SECTION 905 -- PROPOSAL (CONTINUED)

I (We) hereby certify by digital signature and electronic submission via Bid Express of the Section 905 proposal below, that all certifications, disclosures and affidavits incorporated herein are deemed to be duly executed in the aggregate, fully enforceable and binding upon delivery of the bid proposal. I (We) further acknowledge that this certification shall not extend to the bid bond or alternate security which must be separately executed for the benefit of the Commission. This signature does not cure deficiencies in any required certifications, disclosures and/or affidavits. I (We) also acknowledge the right of the Commission to require full and final execution on any certification, disclosure or affidavit contained in the proposal at the Commission's election upon award. Failure to so execute at the Commission's request within the time allowed in the Standard Specifications for execution of all contract documents will result in forfeiture of the bid bond or alternate security.

Bidder acknowledges receipt of and has added to and made a part of the proposal and contract documents the following addendum (addenda):

ADDENDUM NO.	1	DATED	2/20/2025	ADDENDUM NO.		DATED	
ADDENDUM NO		DATED		ADDENDUM NO.		DATED	
ADDENDUM NO		DATED		ADDENDUM NO.		DATED	

Number	Description
1	Revised Table of Contents; Added NTB No. 6195; Revised NTB No. 6611; SP 907-418-3 replaces SP 907-418-2; Amendment EBSx Download Required.

TOTAL ADDENDA: 1
(Must agree with total addenda issued prior to opening of bids)

Respectfully Submitted,

DATE _____

_____
Contractor

BY _____
Signature

TITLE _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE _____

FAX _____

E-MAIL _____

(To be filled in if a corporation)

Our corporation is chartered under the Laws of the State of _____ and the names, titles and business addresses of the executives are as follows:

_____
President Address

_____
Secretary Address

_____
Treasurer Address

The following is my (our) itemized proposal.

SP-1132-00(015)/ 108939301000, STBG-0065-01(011)/ 108959301000, SP-0338-00(002)/ 109267301000 & STP-0346-00(010)/ 109458301000

Jasper, Greene, Jasper & Clarke County(ies)

Revised 01/26/2016

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(REVISIONS TO THE ABOVE WILL BE INDICATED ON THE SECOND SHEET
OF SECTION 905 AS ADDENDA)

02/20/2025 08:02 AM

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 6195 **CODE: (SP)**

DATE: 02/19/2025

SUBJECT: Retroreflectivity Requirements

The Bidder's attention is called to Subsection 907-626.03.3 – Reflectivity Requirements in Special Provision No. 907-626-11.

The value shown in Table 1, Minimum Dry Retroreflectivity for Yellow, 275 mcd/m^2/lx is hereby revised to 225 mcd/m^2/lx.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 6611 **CODE: (SP)**

DATE: **02/20/2025**

SUBJECT: **Contract Time**

PROJECT: **STBG-0065-01(011) / 108959301 – Jasper County**
SP-1132-00(015) / 108939301 – Greene County
SP-0338-00(002) / 109267301 – Jasper County
STP-0346-00(010) / 109458301 – Clarke County

The calendar date for completion of work to be performed by the Contractor for this project shall be **September 26, 2025** which date or extended date as provided in Subsection 108.06 shall be the end of contract time. It is anticipated that the Notice of Award will be issued no later than **March 11, 2025** and the effective date of the Notice to Proceed / Beginning of Contract Time will be **April 10, 2025**.

Should the Contractor request a Notice to Proceed earlier than **April 10, 2025** and it is agreeable with the Department for an early Notice to Proceed, the requested date will become the new Notice to Proceed date.

All requests for an early Notice to Proceed shall be sent to the Project Engineer who will forward it to the Contract Administration Division.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-418-3 **CODE: (SP)**

DATE: 02/18/2025

SUBJECT: Micro-Surfacing

Section 907-418, Micro-Surfacing, is hereby added to and made a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

SECTION 907-418 -- MICRO-SURFACING

907-418.01--Description. This section covers the materials, equipment, construction, and application procedures for placing micro-surfacing material for filling ruts and for surfacing existing paved surfaces. The micro-surfacing shall be a mixture of a polymer-modified asphalt emulsion, 100 percent crushed mineral aggregate, mineral filler, water and other additives for control of set time in the field. All ingredients shall be properly proportioned, mixed and spread on the paved surface in accordance with this Specification and as directed by the Engineer.

907-418.02--Materials. The materials to be used and the specifications for them are as listed below.

907-418.02.1--Aggregate. Mineral aggregate used in the micro-surfacing material shall meet the quality requirements of Table 1 and grading requirements of Table 2.

Table 1
Aggregate Quality Requirements

Test	Test Method	Requirement
Sand Equivalent, min	T 176	65
Los Angeles Abrasion, %, max[a]	T 96	30
Magnesium Sulfate Soundness, max loss, %, 4 cycles[a]	T 104	25

[a] The abrasion and soundness test is to be run on the parent aggregate.

Table 2
Aggregate Grading Requirements

Stockpile Tolerance %	Sieve Size	Type II Percent Passing	Type III Percent Passing
±0	3/8"	100	100
±5	No. 4	90 – 100	70 – 90
±5	No. 8	65 – 90	45 – 70
±5	No. 16	45 – 70	28 – 50
±5	No. 30	30 – 50	19 - 34
±4	No. 50	18 – 30	12 - 25
±3	No. 100	10 – 21	7 - 18
±2	No. 200	5 – 15	5 - 15

The gradation of the aggregate stockpile shall not vary by more than the stockpile tolerance, as indicated in Table 2, from the mix design gradation.

The specification gradation band for the No. 4, No. 8, No. 16 and No. 30 sieve screens shall be divided into thirds, no result shall move from the top third range to the bottom third range, or vice versa, on successive sieves to avoid any gap grading in the aggregate.

For example:

Sieve Size	Type II Spec	Type II Lower Range	Type II Middle Range	Type II Upper Range	Type III Spec	Type III Lower Range	Type III Middle Range	Type III Upper Range
No. 4 Sieve	90 – 100	90-93	93-97	97-100	70 – 90	70-77	77-83	83-90
No. 8 Sieve	65 – 90	65-73	73-82	82-90	45 – 70	45-53	53-62	62-70
No. 16 Sieve	45 – 70	45-53	53-62	62-70	28 – 50	28-35	35-43	43-50
No. 30 Sieve	30 – 50	30-37	37-43	43-50	19 - 34	19-24	24-29	29-34

A Type II aggregate with a result of 98% passing the No. 4 screen shall not be lower than 73% on the No. 8 screen.

The two successive sieve requirement can be waived with proof of the aggregate being successfully used in prior projects and at the discretion of the Engineer.

Aggregates shipped to the project shall be uniform and shall not require blending or pre-mixing at the storage area before use. Additionally, the aggregate shall remain within the master gradation band. Mineral filler shall not be used to satisfy the requirements as set forth in Table 2.

907-418.02.2--Mineral Filler. The mineral filler shall be Portland Cement or Hydrated Lime meeting the following requirements.

Portland Cement ..... Section 701
Hydrated Lime ..... Subsection 714.03

907-418.02.3--Cationic Asphalt Emulsion. The emulsified asphalt shall be a cationic type CQS-1P meeting AASHTO M316 or CSS-EP meeting the following requirements in Table 3.

Table 3
Emulsion Requirements

Property	Test Procedure (AASHTO)	Specification	
		Min	Max
Emulsion Properties			
Viscosity, Saybolt-Furol, @ 122°F, SFS	T59	15	150
Sieve Test, %	T59		0.1
Residue by Evaporation, %	T59	62	
Residue Properties From Low Temperature Evaporation	**AASHTO R-78[1]**		
MSCR @ 70°C, Recovery @ 3.2 kPa, %	T350	80	
MSCR @ 70°C, J_{nr} @ 3.2, 1/kPa	T350		0.50

[1] After recovering the residue from AASHTO R-78, the sample may be annealed prior to testing to remove any excess moisture and provide for a consistent sample. The annealing can be accomplished by placing 20 grams of residue in a 6 oz. metal container (approx. 3-inch diameter) and heating to 163°C for no more than 15 minutes. The sample should be stirred with a spatula every 5 minutes. The sample can then be poured directly into a 25mm DSR silicone mold for evaluation.

907-418.02.5--Tack Coat. Normally, tack coat is not required unless the surface to be covered is concrete or is extremely dry and raveled. The emulsified asphalt should be the same grade and type as used for the micro-surfacing. The tack coat shall be placed using a standard distributor capable of evenly applying the emulsion. The tack coat shall be allowed to cure sufficiently before the application of micro-surfacing. If the tack coat is required, it will be noted on the plans or in the contract documents.

907-418.02.6--Water. The water for the micro-surfacing mixture shall be potable and free from any contaminants detrimental to the mixture.

907-418.02.7--Approved Additives. The emulsion manufacturer shall provide approved additives as required to control the set time of the mixture in the field. Approved additives shall be on the Department's APL.

907-418.02.8--Composition of Mixture. The Mix Design shall be prepared by an AASHTO-accredited laboratory and must be submitted to the engineer prior to beginning the work. The Mix Design shall be supplied by the Contractor. As a minimum, the design shall include the following: aggregate test properties, aggregate target gradation, results of Table 4 design requirements, design asphalt residue and mineral filler percentages based on dry weight of the aggregate. At least 10 days prior to construction, the Contractor shall submit to the Central Laboratory representative samples of each ingredient to be used in the micro-surfacing mixture for design verification. The samples shall include information relative to sources, type of materials and project number. No micro-surfacing work shall begin nor shall any mixture be accepted until the Laboratory has approved the micro-surfacing design. Acceptance of the design by the Engineer is solely for the purpose of quality control and in no way releases the Contractor from the responsibility to perform acceptable work under this specification.

The micro-surfacing material shall be a uniform mixture of aggregate, emulsified asphalt, mineral filler, water and other additives as required to control the set time in the field. The emulsion and aggregate shall be compatible so that a complete, uniform coating of the aggregate shall be obtained in the mixing unit. The mixture shall have sufficient working life to allow for proper placement at the existing ambient temperature and humidity. The Engineer shall require the mixture to be redesigned if replacement of a constituent, or change in gradation, is needed to produce an acceptable mixture. The constituents shall be proportioned to produce a uniform mixture meeting the requirements of Table 4. Reference to ISSA TB means International Slurry Surfacing Association Technical Bulletin.

Table 4
Mix Design Specifications

	Mixture Control Tolerance	Type II	Type III
Range for Residual Asphalt, %[a]	+/- 0.50	6.5 – 9.5	6.0 – 9.0
Range for Mineral Filler, %[a]	+/- 0.50	0.5 – 3.0	0.5 – 3.0
Test	Test Method	Value	
Wet Track Abrasion Loss, Maximum 1 Hour Soak	TB 100	38 g/ft^2	
Wet Track Abrasion Loss, Maximum 6 Day Soak	TB 100	75 g/ft^2	
Lateral Displacement, Maximum %	TB 147	5	
Excess Asphalt by LWT, Maximum	TB 109	50 g/ft^2	
System Compatibility, Minimum	TB 144	11 grade points	
Mixing Time, Seconds @ 77°F, Minimum	TB 113	180	
Set Time, 30 Minutes, Minimum	TB 139	12 kg-cm	
Early Rolling Traffic Time, 60 Minutes, Minimum	TB 139	20 kg-cm	
Water Resistance, 30 Minutes	TB 102	No Discoloration	
Wet Stripping Test, % Coating, Minimum	TB 114	90	
System Compatibility	TB 115	Pass	
Cantabro Mass Loss[b], %, Maximum	TX 245-F	2.0	
Ideal CT, peak load, lb-force, Minimum	ASTM D 8225	2000	
Ideal CT, Index, minimum	ASTM D 8225	100	
Bulk Specific Gravity[b]	AASHTO T-166	2.100 – 2.400	

[a] Percent residual asphalt and percent mineral filler shall be based on weight of dry aggregate. Should these tolerances fail to be met, immediate adjustments will be made to bring the gradation and percent residual asphalt back within tolerances or the work will not be allowed to continue.

[b] Samples to be prepared by ISSA TB 148 Marshall Compaction only (30 blows/side) and tested in dry condition at 25°C.

907-418.02.9--Equipment. The Engineer shall approve all equipment, tools, and machines used in the performance of this work. No work shall be attempted with equipment that is malfunctioning. The Engineer may order that the work be discontinued if sufficient equipment and tools are not in use to place the materials satisfactorily.

907-418.02.9.1--Mixing Equipment. The paving mixture shall be blended by a self-propelled, positive, non-slipping aggregate delivery system (belt over chain) micro-surfacing mixing machine which shall be a continuous flow mixing unit able to accurately deliver and proportion the aggregate, emulsified asphalt, mineral filler, field control additives and water to a revolving multi-blade, twin shafted mixer and discharge the mixed product on a continuous flow basis. The mixture shall be thoroughly blended so that no uncoated aggregate is visible upon discharge from the mixing unit. The machine shall be equipped with self-loading devices which provide for the loading of all materials while continuing to lay micro-surfacing, thereby minimizing construction joints. The machine shall be equipped with opposite side driving stations to optimize longitudinal alignment. The machine shall be equipped to allow the operator to have full hydrostatic control of the forward and reverse speed during the application of the micro-surfacing material. Continuous-run equipment will be required to ensure continuity of mix and reduction of start-up joints.

In some cases and with the Engineer's approval, truck mounted units may be used for short narrow roadways, crossovers and irregular areas. If truck mounted units are allowed, they shall be equipped with a positive, non-slipping aggregate delivery system (belt over chain) and have the capability of applying a minimum of 10 tons of aggregate without recharging the aggregate bin.

1. Water Pressure System. The mixing machine shall be equipped with a water pressure system and nozzle type spray bar to provide a water spray ahead of and outside the spreader box when required.

2. Calibration & Proportioning Devices. The machine shall be equipped with individual volume or mass controls or other gauging devices for measuring and proportioning each material added to the mix. Each material control device shall be calibrated, properly marked, and positively interlocked. The aggregate feed to the mixer shall be equipped with a revolution counter or similar device so that the amount of asphalt emulsion, aggregate and mineral filler used may be determined at any time. Each mixing unit shall be calibrated prior to commencement of the work. The calibrations shall be performed and verified in the presence of the Engineer or the Engineer's representative. Once calibrated, the aggregate and emulsion flows shall not be changed without the approval of the Engineer. The water and additive may be adjusted in the field to control the mix properties to produce an acceptable mix. With the Engineers approval, previous calibration documentation covering the exact materials to be used may be acceptable provided they were made within the last three (3) months.

3. Emulsion Pump. The emulsion pump shall be a heated, positive displacement type pump.

Attached to the machine shall be a hydraulically adjustable (adjustable while applying mixture) type spreader box with a positive screed adjustment for yield control. The box shall be attached to the mixer, equipped with ribbon flights mounted on an adjustable shaft to continually agitate and distribute the material throughout the box. The box will be equipped with curb bumpers and replaceable runners with a minimum of 5-foot long end runners. The box shall be equipped with a sufficient walkway to provide access to either side of the spreader box without walking through the freshly applied material. The box must be capable of laying mix to a width of 14 feet. The equipment shall provide sufficient turbulence to prevent the mix from setting in the box or causing excessive build-up or lumps. To prevent the loss of mixture from the box, the Contractor shall attach flexible seals, front and rear, in contact with the road. The full width application box shall be equipped with a secondary strike-off located approximately 2 to 3 feet behind the primary strike-off to minimize transverse corrugations. The secondary strike-off shall have elevation and width adjustments similar to the primary strike-off. It shall have a pivot point where it can be tilted for texturing or raised completely off of the surface. The use of burlap drags or other drags necessary to obtain the desired surface texture, shall require approval by the Engineer. Drags having excessive build-up shall be replaced. Drags shall be kept in a completely flexible condition at all times.

907-418.02.9.2--Auxiliary Equipment. Suitable surface cleaning equipment, barricading equipment, hand tools and other support equipment shall be provided by the Contractor as necessary to perform the work.

907-418.02.10--Stockpiling and Storage.

907-418.02.10.1--Aggregate Storage. The mineral aggregate shall be handled in such a manner as to prevent segregation, mixing of the various materials or sizes, and contamination with foreign materials. The grading of aggregates proposed for use and as supplied to the project shall be uniform. Suitable equipment of acceptable size shall be furnished by the Contractor to maintain the stockpiles and prevent segregation of aggregates. The aggregate shall be passed over a scalping screen immediately prior to transfer to the micro-surfacing mixing machine to remove oversized material. In addition, the scalping screen unit, when payment for micro-surfacing is to be by the ton of aggregate and gallon of asphalt emulsion, shall be equipped with certified scales capable of providing an automated ticket printout for each truck load of material delivered to the micro-surfacing machine. Each ticket shall include the project number, ticket number, truck number, date and batch weight of material loaded.

907-418.02.10.2--Storage of Bituminous Material. The bituminous storage shall be adequate to meet the requirements of the production rate. All equipment used in the storage and handling of bituminous material shall be kept in a clean condition at all times and shall be operated in such a manner that there will be no contamination with foreign matter.

907-418.02.11--Preconstruction Meeting. Coordinate a preconstruction meeting prior to construction between the Department and the Contractor to discuss the following topics.

- The construction process
- The quality control plan
- Mix design
- Materials control
- Materials measurement
- Equipment calibration
- Traffic control plan
- Equipment/process overview
- Inspection
- Test strip
- Unique project conditions
- Project documentation
- Expectations
- Schedule

907-418.03--Construction Requirements. It shall be the responsibility of the Contractor to produce, transport and place the specified materials in accordance with these specifications and as approved by the Engineer. The finished micro-surfacing shall have a uniform texture free from excessive scratch marks, tears or other surface irregularities. The cured mixture shall adhere fully to the underlying surface. Based upon a visual examination or test results the Engineer may reject any work due to poor workmanship, loss of texture, raveling or apparent instability.

907-418.03.1--Seasonal and Weather Limitations. No micro-surfacing shall be performed from December 1 and March 1.

The micro-surfacing mixture shall be spread only when both the pavement surface and the ambient temperature is at least 50°F and rising and the weather is not foggy or rainy and there is no forecast of temperatures below 32°F within 48 hours from the time of placement. The Contractor shall supply a surface temperature thermometer.

907-418.03.2--Surface Preparation. The area to be surfaced shall be thoroughly cleaned of vegetation, loose aggregate, lane striping, thermoplastic pavement markings, raised pavement markers and soil. Manholes, valve boxes and other service entrances shall be protected from the surfacing material. Crack sealant material shall be allowed to cure for a minimum of 30 days on pavement surfaces that have been crack sealed before application of the micro-surfacing. Unless otherwise directed by the Engineer, pre-wetting of the surface will be required. Water shall be sprayed ahead of and outside of the spreader box at an acceptable rate to dampen the surface without any free flowing water ahead of the spreader box.

907-418.03.3--Tack Coat. The tack coat, when required, shall be diluted at the rate of one part emulsion and three parts water and shall be applied with an asphalt distributor. The application rate shall be 0.05 to 0.15 gallons of diluted emulsion per square yard. When required, tack coat will not be measured for separate payment; costs shall be included in other items bid.

907-418.03.4--Application. The paving mixture shall be spread on the prepared surface in such a way to leave a uniform finished surface. Care shall be taken when filling ruts to restore the designed profile of the pavement cross section. Excess crowning or overfilling of the rut area will

not be permitted. The Contractor shall use squeegees and lutes to spread the mixture in areas inaccessible to the spreader box and areas requiring hand spreading. A sufficient amount of material shall be carried at all times in all parts of the spreader box to ensure complete coverage.

Adjustments to the additive will be permitted if necessary to provide a slower setting time when hand spreading is needed. If hand spreading is necessary, the mixture shall be poured in a small windrow along one edge of the surface to be covered and then spread uniformly by a hand squeegee or lute. A smooth, neat seam shall be provided where two passes meet. Excess material shall immediately be removed from ends of each run.

907-418.03.5--Traffic Control. The emulsified asphalt shall be formulated in such a way to allow the paving mixture to cure at a rate which will permit straight rolling traffic on the pavement within one hour after application without damaging the pavement surface. The Contractor shall maintain traffic control as necessary to prevent damage to the mixture. Any such damage done by traffic to the mixture shall be repaired by the Contractor at the Contractor's expense.

907-418.03.6--Rut Filling and Leveling Course. When required, before the final surface course is placed, preliminary micro-surfacing materials shall be required to fill ruts, utility cuts, depressions in the existing surface, etc. Ruts greater than 1/2" in depth shall be filled independently with a rut filling spreader box either 5-foot or 6-foot in width. For irregular or shallow rutting 1/2" or less in depth, a leveling course may be used as directed by the Engineer. The spreader box used for the leveling course shall be the same as used for the surface course; however, a steel or high density strike-off shall be used in lieu of a flexible rubber. Using a rut fill spreader box, each individual rut fill shall be crowned to compensate for traffic compaction at a rate of 1/8" per 1" of rut depth. Rut filling shall be placed and opened to traffic a minimum of 24 hours prior to surfacing. All materials, mixture composition, equipment, and construction procedures and requirements shall be as specified above.

907-418.03.7--Workmanship. Excessive buildup, uncovered areas, or unsightly appearance shall not be permitted on longitudinal or transverse joints. Longitudinal joints shall be placed on lane lines and excessive overlap shall not be permitted. Care shall be taken to insure straight lines along the roadway centerline, lane lines, shoulders or edge lines. Longitudinal edge lines shall not vary by more than ±2" in 100 linear feet. If the Contractor is unable to meet this requirement, they shall be required to establish a pilot line. Lines at intersections shall be kept straight to provide a neat and uniform appearance.

1. Finished Surface. The finished micro-surfacing shall have a uniform texture free from excessive scratch marks, tears, or other surface irregularities. Excessive tear marks are considered as four (4) drag marks within 100 linear feet in a single pass or drag marks that are $\geq$1/2" in width and $\geq$6" in length per 100 square yards, or any marks $\geq$1" in width or $\geq$4" in length. The edges of the micro-surfacing shall be neat in appearance and longitudinal alignment shall be parallel to the roadway centerline.

2. Joints and Seams. The longitudinal and transverse joints shall be neat in appearance and uniform. Transverse joints shall be constructed as butt-type joints. No excessive buildup, uncovered areas or unsightly appearance will be permitted on longitudinal or transverse joints. Longitudinal joints shall be placed on lane lines when possible. Gaps between applications shall not be permitted. Joints will be considered acceptable if no more than a

½-inch vertical space exists between the pavement surface and a 4-foot straight edge placed perpendicular on the longitudinal joint, and no more than 1/4" for a transverse joint.

3. Irregular Areas. Areas which cannot be reached with the mixing machine shall be surfaced using hand tools to provide complete and uniform coverage. The area to be hand worked shall be cleaned and lightly dampened prior to mix placement. Care shall be exercised in areas that require handwork so that the finished surface is uniform in texture, dense and of overall neat appearance comparable to that produced by the spreader box. Micro-surfacing material required to repair deficiencies due to unsatisfactory workmanship shall not be paid for but shall be entirely at the Contractor's expense. When transitions are included as part of the work, then these areas are to be surfaced prior to application of the main line. This shall include intersections, turnouts, radii, ramps etc.

907-418.03.8--Aggregate Application Rate. The target spread rate for all full width micro-surfacing not intended as a leveling course shall be controlled to within plus or minus two (±2) pounds per square yard of spread rate and shall be based on the weight of dry aggregate. Unless otherwise approved by the Engineer, the full width spread rate shall be 18 pounds per square yard for Type II and 25 pounds per square yard for Type III. For rut filling/leveling courses, the spread rate shall be 25 lbs/sy of Type III. A five-percent (5%) reduction in unit price will be applied for each pound of aggregate per square yard outside the spread rate tolerances established above for each day's placement of material. In lieu of pay reduction, the Contractor may elect to overlay the deficient area at no additional costs to the Department. Continued operation and placement of materials outside the spread rate tolerances shall not be allowed. The Contractor shall make adjustments as necessary in the placement operation to maintain production within the tolerances given.

907-418.03.9--Quality Control.
The Contractor is responsible for quality control (QC) sampling and testing and shall submit a written Quality Control Plan (QCP) acceptable to the Engineer. If calibration factors are used as a method of measurement, the QCP shall include calibration procedures used to determine calibration factors.

907-418.03.9.1--Personnel. The Contractor is responsible for staffing their project with qualified personnel.

907-418.03.9.2--Testing Facilities and Equipment. The Contractor shall supply any testing and equipment needed to comply with their approved QCP.

907-418.03.9.3--Materials Testing. The Contractor shall test the materials utilized in a manner to comply with their approved QCP and as required by the Engineer.

907-418.03.9.4--Compliance with Specifications. The Contractor shall attest in writing to the Department that the micro surfacing has been constructed in accordance with and meets the requirements of the specifications and their approved QCP at the conclusion of the project.

907-418.03.9.5--Department Acceptance. The Department will conduct acceptance sampling, testing, and inspection activities to ensure material quality, correct application rates, and traffic

control are within specification requirements. These activities along with the frequencies will be done at the discretion of the Department.

907-418.03.9.5.1--Materials Testing.

907-418.03.9.5.1.1--Aggregate. A sample of aggregate should be obtained and tested from the Contractor's project stockpile(s) at the discretion of the Engineer.

907-418.03.9.5.1.2--Emulsified Asphalt. A sample of emulsified asphalt should be obtained from the Contractor's distributor on the first day of production and thereafter at a frequency not to exceed 1 sample per 50,000 gallons. Because the time between sampling of the emulsified asphalt and the testing of the material can affect the test results, samples should be sent to the MDOT Central Lab for testing as soon as possible.

907-418.03.9.5.2--Equipment. All equipment to be used on the project shall be evaluated by the Engineer.

907-418.03.9.5.3--Final Inspection. A final inspection will be done with the Contractor to assure that the project has been constructed and complies with the project specifications.

907-418.04--Method of Measurement. Emulsified asphalt for micro-surfacing shall be measured by the gallon. The Contractor will be required to submit certified bill of ladings from the emulsion manufacturer indicating total gallons delivered. The Contractor may elect to use a calibration factor to measure gallons of emulsion using a calibrated metering system incorporated into the application equipment. The Contractor shall determine the calibration factor according to the equipment manufacturer's recommendations. The calibration procedures shall be conducted at the beginning of the project in the presence of the Engineer or designated Department representative. At the conclusion of each workday, the Contractor shall report the amount of emulsified asphalt for micro-surfacing applied to the Engineer. In addition, the Contractor will be responsible for submitting a way-back ticket representing un-used material at the conclusion of each project.

Aggregate for micro-surfacing shall be measured by the ton of dry aggregate used. The aggregate shall be weighed on certified scales. In lieu of certified scales, the Contractor may elect to use a calibration factor to measure tonnage of dry aggregate using a calibrated metering system incorporated into the application equipment. The Contractor shall determine the calibration factor according to the equipment manufacturer's recommendations. The calibration procedures shall be conducted at the beginning of the project in the presence of the Engineer or designated Department representative. Aggregate calibration factors shall be rechecked if there is a significant change in aggregate moisture content. At the conclusion of each workday, the Contractor shall report the amount of aggregate for micro-surfacing applied to the Engineer. The weight will be based on a 2000-pound ton and the aggregate will be corrected for moisture. The mineral filler will be counted by the 94-pound sack and will be included in the payment for aggregate.

907-418.05--Basis of Payment. Emulsified asphalt for micro-surfacing, measured as prescribed above, will be paid for at the contract bid price per gallon, which shall be full compensation for furnishing all materials including emulsified asphalt and mineral filler, and for all equipment, work and labor to complete the work.

Aggregate for micro-surfacing, measured as prescribed above, will be paid for at the contract bid price per ton, which shall be full compensation for furnishing all equipment, work and labor to complete the work.

These prices shall be full compensation for furnishing all materials, for preparation, mixing and applying these materials and for all labor, equipment, tools, test design, clean up and incidentals necessary to complete the work as specified herein.

Payment will be made under:

907-418-A: Emulsified Asphalt for Micro-Surfacing - per gallon

907-418-B: Aggregate for Micro-Surfacing - per ton