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	If a seal is present on this sheet, JSP's have been electronically sealed and dated.
	JOB NO. JST0017B Cooper County, MO Date Prepared: 11/13/2025
Only the following items of the Job Special Provisions (Bridge) are authenticated by this seal: A-E	

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	JOB NO. JST0017B Cooper County, MO Date Prepared: 11/13/2025
	<b>Addendum:</b>
Only the following items of the Job Special Provisions (Bridge) are authenticated by this seal: F	

**A. CONSTRUCTION REQUIREMENTS**

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

**2.0 Construction Requirements.** The plans and the asbestos and lead inspection report for the existing structure(s) and the geotechnical report for the widened 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** Bridge work by contractor forces, including erection, rehabilitation or demolition, shall not be allowed over traffic unless a bridge platform protection system is installed below the work area except for work performed above a deck that is intact. The protection system shall be capable of catching all falling objects such as tools, overhang brackets or materials. Lifting of objects that are heavier than the capacity of the bridge protection system shall not be permitted.

**2.3** Qualified special mortar shall be a qualified rapid set concrete patching material in accordance with Sec 704. A qualified rapid set concrete patching material will not be permitted for half-sole repair, deck repair with void tube replacement, full depth repair, modified deck repair and substructure repair (formed) unless a note on the bridge plans specifies that a qualified special mortar may be used.

**2.4** The bridge substructure for the widened portion of stage one construction shall be constructed as near to completion as feasible before removing the adjacent portions of existing superstructure.

**2.5** Provisions shall be made to prevent any debris and material from falling onto the railroad. If determined necessary by the engineer, any debris and material that falls below the bridge outside the previously specified limits 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.

**2.6** 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.

**2.7** 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.

**2.8** A washer shall be required under head and nut when any reaming is performed for bolt installation.

**2.9** SSPC-SP2 and SSPC-SP3 surface preparation shall be in accordance with the environmental regulations in [Sec 1081](#), and collection of residue shall be in accordance with [Sec 1081](#) for collection of blast residue. SSPC-SP6, SSPC-SP10 and SSPC-SP11 surface

preparation shall be in accordance with the approved blast media and environmental regulations in [Sec 1081](#), and collection of blast residue shall be in accordance with [Sec 1081](#).

### 3.0 Coating Information

**3.1 Environmental Contact.** Environmental Section may be contacted at the below address or phone number. The Missouri Department of Health may be contacted at (573) 751-6102.

MoDOT - Design Division - Environmental Section  
P.O. Box 270  
105 W. Capitol Ave., Jefferson City, MO 65102  
Telephone: (573) 526-4778

**3.2 Approved Smelter and Hazardous Waste Treatment, Storage and Disposal Facility.** The following is the approved smelter and hazardous waste treatment, storage and disposal facility:

Doe Run Company - Resource Recycling Division - Buick Facility  
Highway KK  
Boss, MO 65440  
Telephone: (573) 626-4813

**4.0 Method of Measurement.** No measurement will be made.

**5.0 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. EPOXY URETHANE POLYMER WEARING SURFACE WITH HEALER/SEALER

**1.0 Description.** This work shall consist of constructing an epoxy urethane polymer wearing surface on a prepared surface in accordance with this specification, as shown on the plans or as directed by the engineer. Epoxy urethane polymer wearing surface shall be composed of the following components: a healer/sealer prime coat and two courses of epoxy urethane polymer and aggregate.

**1.1 Required Experience.** The contractor shall have experience placing similar epoxy urethane polymer wearing surface systems on at least three structures prior to performing 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. Prior to installation of the wearing surface, the contractor shall also provide certification by the material supplier that the contractor is a trained and qualified installer of the selected wearing surface system.

**2.0 Material.** All material shall be in accordance with [Division 1000](#), Material Details, and specifically as follows:

**2.1 Epoxy Urethane Resin.** The infrared spectrum for each component of the epoxy urethane polymer shall essentially match that of the standard infrared spectrum for the particular component as specified in AASHTO T 237, Sections 4 and 5. The epoxide equivalent for Component A shall not exceed 270. The mixed epoxy urethane polymer shall be a two-

component (base and hardener), 100% solids, thermosetting, moisture insensitive, flexible, high elongation epoxy urethane resin in accordance with the following physical requirements:

Property	Requirement
Pot life (at 75 F), minutes	15 to 45
Tensile Strength (at 75 F, 7 days), psi, min.	2500
Tensile elongation (at 75 F), percent, min.	30
Water Absorption, percent, max.	1
Compressive Strength (at 3 hr), psi, min.	1000
Compressive Strength (at 24 hr, wet), psi, min.	5000
Rotational Viscosity, (at 75 F, spindle 3, 20 rpm), poise	35 to 70
Thermal Shear (shearing, shrinkage, expansion or scaling)	None
Shore D Hardness (ASTM D 2240) (at 77 F)	60 to 75
Adhesion Strength (at 24 hr), psi, min.	250

**2.1.1 Classes.** Epoxy resin shall be formulated for use at specific temperatures as specified in ASTM C 881. The controlling temperature shall be that of the hardened concrete surface to which the polymer is applied. Where unusual curing rates are desired and upon the approval from the engineer, a class of epoxy resin may be used at a temperature other than that for which the epoxy resin is normally intended.

**2.1.2 Packaging.** Containers shall be identified as "Component A--Contains Epoxy Resin" and "Component B--Contains Hardener" and shall show the type, class and mixing directions. Each container shall be marked with the name of the manufacturer, class, batch, or lot number, date of packaging, date of shelf life expiration, pigmentation (if any), manufacturer, and the quantity contained in pounds and gallons.

**2.2 Prime Coat.** The prepared surface shall receive a healer/sealer prime coat, as specified on the plans or as recommended by the manufacturer, that is compatible with the wearing surface system selected.

**2.3 Aggregate.** Aggregate shall be bauxite, crushed porphyry, aluminum oxide, flint chat or other similarly hard, durable, dry aggregate with less than 0.2 percent moisture. Aggregate shall be in accordance with the following gradation:

Sieve Size	% Passing By Weight
No. 4	100
No. 20	0 – 5
No. 200	0 – 1.0

**2.3.1 Lead Content.** Aggregate produced as a by-product from lead or zinc mining operations shall not have a total lead content greater than 4,500 ppm, as determined by EPA Method 3050A, "Acid Digestion of Sediments, Sludges and Soils". Suppliers of this aggregate shall provide certification to the engineer for each shipment that the total lead content of the aggregate does not exceed this value and attach a typical test report from the same source no older than 12 months prior to the shipment.

**2.3.2 Aggregate Recommendation.** For each contract, the epoxy urethane polymer supplier shall supply a letter to the engineer specifically recommending the use of a designated aggregate and source, which has been previously approved by Construction and Materials.

**2.3.3 Epoxy Urethane Polymer Performance.** The epoxy urethane polymer system shall not exhibit shearing, shrinkage, expansion or scaling.

**2.3.4 Test Methods.** Tests will be performed in accordance with the following methods:

<b>Test Methods</b>	
Rotational Viscosity	ASTM D 2393 Model LVT Brookfield viscometer
Epoxy Equivalent	MoDOT Test Method TM 73
Filler Content	MoDOT Test Method TM 73
Pot Life	AASHTO T 237
Elongation	ASTM D 638
Tensile Strength	ASTM D 638
Compressive Strength	ASTM C 881
Water Absorption	ASTM D 570
Thermal Shear	MoDOT Test Method TM 72

**2.3.5 Manufacturer and Brand Name Approval.** Prior to approval and use of this material, the manufacturer shall submit to Construction and Materials a certified test report showing specific test results in accordance with all requirements of this specification. The certified test report shall include the manufacturer's name, brand name of material, lot tested, date of manufacture, ratio of components by volume and system tested. In addition, the manufacturer shall submit to Construction and Materials a sample representing the system for laboratory testing accompanied by a technical data sheet, an MSDS and any special installation instructions relative to the system being submitted. Upon approval of the certified test report and satisfactory results of tests performed on the sample submitted, the brand name and manufacturer will be placed on a qualified list of epoxy resin material for epoxy urethane polymer concrete wearing surface. New certified test results and samples shall be submitted any time the manufacturing process or the material formulation is changed and may be required when random sampling and testing of material offered for use indicates non-conformity with any of the requirements herein specified.

**2.3.6 Product History.** The epoxy urethane polymer shall have a proven record of a minimum of two years on similar bridge decks within the United States. A list including the location, the name of the agency involved with the project, and a name and phone number of a contact person with that agency shall be provided for each location used as evidence of satisfactory use.

**2.3.7 Acceptance.** The manufacturer shall furnish certification to the engineer at the destination that the material supplied is in accordance with all requirements specified and stating that the material supplied is the same system and is identically formulated to the material tested for manufacturer and brand name approval. Acceptance will be based on certification and testing.

### **3.0 Construction Requirements.**

**3.1 Manufacturer Representation.** The wearing surface manufacturer's representative shall witness the entire testing phase of each field test. The manufacturer's representative shall verify that all operations are performed by acceptable practices.

**3.2 Handling and Storage of Material.** Handling and storage of material shall be in accordance with the manufacturer's written recommendations.

**3.3 Field Test.** Prior to the start of the wearing surface operation, a test area of the complete wearing surface system shall be placed on the bridge deck in a contractor proposed location that is approved by the engineer. When multiple bridges are included in a project, a test area will be required on each bridge. The contractor may utilize one-half of the bridge deck or an area equal to one day's placement operation, whichever is smaller, as a field test. The degree of cleaning used on the test area shall be the minimum used on the remainder of the structure. The surface for the test wearing surface shall be prepared in accordance with the test method prescribed in ACI 503R - Appendix A of the ACI Manual of Concrete Practice to establish an approved cleaning practice. The approved cleaning practice shall remove all potentially detrimental material which may interfere with the bonding or curing of the wearing surface. Concrete shall be sound, with mortar soundly bonded to the coarse aggregate, with clean and open pores to be considered adequate for bond. All areas of asphalt and pavement markings shall be removed. Preparation of the surface shall produce a surface relief equal to International Concrete Repair Institute (ICRI) surface preparation level 6 or 7 or ASTM E 965 pavement macrotexture depth of 0.04 to 0.08 inch.

**3.3.1** Visible moisture on the prepared deck at the time of placing the wearing surface will not be permitted. Moisture in the deck shall be checked by taping a plastic sheet to the deck for a minimum of 2 hours in accordance with ASTM D 4263.

**3.3.2** In addition to the above requirements, the cleaning practice shall provide an adhesion strength test result greater than 250 psi or a failure area into the base concrete that is greater than 50 percent of the test area. After the test area has cured for a minimum of 72 hours, adhesion shall be checked in accordance with ACI 503R. A test result will be the average of three tests on a sample area of the test patch. A minimum of three sample areas per test patch shall be tested. Successful test results will be required from each sample area.

**3.3.3** If the test of a sample area fails to meet the above requirements due to a cohesive failure of the substrate concrete, the adhesive strength of the sample area will be considered acceptable.

**3.3.4** Successful completion of the adhesion strength tests will be required before the full-scale wearing surface operation is to begin. All cleaning operations shall equal those used for the adhesion strength test areas in both profile and cleanliness. If changes are made to the established cleaning practice, new adhesion strength testing shall be performed at the contractor's expense.

**3.3.5** Test patches shall be installed with the same material, equipment, personnel, timing, sequence of operations and curing period that will be used for the installation of the wearing surface.

**3.3.6** If the test fails, the contractor shall remove the material represented by the failed test patches and provide another test patch, at the contractor's expense, until satisfactory test results are obtained.

**3.4 Surface Preparation.** Before placement of the wearing surface, the entire deck surface shall be prepared by the cleaning practice established in the field adhesion strength tests in

accordance with section 3.3 of this job special provision by shot blast method. Sand blasting will not be permitted. Clean-up and disposal of blast material shall be in accordance with [Sec 202.3.1.3](#).

**3.4.1** If the engineer determines that the weather has changed significantly since the application of the field test patch, the contractor shall verify through adhesion strength tests that the practice is acceptable, at the contractor's expense.

**3.4.2** No traffic of any kind shall be permitted on any portion of the deck which has been shot blasted or on the wearing surface without approval from the engineer. The time between surface preparation and application of the first course shall not exceed 24 hours.

**3.4.3** All patching and cleaning operations shall be inspected and approved prior to placing the wearing surface.

**3.4.4** If the deck or intermediate course is contaminated by foreign material or water after initial cleaning, the contamination and any detrimentally affected wearing surface material shall be removed. Both courses shall be applied prior to opening the area to traffic.

**3.5 Equipment.** The contractor's equipment shall be as recommended by the epoxy urethane manufacturer.

**3.6 Epoxy Mixing.** Mixing of epoxy urethane polymer components shall be in accordance with the manufacturer's recommendations, except that the use of a volumetric mixer will be required. When mineral fillers are specified, the mineral fillers shall be inert and non-settling or readily dispersible. Material showing a permanent increase in viscosity or the settling of pigments that cannot be readily dispersed with a paddle shall be replaced at the contractor's expense. At least 95 percent of the filler shall pass the No. 200 sieve.

**3.7 Application.** Application of epoxy urethane polymer shall be performed by the manufacturer or by a factory trained or licensed applicator with written approval from the manufacturer of the epoxy system.

**3.7.1** The handling and mixing of epoxy urethane polymer shall be in accordance with the manufacturer's written recommendations. The epoxy urethane polymer shall not be placed when weather or surface conditions are such that the material cannot be properly handled, placed and cured within the specified requirements of traffic control, or when rain is forecast within 24 hours of application.

**3.7.2** The wearing surface shall consist of a two-course application of epoxy urethane polymer and aggregate. A healer/sealer prime coat shall be used as specified on the plans or if recommended by the manufacturer. Each of the two courses shall consist of a layer of epoxy urethane polymer covered with a layer of aggregate in sufficient quantity to completely cover the epoxy urethane polymer. The thickness of each course shall be approximately equal. The total thickness of the wearing surface shall be no less than 1/4 inch.

**3.7.3** The temperature of the bridge deck surface at the time of application shall be less than 90 F and in accordance with the manufacturer's recommendation.

**3.7.4** Dry aggregate shall be applied in such a manner as to cover the epoxy urethane polymer completely within five minutes of application. The dry aggregate shall be placed in a manner such that the level of the epoxy urethane polymer is not disturbed.

**3.7.5** The first course shall be swept to remove loose aggregate prior to the second course application. Sweeping shall be performed without removing embedded aggregate. First course applications which do not receive enough aggregate prior to gelling shall be removed and replaced. A second course applied with insufficient aggregate may be left in place, but additional applications shall be placed at the contractor's expense before opening to traffic.

**3.7.6** The thickness of the wearing surface shall be verified to be at least 1/4 inch, measured from the deck surface to the top of the epoxy urethane polymer. The contractor shall provide a minimum 1/2-inch diameter hole at a rate of at least one hole per 100 feet of traffic lane. Hole placement shall be at locations designated by the engineer. Thin areas shall be recoated and reverified at the contractor's expense.

**3.7.7** When additional applications or recoating are required, the engineer may require additional adhesion strength tests by the contractor, at the contractor's expense, in accordance with ACI 503R to verify the contractor's procedure.

**3.7.8** All adhesion strength test areas, thickness test holes or any debonded areas shall be repaired by filling them with wearing surface material before final acceptance.

**3.7.9** The first epoxy urethane polymer course shall be cured at least one hour or until brooming or vacuuming can be performed without tearing or otherwise damaging the surface. No traffic or equipment shall be permitted on the first course surface during the curing period.

**3.7.10** After the curing period, all loose aggregate shall be removed by brooming or vacuuming and the next epoxy urethane polymer course applied as specified in the contract documents.

**3.7.11** The epoxy urethane polymer mixture shall not be permitted to run into drains.

**3.7.12** Unless otherwise specified, the epoxy urethane polymer courses shall be applied over the expansion joints and joint seals of the bridge deck. The expansion joints and joint seals shall be provided with a bond breaker. Prior to opening to traffic, the wearing surface shall be removed over each joint by removal of the bond breaker in accordance with the epoxy urethane polymer manufacturer's recommendations.

**3.7.13** Prior to opening a section to public or construction traffic, the wearing surface shall be allowed to cure in accordance with the manufacturer's recommendations. First course applications shall not be opened to traffic.

**3.7.14** Damaged or debonded areas of an epoxy urethane polymer 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 replacing the various courses in accordance with this job special provision at the contractor's expense.

**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. Where required, the area of epoxy urethane polymer wearing surface will be measured to the

nearest square yard based on measurement longitudinally from end to end of bridge deck and transversely between roadway face of curbs, excluding the area of any expansion devices. 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 epoxy urethane polymer wearing surface with healer/sealer will be paid for under the Lump Sum Payment - Bridge No. A01532 bid item. Payment will be considered full compensation for all labor, equipment and material necessary to complete the described work.

## C. DRAINAGE SYSTEM

### **1.0 Description.**

**1.1** This work shall consist of furnishing, fabricating and installing the drainage items necessary to complete the entire drainage system as shown on the contract plans.

**1.2** Detailed shop drawings of the drainage system shall be prepared and submitted to the engineer. Shop drawings shall be in accordance with [Sec 1080](#). Catalog data may be furnished for components that are standard manufactured items in lieu of detailed drawings, provided that governing dimensions are given.

### **2.0 Materials.**

**2.1** Reinforced fiberglass pipe, collection basins and fittings shall be a Reinforced Thermosetting Resin Pipe (RTRP) system in accordance with the requirements of ASTM D 2996. The RTRP system shall have a minimum short time rupture strength hoop tensile stress of 30,000 psi. The RTRP system shall be pigmented resin throughout the wall. The color of the RTRP system shall be concrete gray or as specified on the bridge plans. The RTRP system shall not be coated with paint, gel-coat or any other exterior coating.

**2.2** The contractor shall furnish a manufacturer's certification to the engineer for each lot furnished, certifying that the materials supplied are in accordance with all requirements specified. The certification shall include results of all required tests. Acceptance of the material will be based on the manufacturer's certification and upon results of such tests as may be performed by the engineer. The certification shall show the quantity and lot number that is represented.

### **3.0 Construction Requirements.**

**3.1** All connections shown on the plans to facilitate future removal for maintenance cleanout or flushing shall be made with a threaded gasket coupler system, bolted gasket flange system or a female to male threaded PVC plug. Adhesive bonded joints will be permitted for runs of pipe between such connections.

**3.2** Runs of pipe shall be supported at a spacing of not greater than the lesser of those as recommended by the manufacturer of the pipe or as shown on the bridge plans. Supports that have point contact or narrow supporting areas shall be avoided. Standard sling, clamp, clevis hangers and shoe supports designed for use with steel pipe may be used. Minimum hanger thickness shall be 3/16 inch with the minimum strap width for the pipe sizes shown in the table

below. Straps shall have 120 degree minimum contact with the pipe. Pipe supported on a surface with less than 120 degrees of contact shall have a split fiberglass pipe protective sleeve bonded in place with adhesive. All new steel, hangers and miscellaneous hardware for drainage system shall be ASTM A 709 Grade 36 steel except as noted on the bridge plans. All new steel, hangers and miscellaneous hardware for drainage system shall be galvanized in accordance with ASTM A 153 except as noted on the bridge plans.

Pipe Size inches (mm)	Minimum Strap Width inches (mm)
3 (76.2)	1.25 (32)
4 (101.6)	1.25 (32)
6 (152.4)	1.50 (38)
8 (203.2)	1.75 (45)
10 (254.0)	1.75 (45)
12 (304.8)	2.00 (51)
14 (355.6)	2.00 (51)

**3.3** The RTRP system shall be handled and installed in accordance with guidelines and procedures as recommended by the manufacturer.

**3.4** When the drainage system continues between superstructure units and/or between the superstructure and substructure units, the drainage system shall have allowance for the expected differential expansion and contraction movements as recommended by the manufacturer. Runs of pipe shall not exceed 200 feet in length.

**4.0 Method of Measurement.** No measurement will be made.

**5.0 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 lump sum price for Lump Sum Payment – Bridge No. A01532.

#### D. STRUCTURAL STEEL REQUIREMENTS

**1.0 Description.** This provision contains general structural steel requirements for this project.

**2.0 Material.** All material shall be in accordance with Division 1000, Material Details, and specifically as shown below. The gray epoxy-mastic primer (non-aluminum) shall be compatible with concrete and produce a dry film thickness of no less than 3 mils (75  $\mu\text{m}$ ).

Item	Section
Structural Steel Construction	712
Gray Epoxy-Mastic Primer (non-aluminum)	1045
Structural Steel Fabrication	1080
Coating of Structural Steel	1081

#### 3.0 Construction Requirements.

**3.1** Before fabrication of new metalwork, the contractor shall make the necessary measurements in the field to verify dimensions of the existing structure where new members are affected. Any deviation of the dimensions shown on the plans shall be called to the engineer's attention. The contractor shall be responsible for developing all required dimensional adjustments and coordinating the implementation of the dimensional adjustments with all involved fabricators and subcontractors.

**3.2** Prior to erection of the new structural steel, the steel that is to remain shall be carefully inspected for irregularities. If such irregularities are found, the irregularities shall be brought to the attention of the engineer.

**3.3** Holes in the new diaphragm or cross frame connection plates and angles may be used as a template for drilling the holes in the existing material.

**3.4** A minimum edge distance shall be maintained for all field drilled holes. The minimum edge distance for bolts shall be as shown in table below measured from the centerline of holes.

Bolt Diameter inch (mm)	Minimum Edge Distance inch (mm)
3/4 (19.0)	1-1/4 (32)
7/8 (22.2)	1-1/2 (38)
1 (25.4)	1-3/4 (45)

**3.5** The surfaces of existing steel that will become faying surfaces for non-slip critical new connections, typically secondary members, shall be cleaned according to the manufacturer's recommendation and with a minimum of SSPC-SP-3 surface preparation and coated with one prime coat of Gray Epoxy-Mastic Primer (non-aluminum) in accordance with Sec 1081. The surfaces of existing steel that will become faying surfaces for slip critical new connections, typically primary members, shall be in accordance with contact surfaces in Sec 1081. Primary member connections include girder/beam splices, end diaphragms and intermediate diaphragms in curved structures.

**3.6** Exposed girder/beam areas that are not faying surfaces or not covered by concrete that are scratched, damaged by the contractor or by field welding operations shall be touched up with Gray Epoxy-Mastic Primer (non-aluminum) in accordance with Sec 1081. The areas shall receive the coating system as shown on the plans.

**4.0 Method of Measurement.** No measurement will be made.

**5.0 Basis of Payment.** Payment for the above described work will be considered completely covered by the contract lump sum price for Lump Sum Payment – Bridge No. A01532. No payments or adjustments will be made where new members are affected due to any deviation of the dimensions shown on plans or shop drawings.

**E. LUMP SUM PAYMENT - BRIDGE NO. A01532**

**1.0 Basis of Payment.** The accepted quantity of Bridge No. A01532 will be paid for lump sum.

No direct payment will be made for incidental items necessary to complete the work, unless specifically provided as a pay item in the contract.

No payment will be made for any additional Bridge No. A01532 needs except for changes in the bridge plans directed by the engineer. Additional items directed by the engineer will be paid for in accordance with Sec 109.4.

Progress payments for Lump Sum Bridge No. A01532, including material allowance payments in accordance with Sec 109.7.2, will be made based on Engineer-approved schedule of values or percentage complete determinations supported by project documentation.

Item No.	Unit	Description
703-99.01	Lump Sum	Lump Sum Bridge No. A01532

Contract items included in the Lump Sum Bridge No. A01532 are limited to the items listed below and are designated in the Summary of Quantities Sheet

Item No.	Unit	Description
206.10.00	C.Y.	Class 1 Excavation
216.30.00	S.F.	Partial Removal of Existing Bridge Deck
216.40.00	L.F.	Curb Removal
503.10.10A	S.Y.	Bridge Approach Slab (Major)
623.99.05	S.Y.	Epoxy Urethane Polymer Wearing Surface with Healer/Sealer
701.13.00	EA	Video Camera Inspection
701.14.00	L.F.	Foundation Inspection Holes
701.16.00	EA	Sonic Logging Testing
702.12.12	L.F.	Galvanized Structural Steel Piles (12 in.)
702.70.00	EA	Pile Point Reinforcement
703.20.03	C.Y.	Class B Concrete (Substructure)
703.42.12	S.Y.	Slab on Steel
703.42.19A	L.F.	Type D Barrier
703.44.13	L.F.	Type C Barrier Transition
706.10.60	LBS	Reinforcing Steel (Bridges)
712.11.11	LBS	Fabricated Structural Low Alloy Steel (I-Beam) A709, Grade 50
712.36.10	EA	Slab Drain
712.36.20	L.S.	Drainage System (On Structure)
712.53.97	S.F.	Finish Field Coat (System L)
715.10.01	EA	Vertical Drains at End Bents
716.10.03	EA	Laminated Neoprene Bearing Pad (Tapered)
716.20.00	EA	Laminated Neoprene Bearing Pad Assembly

#### F. Partial Removal of Existing Slab Drain

**1.0 Description.** This work shall consist of partially removing the existing slab drains at the locations shown on the bridge plans and to the limits shown on the bridge plans. Drains to be removed will be capped with steel plates, primed, filled with grout, and the concrete sealed.

#### 2.0 Construction Requirements.

**2.1 Drain Removal.** Selective removal of existing slab drains shall be in accordance with Sec 216.

**2.2 Drain Plugging.**

2.2.1 Remaining drain pipe and closure plate shall be ground to smooth edges to provide a neat fit of the closure plate prior to welding.

2.2.2 After weld is complete, all exposed, uncoated or damaged surfaces of the drains and closure plates shall be field-coated with approved aluminum epoxy-mastic primer in accordance with Sec 1081.

2.2.3 Entire volume of the remaining capped drain shall be filled with a qualified special mortar in accordance with Sec 704.

2.2.4 Surface of repair area shall be treated with a qualified concrete crack filler in accordance with Sec 704 and Sec 1053.

**2.3 Protection of I-70.** Provisions shall be made to prevent any debris and material from falling onto the roadway. If determined necessary by the engineer, any debris and material that falls below the bridge 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.

**3.0 Method of Measurement.** Final measurement for partial removal of the existing slab drains including steel plate and grout plugs, aluminum epoxy-mastic primer, grout fill, and concrete sealing will not be made except for authorized changes during construction or where appreciable errors are found in the contract quantity. When required, measurement of partial removal of existing slab drains will be measured per each. 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 Bridge No. A00082 work will be paid for lump sum.

No direct payment will be made for incidental items necessary to complete the work, unless specifically provided as a pay item in the contract.

No payment will be made for any additional work on Bridge No. A00082 except for changes in the bridge plans directed by the engineer. Additional items directed by the engineer will be paid for in accordance with Sec 109.4.

Progress payments for Lump Sum Bridge No. A00082, including material allowance payments in accordance with Sec 109.7.2, will be made based on Engineer-approved schedule of values or percentage complete determinations supported by project documentation.

Item No.	Unit	Description
703.99.01	Lump Sum	Lump Sum Bridge No. A00082

Contract items included in the Lump Sum Bridge No. A00082 is limited to the items listed below and are designated in the Summary of Quantities Sheet

<b>Item No.</b>	<b>Unit</b>	<b>Description</b>
704.99.02	EA	Partial Removal of Existing Slab Drain