for a minimum of 10 seconds contact on all surfaces.

3.2.3.2.3 All interior tank surfaces shall be treated with a 10% bleach solution to kill any aquatic nuisance species. When chlorine treatment is used, all chlorine runoff from equipment washing must be collected and properly treated and/or disposed of.

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

3.3 Active Nests. The contractor may work on the bridge if active nests are present, as long as the work does not impact or disturb the birds and nests. At a minimum, work shall not be performed within 10 feet of an active nest; however, the contractor is responsible for ensuring that their activities do not impact the nests, eggs, or young.

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

I. Liquidated Damages Specified – Route AE Bridge A3451

1.0 Description. The Contractor will be allowed a one-time complete closure of the Route AE Bridge for up to a maximum period of 7 calendar days to complete the bridge rehab work. If Route AE Bridge work to replace compression seals, seal backwall and beamcaps, clean and epoxy seal panels and apply MMA overlay system, is not complete and open to traffic within 7 calendar days, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. These costs are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of **\$1600 per day for each full day** that the contract quantity of Route AE Bridge work is not completed. The number of calendar days will start when the contractor closes all lanes on the Route AE Bridge. All contract items for the above work shall be completed as directed in the contract and on the plans including pavement marking and all lanes open to traffic. This is in excess of the limitation as specified elsewhere in the special provision. It will be the responsibility of the engineer to determine the quantity of excess closure time.

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

J. Pavement Marking Log

1.0 Description. The contractor shall log the locations of existing pavement marking prior to any construction operations that may affect the existing pavement marking. The log shall contain all existing pavement marking and shall include center stripes, no passing stripes, lane lines, turn arrows, hash bars, cross walks, and stop bars. The contractor shall provide a copy of the existing pavement marking log to the engineer. The contractor shall place the new pavement marking at the same locations as the existing pavement marking, unless otherwise directed by the engineer or shown on the plans.

2.0 Basis of Payment. No direct payment will be made for logging of existing pavement marking.

K. GRIDSMART Video Detection System

1.0 Description. This work shall consist of furnishing and installing Gridsmart video detection systems at the intersections designated in the plans.

1.1 The system shall include all equipment and materials required to put the detection system into operation including, but not limited to:

1. Gridsmart camera
2. Dual camera processor
3. TS1 interface cable
4. Mounting arm
5. Mounting bracket
6. Quick connect
7. Burial grad Cat5e cable

2.0 Installation. The video detection system shall be installed as per the manufacturer's recommendations.

3.0 Construction Requirements. Construction requirements shall conform to Sec 902.

3.1 The contractor shall contact the Central District Traffic Supervisor one week prior to the Gridsmart System installation operations.

Jason Morff
Central District Traffic Supervisor
1511 Missouri Blvd
Jefferson City, Missouri 65102
Phone: 573-526-3207
Cell Phone: 573-690-2467
Email: Jason.Morff@modot.mo.gov

4.0 Manufacturer and Supplier Contact Information for Gridsmart System. Other suppliers may provide equivalent products meeting the requirements of this specification.

GRIDSMART Technologies, Inc.
John Kaufman
Phone: (502) 667-3636
Email: john.kaufman@gridsmart.com

5.0 Basis of Payment. All costs incurred by the contractor for furnishing, installing, cabling, configuring, and placing the Gridsmart System into operation shall be considered as included in and completely covered by the contract unit price for item 902-99.02, Gridsmart Video Detection System, per each. Payment will be considered full compensation for all labor, equipment, materials and incidentals required to complete the described work.

L. Airport Requirements JSP-15-09

1.0 Description. The project is located near a public use airport or heliport or is more than 200 feet above existing ground level, which requires adherence to Federal Aviation Regulation Part 77 (FAA Reg Part 77). "Near" to a public use airport or heliport is defined as follows:

20,000 feet (4 miles) from an airport with a runway length of at least 3,200 feet
10,000 feet (2 miles) from an airport with runway length less than 3,200 feet
5,000 feet (1 mile) from a public use heliport

2.0 The maximum height of the improvement and the equipment operating while performing the improvements was assumed to be 20.0 feet above the current travelway during the process of evaluating the project for compliance with FAA Reg Part 77.

2.1 If the contractor's height of equipment or if the improvement itself is beyond the assumed height as indicated in Sec 2.0, the contractor will work with the resident engineer to fill out the Form 7460-1, or revise the original Form 7460-1 based upon the proposed height and resubmit, if necessary, for a determination by FAA on compliance with FAA Reg Part 77. Further information can be found in MoDOT's Engineering Policy Guide 235.8 Airports. If the Form 7460-1 must be filed, the associated work shall not be performed prior to the FAA determination, which could take up to 45 days.

2.2 If the contractor's height of equipment and the improvement itself is below the assumed height as indicated in Sec 2.0, no further action is necessary to fulfill the requirements set forth in FAA Reg Part 77.

3.0 Basis of Payment. There will be no direct payment for any work associated with this provision. Contract time extension will be given for the time necessary to obtain or revise the FAA permit. Any delays or costs incurred in obtaining the revised permit will be noncompensable.

M. Temporary Short-Term Rumble Strips JSP-13-05E

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

2.0 Material.

2.1 The short-term rumble strips shall be 10 to 12 feet in length, minimum of 8 inches wide, $\frac{3}{4}$ to $1\frac{1}{4}$ inch thick, fabricated from a polymer material, and orange in color.

2.2 The short term-rumble strips shall not curl or deform across the width of the strip, maintaining its rigidity.

3.0 Construction.

3.1 Each set shall consist of three individual strips spanning a single lane, spaced in accordance with the plans or as directed by the engineer. The short-term rumble strips shall be installed and removed in accordance with manufacturer's recommendation.

3.2 The contractor shall monitor, maintain alignment, and repair if needed the short-term rumble strips during construction. Short-term rumble strips shall not be placed on roadways when there are no workers present.

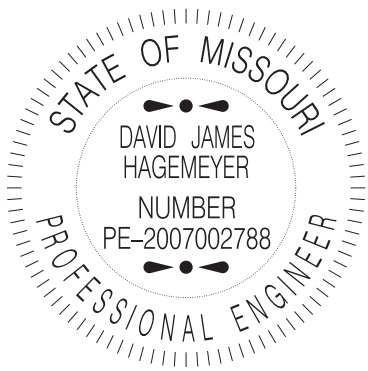
3.3 Strips shall not extend onto the shoulder without the approval of the Engineer.

4.0 Method of Measurement. Measurement of short-term rumble strips will be based per each set.

5.0 Basis of Payment. The accepted quantity of Temporary Short-Term Rumble Strips sets will be paid for at the contract unit price for 616-20.04, Temporary Short-Term Rumble Strips, per each set. The short-term rumble strips unit bid price shall include the cost of all labor, equipment and materials to install, maintain, remove and relocate the rumble strips during the construction of the project.

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 <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65101 Phone (888) 275-6636</p>
	<p>If a seal is present on this sheet, JSP's has been electronically sealed and dated.</p>
	<p>JOB NO. J5S3261 Callaway County, MO Date Prepared: 8/17/2019</p>

JOB SPECIAL PROVISIONS (BRIDGE)

A. CONSTRUCTION REQUIREMENTS

1.0 Description. This provision contains general construction requirements for this project.

2.0 Construction Requirements. Plans for the existing structure(s) are included in the contract in the bridge electronic deliverables zip file for informational purposes only.

2.1 In order to assure the least traffic interference, the work shall be scheduled so that a lane closure is for the absolute minimum amount of time required to complete the work. A lane 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.

2.2 Provisions shall be made to prevent any debris and materials from falling into the stream or onto the roadway. Any debris and materials that falls below the bridge outside the limits mentioned previously and if determined necessary by the engineer, the debris shall be removed as approved by the engineer at the contractor's expense. Traffic under the bridge shall be maintained in accordance with the contract documents.

2.3 Any damage sustained to the remaining structure as a result of the contractor's operations shall be repaired or the material replaced as approved by the engineer at the contractor's expense.

2.4 Provisions shall be made to prevent damage to any existing utilities. Any damage sustained to the utilities as a result of the contractor's operations shall be the responsibility of the contractor. All costs of repair and disruption of service shall be as determined by the utility owners and as approved by the engineer.

3.0 Method of Measurement. No measurement will be made.

4.0 Basis of Payment. Payment for the above described work will be considered completely covered by the contract unit price for other items included in the contract.

B. METHYL METHACRYLATE (MMA) SLURRY POLYMER CONCRETE OVERLAY

1.0 Description. This work shall consist of constructing a wearing surface of polymer concrete on a prepared surface in accordance with these specifications as shown on the plans or as directed by the engineer. Polymer concrete shall be composed of the following components – primer, polymer overlay components and broadcast sand or aggregate and top coat in accordance with this specification and the manufacturer/supplier's recommendations.

1.1 Preapproved Products. The following materials have been preapproved for use under this specification: Transpo T-18 Thin Overlay and SterlingLloyd Bridgemaster.

1.2 Required Experience. The contractor shall have experience placing similar thin polymer overlay systems on at least three structures prior to doing work on this project. Written proof of this experience along with project contacts shall be provided to the engineer in writing for approval prior to the preconstruction meeting.

2.0 Materials.

JOB SPECIAL PROVISIONS (BRIDGE)

2.1 Primer. The prepared surface shall receive a wax-free low odor, methacrylate prime coat. The primer shall comply with the following requirements:

Methacrylate Primer		
Property	Requirement	Test Method
Viscosity	50 - 70 cps	ASTM D2393
Density	8 - 9 lb/gal (0.96 – 1.08 kg/L)	ASTM D2849
Pot Life @ 70°F (21°C)	10 - 30 minutes	ASTM C881
Flash Point	>43°F (>6°C)	ASTM D1310
Solids Content (w/catalyst)	100%	ASTM D1644

2.2 Slurry System. The slurry system shall be meet the following requirements:

Polymer Resin Binder		
Property	Requirement	Test Method
Elongation at Break	50 percent, minimum	ASTM D 638 Type 1
Tensile Strength	500 psi minimum and 900 psi maximum at 75° F	ASTM D 638
Tensile Adhesion	250 psi, minimum	ASTM C 1583
Water Absorption	0.8 percent, @ 24 hours	ASTM D 570
Volatile Content	3 percent, max	ASTM D 2369

2.3 Aggregates. Only light-colored aggregate (i.e. flint rock or similar) that meets the requirements Sec 1039 shall be used on this job. No dark colored aggregate will be allowed (i.e. coal slag).

2.3.1 Dry aggregate shall be applied in such a manner as to cover the slurry mixture completely within 5 minutes of application. The dry aggregate shall be placed in a manner such that the level of the slurry mixture is not disturbed.

2.4 Top Coat. A final methacrylate top coat shall be applied to lock the aggregate following broadcast and removal of loose aggregate. Top coat shall comply with the following requirements:

Top Coat		
Property	Requirement	Test Method
Viscosity	200 – 400 cps	ASTM D2393
Flash Point	>50°F (>10°C)	ASTM D1310

2.5 Mixing and Application Requirements. Mixing and application requirements shall be done in accordance with the manufacturer’s recommendations.

2.6 Delivery of Materials. All materials shall be delivered in their original containers bearing the manufacturer’s label, specifying date of manufacturing, batch number, trade name, and quantity. Each shipment shall be accompanied by a Material Safety Data Sheet (MSDS).

2.7 Storage of Materials. The material shall be stored to prevent damage by the elements and to ensure the preservation of their quality and fitness for the work. The containers shall be stored in a manner that will not allow leakage or spillage from one material to contact the containers or materials of the other. The storage space shall keep the materials clean and dry,

and shall contain a high-low thermometer. The temperatures of the storage space shall not fall below nor rise above that recommended by the manufacturer. Every precaution shall be taken to avoid contact with flame.

2.7.1 Inspection. Stored materials shall be inspected prior to their use, and shall meet the requirements of this Specification at the time of use.

2.7.2 Failure. Any material which is rejected because of failure to meet the required tests or that has been damaged so as to cause rejection shall be immediately replaced at no additional expense to the Commission.

2.7.2.1 Damaged or debonded areas of an slurry concrete overlay course shall be removed and repaired prior to acceptance. Repair shall consist of saw-cutting in rectangular sections to the top of the concrete deck surface and repairing using the same procedure called for in the specification. All repairs shall be at the contractor's expense.

2.7.3 Required Amount. Sufficient material to perform the entire polymer concrete application shall be in storage at the site prior to any field application, so that there shall be no delay in procuring the material for each day's application.

2.8 Training. The contractor shall arrange to have the material supplier furnish technical service related to application of material and health and safety training for personnel who are to handle the materials.

2.9 Technical Support. The materials supplier shall have a representative onsite during the surface preparation and placement of the overlay.

3.0 Mix and Application Procedure. The contractor shall prepare and submit all applicable mixing and application procedures to the engineer for approval prior to the preconstruction meeting. The Contractor shall not begin ordering materials for application of the overlay until the mixing and application procedures are approved. All equipment and materials used in the mixing and application procedure shall be in accordance with the manufacturer's requirements.

3.1 Trial Area. The contractor shall demonstrate their proficiency by preparing and placing the overlay on a 10 foot by 10 foot area (or approved equivalent area) prior to the placement of the production overlay. The engineer shall select the location of the trial area. Final overlay production shall not proceed without the approval of the engineer.

4.0 Construction.

4.1 Surface Preparation.

4.1.1 The concrete surface shall be prepared in accordance with Sec 623.30. Any patches encountered shall be completely removed to sound, natural concrete. Polymer concrete or other patching material, approved by the engineer, may be used to repair the deck. Surfaces of concrete patches shall be prepared in the same manner as the rest of the deck.

4.1.2 Deck Preparation. The method of deck preparation chosen by the contractor must be submitted in writing to the engineer for approval. It shall be noted that there may be cracks in the deck surfaces that have been treated prior with a bituminous based crack sealer (i.e. Pavon Indeck). There is potential for residual sealer on the deck surfaces near these cracks. The chosen approved deck preparation method must be able to remove this material and any debris

from the entire deck including: within tining grooves, deck grooves, gutter lines or any other areas that have trapped this material. Removal shall be to the satisfaction of the engineer. It is the responsibility of the contractor to make note of the deck conditions prior to bidding.

4.1.2.1 Deck shall be water blasted to clean out cracks and allowed to dry prior to priming.

4.1.2.2 Before starting priming operations, all cracks shall be blown out with dry high pressure air.

4.1.2.3 Reflective cracks or any open cracks greater than 0.06" shall be treated to keep the primer material from leaking through the joints of the deck panels below.

4.1.2.4 All panel deck joints below open deck cracks greater than 0.06" shall be identified, mapped and sealed from below at the panel joints with a material resistant to effects of the deck primer to prevent leakage of the deck primer through the bridge deck.

4.1.2.5 After sealing of the required deck panel joints from below, deck cracks above greater than 0.06" shall be prefilled with deck primer.

4.1.2.6 After cracks greater than 0.06" are prefilled, a flood primer application shall be done to the concrete surface to fill all other smaller and fine cracks.

4.1.3 Existing Bridge Decks Containing Wearing Surface. On existing concrete decks with an existing wearing surface, the wearing surface shall be removed prior to placing the polymer concrete. The exposed concrete surface shall be prepared in accordance with the requirements of Section 4.1.2 of this specification.

4.2 Application of Prime Coat. One coat of the primer coat shall be applied to the prepared concrete surfaces immediately before placing the overlay in accordance with the manufacturers recommended procedures. The prime coat shall be uniformly applied to completely cover the surface to receive the overlay. The area receiving the prime coat shall be dry and had no exposure to any moisture within the past 24 hours. Prior to applying the prime coat, the surface shall be cleaned with compressed air to remove accumulated dust and any other loose material. Do not allow traffic on the prepared surface prior to overlay placement.

4.2.1 Surface Temperature. The concrete bridge deck surface shall be between 45° F and 90° F when applying the prime coat.

4.2.2 Relative Humidity. The overlay system shall not be placed when the relative humidity is above 90 percent.

4.2.3 Prime Coat Contaminated. If the primed surface becomes contaminated, the contaminated area shall be cleaned by abrasive blasting and re-primed at no additional expense to the department.

4.3 Placement of Overlay System.

4.3.1 Placement Time. The overlay system shall be placed on the prime coat according to the manufacturers recommendations, but no later than two hours after placing the prime coat.

JOB SPECIAL PROVISIONS (BRIDGE)

4.3.2 Surface Temperature. The surface temperature of the area to receive overlay system shall be the same as specified in Section 4.2.1 of this special provision or as approved by the overlay manufacturer's representative.

4.3.3 Contamination. The Contractor shall prevent any cleaning chemicals from reaching the overlay system components during the mixing operation.

4.3.4 Overlay Thickness. The polymer concrete overlay shall be placed at a minimum thickness of 1/4 inch and a maximum of 3/8 inch.

4.3.5 Broadcast Aggregate Application. After the curing period, all loose aggregate shall be removed by brooming or vacuuming.

4.3.6 Top Coat Application. The surface should be dry and the top coat should not be allowed to puddle.

4.3.7 Top Coat Application. The primer, slurry or top coat shall not be permitted to run into drains. Unless otherwise specified, the overlay shall not be applied over the expansion joints and joint seals of the bridge deck. Prior to opening a section to public or construction traffic, the overlay shall be allowed to cure in accordance with the manufacturer's recommendations. Surfaces with Primer only shall not be opened to traffic.

4.4 Testing. Bond testing shall be performed for each bridge placement per stage on each day. Testing will be conducted at three locations 24 hours after placement. Testing will be performed in accordance to ASTM C 1583. A passing test is the failure of the concrete substrate or bond strength above 250 psi. Do not perform tests if the deck temperature is above 90°F.

4.4.1 All adhesion strength test areas, thickness test holes or any debonded areas shall be repaired by filling with overlay material before final acceptance.

5.0 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. Where required, the area of polymer concrete will be measured to the nearest square yard of accepted, in-place polymer concrete overlay. The revision or correction will be computed and added to or deducted from the contract quantity.

6.0 Basis of Payment. Payment for the above described work, including all material, equipment, labor and any other incidental work necessary to complete this item, will be considered completely covered by the contract unit price for Methyl Methacrylate (MMA) Slurry Polymer Concrete Overlay.

C. CLEAN AND EPOXY SEAL

1.0 Description. In order to protect the traffic from falling concrete from prestressed concrete panels, loose and delaminated concrete shall be removed and any loose strands or reinforcement shall be cut flush at the concrete surface and then an epoxy seal shall be applied to the rehabilitated concrete surface area covering any exposed stands and reinforcement in accordance with the bridge plans and this job special provision.

2.0 Construction Requirements. At the prestressed concrete panel joints, all loose and delaminated concrete shall be removed and any loose strands or reinforcement shall be cut

JOB SPECIAL PROVISIONS (BRIDGE)

flush at concrete surface in the cleaning process with hand tools. Hand tools may include chipping chisels, wire brushes, dust brushes, etc.

3.0 Method of Measurement. The extent of repair may vary from the estimated quantities, but the contract unit price shall prevail regardless of the variation. The area to be cleaned and sealed will be computed to the nearest square foot with the areas made approximately rectangular.

4.0 Basis of Payment. Payment for the above described work, including all material, equipment, labor and any other incidental work necessary to complete this item, will be based on the accepted quantities and will be considered completely covered by the contract unit price for Clean and Epoxy Seal. Any change in the contract plan quantities, based on approved change orders, will be paid for at the contract unit price.