

**ARKANSAS
STATE HIGHWAY
COMMISSION
PROPOSAL DOCUMENTS**

FOR THE CONSTRUCTION OF

STATE JOB NO. SA1666

STATE AID COUNTY JOB (CODE 9970)

CRAIGHEAD CO. SEALING NO. 3 (S)

COUNTY ROAD NO. VARIOUS

IN CRAIGHEAD COUNTY

Bound herein are the Supplemental Specifications, Special Provisions, Proposal Documents and Schedule of Items applicable to this proposed construction contract.

Applicable to this proposed construction contract, but not bound herein, are the Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, and the Construction Plans.



CAUTION TO BIDDERS

Please review Section 102 of the Standard Specifications, 2014 Edition for Bidding Requirements and Conditions. Mistakes or omissions can be costly. Important items for you to check are included in, but not limited to, those listed below. This checklist is furnished only to assist you in submitting a proper bid. Check as you read.

- ☐ Have you contacted ARDOT (pmd@ardot.gov or 501-569-2261) to become an eligible bidder? This is required to submit a bid in the letting and must occur by 4:30pm the day prior to the letting.
- ☐ Have you acknowledged all Addenda by email or fax?
- ☐ Is the unit price entered appropriate for the item?
- ☐ Have you entered a unit price for each bid item except in the case of authorized alternate pay items? (A zero bid (\$0.00) is a valid price and will be considered.)
- ☐ Have you checked the Schedule of Items for various pay items that may have a minimum or maximum unit bid price? (Refer to the Standard Specifications for further information concerning these items)
 - ✓ Asphalt Binder
 - ✓ Relocating Precast Concrete Barrier
 - ✓ Water
 - ✓ Mobilization
- ☐ Have you limited your bid for Mobilization to five percent (5%) of the subtotal?
- ☐ For Federal-aid projects, did you complete the Certification for Federal aid Contracts?
- ☐ Prior to submitting your bid, did you check for error messages, and are all the folders "green"?
- ☐ If submitting a paper copy of the Proposal Guaranty (Bid Bond) is it signed by an officer of your company **AND** the Surety Agent?
- ☐ Did you ensure your Proposal Guaranty (if you are submitting a paper bond) will arrive prior to the time and date stated on Page 2 of the Proposal Documents?

1-17-08
Revised: 6-1-09
Revised: 2-15-12
Revised: 1-15-15
Revised: 5-26-16
Revised: 11-17-17
Revised: 7-5-23

ARKANSAS DEPARTMENT OF TRANSPORTATION

NOTICE OF NONDISCRIMINATION

The Arkansas Department of Transportation (ARDOT) complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, ARDOT does not discriminate on the basis of race, sex, color, age, national origin, religion (not applicable as a protected group under the Federal Motor Carrier Safety Administration Title VI Program), disability, Limited English Proficiency (LEP), or low-income status in the admission, access to and treatment in ARDOT's programs and activities, as well as ARDOT's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding ARDOT's nondiscrimination policies may be directed to Civil Rights Officer Joanna P. McFadden (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, Arkansas 72203-2261, (501) 569-2298, (Voice/TTY 711), or the following email address: joanna.mcfadden@ardot.gov.

Free language assistance for Limited English Proficient individuals is available upon request.

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

Arkansas Department of Transportation
Supplemental Specifications and Special Provisions Listing
State Job Number SA1666

The following supplemental specifications and special provisions for this project supplement the standard specifications, edition of 2014. In case of conflict, the supplemental specifications and special provisions shall govern.

ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
JOB SP	BIDDING REQUIREMENTS AND CONDITIONS
JOB SP	MANDATORY ELECTRONIC CONTRACT
JOB SP	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB SP	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB SP	REJUVENATING MASS CRACK TREATMENT
JOB SP	PRICE ADJUSTMENT FOR FUEL
JOB SP	FOG SEAL
SP 108-1	LIQUIDATED DAMAGES
SS 100-3	CONTRACTOR'S LICENSE
SS 100-4	DEPARTMENT NAME CHANGE
SS 102-2	ISSUANCE OF PROPOSALS
SS 103-2	CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
SS 105-4	MAINTENANCE DURING CONSTRUCTION
SS 107-2	RESTRAINING CONDITIONS
SS 108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
SS 108-3	WORK ORDER FOR FIXED COMPLETION DATE CONTRACTS
SS 306-1	QUALITY CONTROL AND ACCEPTANCE
SS 400-2	ASPHALT SURFACE TREATMENT
SS 604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
SS 604-3	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)

ARKANSAS DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION
ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS

Errors noted in the printed book of Standard Specifications for Highway Construction, Edition of 2014, are listed below and this publication is hereby revised as follows:

- Page 124: The third sentence of the first paragraph of Subsection 110.03(c) should read: The Engineer will make a decision within 10 business days concerning the necessity or practicability of the request.
- Page 195: The sixth paragraph of subsection 303.02 should read: For Classes 1 through 8 materials, the fraction passing the #200 (0.075 mm) sieve shall not be greater than three-fourths of the fraction passing the #40 (0.0425 mm) sieve. For Classes 3 through 8, the fraction passing the #40 (0.425 mm) sieve shall have a liquid limit not greater than 25.
- Page 363: In the second paragraph of Subsection 502.02, the reference to ASTM 775 should be replaced by “ASTM A 775”.
- Page 636: In the second paragraph of Subsection 730.02, the references to AASHTO M 183 should be replaced with ASTM A36.
- Page 637: The last sentence of the second paragraph of Subsection 730.03 should read: All bolts, nuts, and washers shall be galvanized according to AASHTO M 232 or ASTM B 695, Class 40 or 50.
- Page 767: In the fourth paragraph of Subsection 807.06(a), the reference to ASTM B595 should be replaced by “ASTM B695”.
- Page 841: Subsection 817.04(a) should read: The treatment of lumber and timber shall meet the applicable requirements of the current edition of the AWP, Standards U1, Commodity Specification E, Use Category UC4C.

ARKANSAS DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

JOB NO. SA1666

BIDDING REQUIREMENTS AND CONDITIONS

Section 102 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

The fourth sentence of the second paragraph of **Subsection 102.01** is hereby deleted, and the following substituted therefore:

Prospective bidders may file a questionnaire at any time; however, prospective bidders will not be given authorization to submit a proposal unless a rating has been extended based on an acceptable questionnaire.

The last paragraph of **Subsection 102.01** is hereby deleted.

The second sentence of **Subsection 102.02** is hereby deleted, and the following substituted therefore:

The Notice to Contractors will contain a description of the proposed work, and information regarding access to proposal documents, plans, specifications, and the amount and nature of the proposal guaranty.

Subsection 102.03 is hereby deleted, renamed **Contents of Proposal Documents**, and the following substituted therefore:

The proposal documents will state the location and description of the contemplated construction and will show the estimate of the various quantities and kinds of work to be performed or materials to be furnished, and will have a schedule of items. The proposal documents will state the time in which the work must be completed, the amount of the proposal guaranty, and the date and time of the letting of work. The documents will also include any special provisions or requirements that vary from or are not contained in the standard specifications.

All forms included in the proposal documents are considered a part thereof. The plans, specifications, and other documents designated in the proposal documents will be considered a part of the proposal whether included or not.

The first through fourth paragraphs of **Subsection 102.04** are hereby deleted, and the following substituted therefore:

To become an eligible bidder, prospective bidders must be registered to bid in Arkansas with Bid Express. Prospective bidders must also contact the Program Management Division at (501) 569-2261 during regular business hours between the date the project is advertised and 4:30 p.m. on the day prior to the scheduled bid opening to request to become eligible to bid specific projects. Only prequalified contractors or their authorized representative may request to become an eligible bidder.

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JOB NO. SA1666

BIDDING REQUIREMENTS AND CONDITIONS

If the prospective bidder's prequalification rating is not "unlimited", the bidder shall file a certification with the Department citing all contracts in force and the unfinished value of such work. A prospective bidder will not be allowed to submit a proposal until a certification for the current bidding period is on file and the amount of work the contractor may be allowed to undertake is determined. The contractor's prequalification rating, less the unfinished value of all contracts in force, will determine the amount of additional work that the contractor may be allowed to undertake. A contractor will not be allowed to submit a proposal on an individual project for which the estimated cost is more than the amount that the contractor may be allowed to undertake, but the contractor will be allowed to submit a proposal on more than one project, providing that the estimated cost of each project is not more than the amount that the contractor may be allowed to undertake. In the event a contractor submits a low bid on more than one project and the aggregate amount is greater than the amount the contractor may be allowed to undertake, the Commission will exercise its discretion in the award of a particular project or projects.

A charge will be assessed for authorization to submit a proposal, paper copies of the proposal documents, and plans issued. These services are provided during regular business hours until 4:30 p.m. on the day prior to the scheduled bid opening at the Arkansas Department of Transportation, 10324 Interstate 30, Little Rock, Arkansas 72209, (501) 569-2261. Payment shall be made at the time services are provided or upon receipt of statement therefore. No refund will be allowed for bids not submitted or for plans or proposal documents returned.

The second sentence of the first paragraph of **Subsection 102.06** is hereby deleted, and the following substituted therefore:

The bidder is expected to examine carefully the site of the proposed work, the proposal documents, plans, specifications, supplemental specifications, and special provisions before submitting a proposal.

The first paragraph of **Subsection 102.07** is hereby deleted, and the following substituted therefore:

The proposal shall only be submitted through the internet bidding service, Bid Express. The bidder shall specify a unit price in figures for each pay item for which a quantity is given. A unit price of "zero" (\$0.00) is a valid price and will be considered. A blank unit price is not considered valid. The unit bid price should not be carried beyond 1 cent (\$0.01). Any figures on the unit bid price beyond 1 cent will be dropped.

The second and third paragraphs of **Subsection 102.07** are hereby deleted.

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BIDDING REQUIREMENTS AND CONDITIONS

The fifth paragraph of **Subsection 102.07** is hereby deleted, and the following substituted therefore:

The bidder's proposal must be submitted with a digital signature containing the name of the individual, one or more members of the partnership, one or more members or officers of each firm representing a joint venture, or one or more officers of a corporation, or by an agent of the Contractor legally qualified and acceptable to the Department.

The sixth paragraph of **Subsection 102.07** is hereby deleted, and the following substituted therefore:

If the proposal is submitted with a digital signature of any person who is not listed in the bidder's Prequalification Questionnaire (Questionnaire Form) as the individual, as a partner of a partnership, or as an officer of a corporation, authorization for such submittal should be on file with the Department prior to the download of bids. This authorization shall be made before the downloading of bids and be in the form of a Power of Attorney duly executed and signed by an official with power to constitute such authority.

The last sentence of the seventh paragraph of **Subsection 102.07** is hereby deleted, and the following substituted therefore:

Those items of Asphalt Binder that are subject to a minimum bid price will bear the note "(Minimum bid price is \$120.00 per ton)" within the Schedule of Items of the proposal documents.

The first sentence of the ninth paragraph of **Subsection 102.07** is hereby deleted, and the following substituted therefore:

The proposal documents for all federal aid projects will contain a bidders list.

The last sentence of the ninth paragraph of **Subsection 102.07** is hereby deleted, and the following substituted therefore:

The information provided will not be used for contract awarding purposes but must be provided before the Contractor will be given authorization to submit proposals for future lettings.

Subsection 102.08 Irregular Proposals is hereby deleted, and the following substituted therefore:

(a) Proposals will be considered irregular and will be rejected for the following reasons:

- (1) If the proposal does not contain a unit price for each pay item listed except in the case of authorized alternate pay items.
- (2) If the proposal is not digitally signed by an authorized representative of the firm.

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BIDDING REQUIREMENTS AND CONDITIONS

- (3) If the proposal is not accompanied by the proper proposal guaranty.
- (4) If a proposal is received from an individual, firm, partnership, or corporation with an interest, as principal, in another proposal for the same project.
- (5) If the proposal is not accompanied by the Certification to Submit DBE Participation.
- (b) Proposals will be considered irregular and may be rejected for the following reasons:
 - (1) If the proposal is not accompanied by a bid schedule and bid schedule narrative as required in the proposal documents.
 - (2) Unbalanced proposals in which the prices for some items are out of proportion to the reasonable costs representative of those items.
 - (3) If there are irregularities of any kind that may tend to make the proposal incomplete, indefinite, or ambiguous as to its meaning.

The first sentence of **Subsection 102.09** is hereby deleted and the following substituted therefore:

No proposal will be considered by the Commission unless a guaranty in the form of a bank draft, certified check, or cashier's check drawn on a solvent bank or trust company, or a bidder's paper bond executed by an approved surety company has been received by the Program Management Division prior to the download of bids.

The following paragraph is hereby added after the first paragraph of **Subsection 102.09**:

Electronic bid bonds are allowed. The prospective bidder should verify their bid bond in their proposal prior to submission.

Subsection 102.10 is hereby deleted and the following substituted therefore:

The proposal shall only be submitted through the internet bidding service, Bid Express.

Subsection 102.11 is hereby deleted, and the following substituted therefore:

A bidder may withdraw or modify a proposal after it has been submitted to Bid Express, up to the time set for the deadline for proposals to be received. A proposal may also be withdrawn if the Commission fails to make an award within 40 calendar days after the date of downloading.

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BIDDING REQUIREMENTS AND CONDITIONS

Subsection 102.12 is hereby deleted, renamed **Downloading of Proposals**, and the following substituted therefore:

Proposals will be downloaded and then posted on the Department's website at the time and place indicated in the Notice to Contractors.

The last sentence of **Subsection 102.15** is hereby deleted, and the following substituted therefore:

In any case, the prospective bidders will be contacted prior to the download of bids.

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MANDATORY ELECTRONIC CONTRACT

Paper Contract Documents and Forms will not be accepted.

The Department will only accept and execute an electronic contract for this project through Doc Express, a paperless contracting system. Prospective bidders will need to contact Doc Express to set up an account prior to the bid opening date. The toll-free phone number for Doc Express is 1-888-352-2439 and their website address is www.docexpress.com.

Section 103 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows.

The first sentence of **Subsection 103.06(a)** is hereby deleted, and the following substituted therefore:

The Contract shall be electronically signed by the successful bidder and electronically submitted to the Program Management Division, Construction Contract Procurement Section, together with the required bonds and proof of liability insurance, within 10 business days after the notice of award has been issued.

Subsection 103.08(d)(3)d. is hereby deleted, and the following substituted therefore:

Documentation of the bidder's commitment to use a DBE subcontractor whose participation it submits to meet a contract goal; and

Subsection 103.08(d)(3)e. is hereby deleted, and the following substituted therefore:

Document confirmation from the DBE that it is participating in the contract as provided in the Contractor's commitment.

Subsection 103.08(d)(5) is hereby deleted, and the following substituted therefore:

The preceding information shall be submitted directly to the Arkansas Department of Transportation, Program Management Division, via Doc Express.

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MANDATORY ELECTRONIC DOCUMENT SUBMITTAL

Paper Document Submittals will not be accepted.

The Department will only accept electronically-submitted documents for consideration on this project. All correspondence and submittals to the Department shall be submitted through Doc Express, a paperless contracting system. When signed originals are required, the original shall be the document uploaded to Doc Express and the signature shall be the electronic signature applied through Doc Express. The Contractor shall use the same organizational account for project documentation as used to fulfill the requirements of the Mandatory Electronic Contract Special Provision. The toll-free phone number for Doc Express is 1-888-352-2439 and their website address is www.docexpress.com.

Any reference in the Standard Specifications to document submittal in writing or by U.S. Mail, facsimile, or in person is hereby amended to require that such documents be submitted using Doc Express with the following exceptions:

- Material delivery tickets which are used for payment or for field verification shall be submitted on paper as required by the Standard Specifications for Highway Construction, Edition of 2014.
- Any document with specific submittal requirements in state and/or federal law or federal regulations that conflict with the requirements of this Special Provision shall be submitted in accordance with such state and/or federal law or federal regulations.

A user guide is available on the Department's web page to assist Contractors with the use of Doc Express. The "Contractor Guide to Using Doc Express" is available on the Department's web page at <https://ardot.gov/divisions/construction/doc-express/>.

The Contractor may provide access for subcontractors to view and submit items in Doc Express by following the instructions provided in the "Contractor Guide to Using Doc Express". Once an organizational account is activated and the Contractor provides access to the contract, a subcontractor may submit documents to the Contractor in Doc Express by uploading the electronic documents as directed in the User Guide. Any documents uploaded by the subcontractor must be then retrieved and published by the Contractor within Doc Express for further action by the Engineer. The Engineer will not review or take any actions on any documents submitted by the subcontractor until the document has been appropriately submitted by the Contractor.

Any submittals, documents, subcontracts, proposals, working drawings, or any other items submitted by the Contractor within Doc Express are not considered approved by the Engineer until written notification of the approval is published by the Engineer in the "CON-Correspondence-From Department to Contractor" drawer in Doc Express. Any action taken by the Contractor prior to this notification is taken at the Contractor's own risk.

The Department's System Administration team has no authority to take action on any documents submitted to the system. Access for this team is for management of the application only. Knowledge of any document submitted is not imputed to the Department by the knowledge of Systems Administration.

The requirements of this Special Provision shall supersede the requirements of all other Special Provisions unless such Special Provision includes a stated exception to this Special Provision.

ARKANSAS DEPARTMENT OF TRANSPORTATION**SPECIAL PROVISION****JOB NO. SA1666****LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS**

Department Standard Specification **Section 102.04 and Supplemental Specification 102-2** state that the Department reserves the right to refuse to issue, accept, or consider a proposal:

“If the prospective bidder is the Contractor on a current Contract with the Commission on which Liquidated Damages are being assessed, and there are no pending time extensions warranted to remove the project from Liquidated Damages.”

If the prospective bidder goes into liquidated damages on a current Contract with the Commission during the advertisement period for a letting, the Contractor will be notified seven business days prior to the letting that they will not be allowed to bid in the upcoming letting. This notification will be officially transmitted through Doc Express for the project in liquidated damages and via email.

Upon notification that they will not be allowed to bid in the upcoming letting, the Contractor will be provided an opportunity to request a reconsideration of this decision. This request must be transmitted in the form of a letter through Doc Express and via email to the Department for review within two (2) business days of receipt. The Department will review the reconsideration request and render a decision no later than the Friday prior to the letting.

Please note, a bid may be withdrawn at any time prior to the time specified for the bid letting. If a Contractor has been notified that they will not be allowed to bid, and they do not withdraw their bid, the bid will be considered invalid and rejected.

ARKANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION
JOB NO. SA1666
REJUVENATING MASS CRACK TREATMENT

Description:

This item shall consist of the application of a polymer modified asphalt rejuvenating mass crack treatment, as specified, according to these specifications, and in reasonably close conformity with the plans or as directed.

The treatment consists of furnishing properly distributed rejuvenating asphalt emulsion scrubbed into the cracks and voids followed by a uniform application of aggregate for building a riding surface, improving the surface friction of a roadway, sealing cracks in the roadway, reducing the rate of oxidation of a surface mixture, or as an interlayer to delay or reduce the occurrence of reflective cracking.

Materials:

- (a) **Asphalt Emulsion.** The asphalt emulsion for rejuvenating mass crack treatment shall meet the requirements of the following table and shall be composed of a polymer modifier, a petroleum based rejuvenating agent, and asphalt. The emulsion supplier shall receive quarterly certificates of analysis (COA) for both the polymer and rejuvenating agency manufacturers. The COAs shall be provided to the Department upon request.

Property	Test Procedure (AASHTO)	Specification (min) (max)	
Emulsion Properties			
Viscosity, Saybolt-Furol, @ 77°F, SFS	T59	50	350
Storage, 24 hour, %	T59	-	1
Oil Distillate, %	T59	-	0.5
Sieve Test, %	T59	-	0.1
Residue by Distillation ⁽¹⁾ @ 350°F, %	T59	60	-
Residue Properties From Distillation	T59		
Penetration @ 4°C, 200g weight, 60 sec	T49	30	-
Residue Properties From Low Temp Evaporation	R78, Procedure B		
MSCR @ 52°C, J _{nr} @ 3.2/kPa	ASTM D7405	-	4.0
Polymer Properties⁽²⁾			
Tests on Modifier Mass Change, %	ASTM D471 (modified)		50%
Test on Rejuvenating Agent			
Flash Point, COC, °F	ASTM D92	380	-
Viscosity, 140°F, cSt	ASTM D2170	50	175
Saturate, % by wt	ASTM D2007	-	30
Asphaltenes	ASTM D2007	-	1.0
Test on Residue from RTFO			
Weight change, %	ASTM D2872	-	6.5
Viscosity Ratio	ASTM D2170	-	3

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REJUVENATING MASS CRACK TREATMENT

1. Exception to AASHTO T59: Bring the temperature on the lower thermometer slowly to 350°F plus or minus 10°F. Maintain this temperature for 20 minutes. Complete the total distillation in 60 plus or minus 5 minutes.
2. Modify ASTM D471 as follows:
 - a. Place 0.8g of modifier into an 18-mm silicone rubber DSR mold.
 - b. If necessary, dry at ambient lab conditions for 72 hr.
 - c. Remove the modifier from the mold and place the sample into a forced draft oven on release paper for 48 hr at 40°C.
 - d. After 48 hr, cool and weigh the sample to the nearest 0.0001 g. Record the weight.
 - e. Pour 30 g of rejuvenating agent in a 90-ml metal container.
 - f. Place modifier sample in the container and add another 30 g of rejuvenating agent. Ensure the modifier sample is completely covered; add more rejuvenating agent if necessary.
 - g. Cover the container with a metal lid and place it into a 40°C oven for 48 hr.
 - h. Remove the sample from the container. Use a paper towel to blot the surface of the sample to remove excess rejuvenator. Allow sample to cool to room temperature and weigh to the nearest 0.0001 g.
 - i. Calculate the mass change, expressed in Equation 1. Mass change will be positive.
 - i. $Mass\ Change\ (\%) = \frac{M_2 - M_1}{M_1} \times 100$
 - ii. Where:
 - iii. M_1 = Mass of modifier sample before being conditioned in the rejuvenating agent (g); and
 - iv. M_2 = Mass of modifier sample after conditioning in the rejuvenating agent (g).

(b) Rejuvenating Agent. The manufacturer of the rejuvenating agent, through the emulsion supplier and the contractor, shall submit to the Department test results certifying that the material meets the specification shown in the table above. The Department shall not accept test results dated more than 120 calendar days from the date of the project start. At any time during the project, the Department may obtain, and have tested at Department expense, samples of the rejuvenating agent being used in manufacturing of emulsion delivered to the project.

(c) Latex Polymer. The manufacturer of the latex polymer, through the emulsion supplier and the contractor, shall submit to the Department test results certifying that the material meets the specification shown in the table above. The Department shall not accept test results dated more than 120 calendar days from the date of the project start. At any time during the project, the Department may obtain, and have tested at Department expense, samples of the latex polymer being used in manufacturing of emulsion delivered to the project.

(d) Aggregate. Unless otherwise noted, the aggregate material shall be crushed stone listed in and meeting the requirements of Subsection 403.01 and having a gradation of Class 4 Mineral Aggregate as indicated in Subsection 403.02. When a Rejuvenating Mass Crack Treatment is to be used as an interlayer a Class 1 Mineral Aggregate as indicated in Subsection 403.02 may be used. It shall be stated in the plans if the Class 1 Mineral aggregate is required.

Equipment:

(a) Pressure Distributor. An approved mechanical pressure distributor shall meet the requirements of Section 403.

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REJUVENATING MASS CRACK TREATMENT

(b) Broom Sled. A broom sled as described herein shall be used to force the emulsion into cracks and voids after application of the emulsion from a pressurized distributor and before the application of aggregate.

The broom sled frame shall be constructed of metal and equipped with means to be attached to and pulled by the distributor truck.

The broom sled must be equipped with a means of raising and lowering the broom sled when desired. It shall be towable in the elevated position. The height of the broom sled assembly shall be adjustable related to the amount of emulsion carried by the broom heads themselves such that, regardless of application rate, the broom sled carries an excess of emulsion in front of the broom heads across the width of the area to be treated while containing the emulsion inside of the broom sled frame and not outside of the intended width of the treatment.

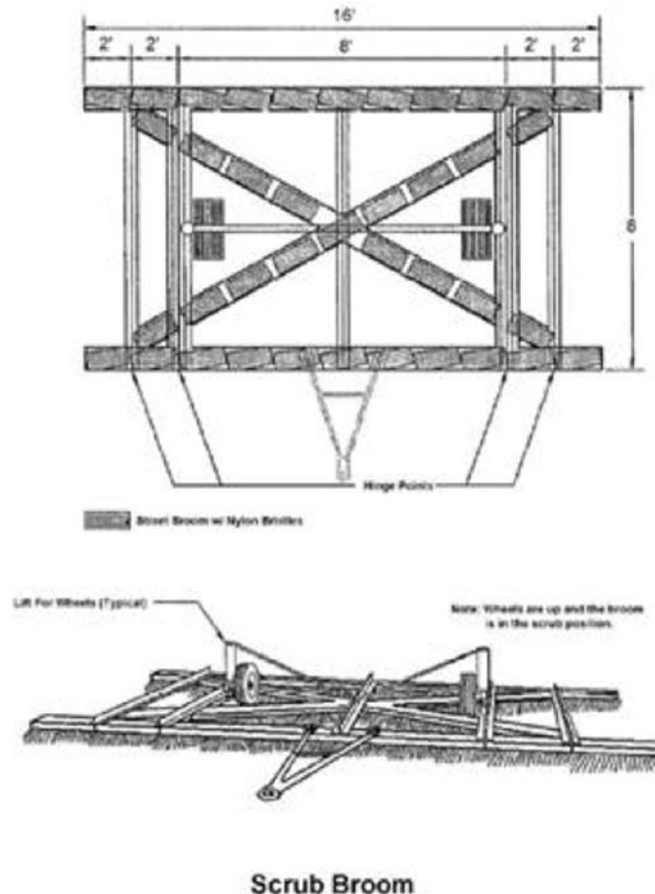
The main body of the broom sled shall have an overall frame size similar to the one shown in the drawing below. The nearest and furthest members, paralleling the back of the distributor truck, and diagonal members shall be equipped with street brooms. The leading member and the trailing member shall have broom heads angled at approximately 10 to 15 degrees off the centerline of the supporting member. The diagonal members shall have broom heads attached in line with the centerline of the supporting member. Each individual street broom attached to the broom sled assembly shall have a density of bristles to sufficiently push the emulsion evenly within the desired area of application. The stiffness of the bristles shall not bend excessively during application and spreading of the emulsion.

The broom sled shall be equipped with hinged wing assemblies attached to the main body not to exceed 4.5 feet per side, with diagonals and equipped with the identical street brooms as described herein.

The purpose of the maximum rigid frame width and the hinged wing extensions is not only for maximum width of 16 feet but to maintain the scrubbing process evenly as contours and cross-sections change across the existing road surface. A means or method of controlling the broom sled, causing it to track evenly behind the distributor in curves and on cross slopes, is required.

All broom sled designs shall be submitted to the Department for approval. Demonstration that the broom sled design is capable of filling the cracks with emulsion shall be performed prior to the Engineer approving the broom sled design. Demonstration of the broom sled may be performed on the test strip. An example broom sled design diagram is included in this document.

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REJUVENATING MASS CRACK TREATMENT



(c) **Aggregate Spreader.** The mechanical aggregate spreader shall meet the requirements of Subsection 403.07.

(d) **Rollers.** Rollers shall meet the requirements of Subsection 403.08.

(e) **Rotary Broom.** The Rotary Broom shall be capable of removing debris and loose mineral aggregate from the surface as needed and based on the specifications herein.

Test Strip:

Prior to the beginning of the project, the contractor shall be required to perform a test strip with a minimum length of 100 feet to assure the materials, contractor personnel and equipment are suitable to produce a satisfactory Rejuvenating Mass Crack Treatment. The test strip may be conducted as part of the calibration procedure. The test strip may be in a suitable area such as a parking lot or staging area. The contractor may also elect to use the project site for the test strip. If the test strip is placed within the project limits the contractor shall correct any deficiencies before opening to traffic as directed by the Engineer at no additional cost to the Department. The location for the test strip shall be approved by the Engineer prior to placement of the test strip.

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REJUVENATING MASS CRACK TREATMENT

Construction Requirements:

(a) General. The methods employed in performing the work, and all equipment, tools, and machinery used in handling material and executing any part of the work shall be subject to the approval of the Engineer before the work is started and whenever found unsatisfactory shall be changed or improved as required. Equipment, tools, and machinery used must be maintained in a satisfactory condition, and must conform to the requirements provided in Section 403.

The surfaces of all structures shall be protected by some satisfactory method to prevent their being disfigured by the application of asphalt material. Objectionable asphalt discoloration, caused by the Contractor's operations, shall be removed from all roadway and bridge structures at no cost to the Department.

Asphalt material shall not be applied on a surface having excess moisture or when weather conditions are unsuitable. The Contractor shall monitor local weather conditions to avoid placing material on the road ahead of adverse weather that could subsequently damage the material. In the event materials are damaged by adverse weather, they shall be replaced or repaired at no additional cost to the Department.

Special precautions shall be taken to ensure that the equipment is operated in a manner that distributes the asphalt and aggregate evenly and uniformly. Deposits of asphalt and aggregate material upon the road surface in excess of the quantity specified, caused by stopping or starting the distributing machine, overflow, leakage, or other mechanical or human errors, shall be removed.

Prior to performing the actual work, all equipment shall be adjusted and calibrated according to Section 403 and applicable manufacturer's requirements.

The surface section shall be constructed in half widths for each application.

(b) Preparation of Existing Surface. Potholes and surface depressions will be repaired by the Department prior to the Rejuvenating Mass Crack Treatment work unless shown otherwise on the plans. Immediately prior to application of the asphalt material, clean and de-grass existing pavements over the full width to be treated and all raised pavement markers shall be removed.

Manholes, valve boxes, drop inlets and other service entrances shall be protected from the asphalt emulsion by a suitable method.

(c) Sweeping and Cleaning. Before the asphalt material is applied, the surface shall be thoroughly cleaned and swept with a rotary power broom to remove all dust, dirt, mud, and loose or foreign material. A blower may be used to assist in the cleaning operation. The sweeping and cleaning operations shall be carried only far enough in advance of the application of the asphalt material to ensure that the surface is maintained in the proper condition at the time of application. Clean areas not reached by the power broom or blower by hand brooming or blowing.

(d) Application of Asphalt Material. After the surface to be treated has been prepared as specified above, the asphalt material for the surface treatment shall be sprayed uniformly over the surface by means of an approved mechanical pressure distributor,

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REJUVENATING MASS CRACK TREATMENT

meeting the requirements of Section 403, shown on the plans and at the designated rate of application as shown on the plans.

The optimum application rate of asphalt material is dependent on the mineral aggregate gradation as well as the condition of the pavement in which the Rejuvenating Mass Crack Treatment is to be applied. The application rate of the asphalt material may be adjusted by the Engineer based on field conditions at the time of construction.

The asphalt material shall be applied at the temperature between 140 - 180°F. The Contractor shall ensure uniformity of distribution at junctions of distributor loads by use of building paper or other approved methods.

After asphalt material is applied and broomed to force material into cracks and voids, no equipment or traffic will be permitted on the surface until the aggregate is applied and rolled.

(e) Application of Mineral Aggregate. The mineral aggregate shall not contain excessive free moisture and shall be spread immediately following the application of the asphalt material. Operations shall not proceed or continue when the asphalt material is allowed to chill, set up, dry, or otherwise impair retention of the mineral aggregate. The mineral aggregate shall be spread with a mechanical spreader meeting the requirements of Section 403. The mineral aggregate shall be distributed over the asphalt material and at the rate of application shown in the plans. The use of an approved chip box to distribute the mineral aggregate will be permitted on detour construction and other areas approved by the Engineer where the use of a mechanical spreader is impractical. Spreading shall be accomplished in such manner that the tires of the trucks or aggregate spreader at no time contact the uncovered and freshly applied asphalt material. Portions of the surface not covered by mechanical spreaders shall be hand spotted so that the entire surface will be uniformly covered. Light hand brooming may be necessary to distribute excess aggregate.

(f) Rolling and Brooming. A minimum of two pneumatic rollers, along with one rotary power broom shall be used with each aggregate spreader being used. A steel wheel roller will be allowed as a finish roller with approval by the Engineer.

Rolling shall begin immediately behind the spreader. Each surface treatment shall be completely rolled a minimum of three times.

After the final set of asphalt has occurred and no more than 48 hours after application, the surface shall be lightly broomed to remove excess aggregate. Generally, the brooming shall be confined to the cooler hours of the day and shall be conducted so as not to displace embedded material.

(g) Second and Successive Applications. If the work involves two or more applications of asphalt material and mineral aggregate, the rates of application for this material will be those specified on the plans or as designated by the Engineer. The method of construction will be the same as for an asphalt surface treatment meeting the requirements of Section 402. If a second seal is to be constructed, the emulsion shall conform to Subsection 403.03(d) or Subsection 403.03(e). Each application shall be placed only after the preceding application has been satisfactorily completed and cured. Further, the asphalt

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material shall be firmly set and the aggregate firmly embedded so as not to be displaced by brooming. Before application, the surface shall be thoroughly swept with a rotary power broom so that no dust or loose aggregate is left that might cause a plane of cleavage.

Traffic Control:

During the application of the asphalt material and aggregate, and during the rolling operation, traffic will not be allowed on the new surface. When traffic must use the lane adjacent to the lane under construction, the Contractor shall regulate the flow of vehicles past the surfacing operation at a speed not to exceed 25 miles per hour (40 km/h). The Engineer may require the use of a pilot vehicle.

Until the asphalt has set and the cover aggregate is firmly embedded, traffic shall not exceed 25 miles per hour (40 km/h). The vehicle speeds shall be controlled by the use of one or a combination of barricades, flaggers, signs, or pilot vehicles that will minimize the loss of cover aggregate. The method used for speed control shall be approved by the Engineer and will be subject to change or modification should the selected method of control prove unsatisfactory.

The Contractor shall route the aggregate haul trucks to and from the work area so that they will not have to turn on the freshly placed surface treatment.

Temperature and Seasonal Limitations:

- (a) Rejuvenating mass crack treatment shall be applied when the surface or ambient temperature is 60°F(15°C) and rising. Do not apply during foggy weather or when rain is likely to occur the same or following day. The mixture shall not be placed on a surface that shows evidence of free moisture. There shall not be any forecasted temperatures below 32°F within 48 hours from time of placement. In addition, rejuvenating mass crack treatment shall not be applied outside the following seasonal limitation:

Travel Lanes April 15 to September 30

Shoulders April 1 to October 31

No deviation from the above limitations will be allowed except by written permission from the Engineer

Method of Measurement:

- (a) Mineral aggregate in surface treatments will be measured either by the cubic yard (cubic meter) or by the ton (metric ton).

- (b) Rejuvenating Mass Crack will be measured by the gallon (liter).

Basis of Payment:

Work completed and accepted and measured as provided above will be paid for as follows:

- (a) Mineral aggregate will be paid for at the contract unit price bid per ton (metric ton) or per cubic yard (cubic meter) for Mineral Aggregate in Asphalt Surface Treatment.

In cases where the combined specific gravity of the material used for Mineral Aggregate in Rejuvenating Mass Crack Treatment exceeds 2.80 and the method of measurement is by the ton (metric ton), the quantity of material will be adjusted for payment by multiplying

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REJUVENATING MASS CRACK TREATMENT

the quantity of the material used by the specific gravity of 2.80 and dividing by the higher specific gravity.

(b) Asphalt material will be paid for at the contract unit price bid per gallon (liter) for Rejuvenating Emulsified Asphalt (CMS-1PC).

The above contract unit price shall be full compensation for surface preparation including the removal of the raised pavement; furnishing, loading, heating, hauling, placing, and applying materials; for cleaning, sweeping, brooming, rolling; and for all labor, equipment, tools, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item

Pay Unit

Mineral Aggregate in Asphalt Surface
Treatment (Class ____)

Cubic Yard (Cubic Meter)
or Ton (Metric Ton)

Rejuvenating Emulsified Asphalt (CMS-1PC)

Gallon (Liter)

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PRICE ADJUSTMENT FOR FUEL

A price adjustment clause is included in this Contract to provide additional compensation to the Contractor or a credit to the Department for fluctuations in diesel fuel prices. This price adjustment is dependent upon a change in the average price of fuel which results in an increase or decrease in the price of products utilized on this project. For the purposes of this specification, it is assumed that all fuel used is diesel fuel and that the fuel use factors shown in the table below cover all fuel used in delivery to the plant, production, hauling to the job site, placement, and finishing of the items of work shown.

Payment. Payment will be made to the Contractor for monthly fluctuation in the price of diesel fuel used in performing the applicable items as listed in the table below when the diesel fuel price fluctuates from the base price defined below. Payments may be positive, negative, or nonexistent depending on the circumstances. Payments or deductions for the fuel price adjustment will be included in the Contractor's current estimates, and the payment or deduction authorized for each estimate will be based upon the quantities for applicable items of work. Subcontracts should include the payment or deduction of fuel price adjustments on pay items listed in the table below when those items are included in a subcontract.

The Fuel Price Adjustment will be a dollar amount paid as compensation to the Contractor, or as a credit to the Department as reflected on the Current (or Final) Estimate Summary Report as Payment Adjustments.

Fuel Price Adjustment (FPA). The Fuel Price Adjustment (FPA) for the current estimate will be computed according to the following formula:

$$FPA = Q \times F \times D$$

Where

- FPA = Fuel price adjustment, in dollars;
- Q = Quantities paid for the applicable items on the current estimate,
- F = The Fuel Use Factor for the applicable items of work subject to this price adjustment, as listed in the table below,
- D = Allowable price differential, in dollars.

The above formula will be applied to each individual payment of the applicable item. When the Current (or Final) estimate is generated, the sum of these individual adjustments will be included as a Payment Adjustment.

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PRICE ADJUSTMENT FOR FUEL

Fuel Use Factors		
Item of Work	Specification Numbers	Fuel Use Factor Per Unit
Earthwork: (Unclassified Excavation, Compacted Embankment, Selected Material)	210,302	0.34 gal./C.Y.
Soil Stabilization	Special Provision	2.28 gal./ton
Shaping: (Shaping Roadway Section, Subgrade Preparation, Trenching and Shoulder Preparation, Scarifying and Recompacting Shoulders)	213,214,215,216	2.52 gal./Station
Base Course and Stone: (Stone Backfill, Aggregate Base Course, Soil Aggregate in Cement Treated Base Course, Aggregate in Cement Stabilized Crushed Stone Base Course, Mineral Aggregate in Asphalt Surface Treatment)	207,303,307,308,309,310,402	0.54 gal./ton
ACHM Paving: (ACHM Base Course, ACHM Binder Course, ACHM Surface Course, Open Graded Asphalt Base Course)	405,406,407,417	2.36 gal./ton
Ultra Thin Bonded Wearing Course (All Types)	Special Provision	2.18 gal./ton
Milling: (Cold Milling Asphalt Pavement, Grinding Portland Cement Concrete Pavement)	412, 510	0.18 gal./S.Y.
PCC Paving: (Portland Cement Concrete Base, Open Graded Portland Cement Concrete Base, Portland Cement Concrete Pavement, High Early Strength Concrete Pavement, Continuously Reinforced Concrete Pavement, Portland Cement Concrete Driveway)	309, 310,501,503,505	0.44 gal./S.Y.
Structural Concrete (Approach Slabs, Approach Gutters, Class B Concrete-Bridge, Class S Concrete-Bridge, Class S(AE) Concrete-Bridge, Seal Concrete-Bridge, Class A Concrete-Roadway, Class S Concrete-Roadway)	504, 802	1.75 gal./C.Y.

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PRICE ADJUSTMENT FOR FUEL

Flatwork: (Concrete Ditch Paving, Concrete Islands, Concrete Walks, Wheelchair Ramps)	605,632,633,641	0.30 gal./S.Y.
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When the units of measure in this contract for the items of work listed in the table do not correspond with the units shown in the table (i.e. Asphalt Concrete paid by the square yard, etc.), those items will not be subject to the terms of this special provision or any fuel price adjustment.

The allowable price differential, "D", for the current estimate will be computed according to the following formula:

$$D = P - P(b)$$

P, the current fuel price in dollars per gallon, is the Monthly Fuel Price Index for the month in which the payment entry is entered.

P(b), the fuel base price in dollars per gallon, is the Monthly Fuel Price Index for the month in which the bids for the work were received.

Fuel Price Index Determination. The Monthly Fuel Price Index will be determined by using the On-Highway retail price for No. 2 Diesel Fuel – ULS (Ultra Low Sulfur), as listed for the US Gulf Coast region on the U.S. Energy Information Administration's website. The value used will be that for either the closest Monday prior to the first calendar day of the index month or the first calendar day of the index month, if that is a Monday.

<https://www.eia.gov/opendata/qb.php?sdid=PET.EMD EPD2DXL0 PTE R30 DPG.W>

Supplemental Items Subject to Adjustment. Items included in the contract that are listed in the table above are subject to adjustment in accordance with this provision, regardless of any amount of overrun to the plan quantity. Any new items of work added to the Contract by supplemental agreement that are listed in the table above will be subject to the fuel price adjustments in accordance with this provision. The base fuel price, P(b), for any newly added eligible items will be the same P(b) as the eligible items in the Contract, and the new unit price established by supplemental agreement will be determined accordingly.

Viewing Fuel Price Index. Historical fuel price index values will be available in the "Asphalt Binder Index Report" document located on the ARDOT website under Fuel Price Information at <https://ardot.gov/divisions/construction/construction-information/>.

Opt Out Option. The Contractor, at its own discretion, can choose to opt out of the adjustments for fuel prices determined by this special provision. If the Contractor wishes to utilize this option, an authorized representative of the firm must sign the form on Page 4 of this special provision and submit it to the Department at PMD@ardot.gov prior to the time and date of the bid letting for this project. This representative must currently be listed with the Department as an officer approved to sign contracts in the firm's name.

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PRICE ADJUSTMENT FOR FUEL

OPT OUT OF PRICE ADJUSTMENTS TO FUEL

As an authorized representative of this company, I hereby choose the option to opt out of the price adjustments for fuel for all pay items allowable by this special provision for this contract. By signature of this form, my firm waives all payment adjustments for fuel indexing for the duration of this project and waives any subsequent appeals for additional compensation for fuel price fluctuations.

This action only applies to the construction contract for the job number listed in the header of this document.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

Company Name: _____

NOTE: To opt out, this completed form must be submitted to the Department at PMD@ardot.gov prior to the time and date of the bid letting for this project.

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FOG SEAL

Description: This work shall consist of the uniform application of an asphalt emulsion to an existing paved surface by means of a bituminous distributor meeting the requirements of Section 403 of Standard Specifications for Highway Construction, 2014 Edition, and/or as directed by the Engineer.

Materials: The Fog Seal emulsified asphalt shall meet the properties in the table below. Type 1 is a commodity slow setting, low residue emulsion. Type 2 an emulsion designed for quick traffic return. Type 3 is a polymer modified emulsion for general use. Type 4 is a polymer modified emulsion designed for the rejuvenation of oxidized Hot Mix Asphalt.

TEST ON EMULSION	TEST METHOD	Type 1 (MIN) (MAX)		Type 2 (MIN) (MAX)		Type 3 (MIN) (MAX)		Type 4 (MIN) (MAX)	
Viscosity, Saybolt-Furol, @ 77°F, SFS	AASHTO T 59	-	100		100		100	10	100
Particle Charge	AASHTO T 59	(+) or (-)		(+) or (-)		(+) or (-)		(+) or (-)	
Sieve Test, %	AASHTO T 59	-	-		0.3		0.3	-	0.3
Storage, 24 hour, %	AASHTO T 59	-	-	-	-	-	-	-	1
Oil Distillate, %	AASHTO T 59	-	-	-	-	-	-	-	0.5
Residue properties from Distillation¹									
Residue, %	AASHTO T 59	30	-	30	-	30	-	30	-
MSCR @ 64°C, J _{nr} @ 3.2/kPa	AASHTO T 350	-	-		2.0	-	-	-	-
Penetration, 77°F, 100g, 5 sec	AASHTO T 49	90	250	-	-	40	90	-	-
Elastic Recovery, 25°C, %		-	-	-	-	40		-	-
Penetration, 4°C, 200g, 60 sec		-	-	-	-	-	-	30	-
Residue properties from Low Temp Evaporation									
MSCR @ 52°C, J _{nr} @ 3.2/kPa	AASHTO TP70	-	-	-	-	-	-	-	2.0
Polymer Properties⁽²⁾									
Tests on Modifier Mass Change, %	ASTM D471 (modified)	-	-	-	-	-	-	-	50%
Test on Rejuvenating Agent									
Flash Point, COC, °F	AASHTO T 48	-		-	-	-	-	380	-
Viscosity, 140 °F, CST	AASHTO T 201	-		-	-	-	-	50	175
Saturate, % by wt	ASTM D2007	-		-	-	-	-	-	30
Asphaltenes	ASTM D2007	-		-	-	-	-	-	1.0
Test on Rejuvenating Residue		-							
Weight change, %w	ASTM D2872	-		-	-	-	-	-	6.5
Viscosity Ratio (RTFO/Orig.)	ASTM D2170	-		-	-	-	-	-	3

See next page for footnotes.

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JOB NO. SA1666
FOG SEAL

Footnotes:

1. Exception to AASHTO T 59: Bring the temperature on the lower thermometer slowly to 350°F plus or minus 10°F. Maintain this temperature for 20 minutes. Complete the total distillation in 60 plus or minus 5 minutes.
2. For modifications for Polymer Properties testing, refer to Appendix A Test Modifications.
3. Modify ASTM D471 as follows:
 - a. Place 0.8g of modifier into an 18-mm silicone rubber DSR mold
 - b. If necessary, dry at ambient lab conditions for 72 hr.
 - c. Remove the modifier from the mold and place the sample into a forced draft oven on release paper for 48 hr at 40°C.
 - d. After 48 hr, cool and weigh the sample to the nearest 0.0001 g. Record the weight.
 - e. Pour 30 g of rejuvenating agent in a 90-ml metal container.
 - f. Place modifier sample in the container and add another 30 g of rejuvenating agent. Ensure the modifier sample is completely covered; add more rejuvenating agent if necessary.
 - g. Cover the container with a metal lid and place it into a 40°C oven for 48 hr.
 - h. Remove the sample from the container. Use a paper towel to blot the surface of the sample to remove excess rejuvenator. Allow sample to cool to room temperature and weigh to the nearest 0.0001 g.
 - i. Calculate the mass change, expressed in Equation 1. Mass change will be positive.

$$\text{Mass Change (\%)} = \frac{M_2 - M_1}{M_1} \times 100$$

Where:

M₁ = Mass of modifier sample before being conditioned in the rejuvenating agent (g); and

M₂ = Mass of modifier sample after conditioning in the rejuvenating agent (g).

Equipment

Asphalt Distributor: The mechanical pressure distributor shall meet the requirements of Subsection 403.06. The spray nozzles shall be rated and of the size recommended for a uniform application rate.

Rotary Broom: The Rotary Broom shall be capable of removing dust, debris, and loose mineral aggregate from the surface as needed and based on the specifications herein.

Equipment Calibration: The asphalt distributor shall be calibrated by applying asphalt emulsion for a continuous section of minimum 500 ft. The amount of material distributed shall be within 5% of the intended application rate and shall be verified by use of a strapping stick as supplied by the equipment manufacturer. Neither a visual gauge indicating volume nor the computer readout shall be used as a calibration method. The application rate is measured in gal/square yard.

Test Strip: Prior to the beginning of the project, the contractor may be required to perform a test strip in a suitable area such as a parking lot or staging area to assure the materials, contractor personnel, and equipment are suitable to produce a satisfactory Fog Seal. The location for the test strip shall be approved by the Engineer. The test strip may be conducted as part of the calibration procedure or may be conducted as part of the project.

ARKANSAS DEPARTMENT OF TRANSPORTATION
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JOB NO. SA1666
FOG SEAL

Surface Preparation

General: Immediately prior to applying the Fog Seal, the pavement surface shall be cleared of all loose material, silt spots, vegetation, and other objectionable material. If water is used, cracks shall be allowed to dry thoroughly before applying the asphalt emulsion. Manholes, valve boxes, drop inlets, and other service entrances shall be protected from the rejuvenating Fog Seal by a suitable method. Thermoplastic and other striping should be removed or protected prior to application of the asphalt emulsion. The Engineer shall approve the surface preparation prior to application of the Fog Seal.

Material Storage and Handling

Asphalt Emulsion: It is expected that the contractor follows the manufacturer guidelines for storage and handling of the specified Fog Seal emulsion.

Aggregate: Aggregate intended for use on the project shall be maintained in such manner as to protect it from contamination by debris and excess moisture. Large or oversized particles shall be removed from the aggregate by screening or other acceptable method prior to use on the project.

Seasonal Limitations: Fog seal shall be applied when the surface and ambient temperature is 60°F(15°C) and rising. Do not apply during foggy weather or when rain is likely to occur the same or following day. The fog seal shall not be placed on a surface that shows evidence of free moisture. There shall not be any forecasted temperatures below 32°F within 48 hours from time of placement. In addition, fog seal shall not be applied outside the following seasonal limitation:

Travel Lanes April 15 to September 30

Shoulders April 1 to October 31

No deviation from the above limitations will be allowed except by written permission from the Engineer.

Construction Requirements: The pavement surface shall be swept and cleaned in accordance with Subsection 402.03(b). Fog Seal shall not be applied to a surface exhibiting moisture, nor when general weather conditions, in the opinion of the Engineer, are not suitable. Road surface must be dry. In order to allow enough time for the Fog Seal to completely cure, Fog Seal shall not be applied after 3:00 pm in order to allow for complete curing before opening the lane to traffic, unless otherwise approved by the Engineer prior to application (based on weather and traffic conditions). The distributor shall be so adjusted and operated as to distribute evenly the material being applied at a rate between 0.05-0.15 gallons/square yard as indicated on the plans. The application rate shall vary according to the demands of the pavement and shall be determined by the Engineer.

ARKANSAS DEPARTMENT OF TRANSPORTATION
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FOG SEAL

Traffic Control: Traffic control shall be maintained until the product has sufficiently cured to withstand traffic without damage. The Fog Seal shall be completely broken before traffic is permitted to drive on it.

Aggregate: Aggregate is used only as a blotting agent in areas of excess emulsion application or as a means to protect a freshly placed seal in high traffic areas or to facilitate early return to traffic. The aggregate shall be any suitable manufactured or natural sand with top-sized material of less than 0.25 inch. Furnish and uniformly distribute clean, fine sand on the surface to blot excess when an excessive quantity of asphalt is applied. If sand is required, the application rate should be 1.0-2.0 lbs/square yard. Deposits of asphalt material upon the road surface in excess of the quantity specified, caused by stopping or starting the distributor, overflow, leakage, or otherwise, shall be removed at no cost to the Department.

Method of Measurement: Fog Seal shall be measured by the gallon.

Basis of Payment: Work completed and measured as provided above will be paid for at the contract unit price bid per gallon for Fog Seal. The bid price shall be full compensation for surface preparation, furnishing, preparing, hauling, application of the Fog Seal, and removing of Aggregate used for blotting; and for all equipment, tools, labor, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item	Pay Unit
Fog Seal (Type ____)	Gallon

ARKANSAS DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

LIQUIDATED DAMAGES

As specified in the Contract, liquidated damages for this project will be as shown in the following table:

WORKING DAY PROJECTS

ORIGINAL CONTRACT AMOUNT		
FROM MORE THAN	TO AND INCLUDING	RATE
\$ 0	\$ 100,000	\$ 140
100,000	500,000	400
500,000	1,000,000	660
1,000,000	2,000,000	800
2,000,000	5,000,000	1,380
5,000,000	10,000,000	1,800
10,000,000	15,000,000	2,620
15,000,000	20,000,000	2,720
20,000,000	30,000,000	2,940
30,000,000	-----	3,500

FIXED DATE PROJECTS

ORIGINAL CONTRACT AMOUNT		
FROM MORE THAN	TO AND INCLUDING	RATE
\$ 0	\$ 100,000	\$ 60
100,000	500,000	80
500,000	1,000,000	220
1,000,000	2,000,000	300
2,000,000	5,000,000	420
5,000,000	10,000,000	1,000
10,000,000	15,000,000	1,200
15,000,000	20,000,000	1,300
20,000,000	30,000,000	1,400
30,000,000	-----	1,520

ARKANSAS DEPARTMENT OF TRANSPORTATION

SUPPLEMENTAL SPECIFICATION

CONTRACTOR'S LICENSE

Section 102 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

The third paragraph of **Subsection 102.01, Prequalification of Bidders**, is hereby deleted and the following substituted thereof:

The attention of prospective bidders is directed to Ark. Code Ann. §17-25-101 et seq., Act 150 of the 1965 Acts of Arkansas, being an "Act Regulating the Practice of Contracting in the State of Arkansas", and any subsequent amendments made thereto. When the work offered is financed in whole with State funds and is estimated to cost \$50,000 or more, the prospective bidder must show evidence of its license and evidence of registration or license of its subcontractors with the Contractors Licensing Board for the State of Arkansas before being furnished with a proposal form.

The third paragraph of **Subsection 108.01, Subletting of Contract**, is hereby deleted and the following substituted thereof:

It shall be the responsibility of the Contractor to determine that all parties performing work amounting to \$50,000 or more are currently licensed or registered by the Contractors Licensing Board for the State of Arkansas.

ARKANSAS DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION
DEPARTMENT NAME CHANGE

All references to the Arkansas State Highway and Transportation Department contained within the Standard Specifications for Highway Construction (Edition of 2014), the Qualified Products List, the Manual of Field Sampling and Testing Procedures, plan sheets, Supplemental Specifications, and all Special Provisions contained in this proposal are hereby deleted and replaced with the title of Arkansas Department of Transportation.

All references to AHTD contained within the Standard Specifications for Highway Construction (Edition of 2014), the Qualified Products List, the Manual of Field Sampling and Testing Procedures, plan sheets, Supplemental Specifications, and all Special Provisions contained in this proposal are hereby deleted and replaced with the abbreviation ARDOT.

All references to the Arkansas State Highway Commission contained within the Standard Specifications for Highway Construction (Edition of 2014), the Qualified Products List, the Manual of Field Sampling and Testing Procedures, the Standard Drawings, plan sheets, Supplemental Specifications, and all Special Provisions contained in this proposal remain in effect.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION
ISSUANCE OF PROPOSALS**

Section 102 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

Subsection 102.04(j) is hereby deleted and the following is substituted therefore:

(j) If the prospective bidder is the Contractor on a current Contract with the Commission on which Liquidated Damages are being assessed, and there are no pending time extensions warranted to remove the project from Liquidated Damages.

Subsection 102.04(k) is hereby deleted and the following is substituted therefore:

(k) If the prospective bidder has a current Contract in default.

ARKANSAS DEPARTMENT OF TRANSPORTATION

SUPPLEMENTAL SPECIFICATION

CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS

Section 103, AWARD AND EXECUTION OF CONTRACT, of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

The following is added as the fourth paragraph of **Subsection 103.05(b), Liability Insurance**:

Prior to beginning construction, the Contractor shall provide the Engineer with the name, phone number and e-mail address for the individual within their organization responsible for submission of claims for damages to motorists' vehicles inside the work zones. This information shall be updated annually or whenever this responsibility changes within the Contractor's organization. The information will be made available to the public on the Department's webpage.

ARKANSAS DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION
MAINTENANCE DURING CONSTRUCTION

Division 100 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

Subsection 105.15 is hereby modified as follows:

The first paragraph of **Subsection 105.15** is hereby deleted and the following substituted therefor:

105.15 Maintenance During Construction. The Contractor shall maintain the work during construction and until the project is accepted. For contracts containing a Flexible Beginning of Work special provision, the responsibility for maintenance by the Contractor will begin at the earlier date of the following:

- when the Contractor begins work, or
- on the date of the beginning of time charges in accordance with the Work Order if the Contractor has not commenced work.

This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces, to the end that the roadway or structures are kept in satisfactory condition at all times.

ARKANSAS DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION
RESTRAINING CONDITIONS

Section 107 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

The following is hereby added after the first bullet of the first paragraph of **Subsection 107.10 Restraining Conditions (a), General**:

- Human remains, burials, and/or associated burial artifacts

The following is hereby added after the second paragraph of **Subsection 107.10 (b), Restraining Conditions Within the Right-of-Way**:

When restraining conditions under (1) and (2) below are encountered, the following provisions should be executed.

(1) If archeological sites and/or historically significant cultural resources are unexpectedly impacted or subsequently discovered during construction, the Contractor shall stop work with no ground-disturbing activities occurring within a two hundred (200)-foot radius of the location of the discovery. The Engineer shall be notified immediately, who will then notify the Environmental Division. A Department staff archeologist will inspect the discovery and determine if the established buffer radius is appropriate. The radius may be decreased or increased based on the nature of the discovery at the discretion of the archeologist. Work in the buffer radius shall not resume until the Environmental Division has provided written notification to the Engineer that construction activities can proceed.

(2) If human remains, burials, and/or associated burial artifacts are encountered during construction, the Contractor shall stop work with no ground-disturbing activities occurring within a two hundred (200)-foot radius of the location of the discovery and the location secured and protected by flagging or fencing. The human remains shall be covered with a canvas tarp and shall not be removed or collected. The Engineer shall be notified immediately, who then will notify the Environmental Division. A Department staff archeologist will inspect the remains and determine if the established buffer is appropriate. The radius may be decreased or increased based on the nature of the discovery at the discretion of the archeologist. The local law enforcement and Chief Medical Examiner will be notified by the Environmental Division. Work in the buffer radius shall not resume until the Environmental Division has provided written notification to the Engineer that construction activities can proceed.

ARKANSAS DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION
RESTRAINING CONDITIONS

The following is hereby added after the third sentence of the first paragraph of **Subsection 107.10 (c), Restraining Conditions Outside the Right-of-Way, (2) Non-commercially Operated Site:**

The Contractor shall limit the amount of acres submitted for an off-site location to no more than 10 acres, except for commercial areas, previously approved locations, or where previous ground disturbance exists. If a Contractor requires more than 10 acres for a proposed off-site location, the Contractor may, at no cost to the Department, acquire approval for use of the site from the State Historic Preservation Officer and a qualified archeological consultant.

ARKANSAS DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION
WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER

Section 108 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

Subsection 108.02(b)(2) is hereby deleted and the following is substituted therefore:

(2) The delivery to the Department for execution of the Contract and bonds properly executed on behalf of the Contractor and surety and the minimum 72 hours advance notice as required above shall constitute the Contractor's authority to begin the following items of work:

- Mobilization;
- Preparation of shop drawings and other required submissions;
- Ordering, fabrication, assembly, and/or stockpiling of materials;
- Driving Test Piling; and
- Contract surveying, when Roadway and/or Bridge Construction Control is included in the Contract.
- Erection of advance warning signs.
- Installation of netting on structures to prevent nesting of migratory birds in accordance with applicable Special Provisions (if included in the Contract).
- Set up, installation, and testing of Automated Work Zone Information Systems (if included in the Contract).
- Off-site area approval process per Section 107.10(c).

Such advance work shall be subject to the Contractor's assumption of the risk of cancellation of the award and the following:

- The Contractor shall, on commencing such operations, take all precautions required for public safety and shall observe all the provisions in the Contract;
- In the event of cancellation of the award, the Contractor shall at Contractor expense do such work as necessary to leave the site in a neat condition to the satisfaction of the Engineer;
- In the event of cancellation of the award, all work performed shall be deemed to be at the Contractor's expense; and
- All work done under this subsection in accordance with the Contract before its execution by the Commission will, when the Contract is executed, be considered authorized work and will be paid for as provided in the Contract.

Unless otherwise notified in writing, no time will be assessed for work performed prior to the effective date of a Work Order.

No payments will be made prior to the date established by the Engineer under Subsection 109.07, which date will be after the effective date of a Work Order.

The Contractor shall not be entitled to any additional compensation or an extension of time for any delay, hindrance, or interference caused by or attributable to commencement of work before the effective date of a Work Order.

ARKANSAS DEPARTMENT OF TRANSPORTATION

SUPPLEMENTAL SPECIFICATION

WORK ORDER FOR FIXED COMPLETION DATE CONTRACTS

Section 108, Prosecution and Progress, of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

Subsection 108.02(b)(4) a. is hereby deleted, and the following is substituted therefor:

a. Fixed Completion Date Contract. Unless the Contractor is otherwise advised in writing, the Work Order for a fixed completion date contract shall become effective on the second business day following the execution of the Contract by the Department. (Example: If the contract is executed on Wednesday, March 1, the Work Order will be effective on Friday, March 3.) Should the effective date fall on Saturday, Sunday, legal holiday designated in Subsection 101.01(c), Monday following a holiday on Sunday, or Friday preceding a holiday on Saturday, the effective date shall still be on the second business day. The written Work Order from the Engineer will follow with the effective date being as specified.

ARKANSAS DEPARTMENT OF TRANSPORTATION

SUPPLEMENTAL SPECIFICATION

QUALITY CONTROL AND ACCEPTANCE

Division 300 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

The first sentence of the third paragraph **Subsection 306.03 Acceptance Testing** is hereby deleted and the following substituted therefor:

If the material being furnished is crushed stone the Department will furnish the PL, LL, and PI for the material, further tests for PL, LL, and PI are waived.

ARKANSAS DEPARTMENT OF TRANSPORTATION

SUPPLEMENTAL SPECIFICATION

ASPHALT SURFACE TREATMENT

Division 400 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

Section 402, Asphalt Surface Treatment, is hereby modified as follows:

The first sentence of **Subsection 402.07(b)** is hereby deleted and the following substituted therefor:

Asphalt material will be paid for at the contract unit price bid per gallon (liter) for Asphalt in Surface Treatment, Polymer Modified Cationic Emulsified Asphalt (CRS-2P) (solid polymer), or Polymer Modified Cationic Emulsified Asphalt (CRS-2P) (latex polymer).

The third paragraph of **Subsection 402.07(b)** is hereby deleted and the following substituted therefor:

Payment will be made under:

Pay Item	Pay Unit
Mineral Aggregate in Asphalt Surface Treatment (Class___)	Cubic Yard (Cubic Meter) or Ton (Metric Ton)
Asphalt in Surface Treatment	Gallon (Liter)
Polymer Modified Cationic Emulsified Asphalt (CRS-2P) (solid polymer)	Gallon (Liter)
Polymer Modified Cationic Emulsified Asphalt (CRS-2P) (latex polymer)	Gallon (Liter)

Section 403, Materials and Equipment for Prime, Tack, and Asphalt Surface Treatments, is hereby modified as follows:

Subsection 403.03(e) is hereby deleted and the following substituted therefor:

(e) Polymer Modified Cationic Emulsified Asphalt. Polymer Modified Cationic Emulsified Asphalt (CRS-2P) (solid polymer) and Polymer Modified Cationic Emulsified Asphalt (CRS-2P) (latex polymer) shall conform to the requirements of AASHTO M 316. The use of (CRS-2P) (solid polymer) or (CRS-2P) (latex polymer) will be specified in the plans. In addition, (CRS-2P) (solid polymer) and (CRS-2P) (latex polymer) shall have: 1) A minimum Saybolt Furol Viscosity at 122° F (50° C) at the point of manufacture and/or origin of 200 seconds, and a maximum Saybolt Furol

ARKANSAS DEPARTMENT OF TRANSPORTATION

SUPPLEMENTAL SPECIFICATION

ASPHALT SURFACE TREATMENT

Viscosity of 500 seconds. The Saybolt Furol Viscosity at 122° F (50° C) on destination field samples shall be within the limits of 100-500 seconds. If the asphalt fails to comply at 122° F (50° C) test temperature, the test shall be repeated at 160° F (71° C) and shall be within the limits of 90-200 seconds, and 2) the minimum residue from distillation by weight shall be 68%.

The Table in **Subsection 403.04** is hereby deleted and the following substituted therefor:

Type and Grade	Recommended Range		Maximum Allowable	
	°F	°C	°F	°C
RC-70	80-150	27-66	175	80
RC-250	100-175	38-80	200	93
RC-800	160-225	71-107	250	121
RC-3000	200-275	93-135	290	143
MC-30, MC-70	80-150	27-66	175	80
MC-250	100-200	38-93	230	110
MC-800	185-260	85-127	275	135
MC-3000	225-275	107-135	290	143
RS-1	70-160	21-71	160	71
RS-2	125-185	52-85	185	85
MS-2	70-160	21-71	160	71
SS-1, SS-1h	70-160	21-71	160	71
CRS-1, CRS-2, (CRS-2P) (solid polymer), (CRS-2P) (latex polymer)	125-185	52-85	185	85
CMS-2h, CMS-2	70-160	21-71	160	71
CSS-1, CSS-1h	70-160	21-71	160	71
All Asphalt Binders	275-325	135-163	350	177

ARKANSAS DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION
RETROREFLECTIVE SHEETING FOR
TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES

Section 604 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

The following is inserted after the first paragraph of Subsection 604.02(b):

Retroreflective sheeting used on traffic drums shall meet the requirements of ASTM D4956 for Type III or IV with the additional requirements for Reboundable Sheeting. Retroreflective sheeting for delineators shall comply with section 728.

Retroreflective sheeting shall be applied to a properly treated substrate with mechanical equipment and in a manner specified by the sheeting manufacturer. Sign material (substrate) shall be of sufficient thickness and stability to maintain a substantial, effective sign for the duration of the project. One splice will be allowed in retroreflective sheeting on sign blanks. "Left", "Right", "Distances", and "Ahead" will be allowed on signs as inserts. All letters and numerals on inserts shall be of the same size and series as those on the sign face.

ARKANSAS DEPARTMENT OF TRANSPORTATION

SUPPLEMENTAL SPECIFICATION

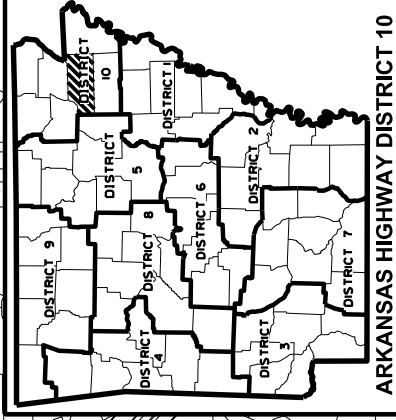
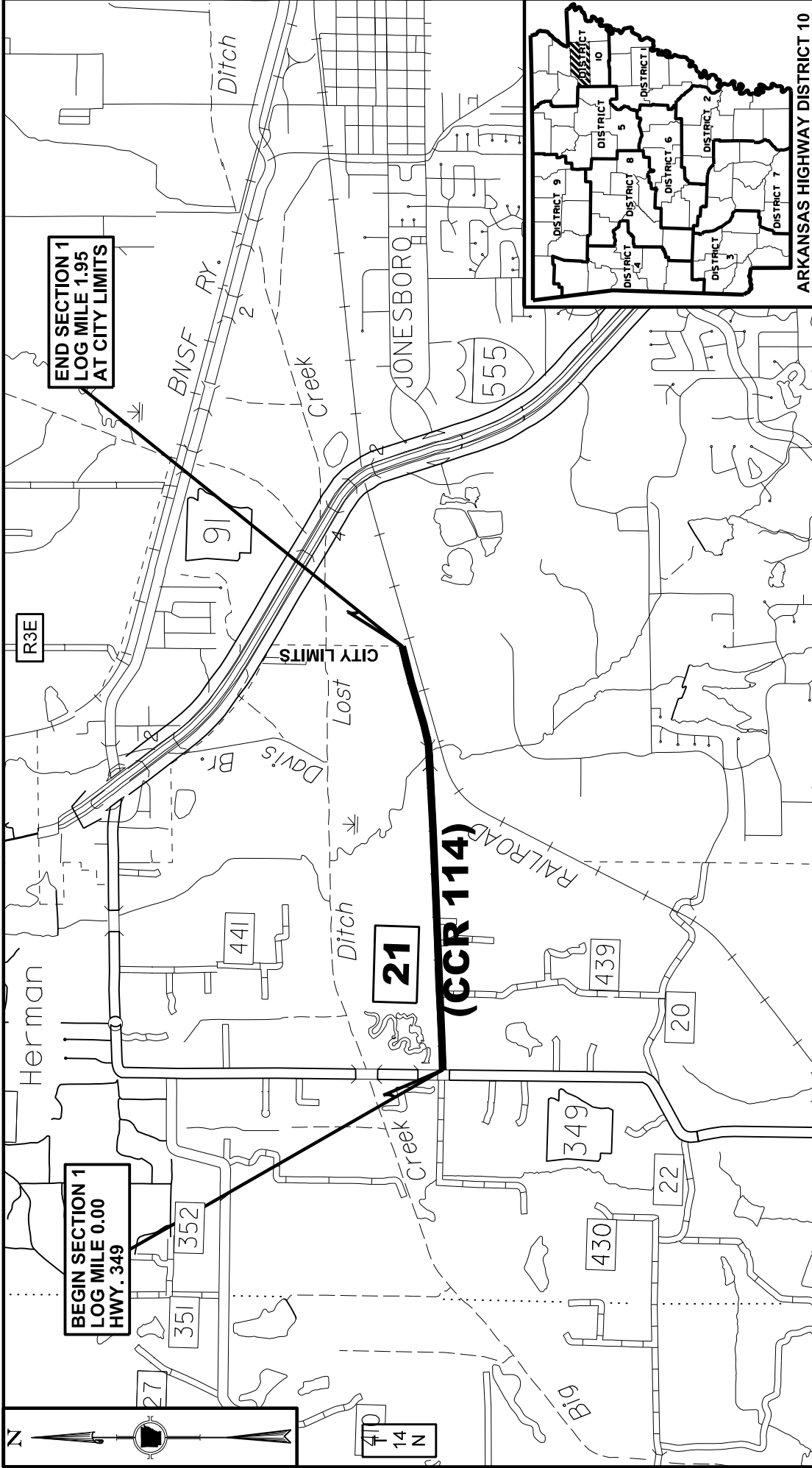
TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)

Section 604 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

The first paragraph of **Subsection 604.02 Materials (a) General** is hereby deleted and the following substituted therefor:

All work zone traffic control devices used on the project, including sign supports, barricades, traffic drums equipped with flashing lights, crash cushions, and impact attenuators, manufactured after December 31, 2019, shall comply with the requirements of the Manual for Assessing Safety Hardware (MASH). Such devices manufactured on or before December 31, 2019, and successfully tested to the requirements of National Cooperative Highway Research Program (NCHRP) Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives. The Contractor shall furnish a certification of such compliance from the manufacturer or supplier of all work zone traffic control devices prior to using the devices on the project. The certification shall state the device meets the requirements of MASH, or in the case that the device was manufactured on or before December 31, 2019, the certification shall state the device meets the requirements of NCHRP 350 or MASH. The certification shall include a copy of the Federal Highway Administration's (FHWA) approval letter with all attachments for each device. Devices shall be fabricated and installed in accordance with the plans and with the crash testing documentation provided in the FHWA approval letter which is available at:

http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/.



JOB SA1666

CRAIGHEAD CO. SEALING NO. 3 (S)

VARIOUS COUNTY ROADS

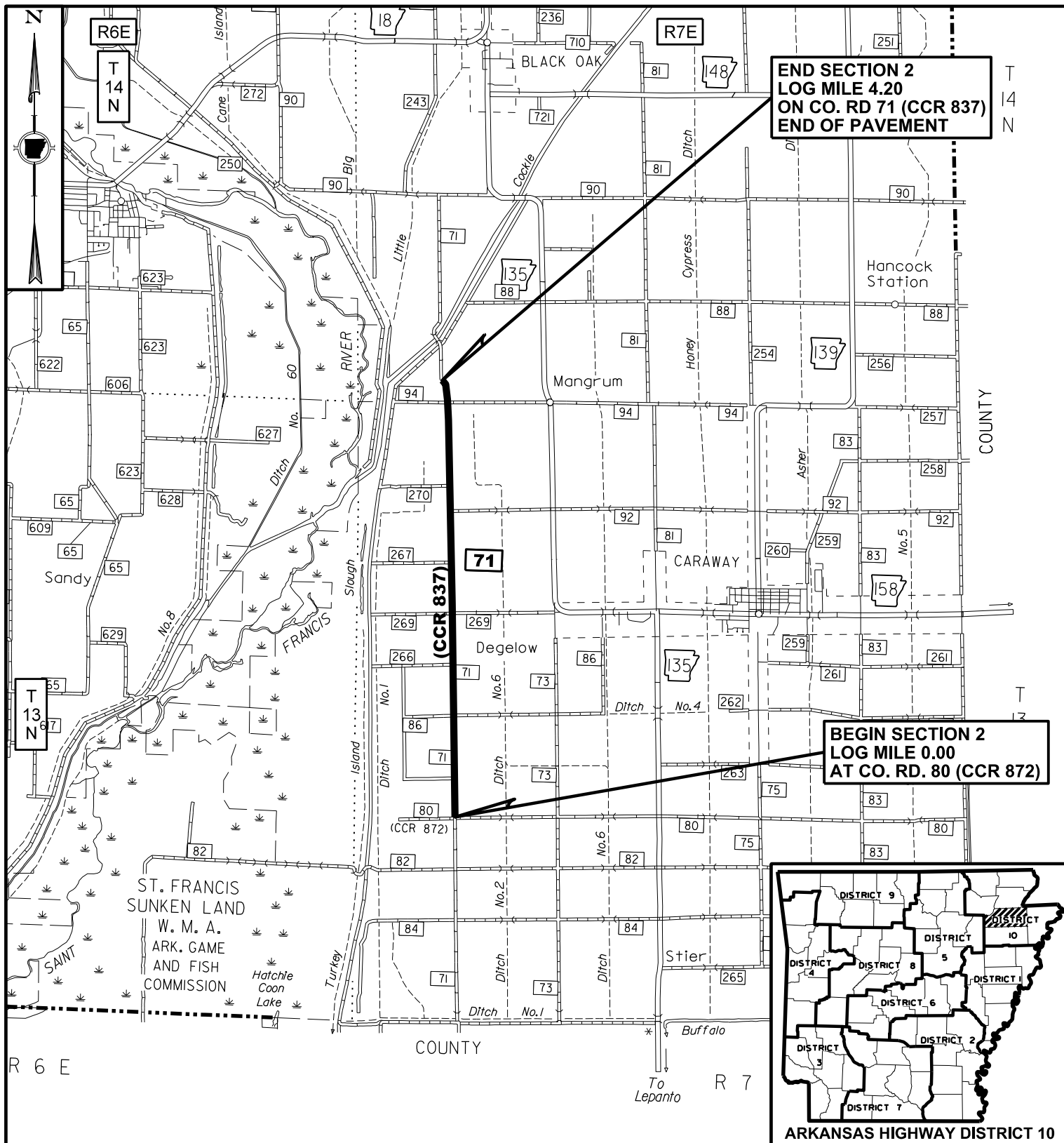
CRAIGHEAD COUNTY

Digitally signed by
Freeling, Bryan E.
Date: 2024.02.12
16:46:34-06'00'



REVISED 10-25-23
SHEET 1 OF 19

APPROXIMATE CENTER OF SECTION 1
LATITUDE: N 35° 50' 08"
LONGITUDE: W 90° 47' 01"



JOB SA1666

CRAIGHEAD CO. SEALING NO. 3 (S)

VARIOUS COUNTY ROADS

CRAIGHEAD COUNTY



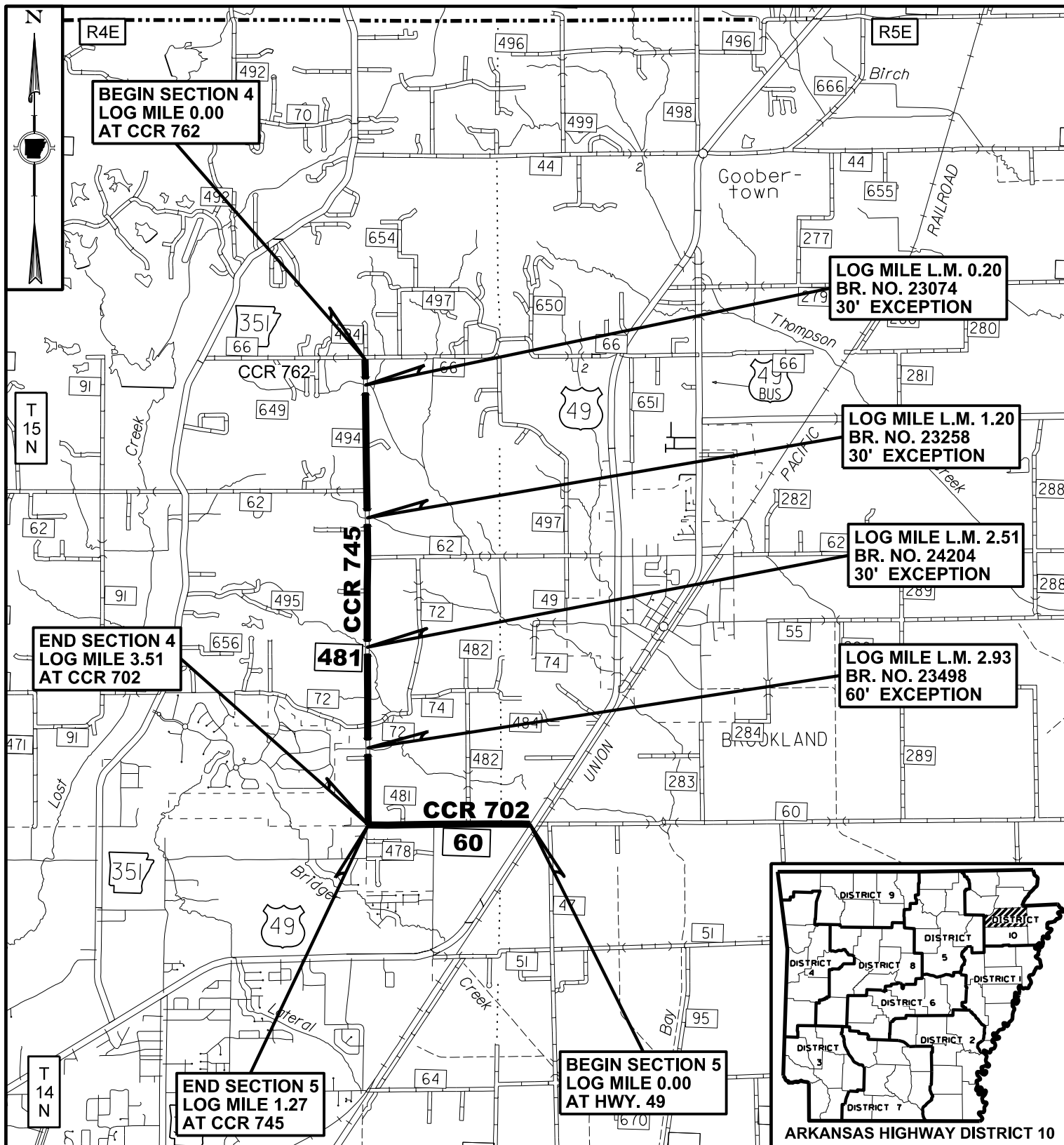
APPROXIMATE CENTER OF SECTION 2

LATITUDE: N 35° 45' 31"

LONGITUDE: W 90° 22' 32"

REVISED 10-25-23

SHEET 2 OF 19



JOB SA1666

CRAIGHEAD CO. SEALING NO. 3 (S)

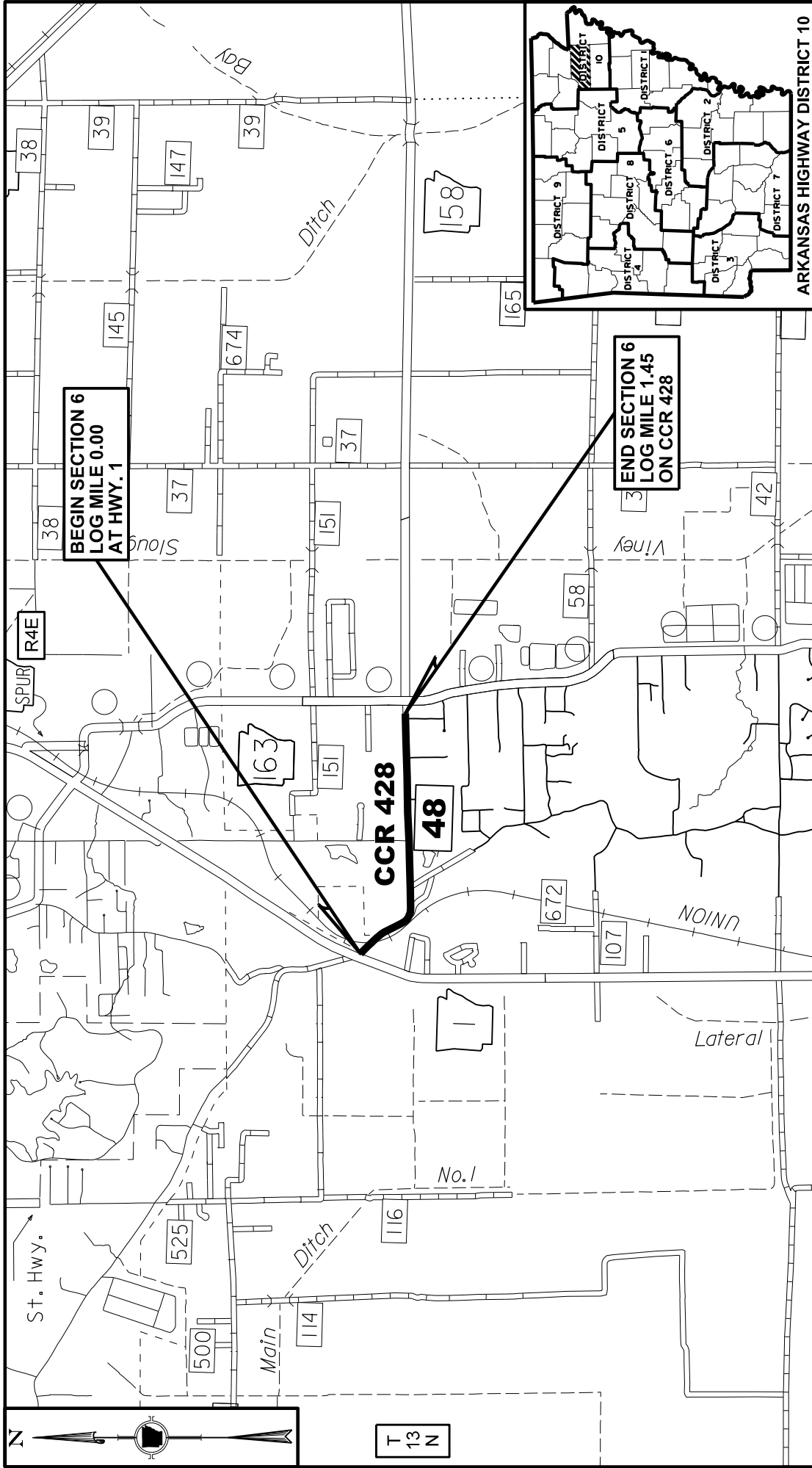
VARIOUS COUNTY ROADS

CRAIGHEAD COUNTY



APPROXIMATE CENTER OF SECTIONS 4 & 5
 LATITUDE: N 35° 54' 27"
 LONGITUDE: W 90° 37' 18"

REVISED 10-25-23
 SHEET 4 OF 19



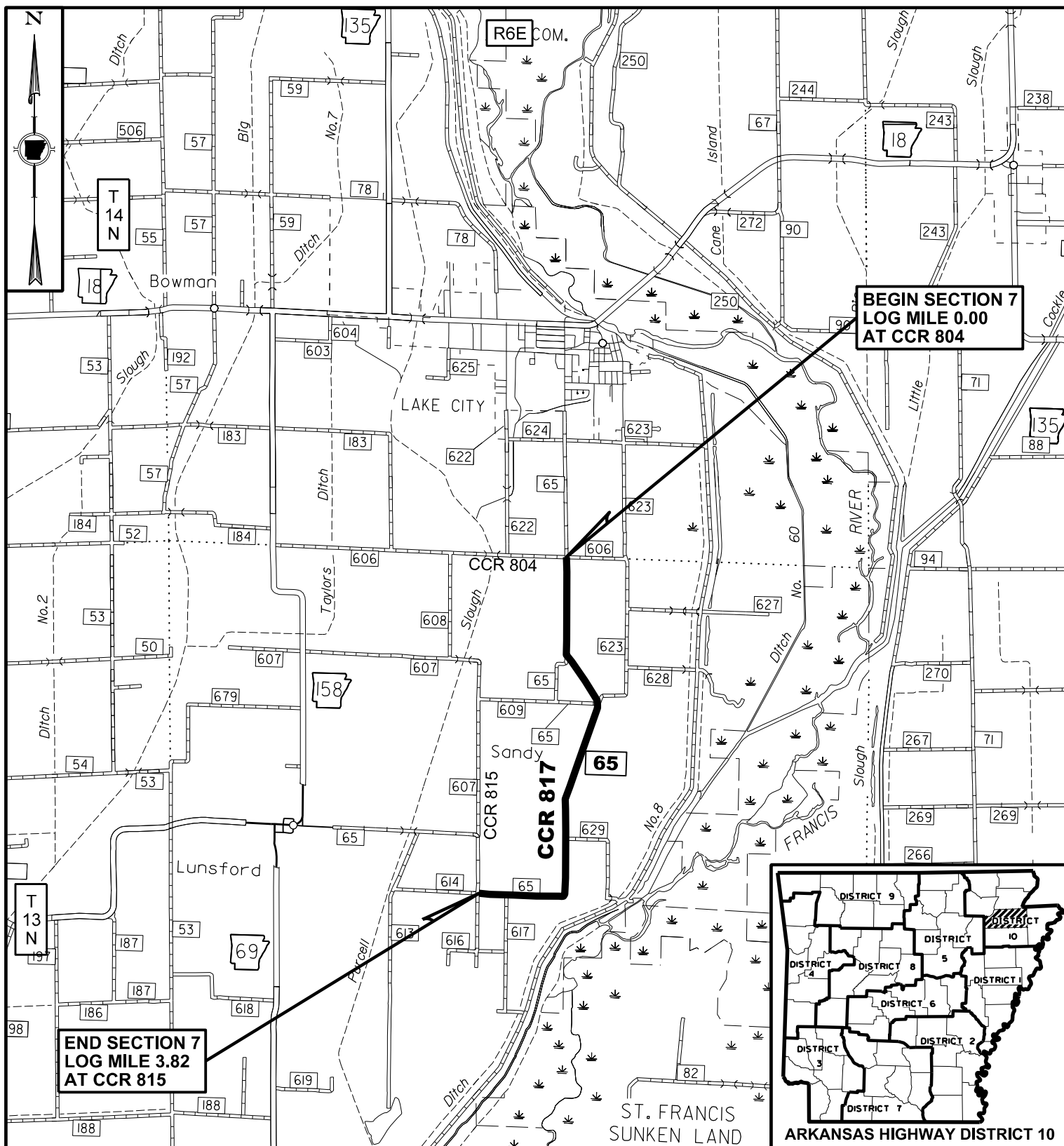
JOB SA1666

CRAIGHEAD CO. SEALING NO. 3 (S)
VARIOUS COUNTY ROADS
CRAIGHEAD COUNTY



APPROXIMATE CENTER OF SECTION 6
LATITUDE: N 35° 44' 55"
LONGITUDE: W 90° 40' 46"

REVISED 10-25-23
SHEET 5 OF 19



JOB SA1666

CRAIGHEAD CO. SEALING NO. 3 (S)
VARIOUS COUNTY ROADS
CRAIGHEAD COUNTY



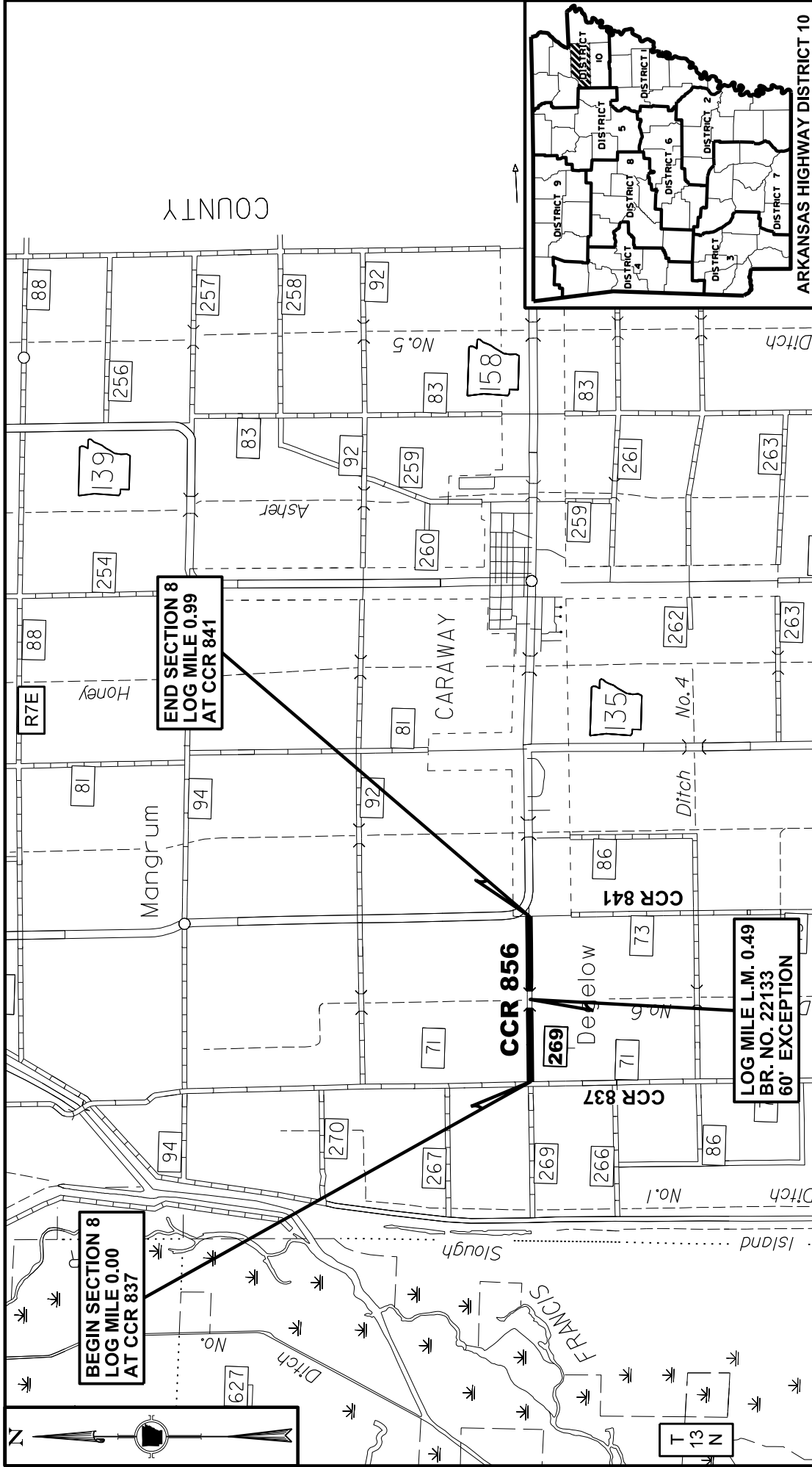
APPROXIMATE CENTER OF SECTION 7

LATITUDE: N 35° 46' 21"

LONGITUDE: W 90° 26' 01"

REVISÉD 10-25-23

SHEET 6 OF 19



JOB SA1666

CRAIGHEAD CO. SEALING NO. 3 (S)

VARIOUS COUNTY ROADS

CRAIGHEAD COUNTY



APPROXIMATE CENTER OF SECTION 8
LATITUDE: N 35° 45' 32"
LONGITUDE: W 90° 22' 00"

REVISED 10-25-23
SHEET 7 OF 19

INDEX OF SHEETS

TITLE

SHEET NO.

1 - 7	TITLE SHEETS
8	INDEX OF SHEETS AND STANDARD DRAWINGS
9	GOVERNING SPECIFICATIONS
10	GENERAL NOTES
11 - 14	TYPICAL SECTIONS OF IMPROVEMENT
15 - 18	QUANTITIES
19	SUMMARY OF QUANTITIES AND REVISIONS

ROADWAY STANDARD DRAWINGS

TITLE

DATE

DRWG. NO.

PM-1	PAVEMENT MARKING DETAILS	02-27-20
RRS-1	PAVEMENT MARKING FOR RAILROAD CROSSING	12-08-16
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	05-20-21
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-12-21

GOVERNING SPECIFICATIONS

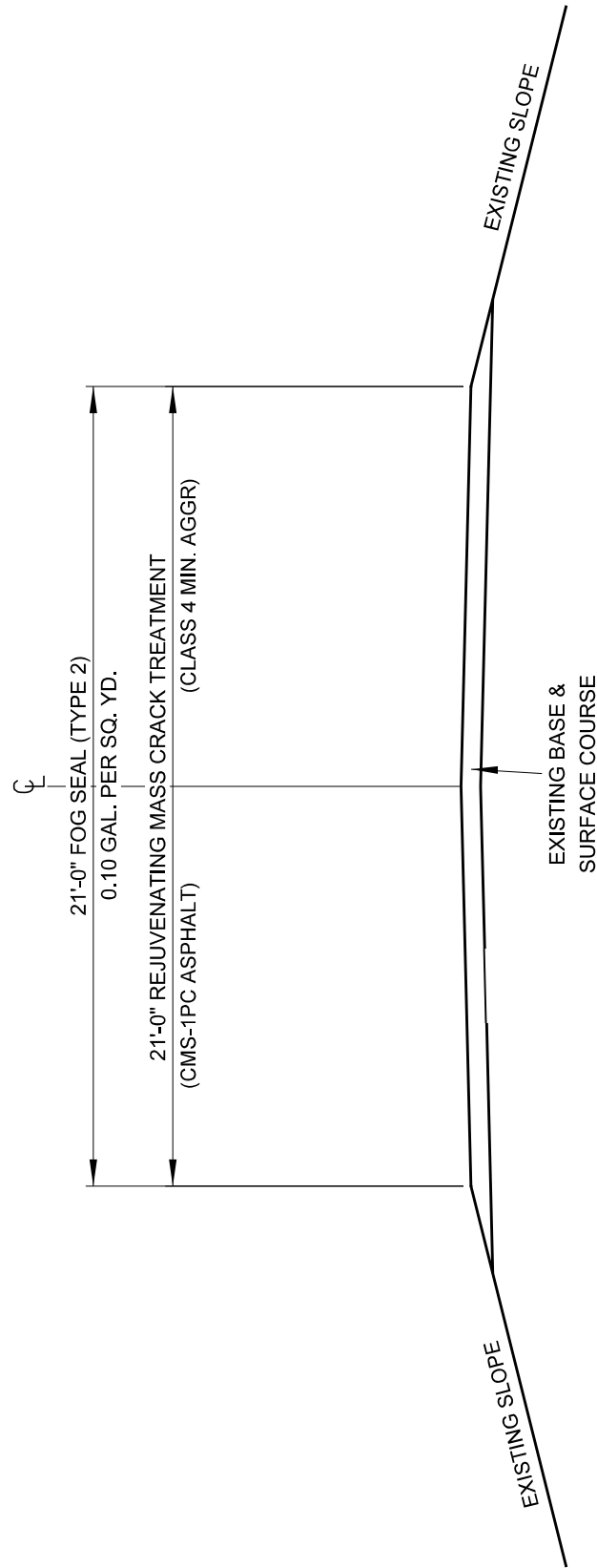
ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION,
EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS.

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
103-2	CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
105-4	MAINTENANCE DURING CONSTRUCTION
107-2	RESTRAINING CONDITIONS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
108-3	WORK ORDER FOR FIXED COMPLETION DATE CONTRACTS
306-1	QUALITY CONTROL AND ACCEPTANCE
400-2	ASPHALT SURFACE TREATMENT
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
JOB SA1666	BIDDING REQUIREMENTS AND CONDITIONS
JOB SA1666	FOG SEAL
JOB SA1666	LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB SA1666	MANDATORY ELECTRONIC CONTRACT
JOB SA1666	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB SA1666	PRICE ADJUSTMENT FOR FUEL
JOB SA1666	REJUVENATING MASS CRACK TREATMENT

GENERAL NOTES

1. THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
2. THE CONTRACTOR SHALL CLIP GRASS AND DEBRIS FROM THE EDGE OF THE EXISTING ROADWAY. THESE "CLIPPINGS" SHALL BE PULLED UP TO THE EDGE OF THE NEW PAVEMENT IN SECTIONS WHERE THE SHOULDERS ARE NOT BEING REBUILT WITH AGGREGATE OR BORROW. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK.
3. REPAIRS TO THE EXISTING SURFACE AND INSTALLATION OF PERMANENT TRAFFIC SAFETY SIGNS NOT SHOWN IN THE PLANS ARE THE RESPONSIBILITIES OF CRAIGHEAD COUNTY.

NOTE: DETAILS MAY BE MODIFIED TO MEET LOCAL
CONDITIONS AS DIRECTED BY THE ENGINEER.



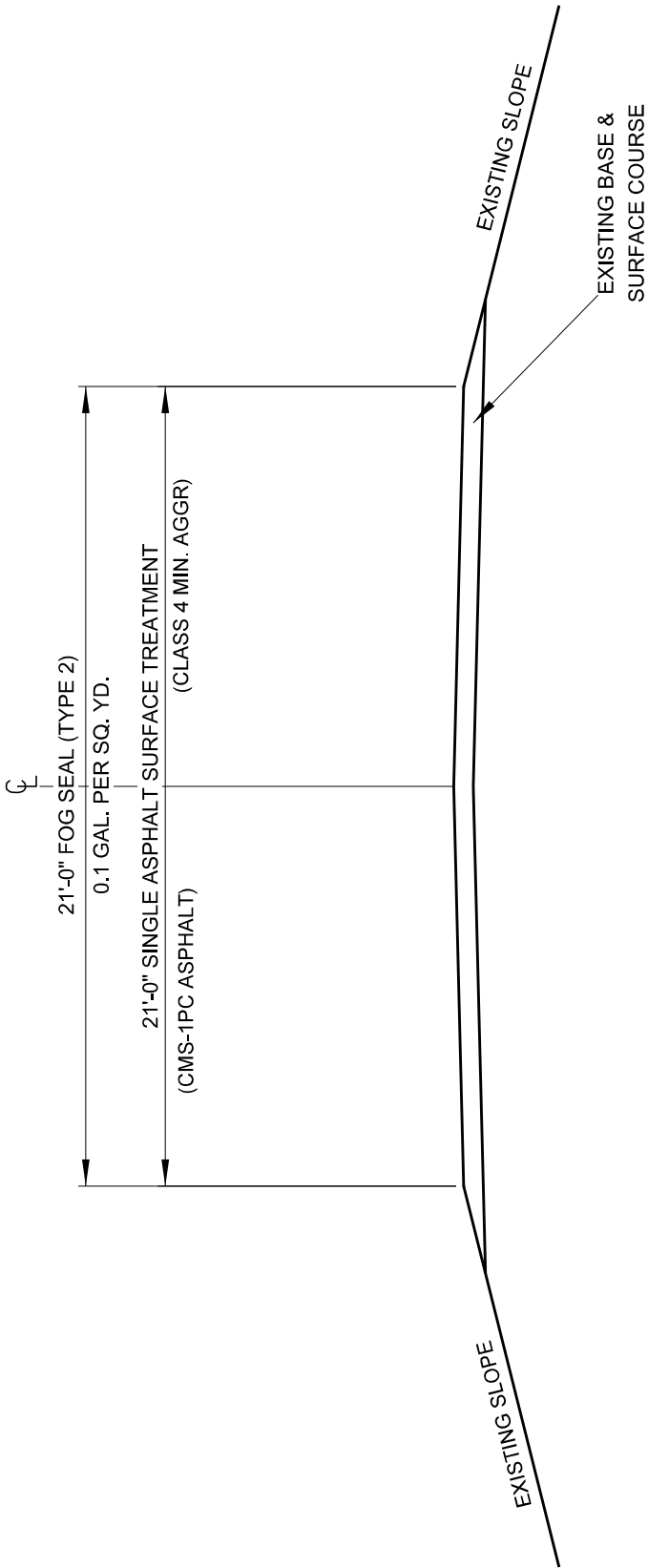
TYPICAL SECTIONS OF IMPROVEMENT

CRAIGHEAD COUNTY

- SECTION 1, CO. RD. 21 (CCR 114) - L.M. 0.00 TO 1.95**
- SECTION 2, CO. RD. 71 (CCR 837) - L.M. 0.00 TO 4.20**
- SECTION 3, CO. RD. 250 (CCR 505) - L.M. 0.00 TO 3.00**

* LOCATION AND APPLICATION RATES
ARE AT THE DIRECTION OF THE
ENGINEER. SEE QUANTITY SHEET FOR
ESTIMATED AMOUNTS.

NOTE: DETAILS MAY BE MODIFIED TO MEET LOCAL
CONDITIONS AS DIRECTED BY THE ENGINEER.

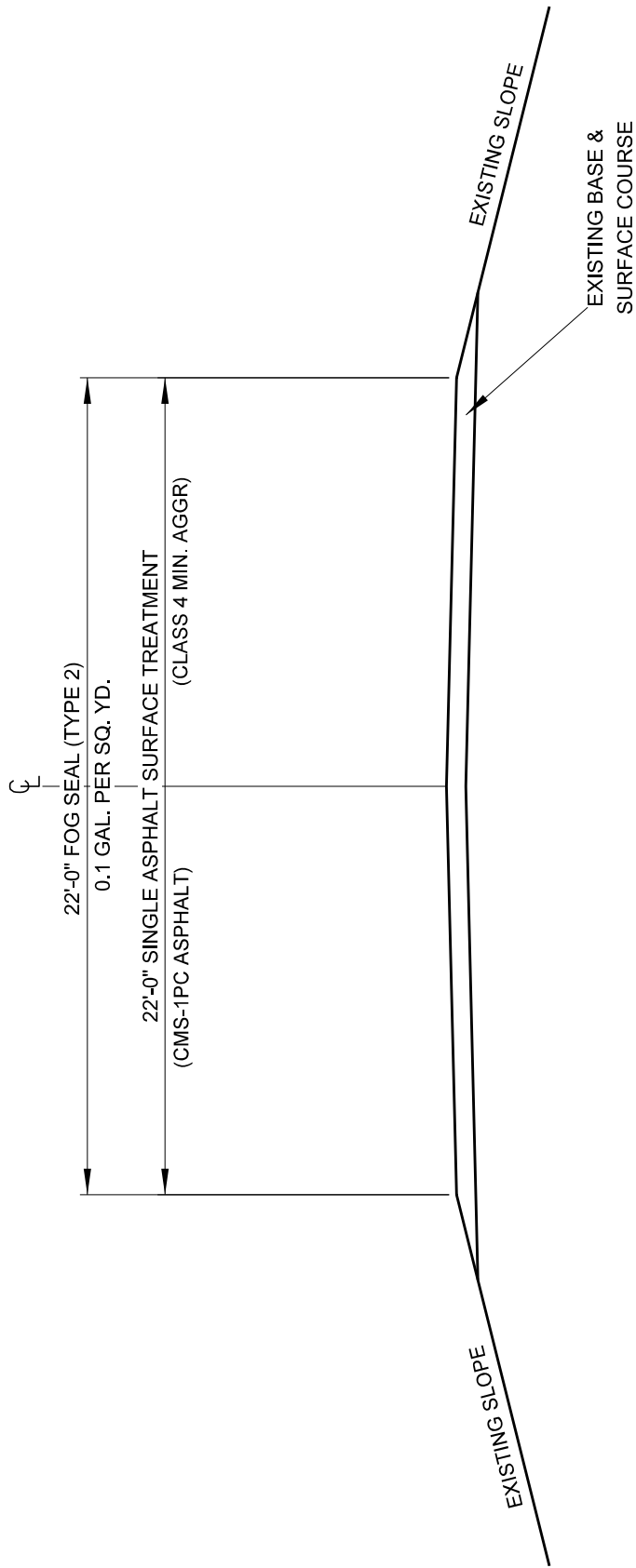


TYPICAL SECTIONS OF IMPROVEMENT

CRAIGHEAD COUNTY

- SECTION 4, CO. RDS. 494 & 481 (CCR 745) - L.M. 0.00 TO 3.51**
- SECTION 5, CO. RD. 60 (CCR 702) - L.M. 0.00 TO 1.27**
- SECTION 8, CO. RD. 269 (CCR 856) - L.M. 0.00 TO 0.99**

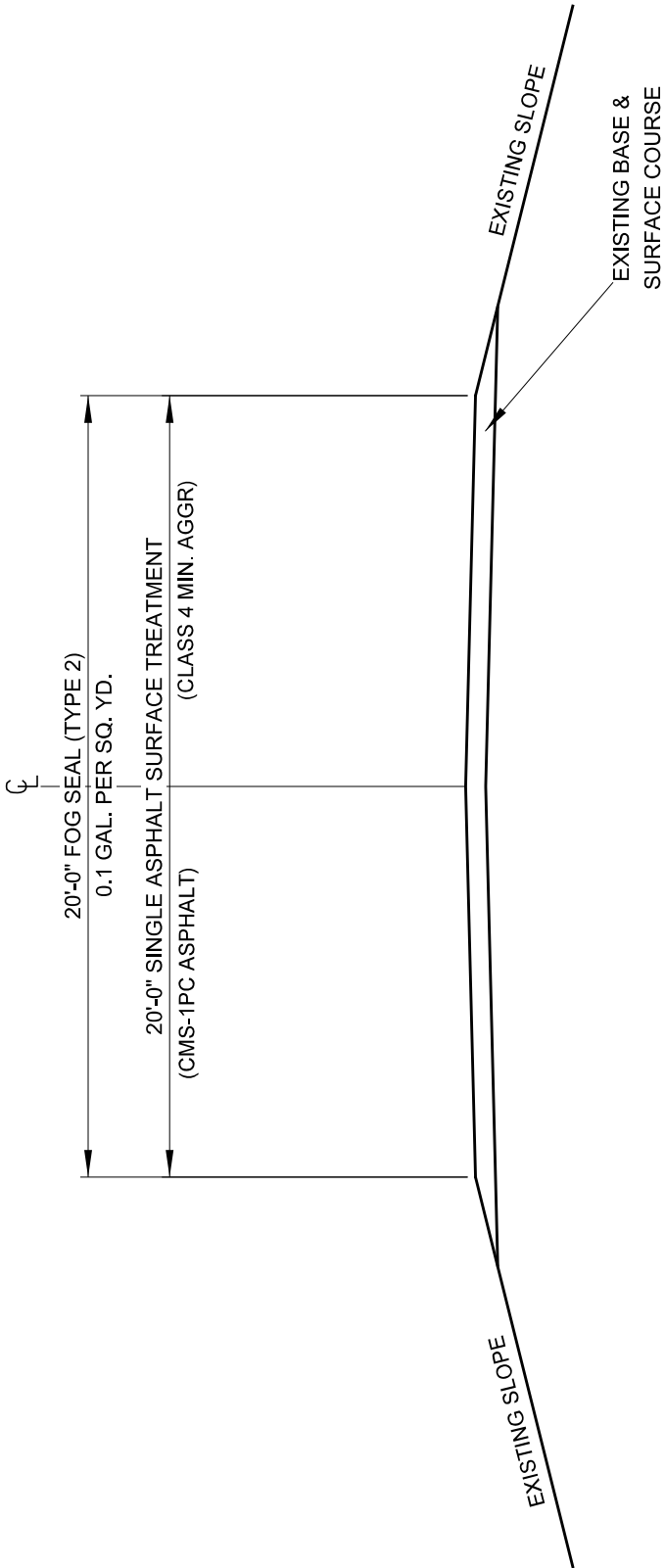
NOTE: DETAILS MAY BE MODIFIED TO MEET LOCAL
CONDITIONS AS DIRECTED BY THE ENGINEER.



TYPICAL SECTIONS OF IMPROVEMENT

CRAIGHEAD COUNTY
SECTION 6, CO. RD. 48 (CCR 428) - L.M. 0.00 TO 1.45

NOTE: DETAILS MAY BE MODIFIED TO MEET LOCAL
CONDITIONS AS DIRECTED BY THE ENGINEER.



TYPICAL SECTIONS OF IMPROVEMENT

CRAIGHEAD COUNTY
SECTION 7, CO. RD. 65 (CCR 817) - L.M. 0.00 TO 3.82

SURFACING QUANTITIES

LOCATION	LOG MILE		LENGTH	FOG SEAL (TYPE 2)	REJUVENATING MASS CRACK TREATMENT				
	FROM	TO			WIDTH	SQ. YDS.	MIN. AGGR. (CLASS 4)		ASPHALT (CMS-1PC)
							TONS	GAL.	
SECTION 1 - CO. RD. 21 (CCR 114)									
MAIN LANES	0.00	1.95	10296	2402.4	21.00	24024.0	300.3	7207.2	
SECTION 2 - CO. RD. 71 (CCR 837)									
MAIN LANES	0.00	4.20	22176	5174.4	21.0	51744.0	646.8	15523.2	
SECTION 3 - CO. RD. 250 (CCR 505)									
MAIN LANES	0.00	3.00	15840	3696.0	21.0	36960.0	462.0	11088.0	
SECTION 4 - CO. RDS. 494 & 481 (CCR 745)									
MAIN LANES	0.00	3.51	18383	4289.4	21.00	42893.7	536.2	12868.1	
(30' EXCEPTION @ BR. NO. 23074)									
(30' EXCEPTION @ BR. NO. 23258)									
(30' EXCEPTION @ BR. NO. 24204)									
(60' EXCEPTION @ BR. NO. 23498)									
SECTION 5 - CO. RD. 60 (CCR 702)									
MAIN LANES	0.00	1.27	6706	1564.7	21.0	15647.3	195.6	4694.2	
SECTION 6 - CO. RD. 48 (CCR 428)									
MAIN LANES	0.00	1.45	7656	1871.5	22.0	18714.7	233.9	5614.4	
SECTION 7 - CO. RD. 65 (CCR 817)									
MAIN LANES	0.00	3.82	20170	4482.2	20.0	44822.2	560.3	13446.7	
SECTION 8 - CO. RD. 269 (CCR 856)									
MAIN LANES	0.00	0.99	5167	1205.6	21.0	12056.3	150.7	3616.9	
(60' EXCEPTION @ BRIDGE)									
TOTALS:				24686.2			3085.8	74058.7	

USE:

3086

24686

BASIS OF ESTIMATE:

REJUVENATING EMULSIFIED ASPHALT (CMS-1PC) _____ 0.30 GAL. PER SQ. YD.

MINERAL AGGREGATE IN ASPHALT SURFACE TREATMENT (CLASS 4) _____ 25 POUND PER SQ. YD.

FOG SEAL (TYPE 2) _____ 0.10 GAL. PER SQ. YD.

RATES OF APPLICATION FOR MINERAL AGGREGATE AND ASPHALT SURFACE TREATMENT ARE FOR ESTIMATION PURPOSES ONLY.
EXACT RATES OF APPLICATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

REFLECTORIZED PAINT PAVEMENT MARKINGS

DESCRIPTION	LOG MILE		YELLOW MARKING	WHITE MARKING	RAILROAD EMBLEMS
	FROM	TO	4"	4"	EACH
SECTION 1 - CO. RD. 21 (CCR 114)					
CENTERLINE - DOUBLE			9920		
CENTERLINE - SKIP			2020		
SECTION 2 - CO. RD. 71 (CCR 837)					
CENTERLINE - SKIP	0.00	3.80	5020		
CENTERLINE - DOUBLE	3.80	4.20	4224		
SECTION 3 - CO. RD. 250 (CCR 505)					
CENTERLINE - DOUBLE			24288		
CENTERLINE - SKIP			1060		
SECTION 4 - CO. RDS. 494 & 481 (CCR 745)					
MAIN LANES - DOUBLE	0.00	3.51	37066		
EDGE LINE				37066	
SECTION 5 - CO. RD. 60 (CCR 702)					
CENTERLINE - DOUBLE	0.00	0.04	400		
CENTERLINE - SOLID/SKIP	0.04	0.11	731		
CENTERLINE - SKIP	0.11	0.80	1060		
CENTERLINE - SOLID/SKIP	0.80	0.90	660		
CENTERLINE - DOUBLE	0.90	1.27	1373		
EDGE LINE				12778	
SECTION 6 - CO. RD. 48 (CCR 428)					
MAIN LANES - DOUBLE	0.00	1.45	15312		
RAILROAD EMBLEM	0.20				1
SECTION 7 - CO. RD. 65 (CCR 817)					
MAIN LANES - DOUBLE	0.00	3.82	40340		
SECTION 8 - CO. RD. 269 (CCR 856)					
CENTERLINE - DOUBLE	0.00	0.13	1400		
CENTERLINE - SOLID/SKIP	0.13	0.17	250		
CENTERLINE - SKIP	0.17	0.82	858		
CENTERLINE - SOLID/SKIP	0.82	0.86	250		
CENTERLINE - DOUBLE	0.86	0.99	1400		
TOTALS:					
			147632	49844	1

THIS IS A LOW VOLUME ROAD AS DEFINED IN SECTION 604.03 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

JOB SA1666

REVISED 10-25-23

SHEET 18 OF 19

SUMMARY OF QUANTITIES

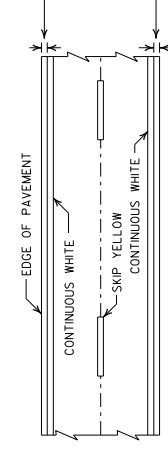
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REVISIONS

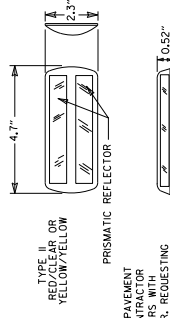
DATE	REVISION	SHEET NO.
10/25/2023	ADDED SECTIONS 4, 5, 6, 7, & 8, ADDED STANDARD DRAWING RRS-1, SS 103-2, 108-3, TOTAL SOLAR ECLIPSE SP, AND ADDED RAILROAD EMBLEM TO QUANTITIES	ALL
2/6/2024	REMOVED TOTAL SOLAR ECLIPSE SP.	4 & 19

NOTES:

1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.

2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT

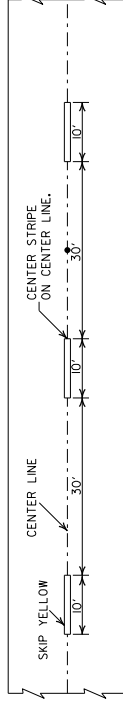
PAVEMENT EDGE LINE MARKING



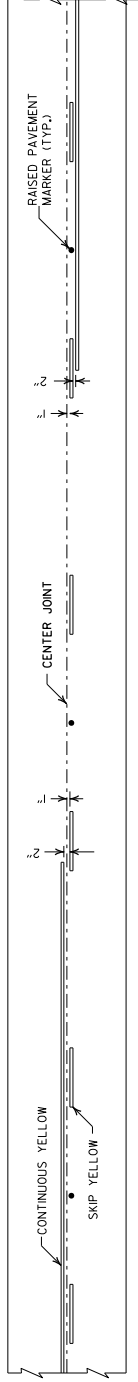
NOTE: THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.

NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ADOPT QUALIFIED PRODUCTS LIST.

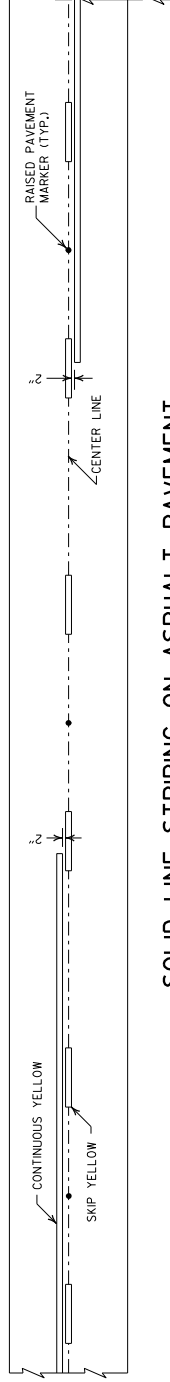
DETAIL OF STANDARD RAISED PAVEMENT MARKERS



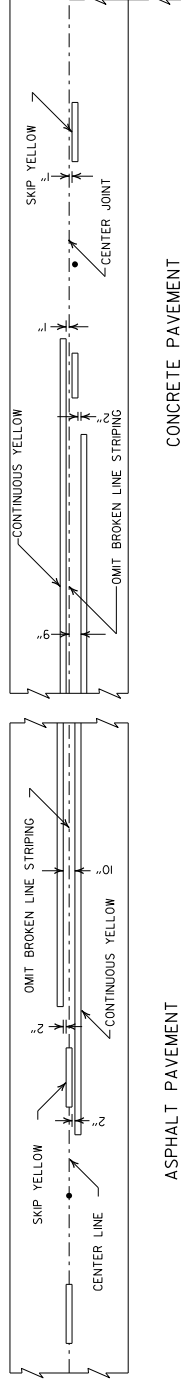
ASPHALT PAVEMENT



BROKEN LINE STRIPING

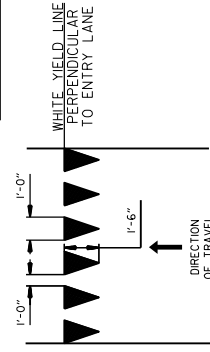
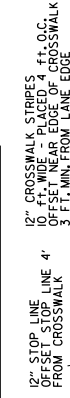


SOLID LINE STRIPING ON ASPHALT PAVEMENT



CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES



YIELD LINE DETAIL

CROSSWALK AND STOP LINE DETAILS

2-27-20	REVISED STOP LINE DETAILS	
3-11-20	REVISED STOP LINE DETAILS	
5-12-16	REVISED LINE WIDTHS, SPACING, & NOTES	
9-12-13	REVISED DETAIL OF STANDARD STOP LINE	
11-7-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PAVT MARKS	
11-19-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	REVISED CROSSWALK & STOPBAR DETAILS	
7-02-98	ADDED DETAILS OF STOPBAR PASED PAVT MARKS	
7-25-96	REVISED GENERAL NOTES	
5-30-96	REVISED NOTES 3&4 ADDED R.P.M. DRAWN	
	DATE	REVISION
		19-30-80 FILMED

ARKANSAS STATE HIGHWAY COMMISSION

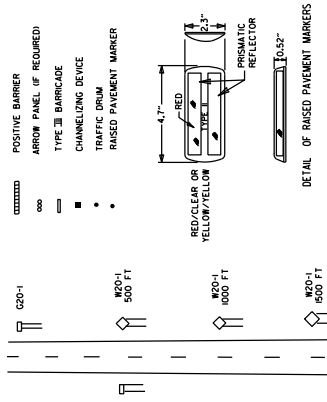
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

[illegible]

KEY:

- FLAGGER
- POSITIVE BARRIER
- ARROW PANEL IF REQUIRED
- TYPE III BARRIAGE
- CHANNELIZING DEVICE
- TRAFFIC DRUM
- RAISED PAVEMENT MARKER

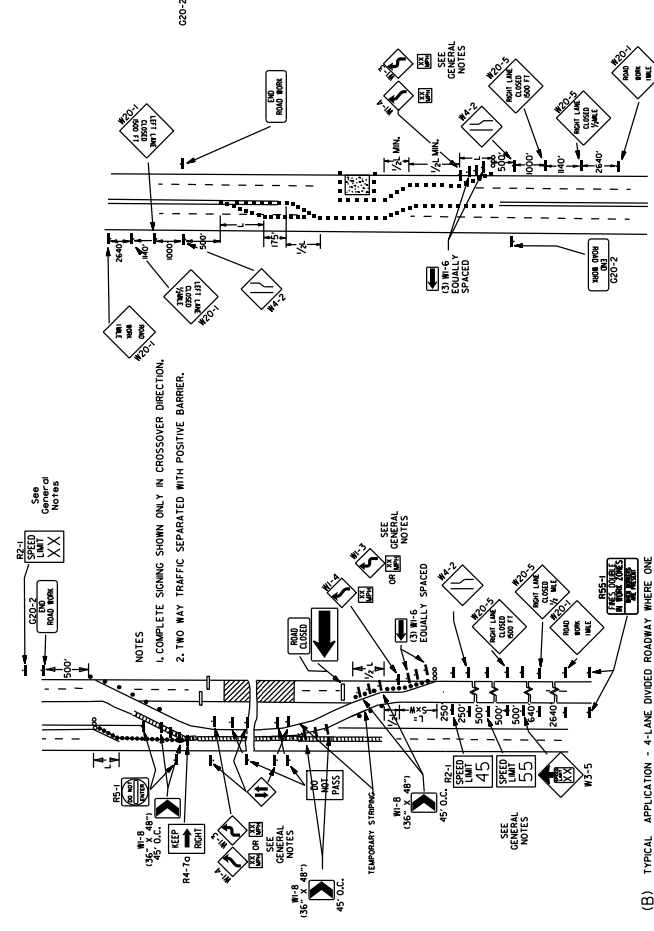


TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:
 L=SW FOR SPEEDS OF 45MPH OR MORE.
 L= W/2 FOR SPEEDS OF 40MPH OR LESS.
 WHERE:
 L= MINIMUM LENGTH OF TAPER
 W= WIDTH OF OFFSET.
 W= WIDTH OF OFFSET.

GENERAL NOTES:

1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. IF THE ADVISORY SPEED LIMIT IS DETERMINED TO BE GREATER THAN 30MPH, USE W-4 WHEN SPEED IS GREATER THAN 30MPH AND W-3 WHEN 30MPH OR LESS.
2. 30MPH OR LESS SPEED LIMIT IS 50MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-105 SHALL BE OMITTED AND THE W-3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL SPACING SHALL BE PROVIDED AS REQUIRED AT THE END OF THE WORK AREA A R2-10X1 SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. ADDITIONAL R2-105MPH SPEED LIMIT SIGNS SHALL BE OMITTED. ADDITIONAL R2-10X1 SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHALL BE 10 FEET. CHANNELIZING DEVICES SHALL BE TWO FEET FROM THE TAPER MAXIMUM SPACING SHALL BE TWO FEET.
5. THE SPEED LIMIT OR AS DIRECTED BY THE ENGINEER.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE AND PORTABLE CONSPIQUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE PAVEMENT SHALL BE INSTALLED TO DELINEATE THE WORK AREA BY A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY SPACING THE DEVICES AT MAXIMUM SPACING OF 50 FEET ALONG THE TRAFFIC SIDE OF THE ROADWAY. CHANNELIZING DEVICES SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
7. CHANNELIZING DEVICES SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERENCE TO THE ROAD CLOSURE PRODUCT'S LIST OF AVAILABLE MARKERS. CHANNELIZING DEVICES SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
8. CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERENCE TO THE ROAD CLOSURE PRODUCT'S LIST OF AVAILABLE MARKERS. CHANNELIZING DEVICES SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
9. CHANNELIZING DEVICES SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).



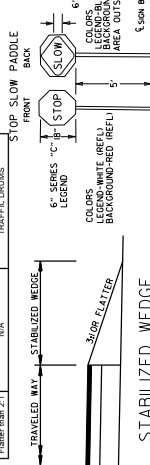
TRAFFIC CONTROL DEVICES

VERTICAL SEPARATION	LOCATION	TRAFFIC CONTROL	
		NONFREEWAY	FREEWAY
5' ±	CENTERLINE	WB-11	WB-1T ≥ 45 MPH
5' ±	CENTERLINE	WB-11 AND CENTERLINE LANE STANDARD LANE CLOSURE ^(a)	WB-1T AND TRAFFIC DRUGS ^(b)
5' ±	CENTERLINE	STANDARD LANE CLOSURE ^(a)	WB-6 AND TRAFFIC DRUGS ^(b)
4' ±	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	WB-6 AND TRAFFIC DRUGS ^(b)	WB-7T EDGE LANE STRIPPING AND TRAFFIC DRUGS ^(b)
5' ±	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	WB-7T, EDGE LANE STRIPPING, AND TRAFFIC DRUGS ^(b)	WB-7T EDGE LANE STRIPPING AND TRAFFIC DRUGS ^(b)
6' ±	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	WB-7T, EDGE LANE STRIPPING, AND TRAFFIC DRUGS ^(b)	A STABILIZED VERGE, WB-7T, EDGE LANE STRIPPING AND TRAFFIC DRUGS ^(b)
> 18'	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	WB-7T, EDGE LANE STRIPPING, AND TRAFFIC DRUGS ^(b)	PRECAST CONCRETE BARRIERS ^(c) EDGE LINES
5' ±	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	WB-7T, EDGE LANE STRIPPING, AND TRAFFIC DRUGS ^(b)	PRECAST CONCRETE BARRIERS ^(c) EDGE LINES
> 24'	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	WB-7T, EDGE LANE STRIPPING, AND TRAFFIC DRUGS ^(b)	PRECAST CONCRETE BARRIERS ^(c) EDGE LINES

VERTICAL DIFFERENTIAL		INTERSTATE	
	LOCATION		
1.	± 3"	TRAFFIC CONTROL	1. THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS NO TRAFFIC ON THE REMAINING SHOULDER WITH THEM.
2.	4"	WB+1 AND LANE STRIPING	2. VERTICAL PANELS SHALL BE USED. TO PLACE TRAFFIC PANELS ON THE REMAINING SHOULDER, PRECAST CONCRETE BARRIER WALL CAN BE USED.
3.	> 3"	WB+2 EDGE LINE STRIPING	3. IN LEU OF A STABILIZED WEDE WB+2, WB+1 AND WB+0 SOLE LINE SHALL BE USED AND WHERE DIRECTED BY THE ENGINEER.
4.	> 6"	EDGE OF SHOULDER AND TRAFFIC DRUMS®	4. A STABILIZED WEDE, WB+7 SOLE LINE SHALL BE USED. PRECAST CONCRETE BARRIER WALL, IN LEU OF PRECAST CONCRETE BARRIER WALL, W/2-5, W/2-50, AND/OR W/2-50 SLOPS SHALL BE USED. THE ROADWAY IS UNSTRUCTURED TO BE USED FOR TRAFFIC.
5.	> 3"	EDGE OF TRAVELED LANE	5. TIME LIMITATIONS MUST CONFORM TO SECTION 603 OF THE STANDARD SPECIFICATIONS FOR CONCRETE.
6.	> 2 FT	PRECAST CONCRETE BARRIER	6. PRECAST CONCRETE BARRIER SHALL BE USED.

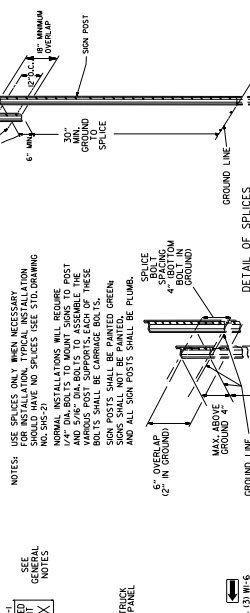
VERTICAL DIFFERENTIAL	INTERSTATE	
	LOCATION	TRAFFIC CONTROL
≤ 3"	CENTERLINE	WB-11 AND LANE STRIPING
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	WB-9, EDGE LANE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
> 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	WB-17, EDGE LANE STRIPING, AND TRAFFIC DRUMS ⁽²⁾
≤ 6"	EDGE OF TRAVELED LANE OR SHOULDER OR SHOULDER	PRECAST CONCRETE BARRIER OR CURB

INTERSTATE AND NON-INTERSTATE		
FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS



STABILIZED WEDGE

NOTE:
MATERIALS FOR THE STABILIZED
SHALL MEET THE REQUIREMENTS
SECTION 602.02 OF THE STANDARD SPECIFICATIONS.



DATE	RECEIVED	TRAFFIC CONTROL	DEVICES AND NOTES
08-25-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
08-26-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
08-27-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
08-28-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
08-29-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
08-30-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
08-31-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-01-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-02-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-03-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-04-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-05-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-06-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-07-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-08-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-09-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-10-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-11-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-12-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-13-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-14-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-15-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-16-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-17-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-18-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-19-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-20-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-21-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-22-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-23-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-24-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-25-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-26-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-27-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-28-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-29-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES
09-30-95			RECEIVED TRAFFIC CONTROL, DEVICES AND NOTES

(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.

ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION

CHANNELIZING DEVICES

• WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

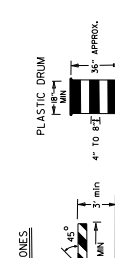
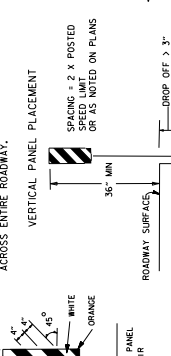


Diagram illustrating the layout of Type III Barricades for road closures. The diagram shows three barricades in a row, each 8' to 12' wide, with a 45-degree angle. The side view shows a barricade 4' high, 3' wide, and 5' long, with a 45-degree angle. Dimensions are given in feet and inches.

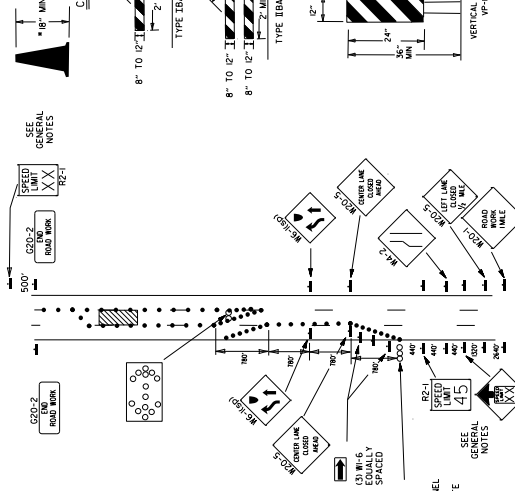


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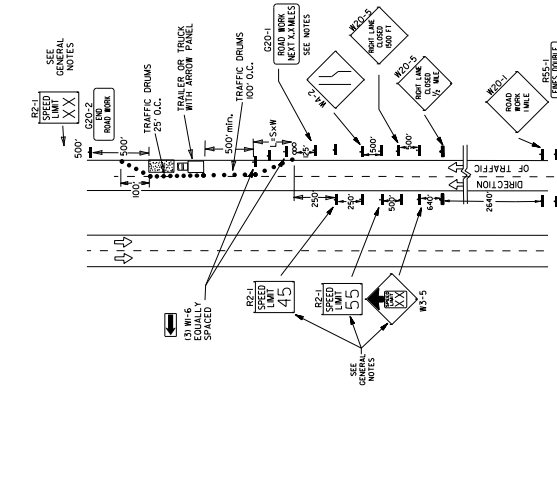
W3-5
TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE

(B) CENTER LANE IS CLOSED.



1

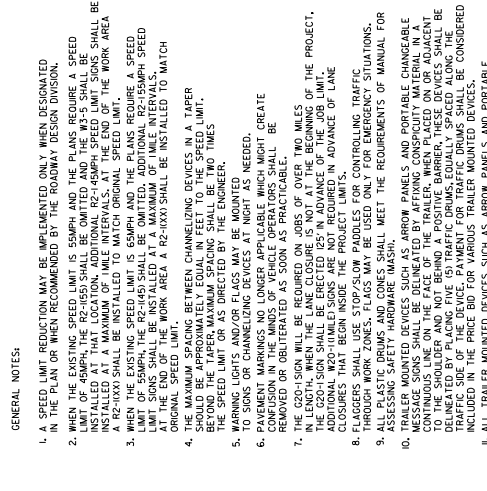
(A) TYPICAL APPLICATION - DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED



(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.

(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.



ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING
TC-3

ARKANSAS STATE HIGHWAY COMMISSION



STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION

EDITION OF 2014

PROPOSAL DOCUMENTS AND SCHEDULE OF ITEMS

ARKANSAS STATE HIGHWAY COMMISSION

PROPOSAL DOCUMENTS

PROPOSAL FOR CONSTRUCTING:

THE PURPOSE OF THIS PROJECT IS TO SEAL APPROXIMATELY 20.15 MILES OF VARIOUS COUNTY ROADS IN CRAIGHEAD COUNTY. THIS PROJECT CONSISTS OF FOG SEAL, ASPHALT SURFACE TREATMENT, MAINTENANCE OF TRAFFIC, PAVEMENT MARKING, AND MISC. ITEMS.

County Road No. VARIOUS in **CRAIGHEAD** County, Arkansas, in accordance with Standard Specifications for Highway Construction, Edition of 2014; the Supplemental Specifications and Special Provisions attached hereto; and the Construction Plans on file in the Office of the State Highway Commission, designated as

Job **SA1666** **STATE AID COUNTY JOB (CODE 9970)**

Job Name: **CRAIGHEAD CO. SEALING NO. 3 (S)**

said project being approximately **20.15 miles in length.**

Proposal received until 1:30 p.m. on April 10, 2024

TO THE ARKANSAS STATE HIGHWAY COMMISSION:

Gentlemen: By submission of your bid, you agree to the following:

It is hereby certified that a careful examination has been made of the Plans, Specifications, Supplemental Specifications, Special Provisions, and Form of Contract and the site of the work throughout its whole extent. On the basis of the Plans, Specifications, Supplemental Specifications, Special Provisions, and Form of Contract, the bidder proposes to furnish all necessary machinery, equipment, tools, labor and other means of construction, and to furnish all materials as specified, in the manner and at the time prescribed, and to finish the entire project within the time hereinafter proposed. The bidder understands that the quantities of work mentioned herein are approximate only, and are subject to increase or decrease, and hereby proposes to perform all quantities of work, whether increased or decreased, in accordance with the provisions of the Specifications, and at the unit prices bid in the attached Schedule of Items.

Receipt is hereby specifically acknowledged, and complete examination expressly guaranteed of the following:

1. Standard Specifications for Highway Construction, Edition of 2014.
2. Supplemental Specifications.
3. Special Provisions.
4. Proposal Documents.
5. Schedule of Items.
6. Construction Plans.

The bidder further proposes to perform all Extra Work that may be required, on the basis provided in the Specifications, and to give such work personal attention, and to secure economical performance.

The bidder further proposes to execute the contract agreement, and to furnish satisfactory bonds within ten days after he has received notice that he has been awarded the contract. The bidder further agrees to begin work when ordered by the Engineer, or within ten days thereafter, and to complete the work **on or before October 11, 2024.**

PROPOSAL DOCUMENTS

(Continued)

The bidder also proposes to furnish a surety Performance bond or bonds in a sum equal to the full amount of the contract and a surety Payment bond or bonds in a sum equal to 80% of the full amount of the contract. These bonds shall not only serve to guarantee the completion of the work and payment of all bills and claims by the bidder, but also to guarantee the excellence of both workmanship and material until the work is finally accepted and the provisions of the Plans, Specifications and Special Provisions fulfilled.

The bidder shall furnish a Proposal Guaranty in the form specified in Subsection 102.09 of the Specifications, in the amount of five percent (5%) of the total amount bid, which is submitted as a guarantee of the good faith of the proposal, and that the Bidder will enter into written contract, as provided, to do the work should the award be made to him; and it is hereby agreed that if, at any time other than as provided in Subsection 102.11 of the Standard Specifications, Withdrawal/Modification of Proposals, the bidder should withdraw his proposal, or should fail to execute the contract and furnish satisfactory bonds as herein provided, if his proposal is accepted, the Arkansas State Highway Commission, in either of such events, shall be entitled and is hereby given the right to retain the Proposal Guaranty, not as a penalty, but as liquidated damages, it being understood and agreed by the bidder that the amount of the Proposal Guaranty is a reasonable sum to be fixed as liquidated damages considering the damages the Arkansas State Highway Commission will sustain in the event of the bidder's withdrawal of his proposal, or failure to execute the contract and furnish satisfactory bonds if his proposal is accepted, and said amount is herein agreed upon and fixed as liquidated damages because of the difficulty of ascertaining the exact amount of damage that may be sustained by reason of the above set out circumstances.

Arkansas Department of Transportation
Schedule of Items

State Job No.: SA1666

Job Name: CRAIGHEAD CO. SEALING NO. 3 (S)

Federal Aid Project: 9970SA1666

Date Estimated: 3/29/2023

Date Revised: 2/6/2024

Line Number	Item Code and Description	Estimated Quantity	Unit Bid Price	Price Extension
Section 01 - ROADWAY ITEMS				
0001	SP - FOG SEAL (TYPE 2)	24,686.000 GAL		
0002	SPSS402 - MINERAL AGGREGATE IN ASPHALT SURFACE TREATMENT (CLASS 4)	3,086.000 TON		
0003	SP - REJUVENATING EMULSIFIED ASPHALT (CMS-1PC)	74,059.000 GAL		
0004	SS&603 - MAINTENANCE OF TRAFFIC	1.000 L.S.		
0005	SS&604 - SIGNS	1,260.000 SQFT		
0006	718 - REFLECTORIZED PAINT PAVEMENT MARKING WHITE (4")	49,844.000 LF		
0007	718 - REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (4")	147,632.000 LF		
0008	718 - REFLECTORIZED PAINT PAVEMENT MARKING (RAILROAD EMBLEMS)	1.000 EACH		
			Section 01 Total:	
			Subtotal:	
0009	601 - MOBILIZATION (UNIT BID AMOUNT MAY NOT EXCEED 5% OF SUBTOTAL)	1.000 L.S.		
			Bid Total:	

ARKANSAS DEPARTMENT OF TRANSPORTATION
SUPPLEMENT TO PROPOSAL
ANTI-COLLUSION AND DEBARMENT CERTIFICATION

**FAILURE TO EXECUTE AND SUBMIT THIS CERTIFICATION SHALL RENDER THIS
BID NONRESPONSIVE AND NOT ELIGIBLE FOR AWARD CONSIDERATION.**

As a condition precedent to the acceptance of the bidding document for this project, the bidder shall file this Affidavit executed by, or on behalf of the person, firm, association, or corporation submitting the bid. The original of this Affidavit shall be filed with the Arkansas Department of Transportation **at the time proposals are submitted.**

A F F I D A V I T

I hereby certify, under penalty of perjury under the laws of the United States and/or the State of Arkansas, that the bidder listed below has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the submitted bid for this project, is not presently barred from bidding in any other jurisdiction as a result of any collusion or any other action in restraint of free competition, and that the foregoing is true and correct.

Further, that except as noted below, the bidder, or any person associated therewith in the capacity of owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the administration of Federal funds:

- a. is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal, State, or Local agency;
- b. has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal, State, or Local agency within the past 3 years;
- c. does not have a proposed debarment pending; and
- d. has not been indicted, convicted, or had an adverse civil judgment rendered by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

ARKANSAS DEPARTMENT OF TRANSPORTATION
SUPPLEMENT TO PROPOSAL
ANTI-COLLUSION AND DEBARMENT CERTIFICATION

**FAILURE TO EXECUTE AND SUBMIT THIS CERTIFICATION SHALL RENDER THIS
BID NONRESPONSIVE AND NOT ELIGIBLE FOR AWARD CONSIDERATION.**

EXCEPTIONS:

APPLIED TO	INITIATING AGENCY	DATES OF ACTION

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

Job No.	
	(Name of Bidder)
F.A.P. No.	
	(Signature)
(Date Executed)	(Title of Person Signing)

The following Notary Public certification is **OPTIONAL** and may or may not be completed at the contractor's discretion.

State of _____)
County of _____)ss.

_____, being duly sworn, deposes and says that he is

_____ of _____
(Title) (Name of Bidder)

and that the above statements are true and correct.

Subscribed and Sworn to before me this _____ day of _____, 20____.
My commission expires: _____.

(NOTARY SEAL)

(Notary Public)

ARKANSAS DEPARTMENT OF TRANSPORTATION
SUPPLEMENT TO PROPOSAL
RESTRICTION OF BOYCOTT OF ISRAEL CERTIFICATION

Pursuant to Arkansas Code Annotated § 25-1-503, a public entity **shall not** enter into a contract valued at \$1,000 or greater with a company unless the contract includes a written certification that the person or company is not currently engaged in, and agrees for the duration of the contract not to engage in, a boycott of Israel.

By signing below, the Contractor agrees and certifies that they do not boycott Israel and will not boycott Israel during the remaining aggregate term of the contract.

If a company does boycott Israel, see Arkansas Code Annotated § 25-1-503.

Bid Number/Contract Number	
Description of product or service	
Contractor name	

Contractor Signature: _____

Date: _____