

MDOT Use Only  
Checked \_\_\_\_\_  
Loaded \_\_\_\_\_  
Keyed \_\_\_\_\_

7 -



SM No. CMP5501620061

# PROPOSAL AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF  
(STATE DELEGATED)

7

Overlay approximately 3 miles of SR 501 from I-20 to the RR Crossing in Forest,  
known as State Project No. MP-5501-62(006) / 304356301 in Scott County.  
Project Completion: November 16, 2012

## NOTICE

**BIDDERS MUST PURCHASE A BOUND PROPOSAL  
FROM MDOT CONTRACT ADMINISTRATION DIVISION  
TO BID THIS PROJECT.**

Electronic addendum updates will be posted on [www.gomdot.com](http://www.gomdot.com)

**SECTION 900  
OF THE CURRENT  
2004 STANDARD SPECIFICATIONS  
FOR ROAD AND BRIDGE CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
JACKSON, MISSISSIPPI**

**BIDDER CHECK LIST  
(FOR INFORMATION ONLY)**

- \_\_\_\_\_ All unit prices and item totals have been entered in accordance with Subsection 102.06 of the Mississippi Standard Specifications for Road and Bridge Construction.
- \_\_\_\_\_ If the bid sheets were prepared using the Electronic Bid System, proposal sheets have been stapled and inserted into the proposal package.
- \_\_\_\_\_ First sheet of SECTION 905--PROPOSAL has been completed.
- \_\_\_\_\_ Second sheet of SECTION 905--PROPOSAL has been completed and signed.
- \_\_\_\_\_ Addenda, if any, have been acknowledged. Second sheet of Section 905 listing the addendum number has been substituted for the original second sheet of Section 905. Substituted second sheet of Section 905 has been properly completed, signed, and added to the proposal.
- \_\_\_\_\_ DBE/WBE percentage, when required by contract, has been entered on last sheet of the bid sheets of SECTION 905 - PROPOSAL.
- \_\_\_\_\_ Form OCR-485, when required by contract, has been completed and signed.
- \_\_\_\_\_ The last sheet of the bid sheets of SECTION 905--PROPOSAL has been signed.
- \_\_\_\_\_ Combination Bid Proposal of SECTION 905--PROPOSAL has been completed for each project which is to be considered in combination (See Subsection 102.11).
- \_\_\_\_\_ Equal Opportunity Clause Certification, when included in contract, has been completed and signed.
- \_\_\_\_\_ The Certification regarding Non-Collusion, Debarment and Suspension, etc. has been executed in duplicate.
- \_\_\_\_\_ A certified check, cashier's check or bid bond payable to the State of Mississippi in the principal amount of 5% of the bid has been included with project number identified on same. A bid bond has been signed by the bidder and has also been signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent for the Surety with Power of Attorney attached.
- \_\_\_\_\_ **ON FEDERAL FUNDED PROJECTS, the Notice To Bidders regarding DUNS Requirements has been completed and included in the contract documents.**
- \_\_\_\_\_ Non-resident Bidders: ON STATE FUNDED PROJECTS ONLY, a copy of the current laws regarding any preference for local Contractors from State wherein domiciled has been included. See Subsection 103.01, Mississippi Standard Specifications for Road and Bridge Construction, and Section 31-7-47, MCA, 1972 regarding this matter.

Return the proposal and contract documents in its entirety in a sealed envelope. DO NOT remove any part of the contract documents; exception - an addendum requires substitution of second sheet of Section 905. A stripped proposal is considered as an irregular bid and will be rejected.

Failure to complete any or all of the applicable requirements will be cause for the proposal to be considered irregular.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

## TABLE OF CONTENTS

### PROJECT: MP-5501-62(006) / 304356301 -- Scott County

901--Advertisement

904--Notice to Bidders:      Governing Specs. - # 1  
   Final Cleanup - # 3  
   Fiber Reinforced Concrete - # 640  
   Payroll Requirements - # 883  
   Errata & Modifications to 2004 Standard Specifications - # 1405  
   Railway-Highway Provision w/ Supplement - # 1727  
   Safety Apparel - # 1808  
   Federal Bridge Formula - # 1928  
   Non-Quality Control/Quality Assurance Concrete - # 2818  
   Reduced Speed Limit Signs - # 2937  
   Alternate Asphalt Mixture Bid Items - # 3039  
   Temporary Traffic Paint - # 3131  
   Warm Mix Asphalt (WMA) - # 3242  
   Questions Regarding Bidding - # 3425  
   Safety Edge - # 3585  
   Type III Barricade Rails - # 3655  
   Use of Precast Drainage Units - # 3704  
   Standard Drawings - # 3770  
   Petroleum Products Base Price - # 3893  
   Contract Time - # 3927  
   Scope of Work - # 3928  
   Project Number Change - # 3951

907-101-4:      Definitions  
907-102-8:      Bidding Requirements and Conditions  
907-103-8:      Award and Execution of Contract  
907-104-4:      Disposal of Materials  
907-105-6:      Control of Work, W/ Supplement  
907-107-9:      Legal Relations & Responsibility to Public, W/ Supplement  
907-108-24:     Prosecution and Progress  
907-109-5:      Measurement and Payment, W/ Supplement  
907-225-3:      Grassing  
907-304-12:     Granular Courses  
907-401-2:      Hot Mix Asphalt (HMA), W/ Supplement  
907-401-4:      Warm Mix Asphalt (WMA), W/ Supplement  
907-403-4:      Hot Mix Asphalt (HMA), W/ Supplement  
907-403-9:      Warm Mix Asphalt (WMA), W/ Supplement  
907-407-1:      Tack Coat  
907-601-1:      Structural Concrete  
907-603-8:      Culverts & Storm Drains  
907-618-4:      Placement of Temporary Traffic Stripe  
907-626-15:     Thermoplastic Traffic Marking

-- CONTINUED ON NEXT PAGE --

**PAGE 2 - PROJECT: MP-5501-62(006) / 304356301 -- Scott County**

- 907-626-22: Double Drop Thermoplastic Markings
- 907-631-1: Flowable Fill
- 907-701-4: Hydraulic Cement
- 907-702-3: Polymer Modified Cationic Emulsified Asphalt
- 907-703-9: Aggregates, W/Supplement
- 907-708-5: Non Metal Drainage Structures, W/ Supplement
- 907-709-1: Metal Pipe
- 907-710-1: Fast Drying Solvent Traffic Paint
- 907-711-4: Synthetic Structural Fiber Reinforcement
- 907-713-2: Admixtures for Concrete, W/ Supplement
- 907-714-6: Miscellaneous Materials
- 907-715-3: Roadside Development Materials
- 907-720-1: Pavement Marking Materials
- 907-804-13: Concrete Bridges and Structures, W/ Supplement

SECTION 905 - PROPOSAL,  
PROPOSAL BID SHEETS,  
COMBINATION BID PROPOSAL,  
STATE BOARD OF CONTRACTORS REQUIREMENTS,  
CERTIFICATION REGARDING NON-COLLUSION, DEBARMENT AND SUSPENSION,  
SECTION 902 - CONTRACT FORM, AND SECTION 903 - CONTRACT BOND FORM,

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

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

## SECTION 901 - ADVERTISEMENT

Sealed bids will be received by the Mississippi Transportation Commission in the Office of the Contract Administration Engineer, Room 1013, Mississippi Department of Transportation Administration Building, 401 North West Street, Jackson, Mississippi, until 10:00 o'clock A.M., Tuesday, July 24, 2012, and shortly thereafter publicly opened on the Sixth Floor for:

Overlay approximately 3 miles of SR 501 from I-20 to the RR Crossing in Forest, known as State Project No. MP-5501-62(006) / 304356301 in Scott County.

The attention of bidders is directed to the predetermined minimum wage rate set by the U. S. Department of Labor under the Fair Labor Standards Act.

The Mississippi Department of Transportation hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, age, disability, religion or national origin in consideration for an award.

The specifications are on file in the offices of the Mississippi Department of Transportation.

Bid proposals must be acquired from the MDOT Contract Administration Division. These proposal are available at a cost of Ten Dollars (\$10.00) per proposal. Specimen proposals are also available at the MDOT Contract Administration Division at a cost of Ten Dollars (\$10.00) per proposal, or can be viewed or downloaded at no cost at [www.gomdot.com](http://www.gomdot.com).

Bid bond, signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent, with Power of Attorney attached, a Cashier's check or Certified Check for five (5%) percent of bid, payable to STATE OF MISSISSIPPI, must accompany each proposal.

The attention of bidders is directed to the provisions of Subsection 102.07 pertaining to irregular proposals and rejection of bids.

MELINDA L. MCGRATH  
EXECUTIVE DIRECTOR

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 1**

**CODE: (IS)**

**DATE: 05/03/2004**

**SUBJECT: Governing Specifications**

The current (2004) Edition of the Standard Specifications for Road and Bridge Construction adopted by the Mississippi Transportation Commission is made a part hereof fully and completely as if it were attached hereto, except where superseded by special provisions, or amended by revisions of the Specifications contained herein. Copies of the specification book may be purchased from the MDOT Construction Division.

A reference in any contract document to controlling requirements in another portion of the contract documents shall be understood to apply equally to any revision or amendment thereof included in the contract.

In the event the plans or proposal contain references to the 1990 Edition of the Standard Specifications for Road and Bridge Construction, it is to be understood that such references shall mean the comparable provisions of the 2004 Edition of the Standard Specifications.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 3**

**CODE: (SP)**

**DATE: 05/03/2004**

**SUBJECT: Final Clean-Up**

Immediately prior to final inspection for release of maintenance, the Contractor shall pick up, load, transport and properly dispose of all litter from the entire highway right-of-way that is within the termini of the project.

Litter shall include, but not be limited to, solid wastes such as glass, paper products, tires, wood products, metal, synthetic materials and other miscellaneous debris.

Litter removal is considered incidental to other items of work and will not be measured for separate payment.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

| SECTION 904 - NOTICE TO BIDDERS NO. 640

CODE: (IS)

| DATE: 09/26/2005

SUBJECT: Fiber Reinforced Concrete

Bidders are hereby advised that synthetic structural fibers meeting the requirements of Subsection 907-711.04 may be used in lieu of wire mesh in some items of construction. Substitution of fibers for wire mesh will be allowed in the construction of paved ditches, paved flumes, paved inlet apron, driveways, guard rail anchors and pile encasements. Substitution in any other items of work must be approved by the State Construction Engineer prior to use.



## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 883**

**CODE: (IS)**

**DATE: 04/28/2006**

**SUBJECT: Payroll Requirements**

Bidders are hereby advised that the Contractor and Subcontractor(s) are required to submit payroll information to the Project Engineers on a weekly basis.

On Federal-Aid Projects, CAD-880, CAD-881 and certified payroll submissions are required each week the Contractor or a Subcontractor performs work on the project. This is addressed in Section V, page 6 of Form FHWA-1273.

On State-Funded Projects, CAD-880 is required each week the Contractor or a Subcontractor performs work on the project.

When no work is performed on either Federal-Aid and State-Funded Projects, the Contractor should only submit CAD-880 showing no work activities.

The Contractor shall make all efforts necessary to submit this information to the Project Engineer in a timely manner. The Engineer will have the authority to suspend the work wholly or in part and to withhold payments because of the Contractor's failure to submit the required information. Submission of forms and payrolls shall be current through the first full week of the month for the estimate period in order for the Project Engineer to process an estimate.

Bidders are advised to review the requirements regarding payroll submissions in Section 110 of the Standard Specifications.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1405

CODE: (IS)

DATE: 03/15/2007

SUBJECT: ERRATA AND MODIFICATIONS TO THE 2004 STANDARD SPECIFICATIONS

<u>Page</u>	<u>Subsection</u>	<u>Change</u>
101	201.01	In the second sentence of the first paragraph, change “salvable” to “salvageable”.
107	202.04	In the fourth sentence of the fourth paragraph, change “yard” to “feet”.
107	202.05	In the list of units measurements for 202-B, add “square foot”.
132	211.03.4	In the second sentence of the second paragraph, change “planted” to “plated”.
192	306.02.4	In the first line of the first paragraph, delete the word “be”.
200	307.03.7	In the fourth sentence of the second paragraph, change “lime-fly ash” to “treated”.
236	401.01	Change the header from “Section 403” to “Section 401”.
242	401.02.3.2	In the first sentence of the third full paragraph, add “1/8” in the blank before the inch mark.
250	401.02.6.3	In the second sentence of the first paragraph on page 250, change “rutting over ”” to “rutting over 1/8" ”.
253	401.02.6.4.2	In the paragraph preceding the table, change “91.0” to “89.0”.
259	401.03.1.4	In the first paragraph, change “92.0 percent” to “the specified percentage (92.0 or 93.0)”.
269	403.03.2	In the table at the top of page 269, change the PI requirement from “= ” to “≤ ”.

- 278 404.04 In the second sentence, change the subsection from “401.04” to “403.04”.
- 283 409.02.2 Change “PG 64-22” to “PG 67-22”.
- 294 413.02 In the first sentence of the second paragraph, change “707.02.1.3” to “Subsection 707.02.1.3”.
- 340 511.04 In the second sentence of the second paragraph, change “412” to “512”.
- 349 601.03.3 In the first sentence, change “804.03.2” to “804.03.5”.
- 355 603.02 Change the subsection reference for Joint mortar from “707.03” to “714.11”.
- 369 604.04 In the first sentence, change “601.04” to “Subsection 601.04”.
- 427 619.04 Delete the second paragraph.
- 442 625.04 In the third paragraph, change “626.04” to “Subsection 626.04”.
- 444 626.03.1.2 Delete the third sentence of the first paragraph.
- 464 631.02 Change the subsection reference for Water from “714.01.0” to “714.01.1”.
- 570 682.03 Change the subsection number from “682-03” to “682.03”.
- 575 683.10.4 Change the subsection number from “683.10.4” to “683.04”.
- 575 683.10.5 Change the subsection number from “683.10.5” to “683.05”.
- 596 701.02 In the table under the column titled “Cementations material required”, change Class F, FA” to “Class F FA,”.
- 603 702.11 In the first sentence, change “702.12” to “Subsection 702.12”.
- 612 703.04.2 In the fifth paragraph, delete “Subsection 703.11 and”.
- 616 703.07.2 In the Percentage By Weight Passing Square Mesh Sieves table, change the No. 10 requirement for Class 7 material from “30 - 10” to “30 - 100”.

- 618 703.13.1 In the first sentence of the first paragraph, change “703.09” to “703.06”.
- 618 703.13.2 In the first sentence, change “703.09” to “703.06”.
- 671 712.06.2.2 In the first sentence, change “712.05.1” to “Subsection 712.05.1”.
- 689 714.11.2 In the first sentence, change “412” to “512”.
- 709 715.09.5 In the first sentence of the first paragraph, change “guage” to “gauge”.
- 717 717.02.3.4 In the top line of the tension table, change “1 1/2” to “1 1/8” and change “1 1/8” to “1 1/2”.
- 741 720.05.2.2 In the last sentence of this subsection, change “720.05.2.1” to “Subsection 720.05.2.1”.
- 827 803.03.2.3.7.5.2 In the first sentence of the second paragraph, change “803.03.5.4” to “803.03.2.3.4”.
- 833 803.03.2.6 In the first sentence, change “803.03.7” to “803.03.2.5”.
- 854 804.02.11 In the last sentence of the first paragraph, change “automatically” to “automatic”.
- 859 804.02.13.1.3 In the last sentence, change Subsection “804.02.12.1” to “804.02.12”.
- 879 804.03.19.3.2 In the first sentence of the third paragraph, change “listed on of Approved” to “listed on the Approved”.
- 879 804.03.19.3.2 In the last sentence of the last paragraph, change “804.03.19.3.1” to “Subsection 804.03.19.3.1”.
- 962 814.02.3 In the first sentence, change “710.03” to “Subsection 710.03”.
- 976 820.03.2.1 In the first sentence, change “803.02.6” to “803.03.1.7”.
- 976 820.03.2.2 In the first sentence, change “803.03.9.6” to “803.03.1.9.2”.
- 985 Index Change the subsection reference for Petroleum Asphalt Cement from “702.5” to “702.05”.

985	Index	Change the subsection reference for the Definition of Asphaltic Cement or Petroleum Asphalt from “700.2” to “700.02”.
985	Index	Change the subsection reference for Automatic Batchers from “501.03.2.4” to “804.02.10.4”.
986	Index	Delete “501.03.2” as a subsection reference for Batching Plant & Equipment.
988	Index	Change the subsection reference for the Central Mixed Concrete from “501.03.3.2” to “804.02.11”.
988	Index	Change the subsection reference for the Concrete Batching Plant & Equipment from “501.03.2” to “804.02.11”.
999	Index	Delete “501.03.3.3” as a subsection reference for Truck Mixers.
1001	Index	Change the subsection reference for Edge Drain Pipes from “605.3.5” to “605.03.5”.
1002	Index	Change the subsection reference for Metal Posts from “713.05.2” to “712.05.2”.
1007	Index	Change the subsection reference for Coarse Aggregate of Cement Concrete Table from “703.3” to “703.03”.
1007	Index	Change the subsection reference for Composite Gradation for Mechanically Stabilized Courses Table from “703.8” to “703.08”.
1009	Index	Delete “501.03.3.3” as a subsection reference for Truck Mixers and Truck Agitators.
1010	Index	Delete reference to “Working Day, Definition of”.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT TO NOTICE TO BIDDERS NO. 1727**

**DATE:** 6/25/2012

**PROJECT:** MP-5501-62(006) / 304356301 -- Scott County

After the second paragraph on page 1, add the following:

Name Insured: The Kansas City Southern Railway Company

Description and Designation: *Milling & Paving Operation*

Mile Post: *Intersection of the centerline of survey of SR 501 at approximately Station 581+75 and the centerline of track, near Forest, Mississippi.*

After the fourth paragraph on page 1, add the following:

Notice of starting to work and correspondence pertaining to railroad liability insurance shall be directed to:

Mr. Shrikanth Honnur  
Director, Track and Bridge Construction  
Engineering Department  
The Kansas City Southern Railway Company  
427 West 12<sup>th</sup> Street  
Kansas City, Missouri 64105  
(816) 983-1138

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1727

CODE: (SP)

DATE: 09/20/2007

SUBJECT: Railway-Highway Provisions

Prior to bidding, the Contractor shall contact the Railroad concerning insurance coverage required for this project. In case the railroad requires coverage over and above that required by the Standard Specifications, the railroad requirements shall be met.

The name insured, description of the work and designation of the job site to be shown on the Policy are as follows:

Notice of starting to work, completion of any required forms, and correspondence pertaining to railroad liability insurance shall be directed to the person below.

The Contractor shall not commence, or carry on, any work for installation, maintenance, repair, changing or renewal of any FACILITY, under, over or on RAILROAD property at any location without giving at least ten (10) working days prior notice to the RAILROAD authorized representative at the RAILROAD's office(s) below.

If in the opinion of the RAILROAD, the presence of an authorized representative of the RAILROAD is required to supervise the same, the RAILROAD shall render bills to the Contractor for all expenses incurred by it for such supervision. This includes all labor costs for flagmen or cable locate supplied by the RAILROAD to protect RAILROAD operation, and for the full cost of furnishing, installation and later removal of any temporary supports for said tracks, as the RAILROAD's Chief Engineer's Office may deem necessary.

**It will be the Contractor's responsibility to pay all bills associated with railroad flagging and cable locating.** Generally, the flagging rate is \$700.00 per day (1 to 8 hours) plus overtime at \$125.00 per hour, however, the Contractor shall contact the RAILROAD to verify all rates.

A flagman is required anytime a Contractor does any work on or near RAILROAD property within twenty-five (25) feet horizontally of the centerline or any work over any railroad track. The RAILROAD, however, also reserves the right to require a flagman for work on RAILROAD property, which is more than twenty-five (25) feet from the centerline of a railroad track when there are other conditions or considerations that would dictate the need for a flagman to safeguard the RAILROAD's operations, property and safety of working personnel.

A cable locate of RAILROAD owned facilities may be required to identify and protect Signal & Communication cables that have been installed to provide power, signal control, wayside communications. These cables are vital to a safe and reliable railway operation. The cable locate will be performed by a qualified RAILROAD employee.

Outside Contractors are prohibited from driving on, along, or across any track that does not have

a RAILROAD installed crossing. They may utilize an existing public crossing. The practice of allowing rubber tired equipment to operate over track with no crossing has been banned.

Exceptions to this rule will require the express approval from the RAILROAD Engineers.



## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 1808**

**CODE: (IS)**

**DATE: 09/09/2008**

**SUBJECT: Safety Apparel**

Bidders are advised that the Code of Federal Regulations CFR 23 Part 634 final rule was adopted November 24, 2006 with an effective date of November 24, 2008. This rule requires that "All workers within the right-of-way of a Federal-Aid Highway who are exposed either to traffic (vehicles using the highway for the purposes of travel) or to construction equipment within the work area shall wear high-visibility safety apparel". High-visibility safety apparel is defined in the CFR as "personnel protective safety clothing that is intended to provide conspicuity during both daytime and nighttime usage, and that meets the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled American National Standard for High-Visibility Safety Apparel and Headwear". All workers on Mississippi State Highway right-of-way shall comply with this Federal Regulation. Workers are defined by the CFR as "people on foot whose duties place them within the right-of way of a Federal-Aid Highway, such as highway construction and maintenance forces, survey crews, utility crews, responders to incidents within the highway right-of-way, and law enforcement personnel when directing traffic, investigating crashes, and handling lane closures, obstructed roadways, and disasters within the right-of-way of a Federal-Aid Highway".

You can access this final rule at the following link:

<http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/E6-19910.pdf>

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

| **SECTION 904 - NOTICE TO BIDDERS NO. 1928**

**CODE: (IS)**

| **DATE: 04/14/2008**

**SUBJECT: Federal Bridge Formula**

Bidders are hereby advised that Federal Highway Administration Publication No. FHWA-MC-94-007, **BRIDGE FORMULA WEIGHTS**, dated January 1994, is made a part of this contract when applicable.

Prior to the preconstruction conference, the Contractor shall advise the Engineer, in writing, what materials, if any, will be delivered to the jobsite via Interstate route(s).

Copies of the **BRIDGE FORMULA WEIGHTS** publication may be obtained by contacting:

Federal Highway Administration  
400 7<sup>th</sup> Street, SW  
Washington, DC 20590  
(202) 366-2212

or

| [http://ops.fhwa.dot.gov/freight/sw/brdgcalc/calc\\_page.htm](http://ops.fhwa.dot.gov/freight/sw/brdgcalc/calc_page.htm)

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 904 - NOTICE TO BIDDERS NO. 2818**

**CODE: (SP)**

**DATE: 10/01/2009**

**SUBJECT: Non-Quality Control / Quality Assurance Concrete**

Bidders are advised that the following pay items will not be accepted based on the Quality Control / Quality Assurance (QC/QA) requirements of Section 804 of the specifications. The acceptance of these pay items will be based on sampling and testing at the project site by MDOT forces. The Contractor is required to submit mix designs to accomplish this work in accordance with Section 804 and perform normal Quality Control functions at the concrete plant. Acceptance will be in accordance with the requirements of 907-601, Structural Concrete, and TMD-20-04-00-000. At the discretion of the Engineer, the Contractor may request that the concrete be accepted based on QC/QA requirements.

<u>Pay Item</u>	<u>Description</u>
221	Paved Ditches
601	Minor Structures - manholes, inlets, catch basins, junction boxes, pipe headwalls, and pipe collars.
606	Guardrail Anchors
607	Fence Post Footings
608	Sidewalks
609	Curb and Gutter
614	Driveways
616	Median and Island Pavement
630	Sign Footings, except Overhead Sign Supports

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 904 - NOTICE TO BIDDERS NO. 2937**

**CODE: (SP)**

**DATE: 01/11/2010**

**SUBJECT: Reduced Speed Limit Signs**

Bidders are advised that all black and white speed limits signs that are used to reduce the speed limit through construction zones shall be covered or removed during times when the Contractor is not performing work. If the Contractor has a routine daytime operation and is not working at night, the signs shall be covered or removed during the nighttime when there is no work activity.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 904 - NOTICE TO BIDDERS NO. 3039**

**CODE: (SP)**

**DATE: 03/23/2010**

**SUBJECT: Alternate Asphalt Mixture Bid Items**

Bidders are advised that the asphalt mixture used on this project will be bid as an alternate pay item: Hot Mix Asphalt (HMA) or Warm Mix Asphalt (WMA). Bidders must select one of the alternates at the time of bid. **The Contractor must use the selected asphalt mixture, HMA or WMA, throughout the entire project.**

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 904 - NOTICE TO BIDDERS NO. 3131**

**CODE: (SP)**

**DATE: 06/24/2010**

**SUBJECT: Temporary Traffic Paint**

Bidders are hereby advised that the temporary traffic paint for this project can be waterborne paint as specified in the 2004 Mississippi Standard Specifications For Road and Bridge Construction or fast dry solvent traffic paint meeting the requirements set out in 907-710-1 (Fast Dry Solvent Traffic Paint).

Payment for all temporary traffic paint shall be paid under the appropriate 619 pay items.

When using fast dry solvent traffic stripe, no paint can be sprayed or placed on the ground during set-up or clean-up.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 904 - NOTICE TO BIDDERS NO. 3242**

**CODE: (SP)**

**DATE: 09/21/2010**

**SUBJECT: Warm Mix Asphalt**

Bidders are advised that MDOT approved products and processes for the production of Warm Mix Asphalt is available at the following MDOT website.

<http://www.gomdot.com/Divisions/Highways/Resources/MPL/Home.aspx>

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 904 - NOTICE TO BIDDERS NO. 3425**

**CODE: (SP)**

**DATE: 03/01/2011**

**SUBJECT: Questions Regarding Bidding**

Bidders are advised that all questions that arise regarding the contract documents or plans on this project shall be directed to the Construction Division at 601-359-7301.



**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

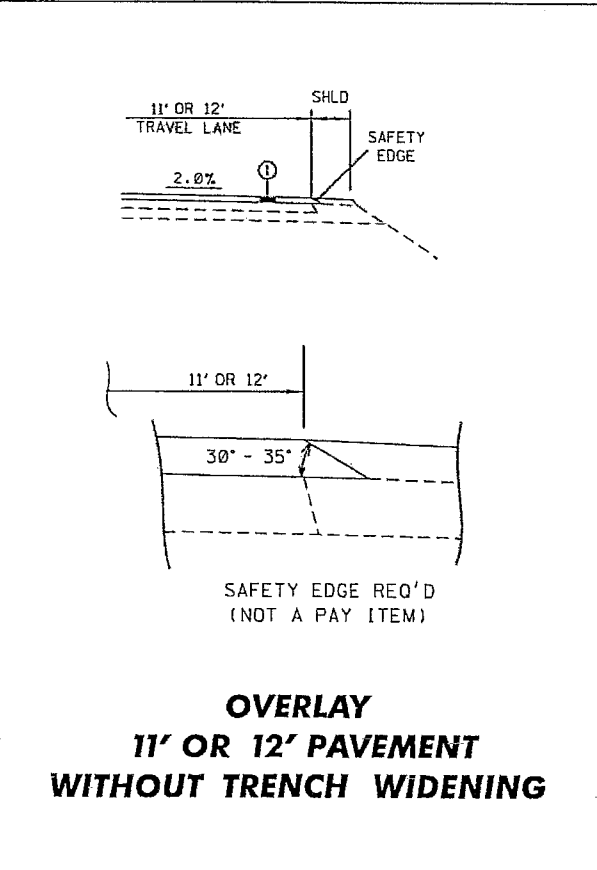
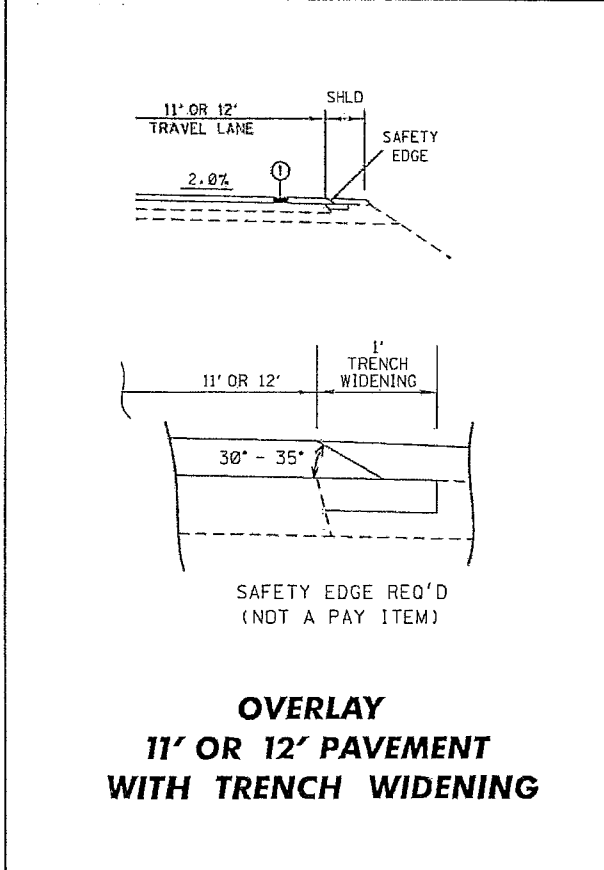
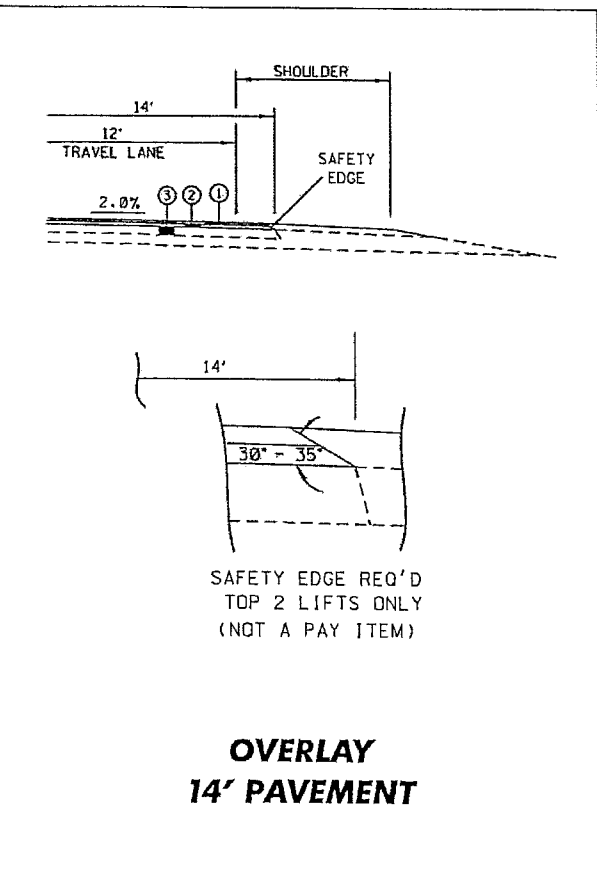
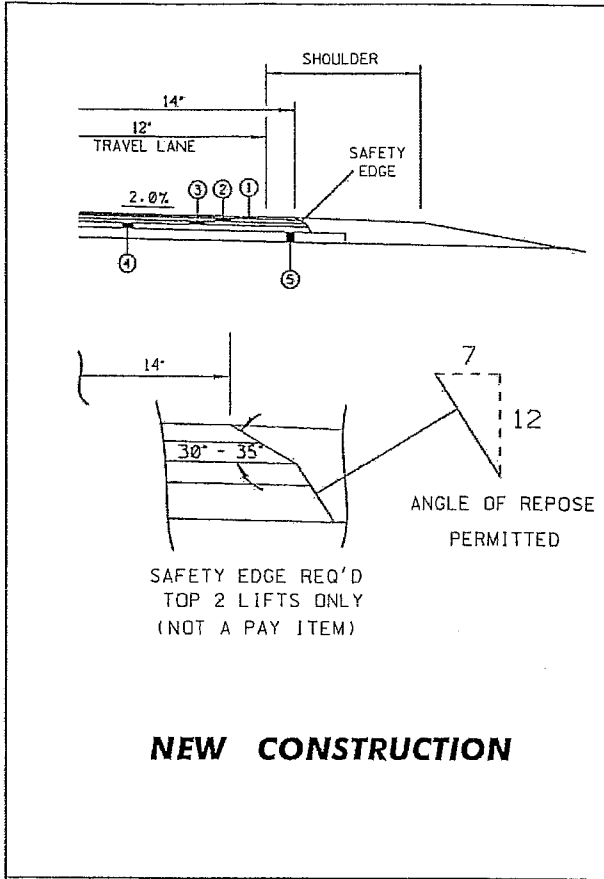
**SECTION 904 - NOTICE TO BIDDERS NO. 3585**

**CODE: (SP)**

**DATE: 06/22/2011**

**SUBJECT: Safety Edge**

Bidders are hereby advised that the Shoulder Wedge (Safety Edge) specified in the Supplement to Special Provision 907-401-2 shall only apply to the top two (2) lifts of asphalt. Attached is a drawing showing the safety edge.



## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 3655

CODE: (SP)

DATE: 10/04/2011

SUBJECT: Type III Barricade Rails

Bidders are advised that the use of 2-inch nominal thickness timber for rails on Type III barricades has not been approved by NCHRP as a crashworthy device. Therefore, the use of 2-inch nominal thickness timbers will not be allowed for rails on Type III Barricades. Timber rails for Type III Barricades shall be as follows.

- For barricades up to four feet (4') wide, the maximum thickness of timber rails shall be one inch (1") and the material shall be pine timber or ¾-inch ACX plywood.
- For barricades more than four feet (4') wide, timber rails shall be constructed of ¾-inch ACX plywood.

A list of crashworthy Type III Barricades can be found at the below FHWA website.

[http://safety.fhwa.dot.gov/roadway\\_dept/policy\\_guide/road\\_hardware/wzd/](http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/wzd/)

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 904 - NOTICE TO BIDDERS NO. 3704**

**CODE: (SP)**

**DATE: 11/30/2011**

**SUBJECT: Use of Precast Drainage Units**

Bidders attention is brought to the content of Subsection 601.02.3 regarding precast units. MDOT Drawing Sheet Nos. PCU-1 and PCU-2 address MDOT approved precast drainage units. The Contractor must make a request to the Project Engineer for approval to use precast units other than the ones shown on Drawing Sheet No. PCU-1 or PCU-2.

Bidders are advised that precast drainage unit tops are only allowed on units shown on Drawing Sheet No. PCU-1. Cast-In-Place drainage unit tops are required on units shown on Drawing Sheet No. PCU-2.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 904 – NOTICE TO BIDDERS NO. 3770**

**CODE: (SP)**

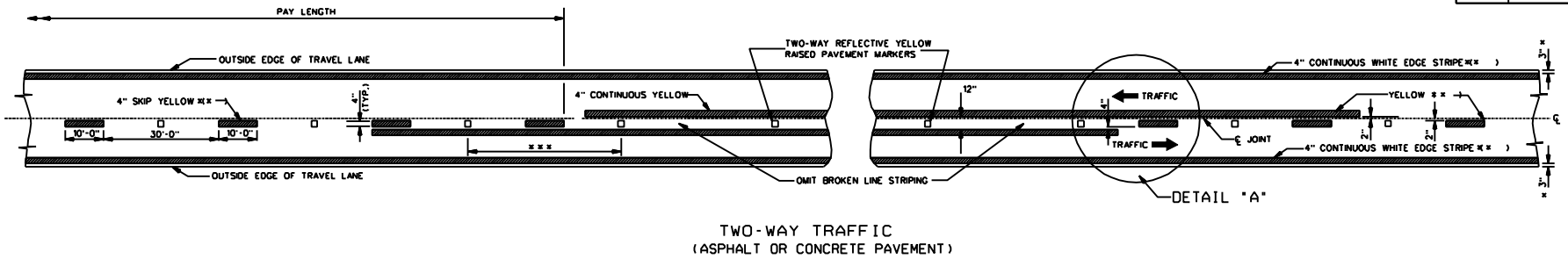
**DATE: 01/10/2012**

**SUBJECT: Standard Drawings**

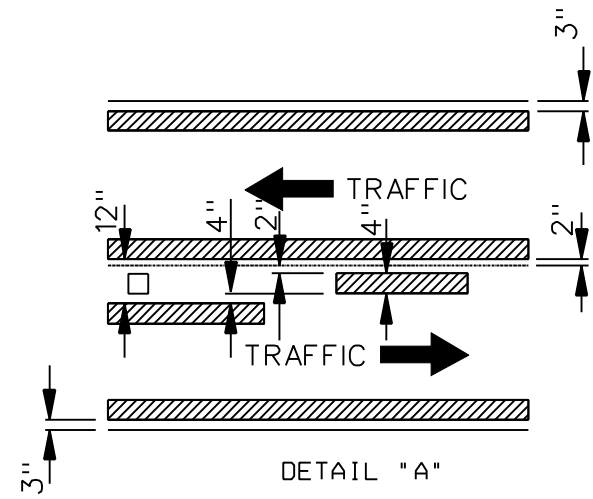
Standard Drawings attached hereto shall govern appropriate items of required work.

Larger copies of Standard Drawings may be purchased from:

MDOT Plans Print Shop  
MDOT Shop Complex, Building C, Room 114  
2567 North West Street  
P.O. Box 1850  
Jackson, MS 39215-1850  
Telephone: (601) 359-7460  
or FAX: (601) 359-7461  
or e-mail: [plans@mdot.state.ms.us](mailto:plans@mdot.state.ms.us)



TWO-WAY TRAFFIC  
(ASPHALT OR CONCRETE PAVEMENT)



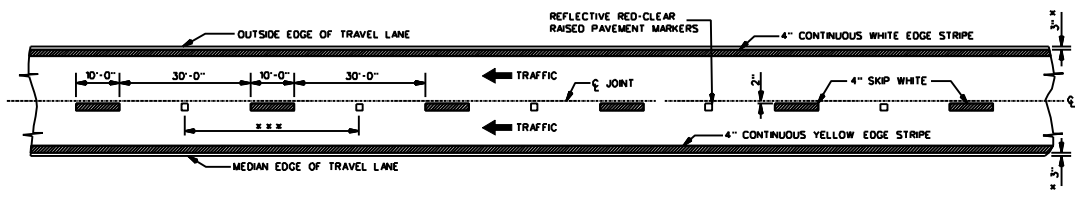
DETAIL "A"

GENERAL NOTES:

- \* 1. 3" UNLESS SHOWN ELSEWHERE ON THE PLANS.
- \*\* 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR TAPE AS INDICATED IN PAY ITEMS).
- \*\*\* 3. SPACING OF REFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:

	URBAN AREA (11-in)	RURAL AREA (11-in)
TANGENT SECTIONS	40'-0"	80'-0"
HORIZONTAL CURVES	40'-0"	40'-0"
INTERCHANGE LIMITS	40'-0"	40'-0"

- 1. NOTE: ON THE MAIN FACILITY, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 100' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
- 4. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MOOT "APPROVED SOURCES OF MATERIALS."
- 5. REFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS



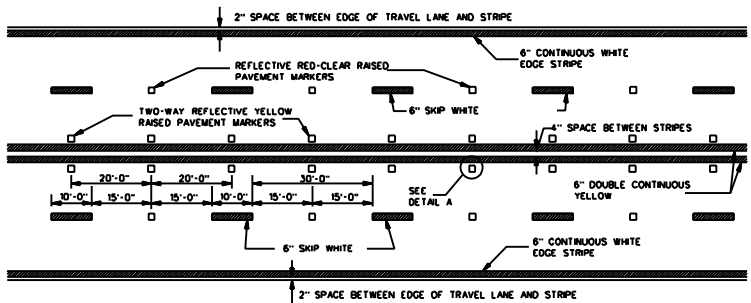
4-LANE WITH ONE-WAY TRAFFIC

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION		
	SPECIAL DESIGN PAVEMENT MARKING DETAILS FOR 2-LANE AND 4-LANE DIVIDED HIGHWAYS		
REVISION	FILENAME:	DESIGN LEAD	CHECKED DATE

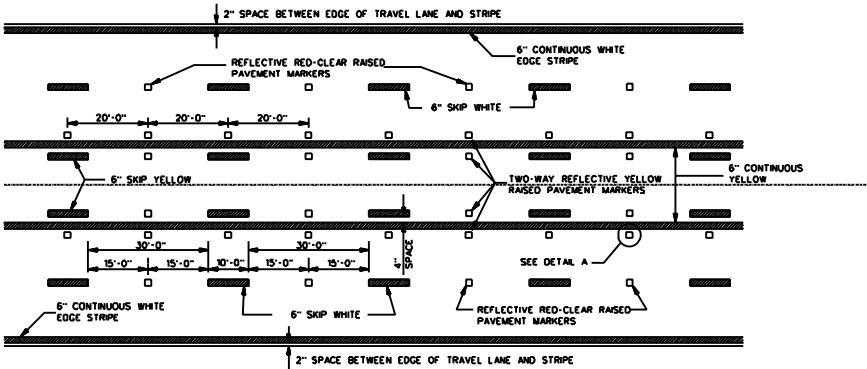
WORKING NUMBER  
SDPM-1  
SHEET NUMBER

87

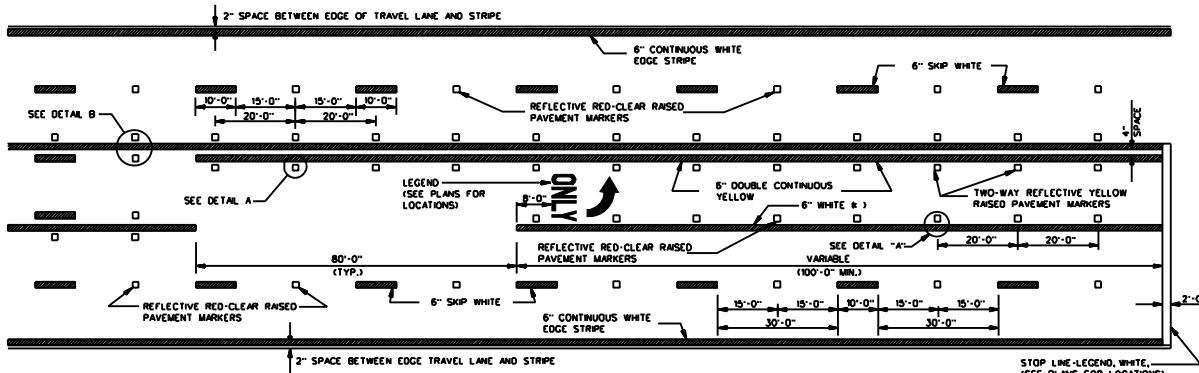
Notice To Bidder No. 3770 Cont'd.



TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 4-LANE SECTION

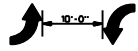


TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 5-LANE SECTION



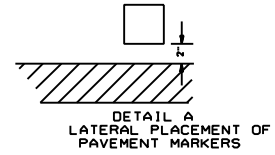
TYPICAL STRIPING AND RAISED PAVEMENT MARKERS AT LEFT TURN LANES

\*NOTE: USE DETAIL STRIPING IF LENGTH  $\leq$  150' AT THIS LOCATION, OTHERWISE USE CONTINUOUS STRIPING.

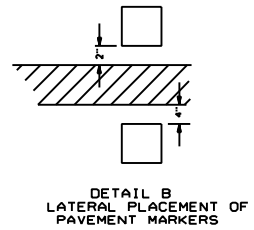


TYPICAL TWO-WAY ARROW INSTALLATION

- NOTES: 1. CONSIDER EACH SEGMENT OF CONTINUOUS TWO-WAY LEFT TURN LANE SEPARATELY.
- 2. IF SEGMENT IS LESS THAN 350', PLACE ONE SET OF ARROWS IN CENTER OF SEGMENT.
- 3. IF SEGMENT IS GREATER THAN 350', PLACE FIRST SET OF ARROWS 50' TO 100' FROM BEGINNING AND/OR END OF SEGMENT AND SPACE ADDITIONAL SETS OF ARROWS (250' O.C.).



DETAIL A LATERAL PLACEMENT OF PAVEMENT MARKERS



DETAIL B LATERAL PLACEMENT OF PAVEMENT MARKERS

GENERAL NOTE:  
1. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RAISED PAVEMENT MARKERS AS LISTED IN THE MOOT "APPROVED SOURCES OF MATERIALS".

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING DETAILS FOR 4-LANE AND 5-LANE UNDIVIDED ROADWAYS	
FILENAME: SDPM-2.DGN	DESIGN TEAM
CHECKED	DATE: 10/13/10

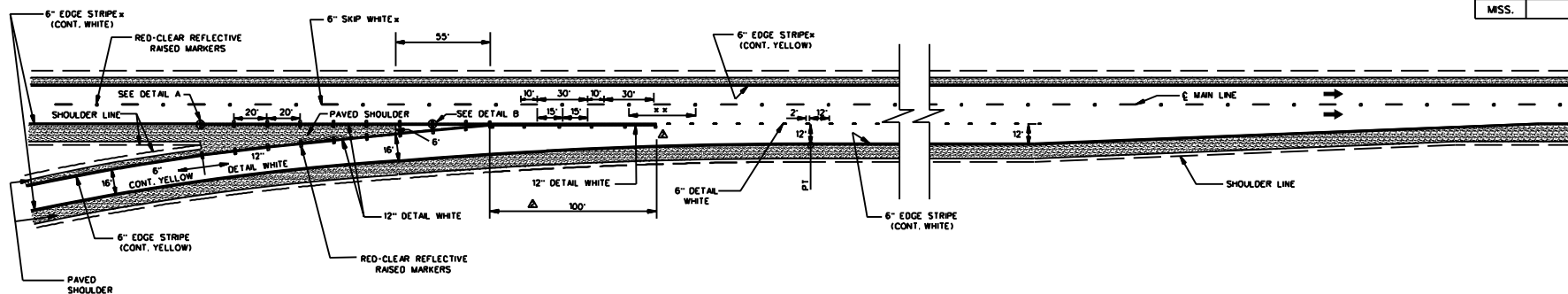
WORKING NUMBER: SDPM-2  
SHEET NUMBER: 29

29

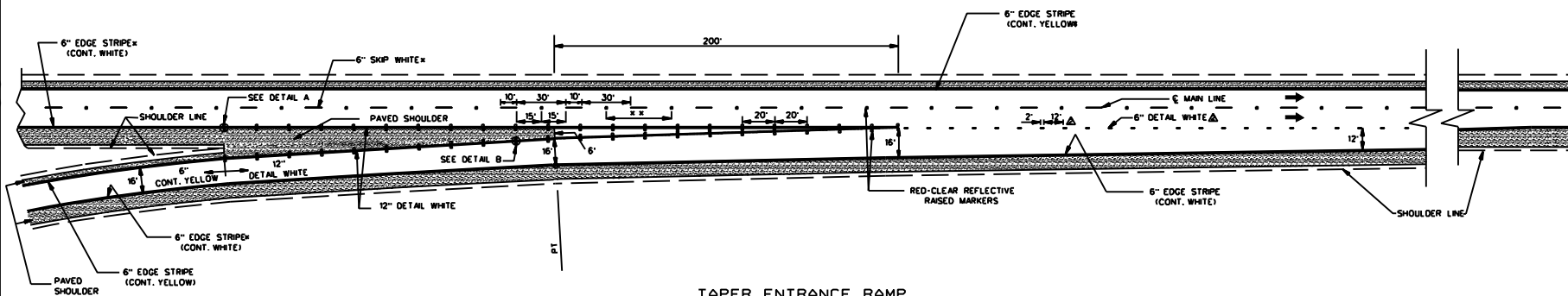
- 3 -

Notice To Bidder No. 3770 -- C-3781

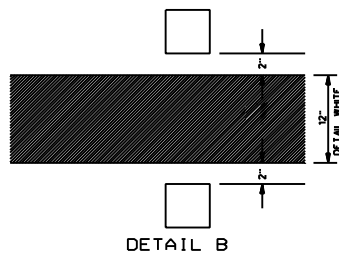
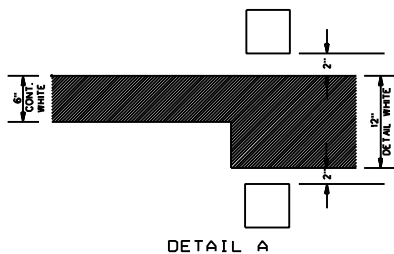
STATE	PROJECT NO.
MSS.	



PARALLEL ENTRANCE RAMP




TAPER ENTRANCE RAMP



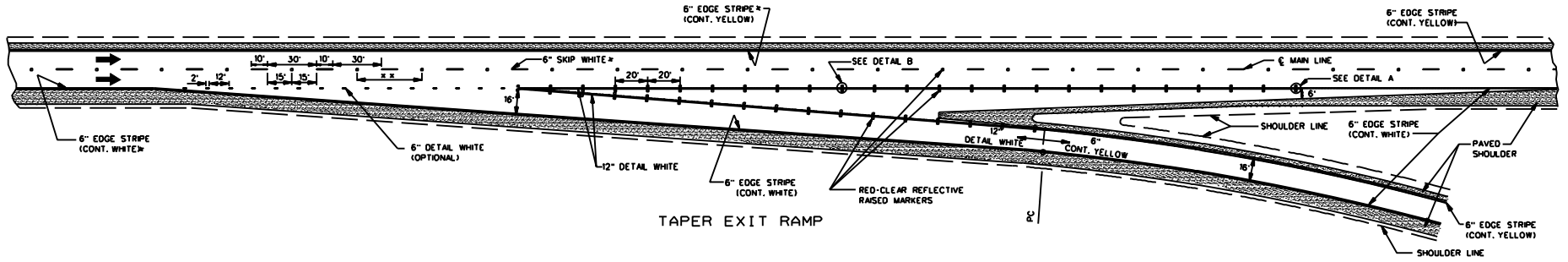
GENERAL NOTES:

- \* 1. SEE SHEET PM-1 FOR THE PLACEMENT OF LANE-LINE STRIPE WITH RESPECT TO THE PAVEMENT JOINT AND FOR THE PLACEMENT OF THE EDGE LINE WITH RESPECT TO THE OUTSIDE EDGE OF THE TRAVELED WAY.
- \* 2. ON THE MAIN FACILITY, PLACE REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS AT A 40' SPACING ON ALL LANE-LINE(S) THROUGHOUT THE INTERCHANGE AREA BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
- 3. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MOOT "APPROVED SOURCES OF MATERIALS."

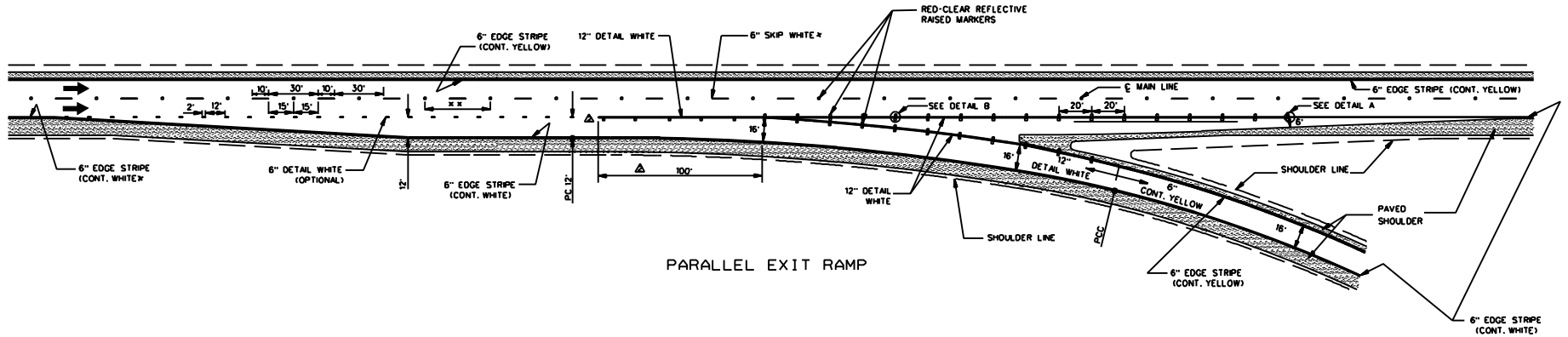
DATE DRAWN CHECKED DESIGNED APPROVED	<b>MISSISSIPPI DEPARTMENT OF TRANSPORTATION</b> ROADWAY DESIGN DIVISION		 WORKING NUMBER <b>SDPM-3</b> SHEET NUMBER
	<b>PAVEMENT MARKING</b> <b>DETAILS FOR</b> <b>INTERCHANGE</b> <b>ENTRANCE RAMP</b> <b>(PARALLEL AND TAPER)</b>		
	ISSUE DATE: <b>OCTOBER 1, 1998</b>		
	(Empty space for additional notes or signatures)		



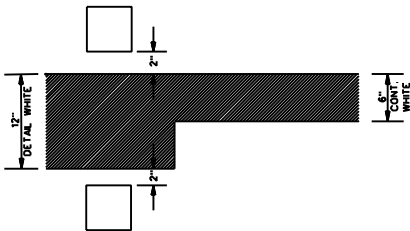
STATE	PROJECT NO.
MISS.	



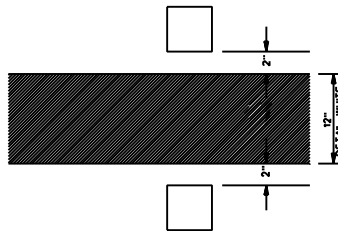
TAPER EXIT RAMP



PARALLEL EXIT RAMP




DETAIL A



DETAIL B

GENERAL NOTES:

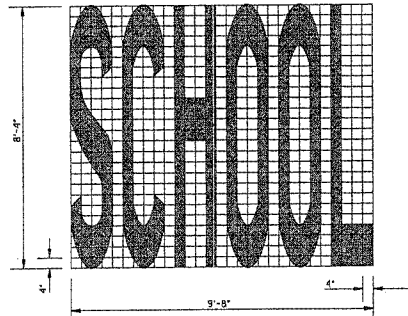
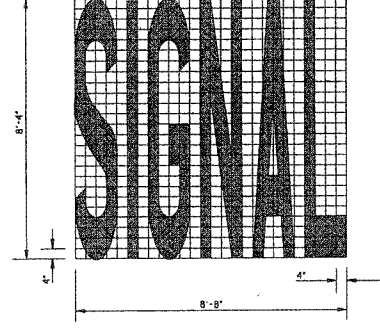
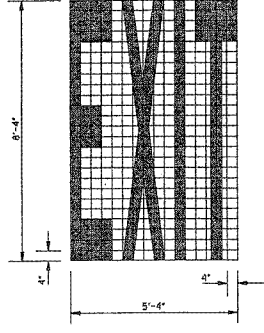
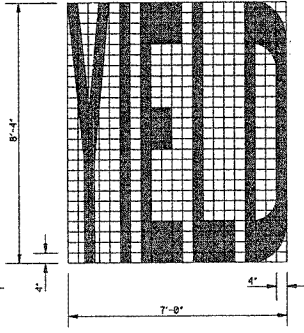
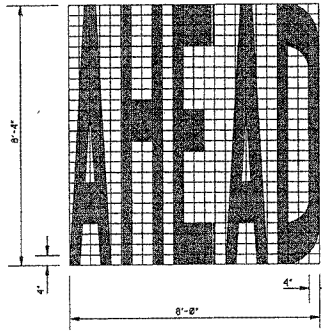
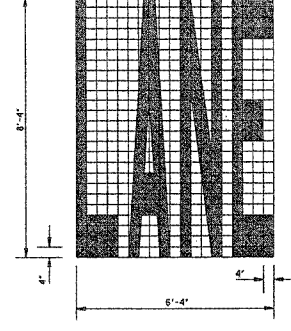
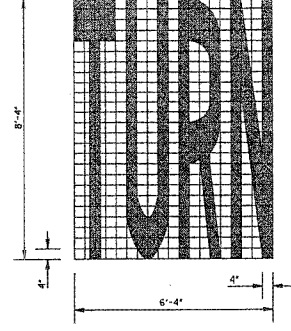
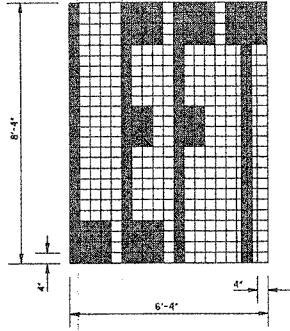
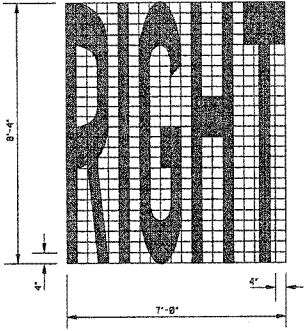
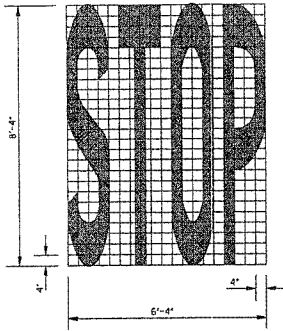
- \* 1. SEE SHEET PM-1 FOR THE PLACEMENT OF LANE-LINE STRIPE WITH RESPECT TO THE PAVEMENT JOINT AND FOR THE PLACEMENT OF THE EDGE LINE WITH RESPECT TO THE OUTSIDE EDGE OF THE TRAVELED WAY.
- \*\* 2. ON THE MAIN FACILITY, PLACE REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS AT A 40' SPACING ON ALL LANE-LINE(S) THROUGHOUT THE INTERCHANGE AREA BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
- 3. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MOOT "APPROVED SOURCES OF MATERIALS."

DATE DRAWN CHECKED APPROVED DESIGNED DATE	<b>MISSISSIPPI DEPARTMENT OF TRANSPORTATION</b> ROADWAY DESIGN DIVISION	
	<b>PAVEMENT MARKING</b> <b>DETAILS FOR</b> <b>INTERCHANGE</b> <b>EXIT RAMP</b> <b>(PARALLEL AND TAPER)</b>	
	WORKING NUMBER SDPM-41	 SHEET NUMBER
	ISSUE DATE: OCTOBER 1, 1998	

31

Pavement Marking - interchange ramps \PM-4.DGN

Notice To Bidder No. 9777 Cont'd.

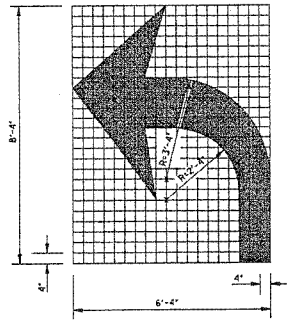
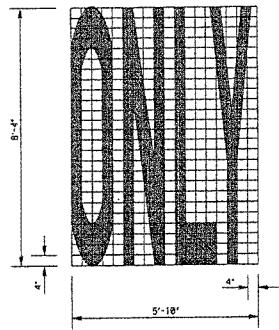


**GENERAL NOTES:**

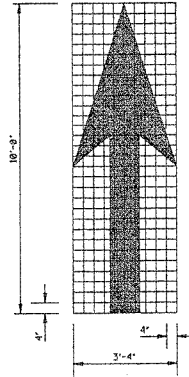
- UNLESS OTHERWISE SHOWN ON THE PLANS, ALL PAVEMENT MARKING LEGENDS SHALL BE APPLIED USING HIGH PERFORMANCE MATERIALS.
- TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTORS) OF 1/2" OR LESS AND EXTENDING THE FULL WIDTH ARE PERMITTED IN EACH LETTER.
- FOR OTHER DETAILS, SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:

PAY QUANTITIES	
LEGEND	AREA (ft <sup>2</sup> )
STOP	24.6
RIGHT	28.6
LEFT	19.5
TURN	27.3
LANE	22.7
AHEAD	32.3
YIELD	28.9
EXIT	18.5
SIGNAL	32.5
SCHDOL	35.5

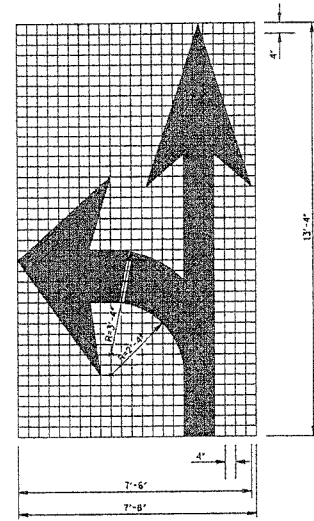
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN		
<b>PAVEMENT MARKING LEGEND DETAILS</b>		
DATE	ISSUE DATE: OCTOBER 1, 1998	WORKING NUMBER PM-5 SHEET NUMBER 124



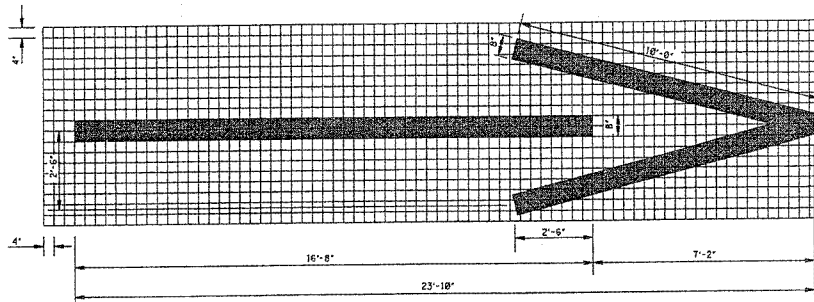
TURN ARROW



THRU ARROW



COMBINATION ARROW




1-WAY ARROW

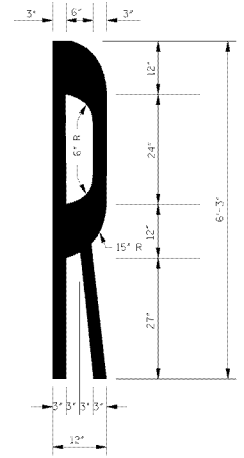
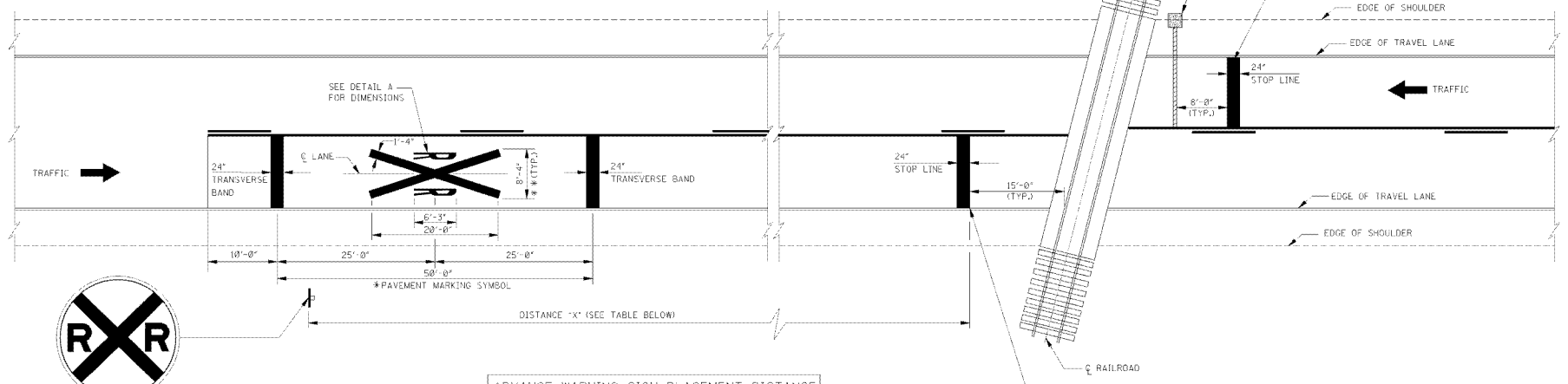
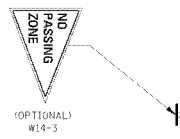
STATE	PROJECT NO.
MISS.	

GENERAL NOTES:

1. UNLESS OTHERWISE SHOWN ON THE PLANS, ALL PAVEMENT MARKING LEGENDS, INCLUDING TURN ARROWS, SHALL BE APPLIED USING HIGH PERFORMANCE MATERIALS.
2. TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTORS) OF 1/2" OR LESS AND EXTENDING THE FULL WIDTH ARE PERMITTED IN EACH LETTER.
3. FOR OTHER DETAILS, SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:

PAY QUANTITIES	
LEGEND/SYMBOL	AREA (ft <sup>2</sup> )
ONLY	22.0
TURN ARROW	16.4
THRU ARROW	12.3
COMB. ARROW	27.5
1-WAY ARROW	24.3

REVISION	BY	DATE	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN  <b>PAVEMENT MARKING                  LEGEND DETAILS</b>	 WORKING NUMBER PM-6 SHEET NUMBER 125
			ISSUE DATE: OCTOBER 1, 1998	



DETAIL A  
STANDARD "R" PAVEMENT MARKING  
FOR R X R SYMBOL

ADVANCE WARNING SIGN PLACEMENT DISTANCE

POSTED SPEED (mph)	① DISTANCE "X" (ft)	
	RURAL	URBAN
20	175	100
25	250	100
30	325	100
35	400	② 150
40	475	② 225
45	550	300
50	625	375
55	700	450
60	775	550

NOTES:  
 ① DISTANCE "X" MAY BE ADJUSTED IF PROHIBITIVE PHYSICAL CONDITIONS EXIST AT THE DESIGNATED DISTANCE.  
 ② THESE DISTANCES MAY BE ADJUSTED TO A MINIMUM OF 100' IN RESIDENTIAL AREAS OR BUSINESS DISTRICTS WHERE LOW SPEEDS ARE PREVALENT.

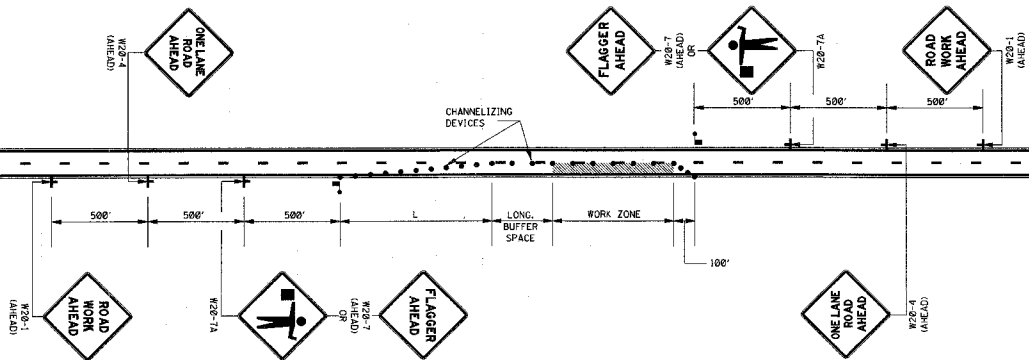
- GENERAL NOTES:
- \* 1. A PORTION OF THE PAVEMENT MARKING SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE WARNING SIGN (W10-1).
  - \* 2. WIDTH OF R X R SYMBOL MAY VARY ACCORDING TO LANE WIDTH. HOWEVER, ON MULTI-LANE ROADS, THE TRANSVERSE BANDS AND STOP LINE SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.
  - △ 3. R X R SYMBOL (63.0 ft<sup>2</sup>), TRANSVERSE BANDS AND STOP LINE SHALL BE PAID FOR AS LEGEND, WHITE (PLASTIC), (MATERIAL OPTIONAL FOR OTHER AGENCIES).
  - \*\*\* 4. REFER TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR LOCATION OF PROPOSED WARNING DEVICES AT RAILROAD-HIGHWAY GRADE CROSSINGS.

APPROVED FOR	DATE	ISSUE DATE: OCTOBER 1, 1998
REVISION	DATE	
BY	DATE	
BY	DATE	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
ROADWAY DESIGN DIVISION  
STANDARD PLAN

**TYPICAL PLACEMENT OF WARNING SIGNS AND PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSINGS**

WORKING COPY  
SHEET NUMBER 12



LEGEND  
 ■ FLAGGER  
 ● CHANNELIZING DEVICES

GENERAL NOTES:

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (FT)		MINIMUM LONGITUDINAL BUFFER SPACE (FT)	TAPER RATES
	TAPER	ALONG LANE LINE & WORK ZONE		
20	40	80	170	27:1
45	45	90	220	45:1
50	50	100	280	50:1
55	55	110	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	70	140	575	70:1

† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:  
 $L = WS$  FOR SPEEDS OF 45 mph OR GREATER  
 $L = WS^2/60$  FOR SPEEDS OF 40 mph OR LESS  
 WHERE: L = MINIMUM LENGTH OF TAPER IN FEET  
 W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET  
 S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

2. ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 24" IN HEIGHT.
3. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
4. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" x 48".
5. WHEN THERE IS NO EXISTING HAZARD OR AT THE END OF THE WORK DAY, ALL SIGNS SHALL BE COVERED OR REMOVED AND ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
6. WHERE THE WORK ZONE IS STATIONARY, THE W20-7 (500 FT.) SIGN OR THE W20-7A SIGN TOGETHER WITH THE W20-7 (500 FT.) SUPPLEMENTAL PLATE SHOULD BE USED TO INDICATE THE DISTANCE TO THE FLAGGER.

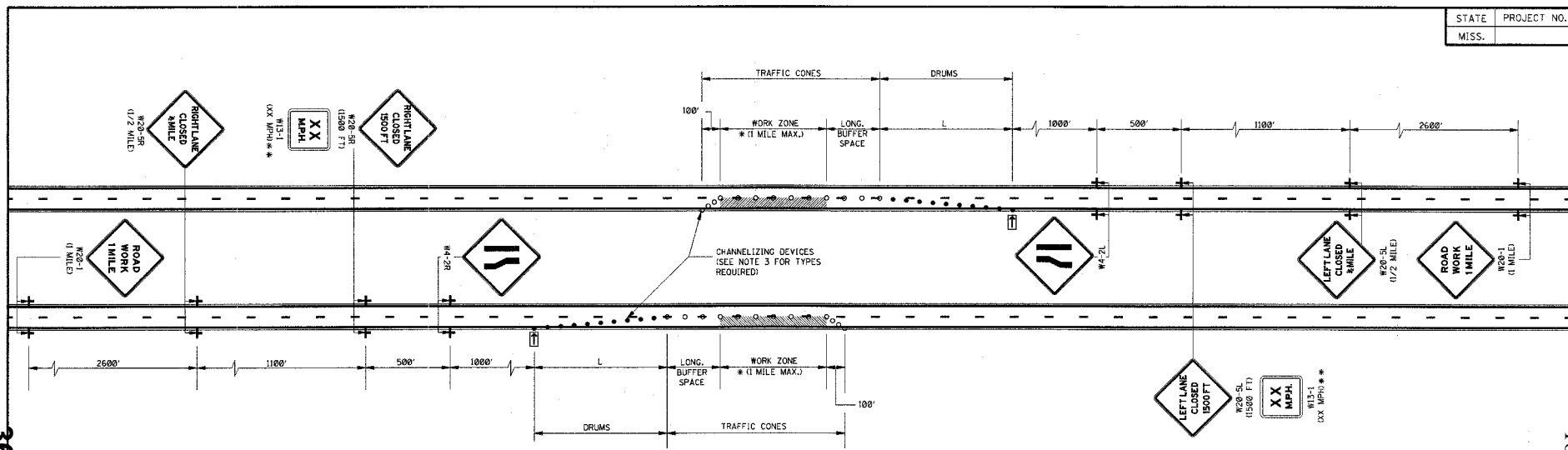
MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
 ROADWAY DESIGN DIVISION  
 STANDARD PLAN

**TRAFFIC CONTROL PLAN  
 WITH FLAGGER  
 (ONE-LANE CLOSURE OF  
 TWO-WAY TRAFFIC)**

WORKING NUMBER  
 TCP-1

SHEET NUMBER  
 250

ISSUE DATE: OCTOBER 1, 1998



36

GENERAL NOTES:

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		MINIMUM LONGITUDINAL BUFFER SPACE (ft)	TAPER † RATES
	TAPER	ALONG LANE LINE & WORK ZONE		
≤40	40	80	170	27:1
45	45	90	220	45:1
50	50	100	280	50:1
55	55	110	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	70	140	575	70:1

† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:  
 $L = WS$  FOR SPEEDS OF 45 mph OR GREATER  
 $L = WS^2/60$  FOR SPEEDS OF 40 mph OR LESS  
 WHERE: L = MINIMUM LENGTH OF TAPER IN FEET  
 W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET  
 S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

- FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
- CHANNELIZING DEVICE TYPES FOR:  
 A. APPROACH TAPER- REFLECTORIZED PLASTIC DRUMS  
 B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT)  
 C. EXIT TAPER- TRAFFIC CONES (28" HEIGHT)
- WHEN THERE IS NO EXISTING HAZARD, ALL SIGNS SHALL BE COVERED OR REMOVED AND THE DRUMS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.
- FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING SIGNS, PLASTIC DRUMS, AND ARROW BOARD, WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
- DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" X 48".

LEGEND

- \* OR AS SHOWN ELSEWHERE OF THE PLANS.
- \*\* THE LEGEND ON W13-1 (XX MPH) SUPPLEMENTAL PLATE SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT.
- FLASHING ARROW PANEL (TYPE 'C')
- REFLECTORIZED FREE-STANDING PLASTIC DRUMS
- TRAFFIC CONES (28" HEIGHT)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
 ROADWAY DESIGN DIVISION  
 STANDARD PLAN

**TRAFFIC CONTROL PLAN  
 FOR POSTED SPEED LIMIT  
 LESS THAN 65 MPH  
 (4-LANE MEDIAN LANE  
 OR OUTSIDE LANE CLOSURE)  
 (WORK DAY ONLY)**

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 DIVISION: \_\_\_\_\_

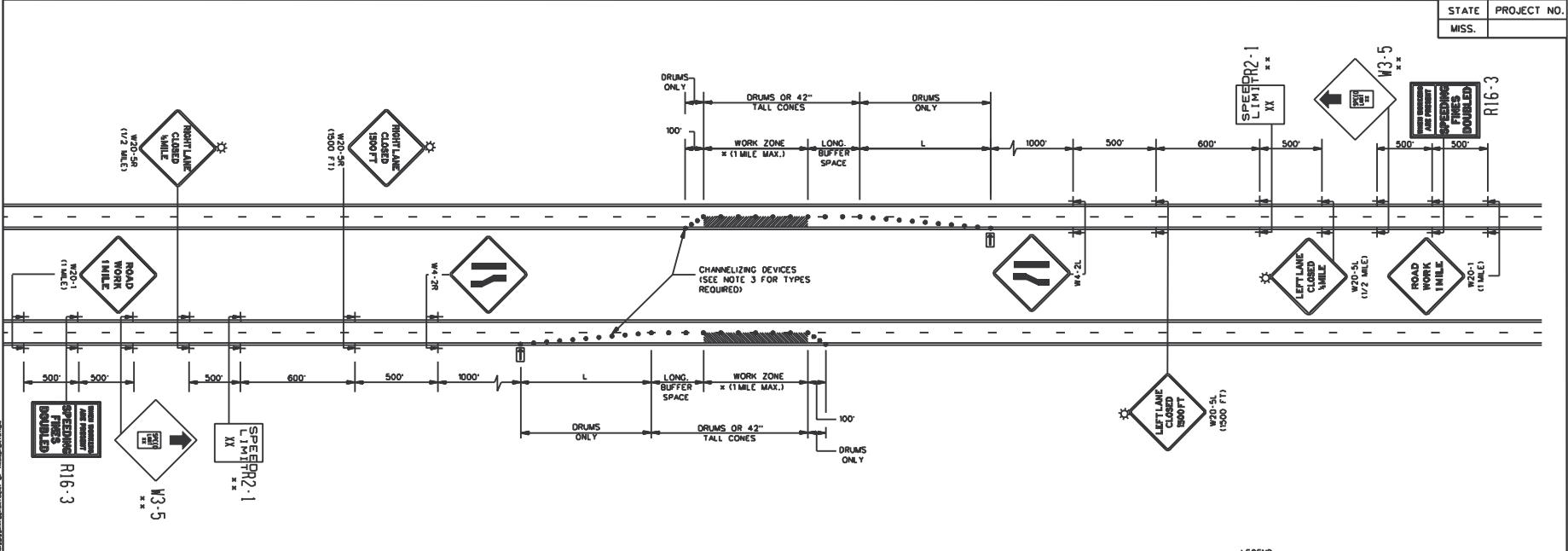
ISSUE DATE: OCTOBER 1, 1998

WORKING NUMBER: TCP-2  
 SHEET NUMBER: 251

NOTICE TO BIDDER NO. 3770

10

Notice To Bidder No. 3770 Cont'd



GENERAL NOTES:

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (I)		MINIMUM LONGITUDINAL BUFFER SPACE (II)	TAPER RATES
	TAPER	ALONG BUFFER SPACE & WORK ZONE		
40	40	80	170	27:1
45	45	90	220	45:1
50	50	100	280	50:1
55	55	110	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	70	140	575	70:1

NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:  
 L = WS FOR SPEEDS OF 45 mph OR GREATER  
 L = WS<sup>2</sup>/60 FOR SPEEDS OF 40 mph OR LESS  
 WHERE: L = MINIMUM LENGTH OF TAPER IN FEET  
 W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET  
 S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

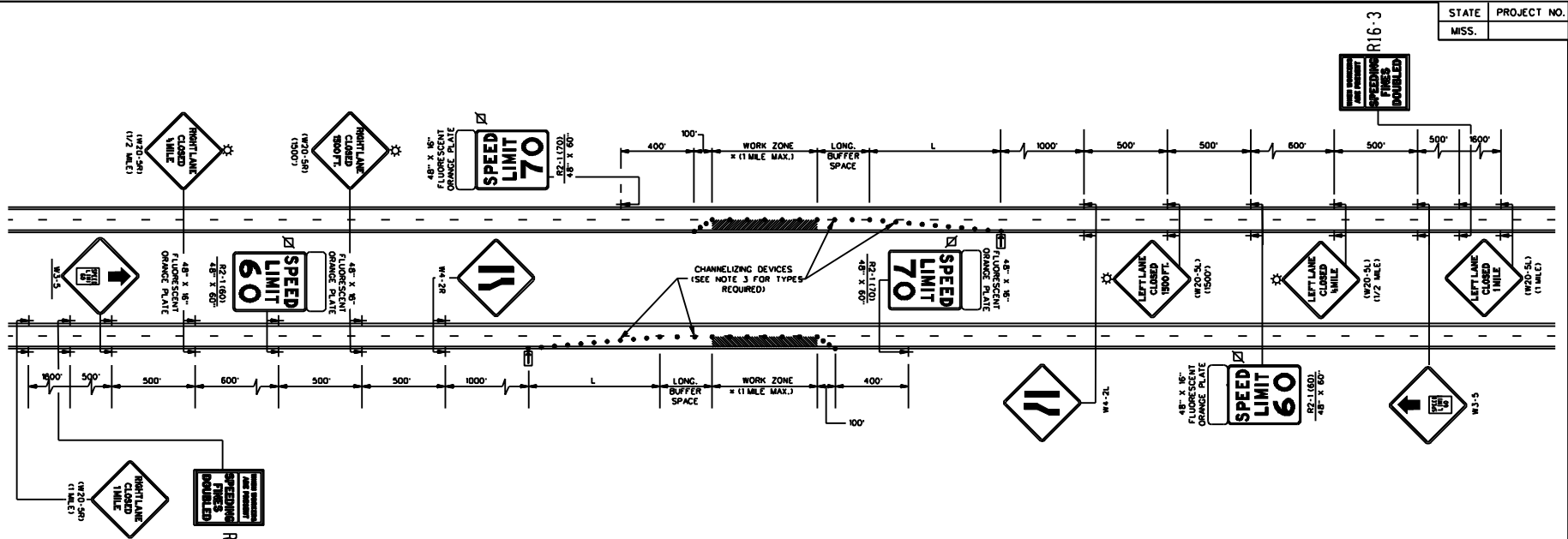
- FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
- CHANNELIZING DEVICES:
  - ALL CHANNELIZING DEVICES IN TAPERS SHALL BE REFLECTORIZED FREE STANDING PLASTIC DRUMS.
  - CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER REFLECTORIZED FREE STANDING PLASTIC DRUMS OR 42" TALL CONES.
  - FOR NIGHTTIME USE, ALL CHANNELIZING DEVICES SHALL BE RETROREFLECTIVE.
  - RETROREFLECTORIZATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE M.U.T.C.D.
- FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING SIGNS, PLASTIC DRUMS, AND ARROW BOARD. WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
- DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" X 48".

LEGEND

- OR AS SHOWN ELSEWHERE OF THE PLANS.
- \*\* THE LEGEND ON R2-1 & W3-5 SPEED LIMIT SIGNS SHALL BE 10 MPH LESS THAN THE ORIGINAL POSTED SPEED LIMIT.
- FLASHING ARROW PANEL (TYPE "C")
- REFLECTORIZED FREE-STANDING PLASTIC DRUMS
- TYPE "B" WARNING LIGHTS

DATE		DESIGN TEAM		CHECKED		DATE	
MISSISSIPPI DEPARTMENT OF TRANSPORTATION <b>TRAFFIC CONTROL PLAN</b> <b>FOR POSTED SPEED LIMIT</b> <b>LESS THAN 65 MPH</b> <b>(4-LANE + MEDIAN OR</b> <b>OUTSIDE LANE CLOSURE)</b> <b>(EXTENDED PERIOD)</b>							
FILENAME: OVERNIGHTCLOS\SDTCP-3						WORKING NUMBER SDTCP-3	
SHEET NUMBER						SHEET NUMBER	

37



**GENERAL NOTES:**

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (1)		MINIMUM LONGITUDINAL BUFFER SPACE (1)	TAPER RATES
	TAPER	ALONG BUFFER SPACE & WORK ZONE		
40	40	80	170	27:1
45	45	90	220	45:1
50	50	100	280	50:1
55	55	110	335	55:1
60	60	120	410	60:1
65	65	130	485	65:1
70	70	140	575	70:1

1. NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:  
 L = W5 FOR SPEEDS OF 45 MPH OR GREATER  
 L = W5<sup>2</sup>/60 FOR SPEEDS OF 40 MPH OR LESS  
 WHERE: L = MINIMUM LENGTH OF TAPER IN FEET  
 W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET  
 S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

2. FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.

**3. CHANNELIZING DEVICES:**

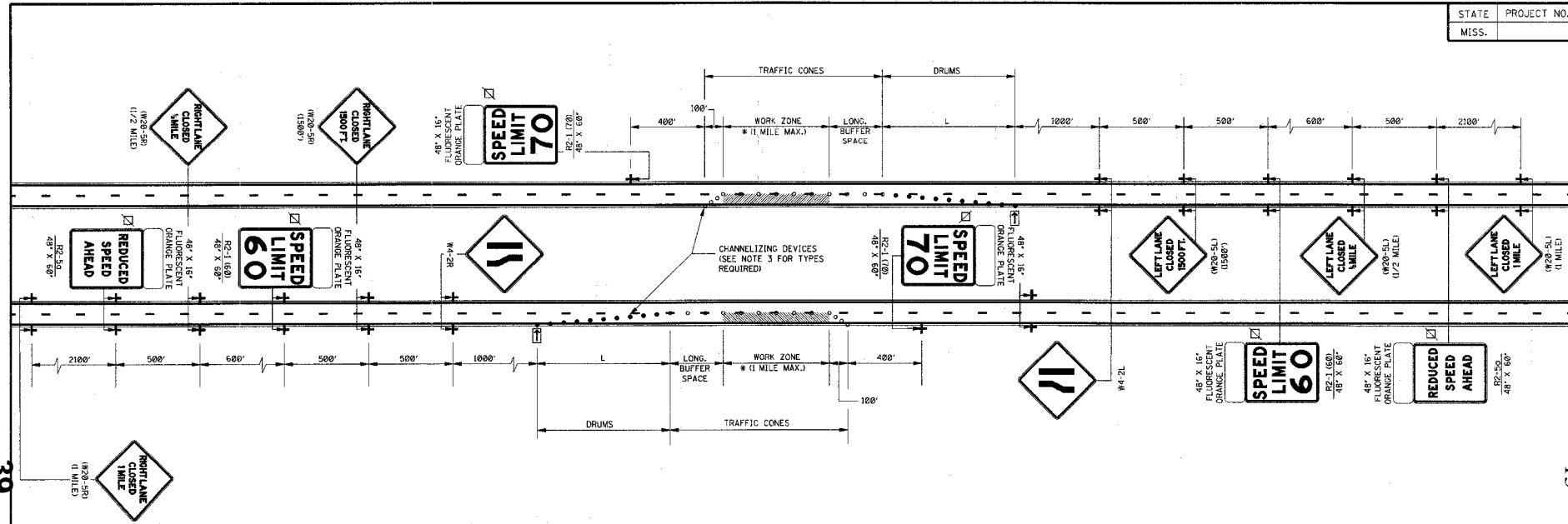
- A. ALL CHANNELIZING DEVICES IN TAPERS SHALL BE REFLECTORIZED FREE STANDING PLASTIC DRUMS.
- B. CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER REFLECTORIZED FREE STANDING PLASTIC DRUMS OR 42" TALL CONES.
- C. FOR NIGHTTIME USE, ALL CHANNELIZING DEVICES SHALL BE RETROREFLECTIVE.
- D. RETROREFLECTORIZATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD.
4. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
5. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" X 48".
6. ALL EXISTING SPEED LIMIT SIGNS WHICH ARE INFLUENCED BY OR CONFLICT WITH THE SPEED ZONE REDUCTION SHALL BE COVERED AS DIRECTED BY THE ENGINEER WHILE THE REDUCED SPEED LIMIT IS IN EFFECT. TAPE SHALL NOT BE USED ON FACE OF SIGN.
7. ADDITIONAL REDUCED SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP WITHIN THE SPEED ZONE. A MINIMUM OF TWO (2) WILL BE REQUIRED FOR EACH RAMP. LOCATION AND NUMBER REQUIRED WILL BE DETERMINED BY THE ENGINEER.
8. THIS TRAFFIC CONTROL PLAN WITH SPEED ZONE, MAY NOT BE USED ON ANY FACILITY WHERE THE POSTED SPEED LIMIT IS BELOW 65 MPH WITHOUT A COMMISSION ORDER REQUESTING A SPEED LIMIT REDUCTION.
9. LAYOUT SHOWN ABOVE IS FOR AN INTERSTATE WITH A POSTED SPEED LIMIT OF 70 MPH. FOR POSTED SPEED LIMIT OF 65 MPH, THE REDUCED SPEED LIMIT WILL BE 55 MPH.
10. A FLUORESCENT ORANGE PLATE IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS REQUIRED FOR LANE CLOSURE.

**LEGEND**

- \* OR AS SHOWN ELSEWHERE OF THE PLANS.
- ◻ FLASHING ARROW PANEL (TYPE "C")
- ◻ BLACK LEGEND AND BORDER ON WHITE BACKGROUND
- ☆ TYPE "B" WARNING LIGHTS
- REFLECTORIZED FREE-STANDING PLASTIC DRUMS

<b>MISSISSIPPI DEPARTMENT OF TRANSPORTATION</b> TRAFFIC CONTROL PLAN FOR POSTED SPEED LIMIT OF 65 OR 70 MPH (INTERSTATES AND OTHER 4-LANE DIVIDED HIGHWAYS) (MEDIAN LANE OR OUTSIDE LANE CLOSURE) (EXTENDED PERIOD)	
DATE	DESIGN TEAM
FILE NAME: OVERNIGHTCLOS\SDTCP-4	WORKING NUMBER SDTCP-4
DESIGN TEAM	CHECKED DATE SHEET NUMBER





39

13

GENERAL NOTES:

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		MINIMUM LONGITUDINAL BUFFER SPACE (ft)	TAPER RATES
	TAPER	ALONG LANE LINE & WORK ZONE		
40	40	80	170	27:1
45	45	90	220	45:1
50	50	100	280	50:1
55	55	110	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	70	140	575	70:1

† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:  
 $L = WS$  FOR SPEEDS OF 45 MPH OR GREATER  
 $L = WS^2/60$  FOR SPEEDS OF 40 MPH OR LESS  
 WHERE: L = MINIMUM LENGTH OF TAPER IN FEET  
 W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET  
 S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

- FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
- CHANNELIZING DEVICE TYPES FOR:
  - APPROACH TAPER- REFLECTORIZED PLASTIC DRUMS
  - ALONG LANE LINE AND WORK ZONE, TRAFFIC CONES (28" HEIGHT)
  - EXIT TAPER- TRAFFIC CONES (28" HEIGHT)

- WHEN THERE IS NO EXISTING HAZARD, ALL SIGNS SHALL BE COVERED OR REMOVED AND THE DRUMS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.
- FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING AND REGULATORY SIGNS, PLASTIC DRUMS, AND ARROW BOARD. WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
- DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" X 48".
- ALL EXISTING SPEED LIMIT SIGNS WHICH ARE INFLUENCED BY OR CONFLICT WITH THE SPEED ZONE REDUCTION SHALL BE COVERED AS DIRECTED BY THE ENGINEER WHILE THE REDUCED SPEED LIMIT IS IN EFFECT. TAPE SHALL NOT BE USED ON THE FACE OF SIGN.
- ADDITIONAL REDUCED SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP WITHIN THE SPEED ZONE. A MINIMUM OF TWO (2) WILL BE REQUIRED FOR EACH RAMP. LOCATION AND NUMBER REQUIRED WILL BE DETERMINED BY THE ENGINEER.
- THIS TRAFFIC CONTROL PLAN, WITH SPEED ZONE, MAY NOT BE USED ON ANY FACILITY WHERE THE POSTED SPEED LIMIT IS BELOW 65 MPH WITHOUT A COMMISSION ORDER REQUESTING A SPEED LIMIT REDUCTION.
- LAYOUT SHOWN ABOVE IS FOR AN INTERSTATE WITH A POSTED SPEED LIMIT OF 70 MPH. FOR POSTED SPEED LIMIT OF 65 MPH, THE REDUCED SPEED LIMIT WILL BE 55 MPH.
- A FLUORESCENT ORANGE PLATE IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS AND "REDUCED SPEED AHEAD" SIGNS REQUIRED FOR LANE CLOSURE.

LEGEND

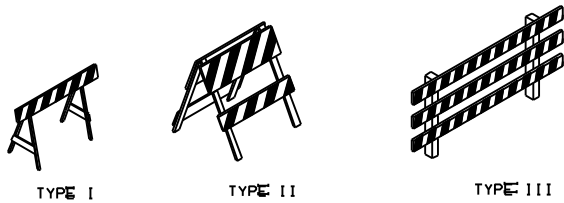
- \* OR AS SHOWN ELSEWHERE OF THE PLANS.
- ☐ FLASHING ARROW PANEL (TYPE "C")
- ◻ BLACK LEGEND AND BORDER ON WHITE BACKGROUND
- REFLECTORIZED FREE-STANDING PLASTIC DRUMS
- TRAFFIC CONES (28" HEIGHT)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
 ROADWAY DESIGN DIVISION  
 STANDARD PLAN  
**TRAFFIC CONTROL PLAN  
 FOR POSTED SPEED LIMIT  
 OF 65 OR 70 MPH  
 (INTERSTATES AND OTHER 4-LANE  
 DIVIDED HIGHWAYS)  
 (MEDIAN LANE OR OUTSIDE  
 LANE CLOSURE) (WORK DAY ONLY)**

WORKING NUMBER: TCP-5  
 SHEET NUMBER: 254

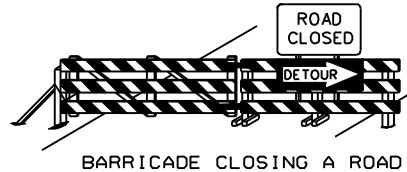
ISSUE DATE: OCTOBER 1, 1998

Notice To Bidder No. 3770-1-Cont'd.



STANDARD BARRICADES

1. A TYPE I BARRICADE CONSISTS OF ONE (1) HORIZONTAL RAIL SUPPORTED BY A DEMOUNTABLE FRAME OR A LIGHT "A" FRAME. A TYPE I BARRICADE NORMALLY WOULD BE USED ON CONVENTIONAL ROADS OR URBAN STREETS AND ARTERIALS.
2. A TYPE II BARRICADE CONSISTS OF TWO (2) HORIZONTAL RAILS ON A LIGHT "A" FRAME. TYPE II BARRICADES ARE INTENDED FOR USE ON EXPRESSWAYS AND FREEWAYS AND OTHER HIGH-SPEED ROADWAYS.
3. TYPE I AND TYPE II BARRICADES ARE INTENDED FOR USE WHERE THE HAZARD IS RELATIVELY SMALL AS, FOR EXAMPLE, ON CITY STREETS, OR FOR THE MORE OR LESS CONTINUOUS DELIMITING OF A RESTRICTED ROADWAY, OR FOR TEMPORARY DAYTIME USE.
4. A TYPE III BARRICADE CONSISTS OF THREE (3) HORIZONTAL RAILS SUPPORTED BY FIXED POSTS, A RIGID SKID, A HEAVY DEMOUNTABLE FRAME OR A HEAVY, HINGED "A" FRAME.
5. TYPE II BARRICADES ARE INTENDED FOR USE ON CONSTRUCTION AND MAINTENANCE PROJECTS AS WING BARRICADES AND AT ROAD CLOSURES, WHERE THEY MUST REMAIN IN PLACE FOR EXTENDED PERIODS.
6. THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
7. DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
8. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.
9. BARRICADES ARE CLASSIFIED BY FHWA AS CATEGORY II WORK ZONE DEVICES WHICH REQUIRE CRASHWORTHINESS ACCEPTANCE LETTERS. TO DATE, 2-IN. THICK TIMBER RAILS HAVE NOT BEEN SUCCESSFULLY CRASH TESTED. A LIST OF CRASHWORTHY BARRICADES AND OTHER CATEGORY II DEVICES CAN BE FOUND ON FHWA'S WEBSITE: [http://safety.fhwa.dot.gov/roadway\\_dept/policy\\_guide/road\\_hardware/cat2.cfm](http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/cat2.cfm)



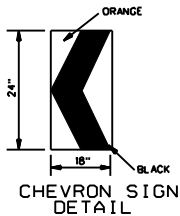
BARRICADE CLOSING A ROAD

BARRICADE CHARACTERISTICS

	I	II	III
WIDTH OF RAIL * x	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.
LENGTH OF RAIL * x	24" MIN.	24" MIN.	48" MIN.
WIDTH OF STRIPE x	5"	6"	6"
HEIGHT	36" MIN.	36" MIN.	60" MIN.
NUMBER OF REFLECTORIZED RAIL FACES	2 (ONE EACH DIRECTION)	4 (TWO EACH DIRECTION)	3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTIONS
TYPE OF FRAME	LIGHT	LIGHT "A" FRAME	POST OR SKID

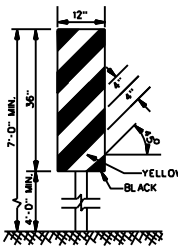
\* 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.

\* \* 2. BARRICADES INTENDED FOR USE ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH SPEED ROADWAYS, SHALL HAVE A MINIMUM OF 270 sq OF REFLECTIVE AREA FACING TRAFFIC.



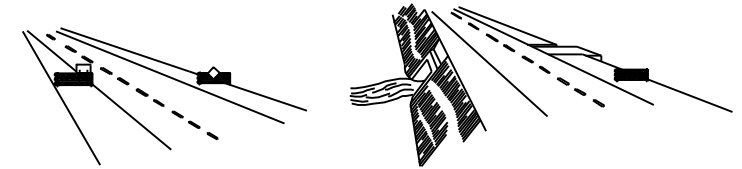
CHEVRON SIGN DETAIL

1. A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
2. THE CHEVRON SIGN SHALL BE MOUNTED ON FIXED POST OR RIGID SKID.
3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHALL BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.



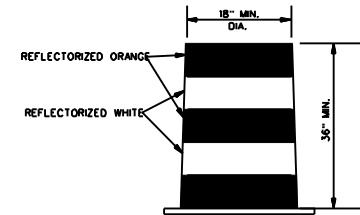
TYPE 3 OBJECT MARKER (OM-3R)

1. TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER.
2. THE OM-3R IS SHOWN. THE OM-3L IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LEFT SIDE TO THE LOWER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.
3. THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.



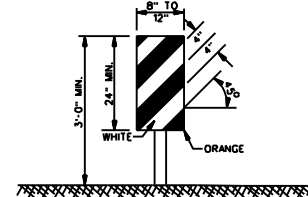
WING BARRICADES

1. WING BARRICADES ARE TYPE II BARRICADES ERECTED ON THE SHOULDER ON ONE OR BOTH SIDES OF THE PAVEMENT TO GIVE THE SENSATION OF A NARROWING OR RESTRICTED ROADWAY. WING BARRICADES MAY BE USED AS A MOUNTING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.
2. WING BARRICADES SHOULD BE USED:
  - A. IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED.
  - B. IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.



PLASTIC DRUM STRIPING DETAIL

1. PLASTIC DRUMS SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF DRUMS SHALL BE CONSISTENT WITH MARKING STANDARDS FOR BARRICADE. THE PREDOMINANT COLOR ON DRUMS SHALL BE ORANGE WITH FOUR (4) REFLECTORIZED, HORIZONTAL, CIRCUMFERENTIAL STRIPES (2 ORANGE & 2 WHITE) 6" WIDE.
2. DRUMS SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
3. WHERE PRACTICAL PLASTIC DRUMS SHALL BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.



VERTICAL PANEL

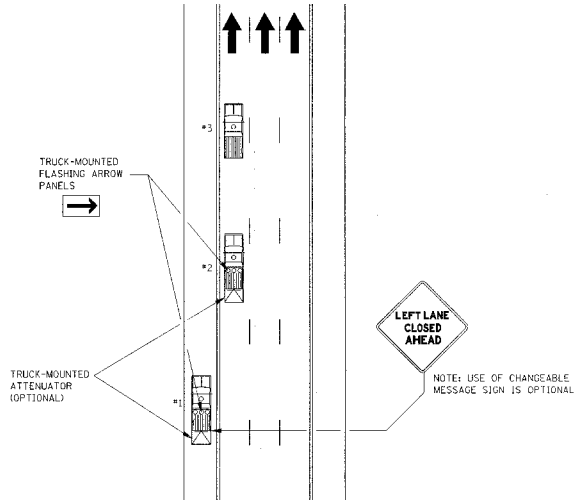
1. VERTICAL PANELS CONSIST OF AT LEAST ONE PANEL 8" TO 12" IN WIDTH AND A MINIMUM OF 24" IN HEIGHT.
2. THE DIAGONAL STRIPES SHALL SLOPE DOWNWARD IN THE DIRECTION THAT TRAFFIC IS TO PASS THE PANEL. THE PANELS SHALL BE MOUNTED WITH THE TOP A MINIMUM OF 36" ABOVE THE ROADWAY ON A SINGLE LIGHT MASS POST.
3. VERTICAL PANELS USED ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH-SPEED ROADWAYS SHALL HAVE A MINIMUM OF 270 sq OF RETROREFLECTIVE AREA FACING TRAFFIC.
4. FOR TWO-WAY TRAFFIC OPERATIONS, BACK-TO-BACK PANELS SHALL BE USED.

GENERAL NOTES:

1. MARKINGS ON ALL DEVICES SHOWN ON THIS SHEET SHALL BE HIGH INTENSITY REFLECTIVE SHEETING.
2. THE TRAFFIC CONTROL PLAN WILL LIST THE VARIOUS TRAFFIC CONTROL DEVICES REQUIRED FOR EACH PROJECT.

REVISION		DATE	
MISSISSIPPI DEPARTMENT OF TRANSPORTATION			
HIGHWAY SIGN AND BARRICADE SIGN DETAILS FOR CONSTRUCTION PROJECTS			
WORKING NUMBER		SHEET NUMBER	
SDTCP-10			
ISSUE DATE: 10-04-2011			

MOBILE OPERATIONS ON MULTILANE ROAD ▲

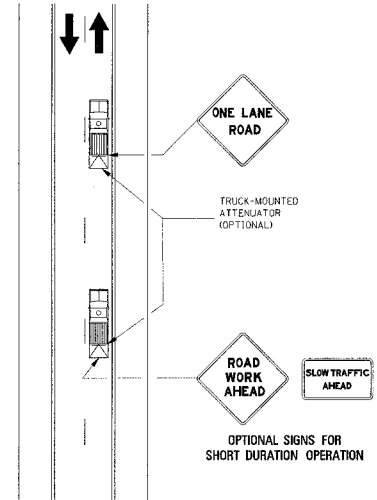


MOBILE OPERATIONS ON MULTILANE ROAD

NOTES:

- VEHICLES USED FOR THESE OPERATIONS SHOULD BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT, SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, OR ARROW PANELS.
- PROTECTION VEHICLE #1 SHOULD BE EQUIPPED WITH AN ARROW PANEL. AN APPROPRIATE LANE CLOSURE SIGN SHOULD BE PLACED ON PROTECTION VEHICLE #1 SO AS NOT TO OBSCURE THE ARROW PANEL.
- PROTECTION VEHICLE #2 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK-MOUNTED ATTENUATOR (TMA).
- PROTECTION VEHICLE #1 SHOULD TRAVEL AT A VARYING DISTANCE FROM THE WORK OPERATION SO AS TO PROVIDE ADEQUATE SIGHT DISTANCE FOR TRAFFIC APPROACHING FROM THE REAR.
- WHEN ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, PROTECTION VEHICLE #1 SHOULD BE ELIMINATED.
- ON HIGH-SPEED ROADWAYS, A THIRD PROTECTION VEHICLE SHOULD BE USED (I.E., VEHICLE #1 ON THE SHOULDER (IF PRACTICAL), VEHICLE #2 IN THE CLOSED LANE, AND VEHICLE #3 IN THE CLOSED LANE).
- ARROW PANELS SHALL BE AS A MINIMUM TYPE B, 60" X 30" IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCD.
- WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

MOBILE OPERATIONS ON TWO-LANE ROAD



MOBILE OPERATIONS ON TWO-LANE ROAD

NOTES:

- WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND PROTECTION VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS. IF THIS CAN NOT BE DONE FREQUENTLY, AS AN ALTERNATIVE, A "DO NOT PASS" SIGN MAY BE PLACED ON THE REAR OF THE VEHICLE BLOCKING THE LANE.
- THE DISTANCE BETWEEN THE WORK AND PROTECTION VEHICLES MAY VARY ACCORDING TO TERRAIN, PAINT DRYING TIME, AND OTHER FACTORS. PROTECTION VEHICLES ARE USED TO WARN TRAFFIC OF THE OPERATION AHEAD. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, THE PROTECTION VEHICLE SHOULD MAINTAIN THE MINIMUM DISTANCE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. THE PROTECTION VEHICLE SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ADDITIONAL PROTECTION VEHICLES TO WARN AND REDUCE THE SPEED OF ONCOMING OR OPPOSING TRAFFIC MAY BE USED. POLICE PATROL CARS MAY BE USED FOR THIS PURPOSE.
- A TRUCK-MOUNTED ATTENUATOR (TMA) SHOULD BE USED ON THE PROTECTION VEHICLE AND MAY BE USED ON THE WORK VEHICLE.
- THE WORK VEHICLE SHALL BE EQUIPPED WITH BEACONS, AND THE PROTECTION VEHICLES SHALL BE EQUIPPED WITH TWO HIGH-INTENSITY FLASHING LIGHTS MOUNTED ON THE REAR, ADJUNCT TO THE SIGN. PROTECTION AND WORK VEHICLES SHOULD DISPLAY FLASHING OR ROTATING BEACONS BOTH FORWARD AND TO THE REAR.
- VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

STATE	PROJECT NO.
MISS.	

DATE	REVISION	BY	APP. BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
ROADWAY DESIGN DIVISION  
STANDARD PLAN

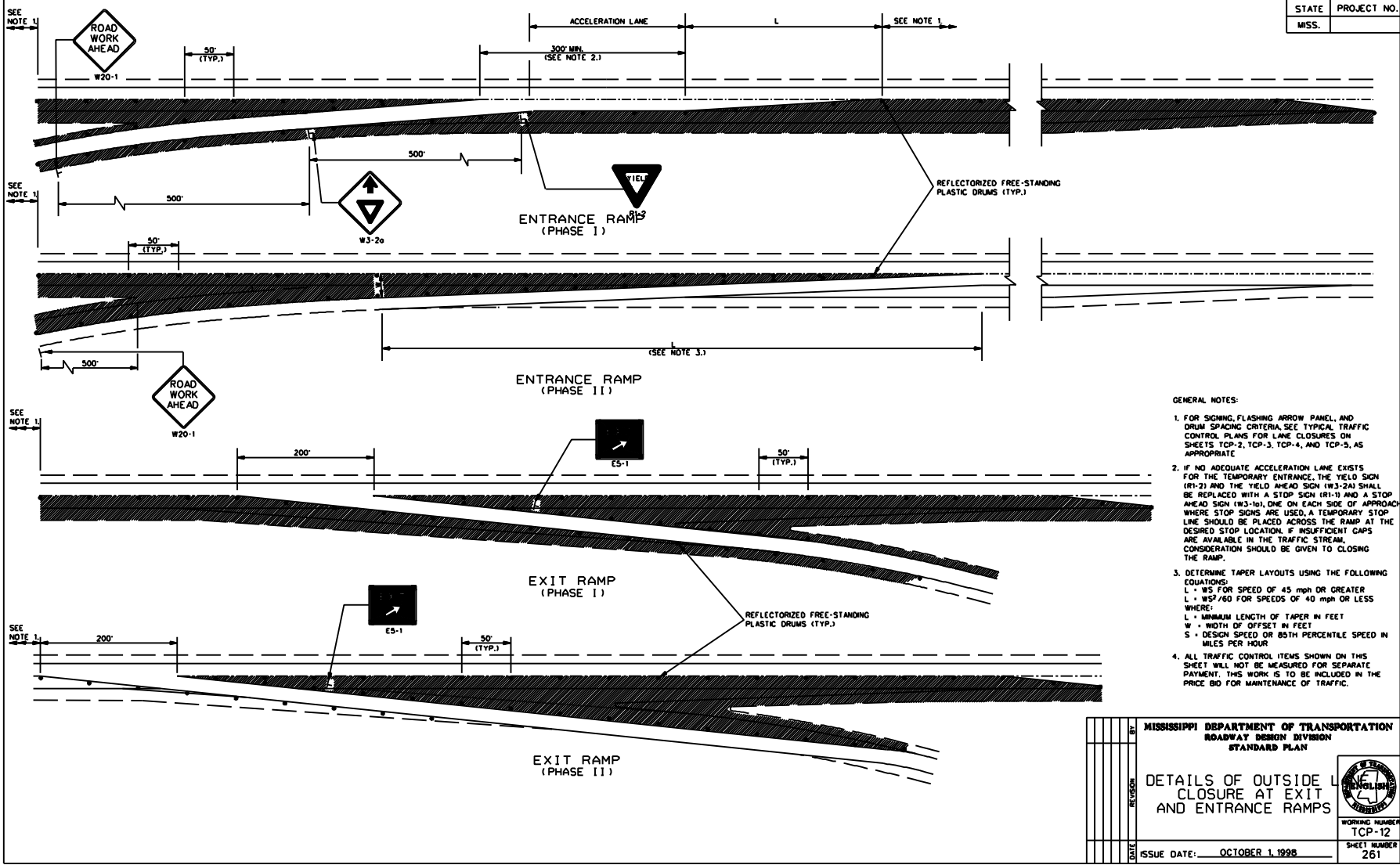
**TRAFFIC CONTROL PLAN  
MOBILE OPERATIONS  
MULTILANE ROADS  
AND  
TWO-LANE ROADS**

ISSUE DATE: OCTOBER 1, 1998


WORKING NUMBER  
TCP-11

SHEET NUMBER  
260

STATE	PROJECT NO.
MISS.	



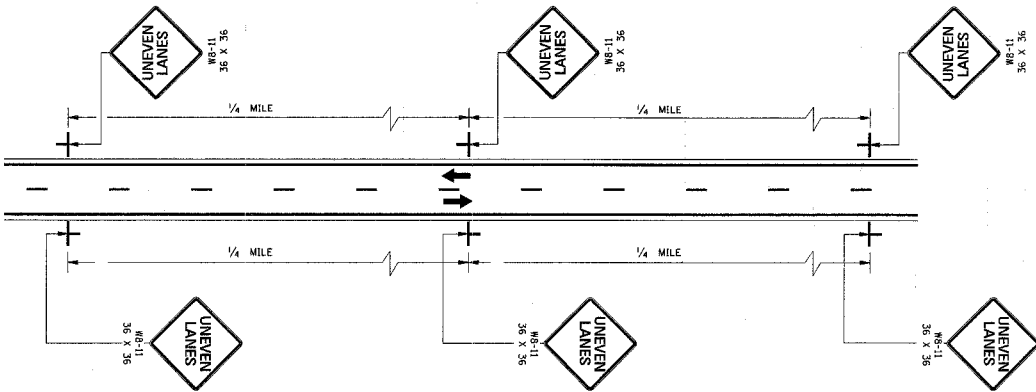
- GENERAL NOTES:
1. FOR SIGNING, FLASHING ARROW PANEL, AND DRUM SPACING CRITERIA, SEE TYPICAL TRAFFIC CONTROL PLANS FOR LINE CLOSURES ON SHEETS TCP-2, TCP-3, TCP-4, AND TCP-5, AS APPROPRIATE.
  2. IF NO ADEQUATE ACCELERATION LANE EXISTS FOR THE TEMPORARY ENTRANCE, THE YIELD SIGN (W3-2a) AND THE YIELD AHEAD SIGN (W3-2a1) SHALL BE REPLACED WITH A STOP SIGN (R1-1) AND A STOP AHEAD SIGN (W3-1a), ONE ON EACH SIDE OF APPROACH. WHERE STOP SIGNS ARE USED, A TEMPORARY STOP LINE SHOULD BE PLACED ACROSS THE RAMP AT THE DESIRED STOP LOCATION. IF INSUFFICIENT GAPS ARE AVAILABLE IN THE TRAFFIC STREAM, CONSIDERATION SHOULD BE GIVEN TO CLOSING THE RAMP.
  3. DETERMINE TAPER LAYOUTS USING THE FOLLOWING EQUATIONS:  
 $L = WS$  FOR SPEED OF 45 mph OR GREATER  
 $L = WS^2/600$  FOR SPEEDS OF 40 mph OR LESS  
 WHERE:  
 $L$  = MINIMUM LENGTH OF TAPER IN FEET  
 $w$  = WIDTH OF OFFSET IN FEET  
 $S$  = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR
  4. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
DETAILS OF OUTSIDE LINE CLOSURE AT EXIT AND ENTRANCE RAMP	
WORKING NUMBER TCP-12	 SHEET NUMBER 261
ISSUE DATE: OCTOBER 1, 1998	

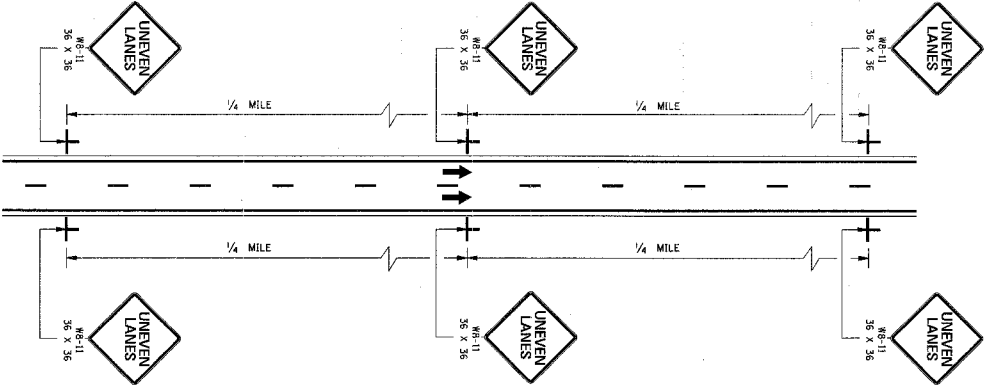
42

- 16 - Notice To Bidder No. 3770 -- Cont'd.

STATE	PROJECT NO.
MISS.	




TWO-WAY TRAFFIC

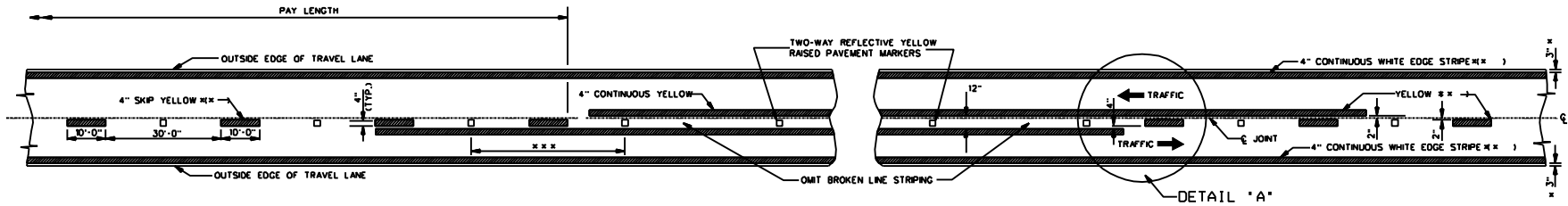


ONE-WAY TRAFFIC

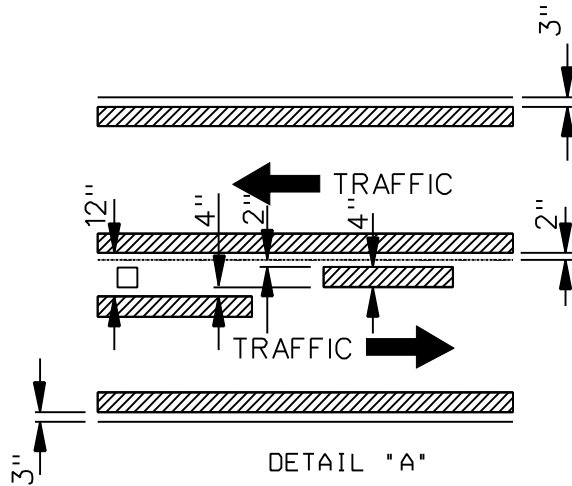
- GENERAL NOTES:
- UNEVEN LANE LINE.
    - IF LESS THAN OR EQUAL TO 1/2", NO SIGNS REQUIRED.
    - IF GREATER THAN 1/2" AND LESS THAN OR EQUAL TO 2/4", PLACE SIGNS AS SHOWN ON THIS SHEET.
    - IF GREATER THAN 2/4", TRAFFIC SHOULD NOT BE ALLOWED TO CROSS UNEVEN LANE LINE.
  - ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.
  - THE W8-11 SIGNS SHALL BE SPACED AT 1/4-MILE INTERVALS THROUGHOUT UNEVEN LANE LINE LIMITS.

43

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN		
<b>TRAFFIC CONTROL PLANS UNEVEN PAVEMENT DETAILS</b>		
BY	DATE	WORKING NUMBER TCP-14 SHEET NUMBER 263
REVISION	ISSUE DATE: OCTOBER 1, 1998	



TWO-WAY TRAFFIC  
(ASPHALT OR CONCRETE PAVEMENT)



DETAIL "A"



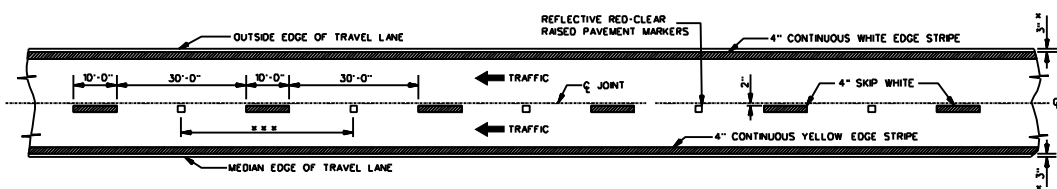
GENERAL NOTES:

- \* 1. 3" UNLESS SHOWN ELSEWHERE ON THE PLANS.
- \*\* 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR TAPE AS INDICATED IN PAY ITEMS).
- \*\*\* 3. SPACING OF REFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:

	URBAN AREA (11-in)	RURAL AREA (11-in)
TANGENT SECTIONS	40'-0"	80'-0"
HORIZONTAL CURVES	40'-0"	40'-0"
INTERCHANGE LIMITS	40'-0"	140'-0"

- 1. NOTE: ON THE MAIN FACILITY, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 100' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
- 4. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MOOT "APPROVED SOURCES OF MATERIALS."
- 5. REFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS

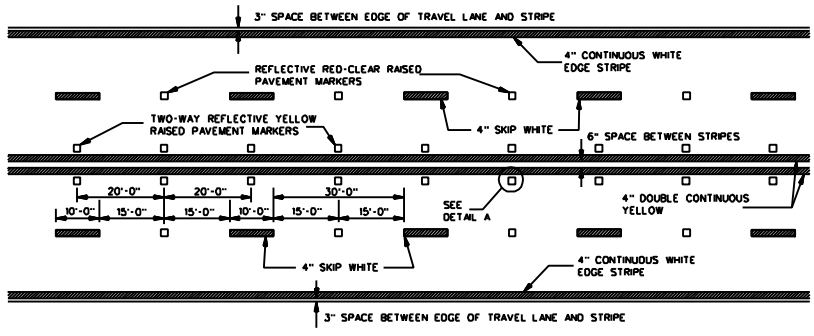
44



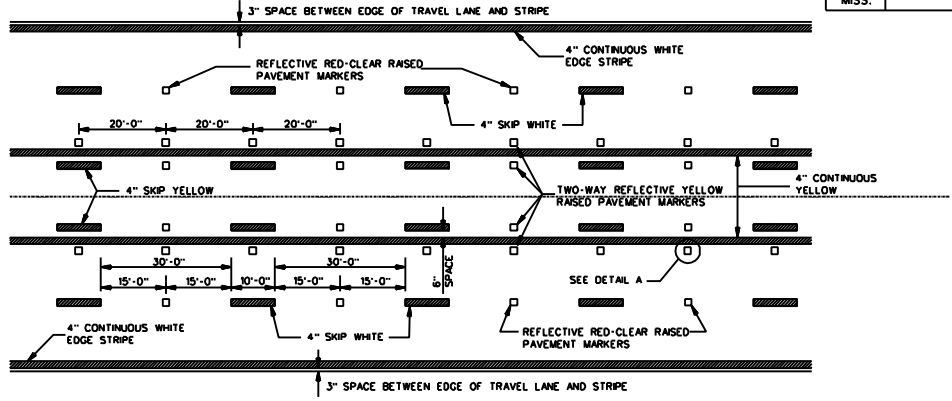
4-LANE WITH ONE-WAY TRAFFIC

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
TEMPORARY STRIPING FOR TRAFFIC CONTROL 2-LANE AND 4-LANE DIVIDED HIGHWAYS	
ISSUE DATE: DECEMBER 1, 1999	WORKING NUMBER TCP-15 SHEET NUMBER 264

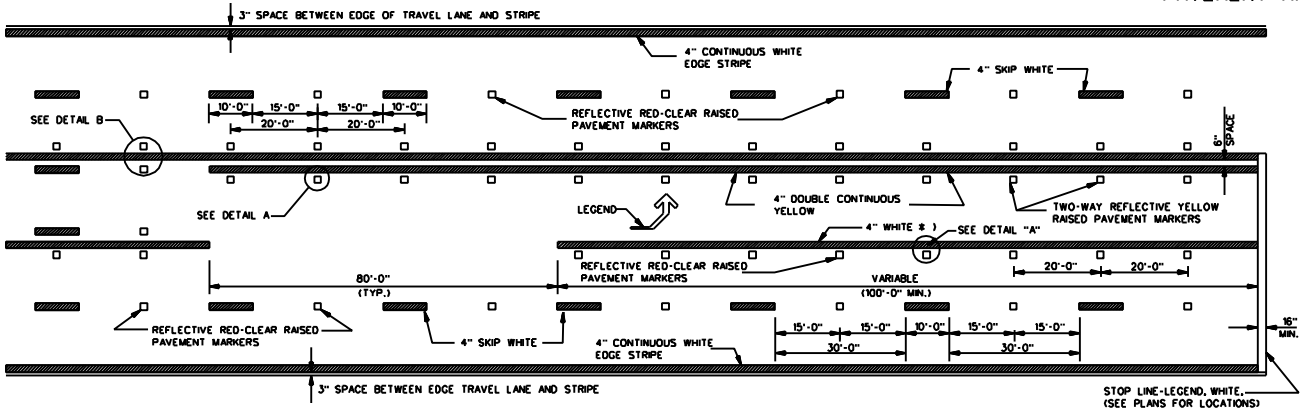
- 18 -  
Notice To Bidders



TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 4-LANE SECTION

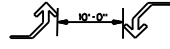


TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 5-LANE SECTION



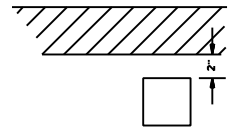
TYPICAL STRIPING AND RAISED PAVEMENT MARKERS AT LEFT TURN LANES

\* NOTE: USE DETAIL STRIPING IF LENGTH  $\leq$  150' AT THIS LOCATION, OTHERWISE USE CONTINUOUS STRIPING.



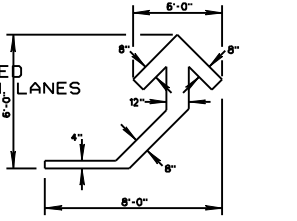
TYPICAL TWO-WAY ARROW INSTALLATION

- NOTES:
1. CONSIDER EACH SEGMENT OF CONTINUOUS TWO-WAY LEFT TURN LANE SEPARATELY.
  2. IF SEGMENT IS LESS THAN 350', PLACE ONE SET OF ARROWS IN CENTER OF SEGMENT.
  3. IF SEGMENT IS GREATER THAN 350', PLACE FIRST SET OF ARROWS 50' TO 100' FROM BEGINNING AND/OR END OF SEGMENT AND SPACE ADDITIONAL SETS OF ARROWS (250' O.C.).

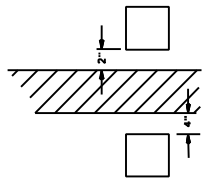


DETAIL A LATERAL PLACEMENT OF PAVEMENT MARKERS

- GENERAL NOTE:
1. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RAISED PAVEMENT MARKERS AS LISTED IN THE MDT "APPROVED SOURCES OF MATERIALS".
  2. REFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS.
  3. TEMPORARY TURN ARROW TO BE PAID FOR AS TEMPORARY TRAFFIC STRIPE (LEGEND), ESTIMATED AT 10.9 SO. FT. PER ARROW.



DETAIL OF TEMPORARY TURN ARROW



DETAIL B LATERAL PLACEMENT OF PAVEMENT MARKERS

BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN
REVISION	
DATE	ISSUE DATE: DECEMBER 1, 1999

TEMPORARY STRIPING FOR TRAFFIC CONTROL  
4-LANE AND 5-LANE UNDIVIDED ROADWAYS

WORKING NUMBER  
TCP-16

SHEET NUMBER  
265

45

19

Notice to Bidders No. 19-1999

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 3893**

**CODE: (SP)**

**DATE: 04/10/2012**

**SUBJECT: Petroleum Products Base Prices**

Bidders are advised that monthly petroleum products base prices will be available at the web site listed below. Current monthly prices will be posted to this web site on or before the 15<sup>th</sup> of each month. Bidders are advised to use the petroleum base prices on this web site when preparing their bids. The current monthly petroleum products base prices will be acknowledged by the Bidder and become part of the contract during the execution process.

Monthly Petroleum Products Base Prices can be viewed at:

<http://sp.gomdot.com/Contract%20Administration/BidSystems/Pages/letting%20calendar.aspx>



**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 904 - NOTICE TO BIDDERS NO. 3927**

**CODE: (SP)**

**DATE: 06/20/2012**

**SUBJECT: Contract Time**

**PROJECT: MP-5501-62(006) / 304356301 -- Scott County**

The calendar date for completion of work to be performed by the Contractor for this project shall be **November 16, 2012** which date or extended date as provided in Subsection 907-108.06 shall be the end of contract time. It is anticipated that the Notice of Award will be issued no later than **August 14, 2012** and the effective date of the Notice to Proceed / Beginning of Contract Time will be **September 13, 2012**.

Should the Contractor request a Notice to Proceed earlier than **September 13, 2012** and it is agreeable with the Department for an early Notice to Proceed, the requested date will become the new Notice to Proceed / Beginning of Contract Time date.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 3928**

**CODE: (SP)**

**DATE: 06/13/2012**

**SUBJECT: Scope of Work**

**PROJECT: MP-5501-62(006) / 304356301 -- Scott County**

The contract documents do not include an official set of construction plans but may, by reference, include some Standard Drawings when so specified in a Notice to Bidders entitled, "Standard Drawings". All other references to plans in the contract documents and Standard Specifications for Road and Bridge Construction are to be disregarded.

Work on the project shall consist of the following:

Overlay approximately 2.5 miles of existing composite pavement on SR 501 in Scott County from the north end of the I-20 Bridge (Station 451+60) to beginning of railroad right of way (Station 581+43).

## **From the BOP at Station 451+60 to 530+50**

Work in this area shall consist of repairing failed areas in the right and left lanes, spot milling, pre-leveling with 12.5-mm asphalt pavement, ST and overlaying the travel lanes with 2" and variable 12.5-mm asphalt pavement, ST. The pavement shall be overlaid 2" on center-line and 1½" at edge of pavement to correct cross slope to as close to 2% as possible. The existing lanes are 11' and variable in width.

Prior to mainline overlay operations, leveling and spot milling shall be done. Leveling shall be done at locations shown in the attached tables or as directed by the Engineer. Transitions are required at beginning and end of each leveling section. Transition lengths can be found in attached tables. Areas to be spot milled shall be milled to a depth of 2" and variable and filled with 12.5-mm, ST Leveling. The areas requiring spot milling are as shown in the attached table or as directed by the Engineer.

## **From Station 530+50 to Station 573+50**

Work in this area shall consist of repairing failed areas in the right and left lanes, spot milling, and overlaying the travel lanes with 2" and variable 12.5-mm asphalt pavement, ST. The pavement shall be overlaid 2" on center-line and 1½" at edge of pavement to correct cross slope to as close to 2% as possible. The existing lanes are 11' and variable in width.

Prior to mainline overlay operations, spot milling shall be done. Areas to be spot milled shall be milled to a depth of 2" and variable and filled with 12.5-mm, ST, Leveling. The areas requiring spot milling are as shown in the attached table or as directed by the Engineer.

**From Station 574+15 to Station 579+00**

Work in this area shall consist of repairing failed areas in the right and left lanes, spot milling, and overlaying the travel lanes with 2" and variable 12.5-mm asphalt pavement, ST. The pavement shall be overlaid 2" on center-line and 1½" at edge of pavement to correct cross slope to as close to 2% as possible. The existing lanes are 11' and variable in width. Left lane shall be milled 2" at curb and 0" at 6' from curb for curb tie-in.

Prior to mainline overlay operations, spot milling shall be done. Areas to be spot milled shall be milled to a depth of 2" and variable and filled with 12.5-mm, ST Leveling. The areas requiring spot milling are as shown in the attached table or as directed by the Engineer.

**From Station 579+00 to Station 581+43**

Work in this area shall consist of repairing failed areas in the right and left lanes, milling, and overlaying the travel lanes and 12' paved shoulder on right with 2" and variable 12.5-mm asphalt pavement, ST. The pavement shall be milled 1½" and overlaid with 2" at centerline and 1½" at the edge of the travel lane. The milling transition shall begin at Sta. 579+00 (depth of 0") and extend to Sta. 580+50 (depth of 1 ½"). The existing lanes are 11' and variable in width with a 12' paved shoulder on right side.

**From Station 573+50 to Station 574+15**

Work in this area shall consist of removing the existing box culvert, pavement, riprap and concrete debris, pedestrian bridge, and other miscellaneous work. Also included in this area is the construction of a double 10' x 6' precast box culvert, pavement structure, junction box and miscellaneous drainage items, cast-in-place barrier rails, guardrails, sidewalk, and other incidental items.

The existing box culvert, pedestrian bridge, headwalls, riprap and concrete debris, and guardrail are to be removed and will be paid using the 202-B: Removal of Obstructions pay item. Other removal items will be paid using the appropriate pay items. Upon completion of the removal, structure excavation shall be made to facilitate the placement of the double line of single barrel box culvert sections. The foundation of the box shall be excavated to the required grade. Additional excavation and the placement of select material in the foundation may be done as directed by the Engineer. Also included in this area is the relocation of the 12-inch water line located on the western side of Hwy 501.

The 12-inch ductile iron water line on the western side of Hwy 501 shall be relocated as shown on the attached drawings. The proposed location of the water line, fittings, valves, and appurtenances shall be adjusted and placed to best fit the field conditions and to avoid conflicts with the proposed box culvert placement. Numerous utilities reside in the vicinity of the proposed water line location, and their locations shall be determined by conventional methods including, but not limited to, uncovering and visually verifying them and having MS-811

location requests filled. It is the Contractor's responsibility to field-verify the utilities to avoid conflicts.

The water line materials shall be placed by the trenching method. During excavation, material for backfilling shall be piled back from the banks of the trench to avoid overloading and to prevent slides and cave-ins. All excavated material not to be used for backfilling shall be removed and disposed of. The bottom of the trench shall be uniformly graded to provide firm support and an even bearing surface for the pipe. The pipe shall be laid on firm soil, laid in straight lines and on uniform grades. Excavation shall be done to accommodate fittings and appurtenances. Pipe shall be inspected prior to backfilling. No roots, rocks, or foreign materials of any description shall be used in backfilling the trenches. The trench shall be hand filled to a minimum of 12 inches above the top of the pipe with clean earth and compacted to the satisfaction of the Engineer. Proper erosion control procedures shall be employed during the work.

The pipe shall consist of 12-inch ductile iron, Class 350. A valve and valve box shall be placed on the northern end of the relocation as shown on the attached drawing. Turns in the line shall not exceed 45 degree angles (horizontally or vertically). Thrust blocks shall be used as required in horizontal and vertical bends of the alignment. Details for the thrust blocks are shown on the attached sheets.

Prior to commencing work, the Contractor shall submit product data to the Department for review, approval, or revisions. The submittal shall be made for all materials to be used in the water line relocation. This submittal shall be made at least 21 working days prior to commencing the relevant work. The submittal procedures are shown on the attached sheets. All required materials shall meet AWWA Standards. Payment for the water line relocation including all materials, excavation, labor, equipment, etc. shall be made using the included Lump Sum pay item.

All work associated with the water line relocation shall be closely coordinated with MDOT and the City of Forest. The water service may not be interrupted between 12:00 a.m. Monday through 12:00 p.m. Saturday. Anticipated interruption of the service shall be coordinated with and approved by MDOT at least 14 days prior to the interruption. Due to the nature of the work, numerous residences and businesses may be affected. Interruption of the line should be kept to a minimum.

Upon completion of the foundation, the precast box sections shall be placed as required. The double line of precast sections shall be separated by 4" (minimum) gap to allow flowable fill to be placed between the sections as required. The box shall be backfilled to the top of the barrel using borrow material. Variable depth crushed stone shall be used to construction the roadway subgrade and base. The pavement structure shall consist of 5" of asphalt per the attached typical section. Borrow material shall be placed to tie the modified slopes to the existing slopes as directed by the Engineer. Silt fence shall be placed as required for temporary erosion control until adequate growth and coverage is achieved. Grassing shall be done as soon as possible to protect the slopes and bare areas.

Upon completion of the backfill, cast-in-place concrete barrier rails, sidewalk, and concrete curb shall be constructed in accordance with the attached drawings. A variable depth concrete footing shall be poured prior the construction of the rail. The depth of the footing shall extend to the top of the box culvert within the limits of the box. Outside of the box culvert limits, the depth of the footing shall be 4". The width of the footing shall be 3'-4". Drain holes (1" diameter and 5' o.c.) are to be placed in the footing per the attached drawing. Drain holes in the barrier rail are to be placed per the attached drawing. The concrete sidewalk is to be poured to match the existing sidewalk and extend to the north side of Hill Street.

Subsequent to the placement of the concrete barrier rail, guardrail is to be placed on the northwest, northeast, and southwest quadrants of the box site per the attached drawing. The rail shall consist of the following: 1) Northwest quadrant: Type I bridge end section, 25' Class A Type 1 W-Beam, 1 non-flared terminal end section, 2) Northeast quadrant: Type I bridge end section, 25' Class A Type 1 W-Beam, 1 non-flared terminal end section, 3) Southwest quadrant: Type I bridge end section, 1 non-flared terminal end section.

The existing roadway is to be signed and closed per the attached drawing prior to the commencement of box culvert work. It is expected that the work proceed as a continuous operation to minimize the time that the roadway is closed. A lighting plan shall be submitted and approved prior to any nighttime work commencing. The Contractor shall maintain the road closure and the traffic control devices to prevent traffic from entering the workzone.

**General Notes:** (These general notes are applicable to all sites.)

Prior to the milling and paving operations, failed areas in the existing pavement shall be removed and backfilled with 12.5-mm asphalt pavement, ST, Leveling, as per the attached typical sections and details. A maximum lift of 3.5" is to be used for the backfilling. Any granular base material deemed unsuitable by the Engineer shall be removed as directed and backfilled with 12.5-mm asphalt. Payment for the excavation of base material will be made using the 202-B Removal of Base pay item. A list of the failed areas is shown in the attached table. Pavement repairs shall be completed as a continuous operation in order to minimize the traffic impact. Lane closures shall be in place until the failed area has been completely repaired. Should overnight closures be necessary, they shall be maintained by the contractor's personnel and in accordance with a lighting plan approved by the Engineer.

Preliminary leveling will be used to correct super-elevation and existing vertical profile to provide a smoother ride for the traveling public in the areas as shown in the attached tables or as directed by the Engineer. Preliminary leveling shall be accomplished prior to overlay operations. A maximum lift of 2.5" is to be used for leveling operations. The shoulder differential shall not exceed 2.5", if a shoulder differential of greater than 2.5" exist, shoulder must be brought up to leveling grade prior to opening road to traffic. The estimate leveling depths are shown in the attached tables. However, the Department will be responsible for determining the extent and limits of the leveling.

Traffic will not be allowed to run on any milled surface. Milled surfaces shall be overlaid and temporary striped prior to being opened to traffic.

Temporary stripe, either paint or tape, will be required immediately after preliminary leveling and overlaying operations and prior to opening the area to traffic. Separate payment will be made for temporary traffic stripe under the corresponding bid schedule pay items. Temporary stripe shall be placed in the same location and layout as permanent stripe.

Publicly maintained roads and streets should be paved to the existing right-of-way. Privately owned entrances shall be paved to the shoulder line per the included typical drawing. Pads shall be shaped horizontally and vertically to prevent excessive drop-offs. Granular material (Class 5, group 'C') shall be provided around the pads to prevent shoulder drop-offs as directed and shall be placed in a timely manner. Drop-offs exceeding 2.5" shall be corrected within two (2) calendar days of the placement of the pad. Stabilizer aggregate shall be used as directed by the Engineer.

It shall be the responsibility of the Contractor to protect existing structures such as pipes, inlets, aprons, bridges, etc. from damage which might occur during construction. The Contractor shall replace or repair, as directed by the Engineer, any structures damaged during the life of the contract. No payment will be made for replacement or repair of damaged items.

The Contractor shall erect and maintain construction signing and provide all signs and traffic control devices necessary to safely maintain traffic around and through the work areas in accordance with the Traffic Control Plan and the MUTCD. The cost is to be included in the price bid for Pay Item No. 618-A, Maintenance of Traffic. Fluorescent orange sheeting shall be used on all construction and traffic control signs except those designated in the plans to be black legend and border on white background. Standard roadside construction signs and barricades will be paid for using the appropriate pay items.

Roadside construction signs, barrels, etc. shall be placed in accordance with the attached drawings or as directed by the Engineer. W20-1 signs shall be placed on all public road approaches as shown or as directed.

Incidental work such as removing vegetation, shaping and compacting shoulders, removing and resetting signs and/or mailboxes, removing excess asphalt material, project clean-up, and other items of incidental work necessary to complete the project will not be measured for separate payment and will be considered included in the prices of items bid.

The Contractor shall on a daily basis, remove all debris from within the roadway and a 30-foot clear zone which, in the opinion of the Engineer, is a hazard to the traveling public. This activity shall begin with the beginning of work or the beginning of the contract time, whichever comes first. No direct payment will be made for the debris removal; the cost is to be included in the prices of items bid. Failure of the Contractor to remove the debris as prescribed herein shall be just cause for withholding the monthly progress estimate payment or suspending active operations until the debris is satisfactorily removed by the Contractor.

Where applicable the existing shoulders are to be raised to match the new pavement elevation by placing variable depth Granular Material (Class 5, Group C) on the existing shoulders.

Placement of the granular material on the finished asphalt course shall not be permitted. The existing shoulder shall be scarified to allow incorporation of new shoulder material. The material shall be bladed, rolled, and compacted to a finished slope of four percent (4%). Placement of this material shall be performed to provide a uniform and compacted shoulder with a minimum depth and width of material placed. Shoulders with adequate shoulder material in place shall be bladed to a slope of four percent (4%). The cost of blading will be an absorbed item and is not to be included in the price of pay items bid.

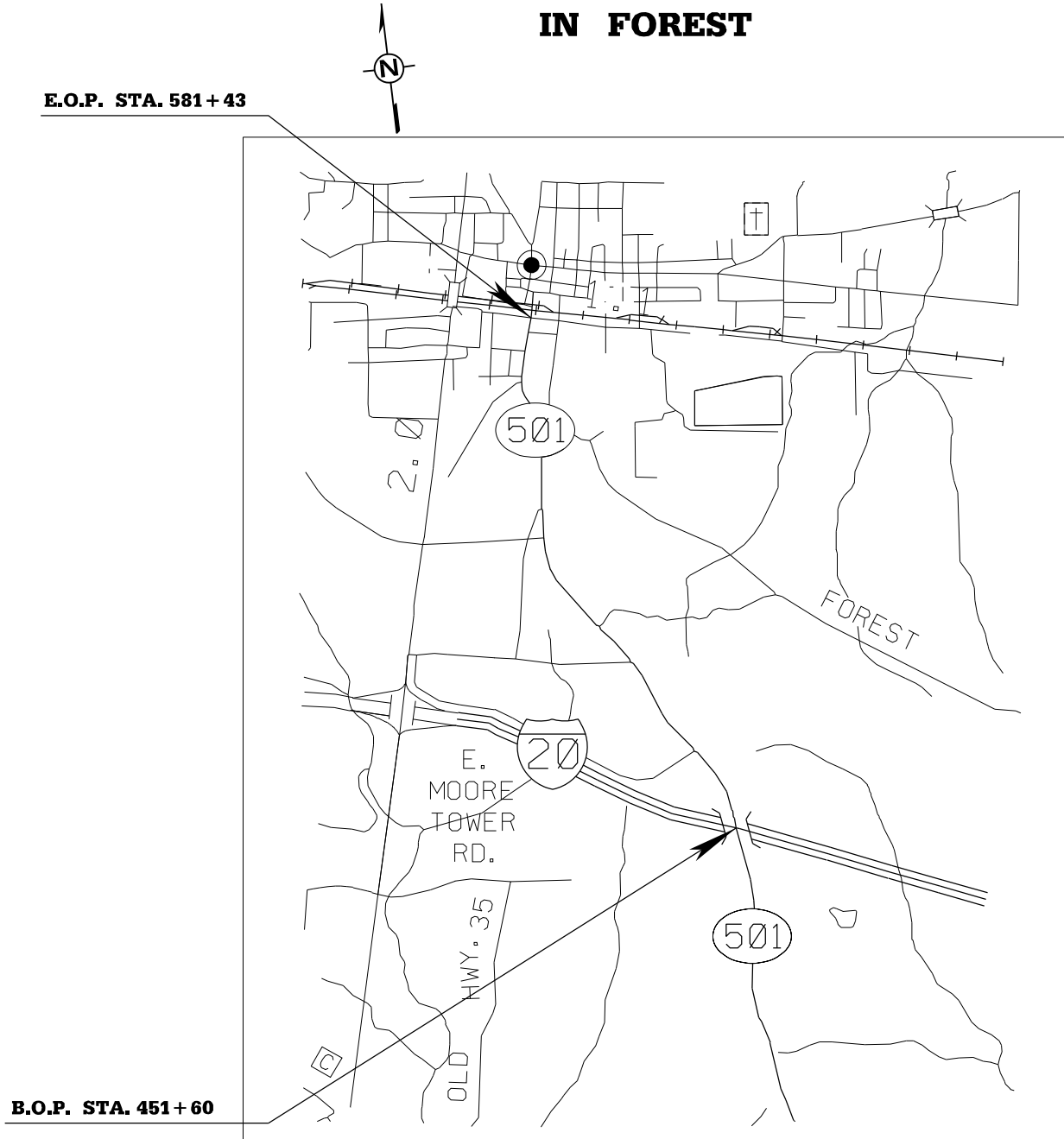
Existing raised pavement markers are to be removed prior to beginning the overlay operation. No measurement will be made for separate payment; the cost is to be included in the prices for other items bid. Permanent pavement markers are to be placed in accordance with the attached drawings and Standard Drawings. Two-way yellow markers are to be placed on two-way roads and county roads. Two-way clear markers are to be placed on county roads.

Temporary traffic stripe will be required immediately after the required overlay and prior to opening area to traffic. Temporary stripe is to be placed in the same location and configuration as the permanent stripe.

All permanent striping will be thermoplastic. Edge lines shall be placed to accommodate the lane widths shown on the applicable typical sections unless prevented by field conditions.

Asphalt curbs are to be placed at the locations shown in the attached table. The curbs shall be placed a minimum of five feet (5') from the edge of the travel way at county roads or as directed by the Engineer.

**MP-5501-62(005)/303913-301000  
MILLING AND OVERLAYING HIGHWAY 501  
FROM I-20 TO END OF MAINTENANCE AT RAILROAD  
IN FOREST**

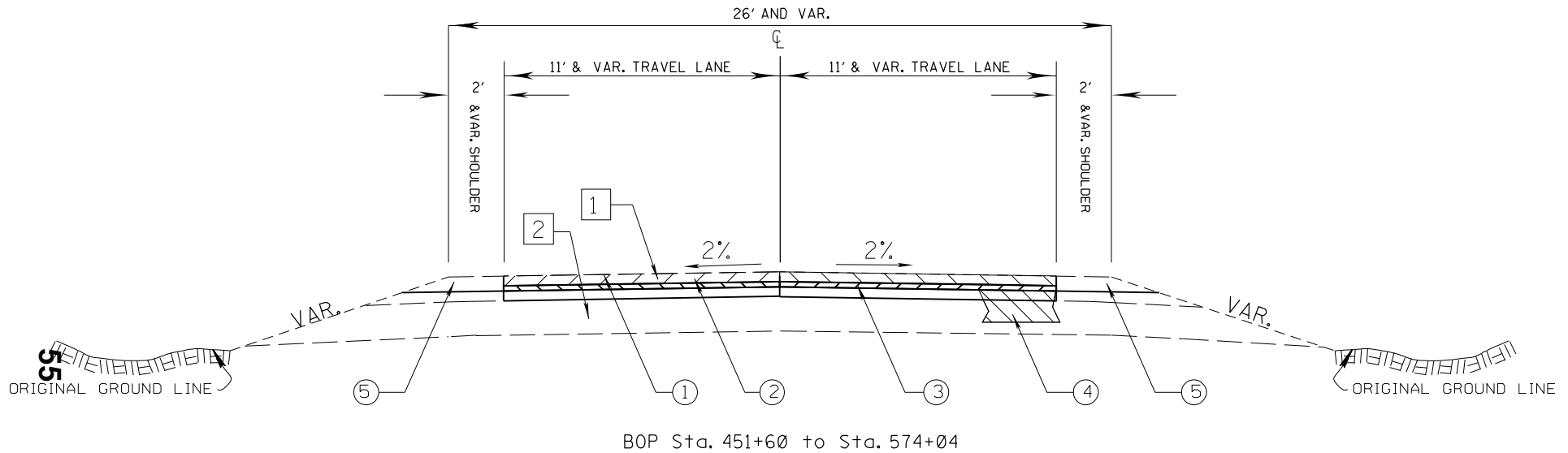




MP-5501-62(005) / 303913 301000

SCOTT COUNTY

TYPICAL SECTION #1



EXISTING MATERIALS

- 1 4 1/2" AND VARIABLE ASPHALT
- 2 VARIABLE DEPTH GRANULAR MATERIAL

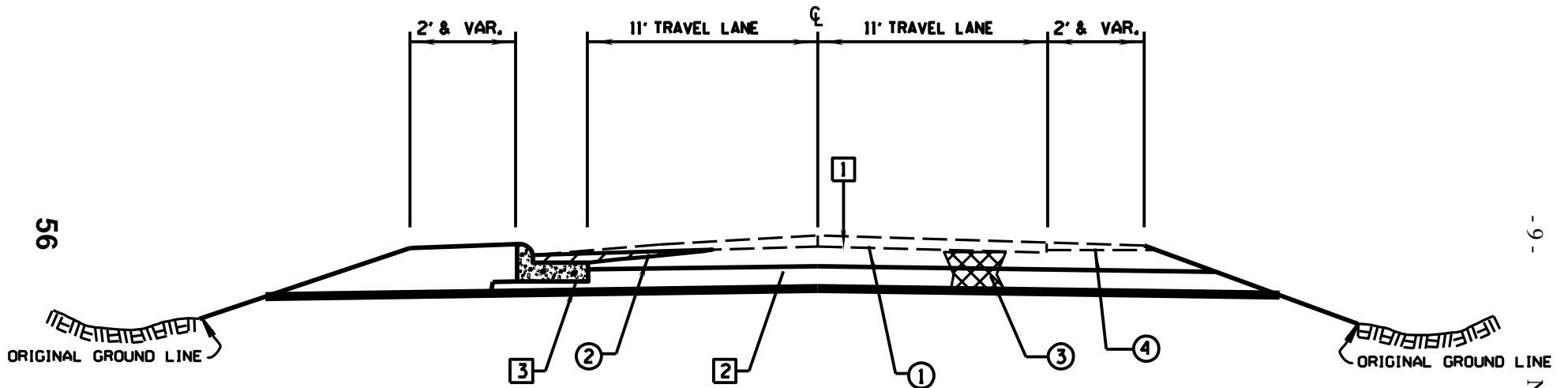
PROPOSED

- 1 OVERLAY WITH 2" & VAR. ASPHALT PAVEMENT, 12.5mm MIXTURE, ST. -MODIFY EXISTING CROSS SLOPE BY PLACING 2" AT CENTERLINE AND 1-1/2" AT EDGE OF PAVEMENT, TO ACHIEVE 2% SLOPE.
- 2 SPOT MILL/INLAY EXISTING ASPHALT PAVEMENT WITH 2" OF 12.5mm MIXTURE, ST. LEVELING AT LOCATIONS AS LISTED OR DIRECTED BY ENGINEER.
- 3 PRE LEVELING (ASPHALT PAVEMENT, 12.5mm MIXTURE, ST, LEVELING) REQ'D AT LOCATIONS AS DIRECTED. \*
- 4 REPAIR FAILED AREAS FULL DEPTH PRIOR TO OVERLAY WITH 12.5mm MIXTURE, ST, (IF APPLICABLE).
- 5 VARIABLE DEPTH GRANULAR MATERIAL CLASS 5, GROUP C (AS REQ'D).

\* SEE ATTACHED LEVELING TABLE FOR LOCATIONS

MP-5501-62(005) / 303913 301000  
 SCOTT COUNTY

TYPICAL SECTION #2  
 STA. 574+04 TO STA. 579+00



EXISTING MATERIALS

- ① 4 1/2" AND VARIABLE ASPHALT
- ② VARIABLE DEPTH GRANULAR MATERIAL
- ③ COMBINATION CONCRETE CURB AND GUTTER

PROPOSED

- ① OVERLAY WITH 2" ASPHALT PAVEMENT, 12.5mm MIX, ST. MODIFY EXISTING CROSS-SLOPE BY PLACING 2" AT CENTERLINE AND 1-1/2" AT EDGE OF PAVEMENT, TO ACHIEVE 2% SLOPE
- ② MILL ASPHALT SURFACE: 2" AT CURB AND 0" AT 6' FROM CURB LINE
- ③ REPAIR FAILED AREAS FULL DEPTH. REPAIR WITH ASPHALT PAVEMENT, 12.5mm MIX, ST.
- ④ PROVIDE ADDITIONAL QUANTITY (IF REQUIRED) OF CLASS 5, GROUP "C" GRANULAR MATERIAL TO BRING SHOULDERS TO GRADE AFTER OVERLAY

56

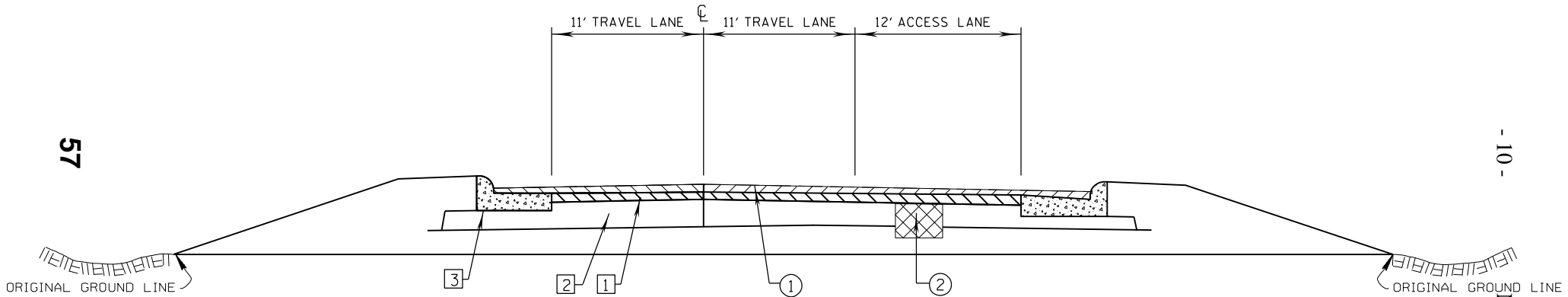
- 9 -

Notice To Bidder No. 3928 -- Cont'd.

MP-5501-62(005) / 303913 301000

SCOTT COUNTY

TYPICAL SECTION #3  
LOCATED AT CENTERLINE  
STA. 579+00 TO 581+43 (EOP)



57

- 10 -

EXISTING MATERIALS

- ① 4 1/2" AND VARIABLE ASPHALT
- ② VARIABLE DEPTH GRANULAR MATERIAL
- ③ COMBINATION CONCRETE CURB AND GUTTER (TYPE 3 MOD.) REQ'D.

PROPOSED

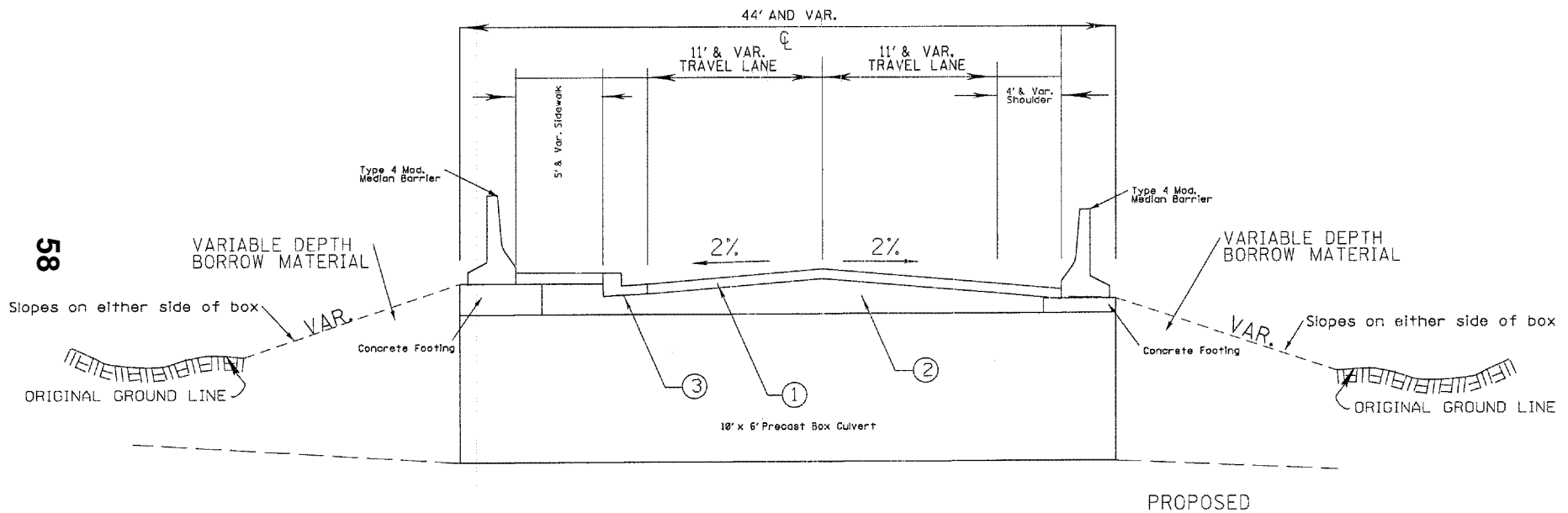
- ① MILL 1-1/2" AND VARIABLE AND INLAY WITH 2" AND VAR. ASPHALT PAVEMENT, 12.5mm MIX, ST. (MODIFY EXISTING CROSS-SLOPE BY PLACING 2" AT CENTERLINE AND 1-1/2" AT EDGE OF PAVEMENT, TO ACHIEVE 2% SLOPE).
- ② REPAIR FAILED AREAS FULL DEPTH. REPAIR WITH 12.5mm MIX, ASPHALT PAVEMENT, ST.

Notice To Bidder No. 3928 -- Cont'd.

MP-5501-62(005) / 303913 301000

SCOTT COUNTY

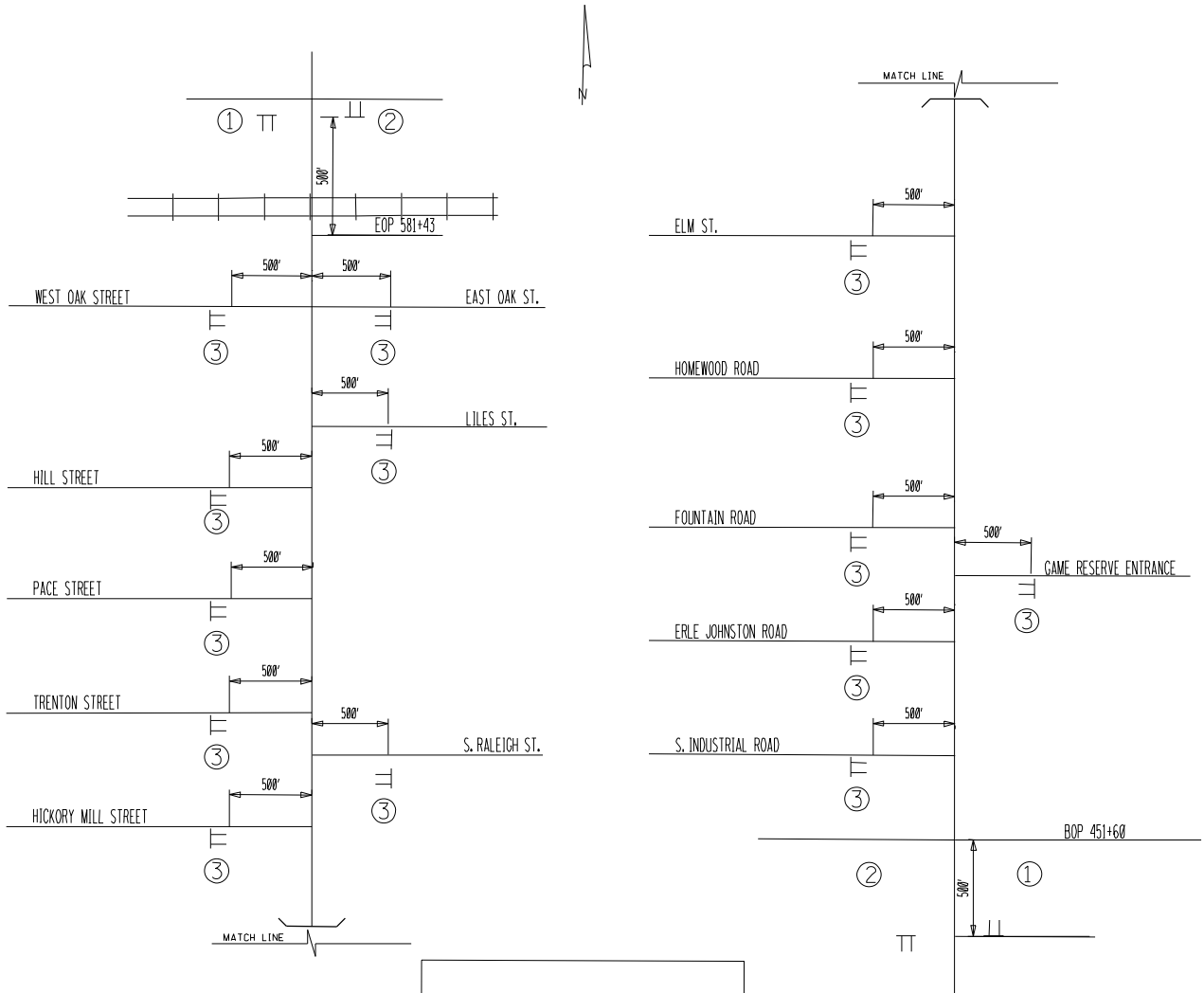
TYPICAL SECTION AT BOX REPLACEMENT



58

- ① 5" ASPHALT PAVEMENT (2" OF 12.5mm MIXTURE, ST & 3" OF 19.0mm MIXTURE, ST)
- ② VARIABLE DEPTH 825-B CRUSHED STONE
- ③ TYPE 1 CONCRETE CURB & GUTTER

### CONSTRUCTION SIGNING DETAIL



- TRAFFIC CONTROL SIGNS REQUIRED
- 2 - G20-1 "ROAD WORK NEXT 3 MILES"
  - 2 - G20-2A "END ROAD WORK"
  - 14 - W20-1 "ROAD WORK AHEAD"
  - 33 - R4-1 "DO NOT PASS"
  - 2 - R4-2 "PASS WITH CARE"
  - 4 - W14-3 "NO PASSING ZONE"

SIGN LEGEND	
NUMBER	DESCRIPTION
①	ROAD WORK NEXT 3 MILES G20-1 60x24
②	END ROAD WORK G20-2a 48x24
③	ROAD WORK AHEAD W20-1 48x48
④	DO NOT PASS R4-1 24x30
⑤	PASS WITH CARE R4-2 24x30
⑥	NO PASSING ZONE W14-3 36x48x48

NOTES:

ONE (1) W20-1 "ROAD WORK AHEAD" SIGN IS REQUIRED AT EACH LOCAL ROAD, STREET, OR HIGHWAY ENTERING THE PROJECT.

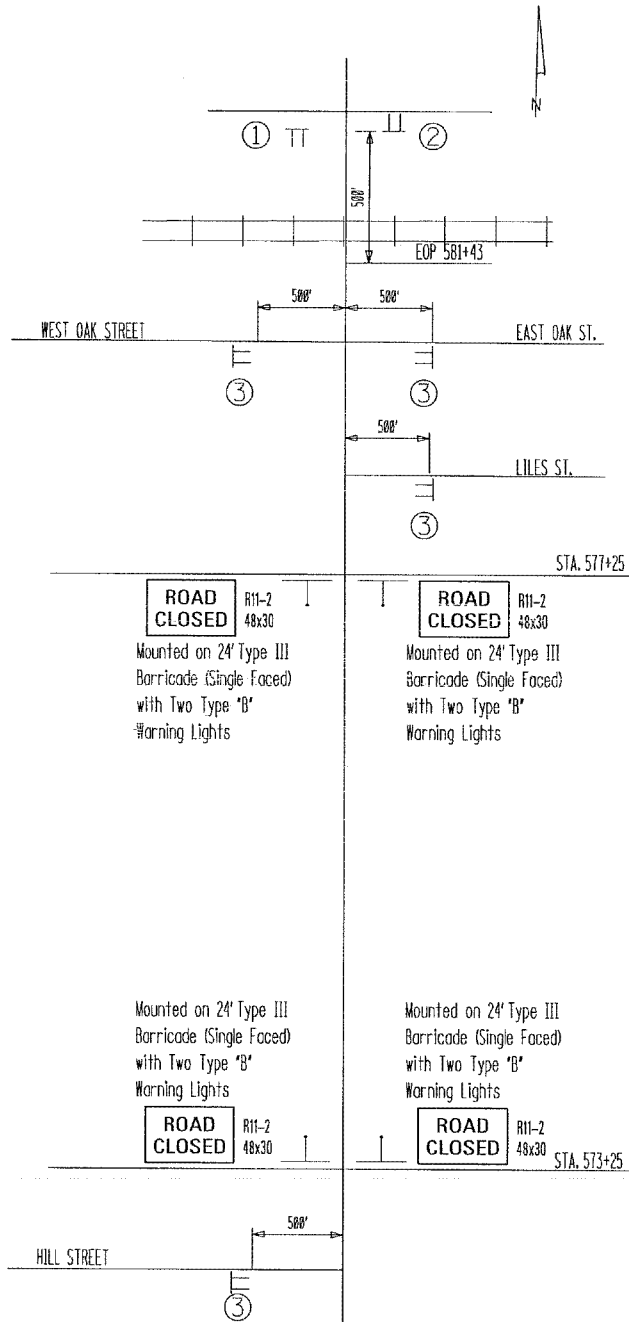
G20-1 AND G20-2A SIGNS MOUNTED ON TYPE III DOUBLE FACED BARRICADE.

R4-1 "DO NOT PASS", R4-2 "PASS WITH CARE", AND W14-3 "NO PASSING ZONE" SIGNS ARE REQUIRED IN ACCORDANCE WITH SUBSECTION 618.03.3 AND AS SPECIFIED IN THE MUTCD. IF NO PASSING ZONES ARE 1000 FT OR MORE, INSTALL ADDITIONAL "DO NOT PASS" SIGNS ON MAXIMUM SPACING OF 750 FT.

FIELD CONDITIONS MAY REQUIRE SOME SIGNS ON THIS DETAIL TO BE ADJUSTED.

THE ABOVE SHOWN ITEMS WILL BE PAID UNDER THE APPROPRIATE PAY ITEMS.

# CONSTRUCTION SIGNING DETAIL FOR BOX CULVERT REPLACEMENT



TRAFFIC CONTROL SIGNS REQUIRED  
FOR BOX CULVERT REPLACEMENT

- 4 - R11-2 "ROAD CLOSED"
- 48' - TYPE III BARRICADE
- 4 - TYPE "B" WARNING LIGHTS

SIGN LEGEND	
NUMBER	DESCRIPTION
①	ROAD WORK NEXT 3 MILES G20-1 60x24
②	END ROAD WORK G20-2a 48x24
③	ROAD WORK AHEAD W20-1 46x58
⑦	ROAD CLOSED R11-2 48x30

NOTES:

ONE (1) W20-1 "ROAD WORK AHEAD SIGN IS REQUIRED AT EACH LOCAL ROAD, STREET, OR HIGHWAY ENTERING THE PROJECT.

G20-1 AND G20-2A SIGNS MOUNTED ON TYPE III DOUBLE FACED BARRICADE.

FIELD CONDITIONS MAY REQUIRE SOME SIGNS ON THIS DETAIL TO BE ADJUSTED.

THE ABOVE SHOWN ITEMS WILL BE PAID UNDER THE APPROPRIATE PAY ITEMS.

Driveway Pads, Asphalt, ST, 12.5-mm mixture							
Station	Location	Width-1 (FT)	Width-2 (FT)	Length (FT)	Total (SF)	Total (Tons)	Remarks
466+00	Rt	40	27	5	167.500	2.094	
475+34	Lt	73	40	8	452.000	5.650	
475+74	Rt	81	67	4	296.000	7.326	Pad designed for trucks leaving phoenix trucking depth = 4". Pad begins at sta 475+34 and ends at sta 476+15
489+71	Lt	57	37	5	235.000	2.938	
493+25	Lt	40	32	5	180.000	2.250	
525+25	Lt	45	32	5	192.500	2.406	
525+94	Lt	37	33	5	175.000	2.188	
526+49	Lt	30	20	5	125.000	1.563	
528+17	Lt	45	35	5	200.000	2.500	
530+31	Rt	24	14	5	95.000	1.188	
531+00	Rt	34	26	5	150.000	1.875	
531+72	Lt	30	20	5	125.000	1.563	
532+41	Rt	27	18	5	112.500	1.406	
533+24	Rt	24	19	5	107.500	1.344	
535+80	Rt	26	15	5	102.500	1.281	
538+00	Rt	186	166	5	880.000	11.000	Island in place and will remain
542+45	Rt	42	33	6	225.000	2.813	
543+17	Lt	36	27	5	157.500	1.969	
543+75	Lt	26	14	5	100.000	1.250	
544+45	Lt	45	34	5	197.500	2.469	
545+57	Rt	118	71	12	1134.000	14.175	
545+57	Lt	32	20	5	130.000	1.625	
546+13	Lt	22	18	5	100.000	1.250	
546+62	Lt	27	15	5	105.000	1.313	
547+11	Rt	33	23	5	140.000	1.750	
547+76	Rt	40	31	6	213.000	2.663	
548+10	Lt	35	23	5	145.000	1.813	
548+23	Rt	40	30	6	210.000	2.625	
548+63	Lt	20	8	5	70.000	0.875	
549+00	Lt	30	20	5	125.000	1.563	
549+00	Rt	40	21	8	244.000	3.050	
549+38	Rt	28	19	5	117.500	1.469	
549+62	Lt	82	48	10	650.000	8.125	entrance to Koch Foods
550+41	Lt	42	32	5	185.000	2.313	
550+55	Rt	30	24	5	135.000	1.688	
551+50	Lt	33	24	5	142.500	1.781	

62

Driveway Pads, Asphalt, ST, 12.5-mm mixture							
Station	Location	Width-1 (FT)	Width-2 (FT)	Length (FT)	Total (SF)	Total (Tons)	Remarks
552+66	Lt	22	14	5	90.000	1.125	
552+66	Rt	40	25	5	162.500	2.031	
553+35	Rt	38	20	5	145.000	1.813	
554+47	Rt	29	19	5	120.000	1.500	
554+71	Lt	67	49	5	290.000	3.625	
555+00	Rt	27	17	5	110.000	1.375	
556+90	Lt	59	48	10	535.000	6.688	Entrance to Commercial business and Lift Station Access
560+55	Rt	50	40	5	225.000	2.813	
562+79	Rt	34	21	5	137.500	1.719	
563+80	Rt	21	12	5	82.500	1.031	
569+15	Rt	23	13	5	90.000	1.125	
565+90	Rt	29	18	5	117.500	1.469	
566+00	Rt	35	28	6	189.000	2.363	
566+50	Rt	39	24	6	189.000	2.363	
567+29	Rt	28	25	5	132.500	1.656	
568+00	Rt	25	18	5	107.500	1.344	
568+42	Rt	34	21	5	137.500	1.719	
569+00	Rt	25	14	5	97.500	1.219	
569+25	Rt	27	15	5	105.000	1.313	
569+37	Lt	29	20	5	122.500	1.531	
569+71	Lt	22	14	5	90.000	1.125	
570+00	Rt	34	19	5	132.500	1.656	
571+00	Rt	47	34	5	202.500	2.531	
571+54	Rt	35	28	5	157.500	1.969	
571+91	Rt	30	21	5	127.500	1.594	
572+32	Rt	25	20	5	112.500	1.406	
572+86	Rt	71	64	5	337.500	4.219	Island in place and will remain
573+46	Rt	28	22	5	125.000	1.563	
577+00	Rt	88	22	5	275.000	3.438	
570+36	Rt	20	12	5	80.000	1.000	
				<b>Total</b>		<b>165.464</b>	



**ESTIMATED PAVEMENT LEVELING FILLS**

STATION	Fill		
	LT	CL	RT
461+00	0.01	0.00	0.19
461+25	0.00	0.02	0.33
461+50	0.22	0.01	0.38
461+75	0.32	0.12	0.38
462+00	0.48	0.14	0.31
462+25	0.51	0.12	0.29
462+50	0.32	0.10	0.23
462+75	0.58	0.16	0.34
463+00	0.67	0.18	0.05
463+25	0.58	0.23	0.20
463+50	0.30	0.28	0.50
463+75	0.05	0.39	0.91
464+00	0.05	0.43	1.15
464+25	0.11	0.51	1.35
464+50	0.08	0.55	1.38
464+75	0.03	0.59	1.52
465+00	0.15	0.50	1.12
465+25	0.12	0.38	0.86
465+50	0.00	0.20	0.90
465+75	0.26	0.35	1.35
466+00	0.53	0.38	0.82
466+25	0.57	0.10	0.42
466+50	0.59	0.13	0.21
466+75	0.34	0.03	0.08
467+00	0.34	0.09	0.12
467+25	0.06	0.02	0.22
467+50	0.06	0.11	0.25
467+75	0.31	0.19	0.25
468+00	0.34	0.23	0.07
468+25	0.28	0.18	0.04
468+50	0.25	0.18	0.10
468+75	0.25	0.23	0.14
469+00	0.02	0.25	0.25
469+25	0.09	0.25	0.51
469+50	0.02	0.17	0.35
469+75	0.00	0.04	0.29
470+00	0.00	0.10	0.40

\*The depths shown above are approximate and provided for reference. Actual depths should be field verified prior to commencing work. Adequate transitions should be utilized to tie to the unlevelled areas.

## ESTIMATED PAVEMENT LEVELING FILLS

STATION	Fill		
	LT	CL	RT
470+25	0.15	0.14	0.55
470+50	0.20	0.16	0.50
470+75	0.00	0.14	0.28
471+00	0.00	0.14	0.31
471+25	0.09	0.15	0.50
471+50	0.35	0.33	0.59
STATION	Fill		
	LT	CL	RT
471+75	0.38	0.34	0.50
472+00	0.26	0.25	0.39
472+25	0.13	0.11	0.16
472+50	0.00	0.12	0.09
472+75	0.14	0.18	0.30
473+00	0.01	0.00	0.26
505+00	0.24	0.08	0.00
505+25	0.15	0.03	0.00
505+50	0.16	0.08	0.00
505+75	0.00	0.19	0.00
506+00	0.03	0.11	0.00
506+25	0.19	0.19	0.00
506+50	0.00	0.15	0.12
506+75	0.00	0.16	0.22
507+00	0.08	0.30	0.46
507+25	0.00	0.36	0.59
507+50	0.04	0.24	0.48
507+75	0.00	0.18	0.27
508+00	0.00	0.29	0.32
508+25	0.02	0.17	0.19
508+50	0.00	0.20	0.15
508+75	0.00	0.02	0.07
509+00	0.09	0.09	0.00
509+25	0.05	0.14	0.08
509+50	0.00	0.18	0.12
509+75	0.06	0.15	0.00
510+00	0.20	0.18	0.14
510+25	0.00	0.02	0.03
510+50	0.00	0.21	0.17
510+75	0.03	0.24	0.32
511+00	0.00	0.20	0.42

\*The depths shown above are approximate and provided for reference. Actual depths should be field verified prior to commencing work. Adequate transitions should be utilized to tie to the unlevelled areas.

### ESTIMATED PAVEMENT LEVELING FILLS

STATION	Fill		
	LT	CL	RT
519+00	0.00	0.06	0.28
519+25	0.00	0.14	0.35
519+50	0.02	0.05	0.38
519+75	0.04	0.09	0.60
520+00	0.17	0.20	0.59
520+25	0.29	0.09	0.57
520+50	0.44	0.21	0.29
520+75	0.56	0.31	0.08
521+00	0.61	0.32	0.02
521+25	0.53	0.30	0.11
521+50	0.76	0.36	0.03
521+75	1.16	0.57	0.04
522+00	1.25	0.67	0.03
522+25	1.61	0.98	0.00
522+50	1.39	0.63	0.03
STATION	Fill		
	LT	CL	RT
522+75	1.12	0.42	0.01
523+00	0.74	0.16	0.04
523+25	0.47	0.12	0.06
523+50	0.42	0.22	0.01
523+75	0.38	0.21	0.00
524+00	0.43	0.18	0.00

\*The depths shown above are approximate and provided for reference. Actual depths should be field verified prior to commencing work. Adequate transitions should be utilized to tie to the unlevelled areas.

Spot Milling & Inlay, 406-A001 Cold Milling of Bituminous Pavement, All Depths					
From Station	To Station	Location	Length (FT)	Width (FT)	Total (SY)
509+46	510+68	LT & RT	122	24	325.33
530+42	531+15	LT & RT	73	24	194.67
547+57	553+72	LT & RT	615	24	1640.00
558+62	559+00	RT	38	12	50.67
559+00	560+20	LT & RT	120	24	320.00
570+92	572+86	LT & RT	194	24	517.33
574+04	579+43	LT	539	6	359.33
				<b>TOTAL</b>	<b>3407.33</b>

TRANSITION LOCATIONS					
From Station	To Station	Location	Length (FT)	Width (FT)	Total (SY)
451+60	453+60	LT	200	11.5	255.56
451+60	453+60	RT	200	11.5	255.56
579+00	581+43	LT	243	11	297.00
579+00	581+43	RT	243	11	297.00
579+00	581+43	RT SHOULDER	243	12	324.00
				<b>TOTAL</b>	<b>1429.11</b>

Curb Tie-In, 406-A001 Cold Milling of Bituminous Pavement, All Depths					
From Station	To Station	Location	Length (FT)	Width (FT)	Total (SY)
574+04	579+00	LT	496	6	330.67
				<b>TOTAL</b>	<b>330.67</b>

Removal of Pavement Items							
Station		Location	Description	Length (FT)	Width (FT)	Pavement Removal (SY)	Base Removal (SY)
From	To						
453+07	454+40	Lt		133	6	88.67	88.67
453+39	454+69	Rt		130	6	86.67	86.67
459+59	462+57	Lt		298	12	397.33	397.33
463+34	469+00	Lt		566	12	754.67	754.67
466+60	467+33	Rt		73	8	64.89	64.89
482+09	486+00	Rt		391	8	347.56	347.56
489+00	489+50	Lt		50	4	22.22	22.22
492+16	495+72	Rt		356	12	474.67	474.67
492+51	493+88	Lt		137	12	182.67	182.67
495+72	498+78	Rt		306	8	272.00	272.00
497+78	498+36	Lt		58	6	38.67	38.67
499+44	500+39	Lt		95	6	63.33	63.33
502+29	503+77	Lt		148	6	98.67	98.67
504+84	505+69	Rt		85	4	37.78	37.78
504+96	505+72	Lt		76	4	33.78	33.78
506+56	507+24	Lt		68	6	45.33	45.33
513+85	514+44	Rt		59	6	39.33	39.33
519+42	520+89	Lt		147	12	196.00	196.00
519+42	520+89	Lt		147	12	196.00	196.00
519+48	520+97	Rt		149	12	198.67	198.67
522+64	523+00	Lt		36	6	24.00	24.00
526+62	527+13	Lt		51	6	34.00	34.00
542+45	543+25	Rt		80	6	53.33	53.33
577+77	577+82	Lt		5	4	2.22	2.22
578+91	579+00	Rt		9	12	12.00	12.00
Totals						3764.44	3764.44

\* Removal of base pay item is included for bid purposes. Removal of base material should be done as directed by the Engineer.

619-D Standard Roadside Construction Signs (Less than 10 Sq. Ft. )					
Station	Location	Description	Quantity	Unit	Remarks
451+60	RT	R4-1	5	SF	
451+60	LT	W14-3	5.56	SF	
453+60	LT	R4-1	5	SF	
459+10	RT	R4-1	5	SF	
461+25	LT	R4-1	5	SF	
466+60	RT	R4-1	5	SF	
468+75	LT	R4-1	5	SF	
474+10	RT	R4-1	5	SF	
476+25	LT	R4-1	5	SF	
481+60	RT	R4-1	5	SF	
483+75	LT	R4-1	5	SF	
486+10	RT	R4-1	5	SF	
491+25	LT	R4-1	5	SF	
496+60	RT	R4-1	5	SF	
498+75	LT	R4-1	5	SF	
504+10	RT	R4-1	5	SF	
506+25	LT	R4-1	5	SF	
511+60	RT	R4-1	5	SF	
513+75	LT	R4-1	5	SF	
519+10	RT	R4-1	5	SF	
521+25	LT	R4-1	5	SF	
526+60	RT	R4-1	5	SF	
528+75	LT	R4-1	5	SF	
530+13	RT	R4-2	5	SF	
536+25	LT	R4-1	5	SF	
536+25	RT	W14-3	5.56	SF	
546+25	RT	R4-1	5	SF	
546+25	LT	W14-3	5.56	SF	
552+00	LT	R4-2	5	SF	
553+75	RT	R4-1	5	SF	
558+93	LT	R4-1	5	SF	
561+25	RT	R4-1	5	SF	
566+43	LT	R4-1	5	SF	
568+75	RT	R4-1	5	SF	
573+93	LT	R4-1	5	SF	
576+25	RT	R4-1	5	SF	
580+25	RT	R4-1	5	SF	
581+43	LT	R4-1	5	SF	
581+43	RT	W14-3	5.56	SF	
	LT	G20-2A	8	SF	500' South of BOP
	RT	G20-2A	8	SF	500' North of EOP
		<b>Total</b>	<b>213.24</b>	<b>SF</b>	

619-D Standard Roadside Construction Signs (10 Sq. Ft. or More)					
Station	Location	Description	Quantity	Unit	Remarks
	RT	G20-1	10	SF	500' South of BOP
470+16	RT	W20-1	16	SF	S. Industrial Park Rd.
495+18	Lt	W20-1	16	SF	Erle Johnston Dr.
506+17	Lt	W20-1	16	SF	Game Reserve Entrance Rd
530+26	Rt	W20-1	16	SF	Fountain Rd
539+50	LT	W20-1	16	SF	Homewood Rd.
540+44	Lt	W20-1	16	SF	Elm St.
553+29	Lt	W20-1	16	SF	Hickory Mill St.
556+76	Rt	W20-1	16	SF	S. Raleigh St.
567+50	Rt	W20-1	16	SF	338 Trenton Rd.
568+00	Rt	W20-1	16	SF	Pace St.
573+46	Lt	W20-1	16	SF	Hill St.
577+80	Rt	W20-1	16	SF	Lyles St.
581+15	Rt	W20-1	16	SF	E. Oak St.
580+98	Rt	W20-1	16	SF	W. Oak St.
	Lt	G20-1	10	SF	500' North of EOP
					G20-1
		<b>Total</b>	<b>244</b>	<b>SF</b>	

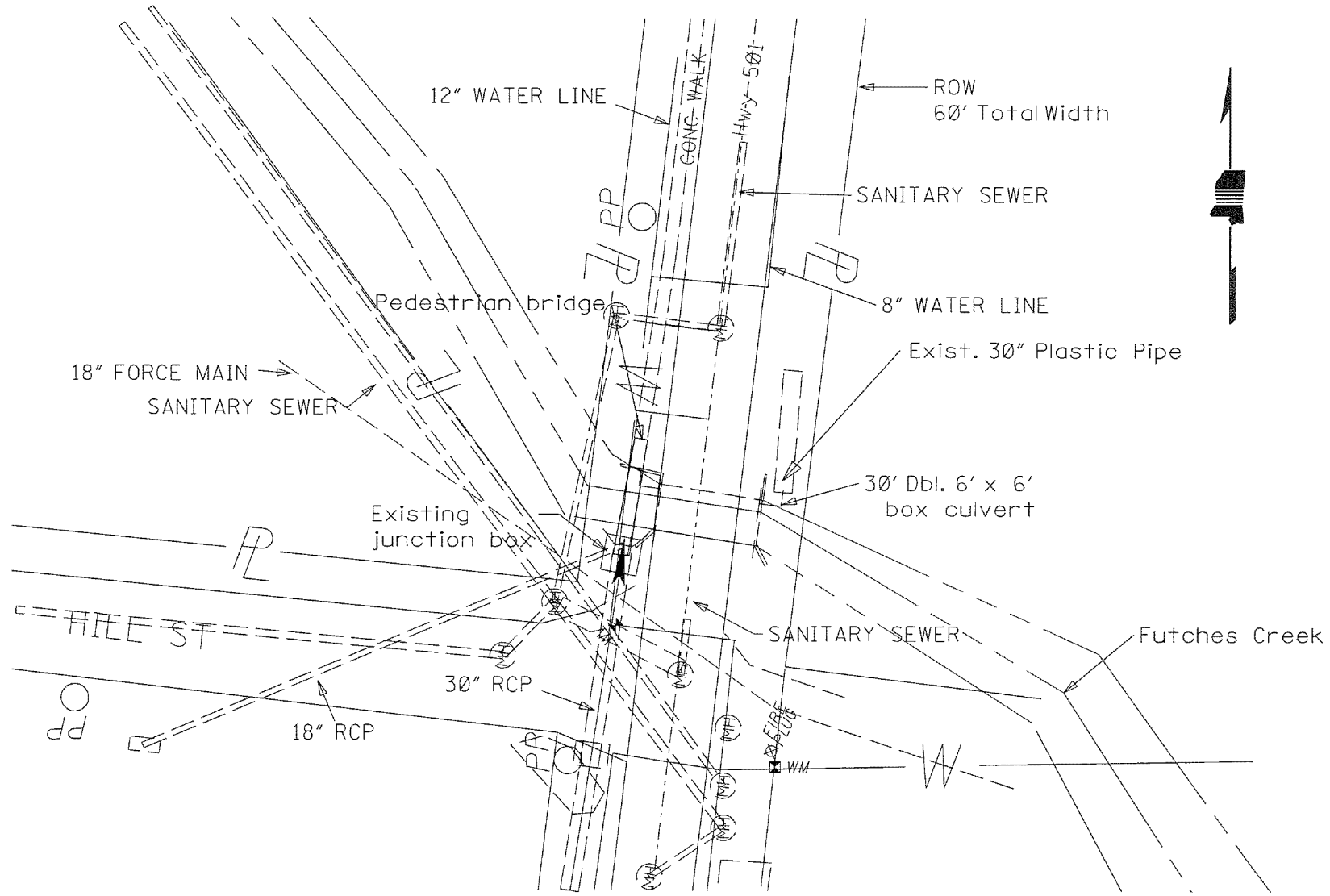
619-G Type III Barricades Double-Faced					
Location	Station	Description	Quantity	Unit	Description
Rt	500' North of BOP		6	LF	
Lt	500' North of BOP		6	LF	
Rt	500' South of EOP		6	LF	
Lt	500' South of EOP		6	LF	
		<b>Total</b>	<b>24</b>	<b>LF</b>	

202-B Removal of Curb &/or Curb and Gutter, All Types				
Location	Station	LT	RT	Total (LF)
S. Raleigh St.	556+76	30	6	36
E. Oak St.	581+15	38		38
W. Oak St.	580+98	29	22	51
<b>Total</b>				<b>125</b>

609-E Bituminous Curb				
Location	Station	LT	RT	Total (LF)
E. Oak St.	581+15	38	0	38
<b>Total</b>				<b>38</b>



# BOX CULVERT AT 573+50 EXISTING CONDITIONS

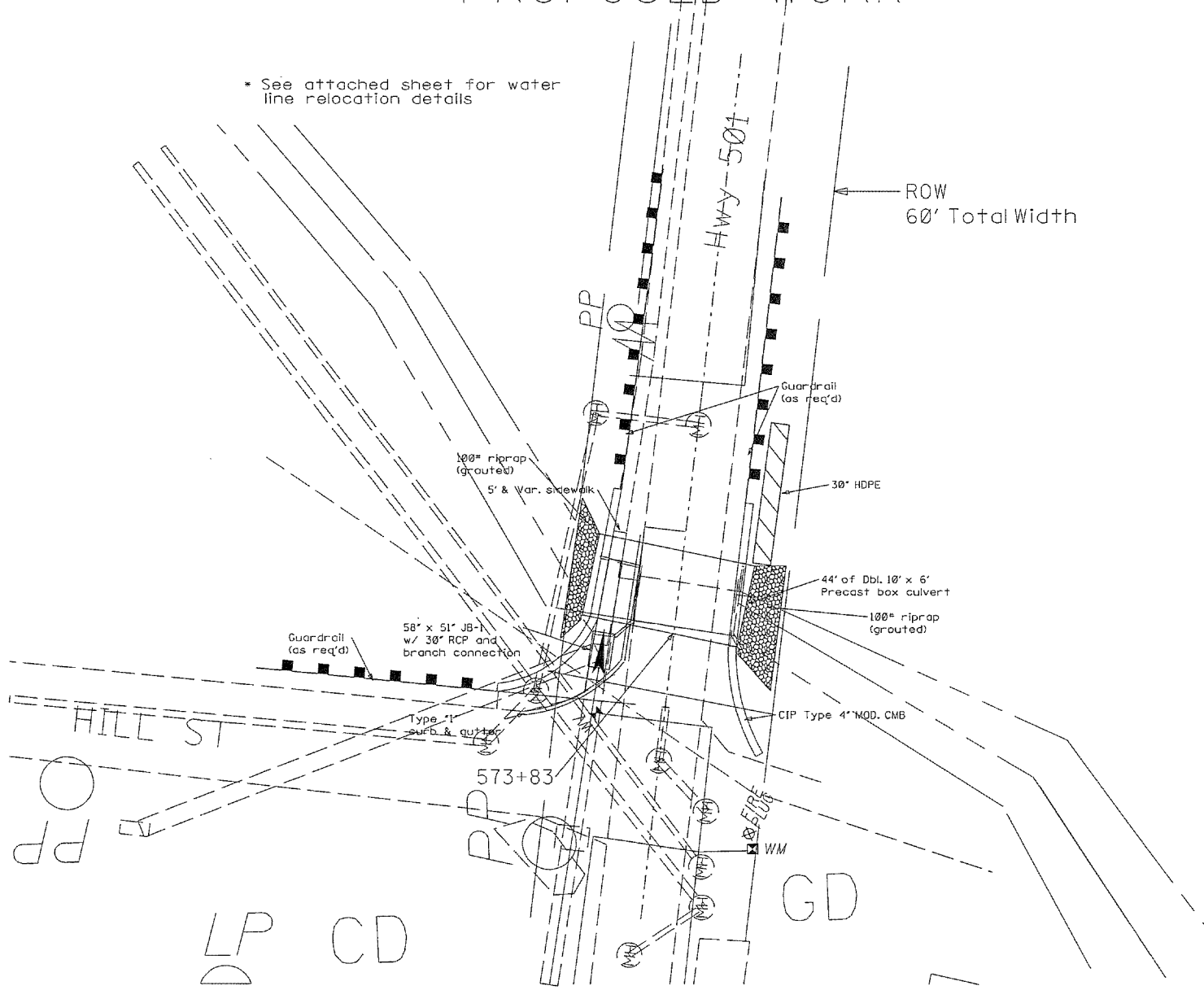


Drawing Not-to-Scale

71

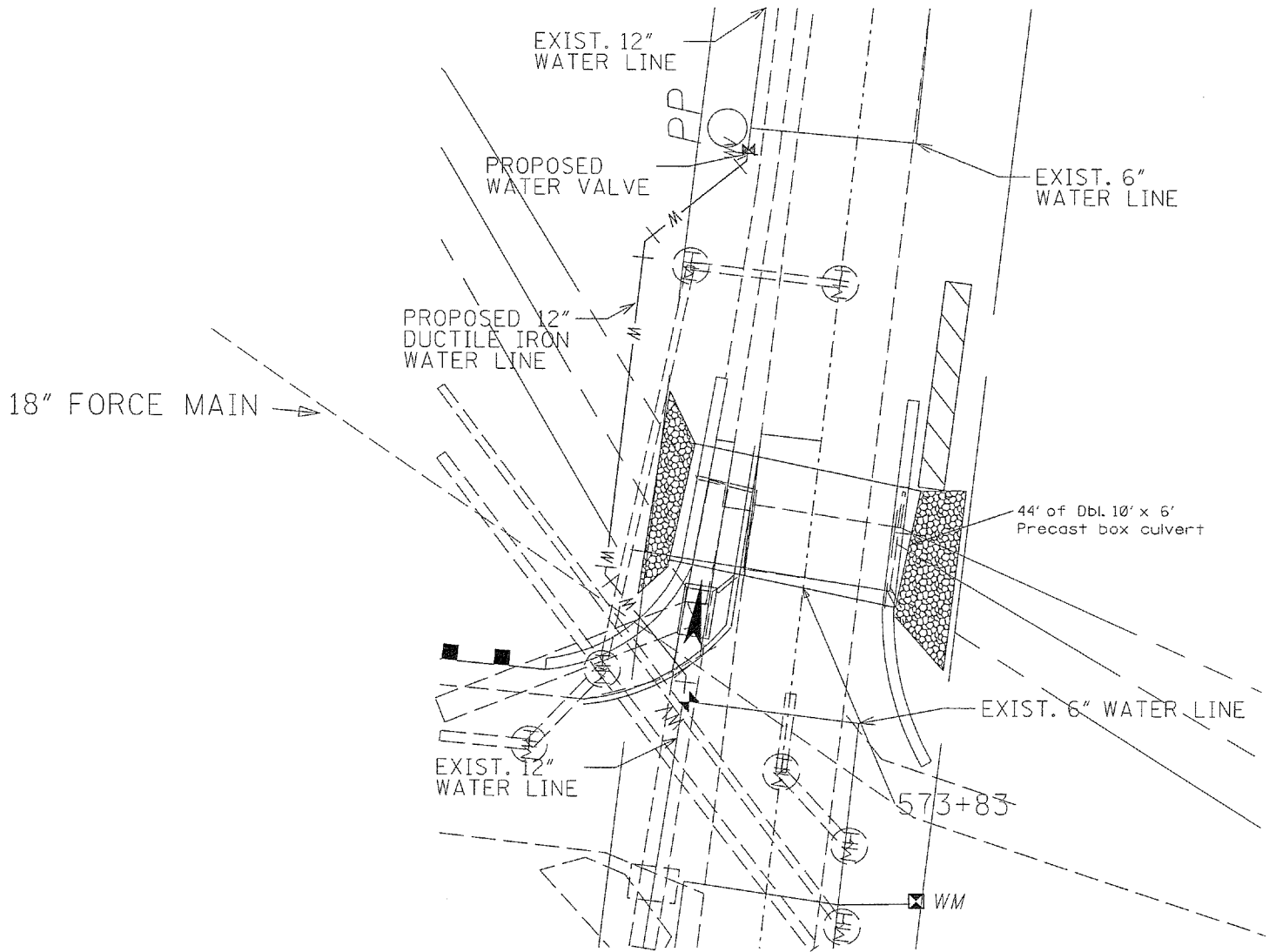
# BOX CULVERT AT 573+50 PROPOSED WORK

• See attached sheet for water line relocation details



Drawing Not-to-Scale

# WATER LINE RELOCATION AT 573+50



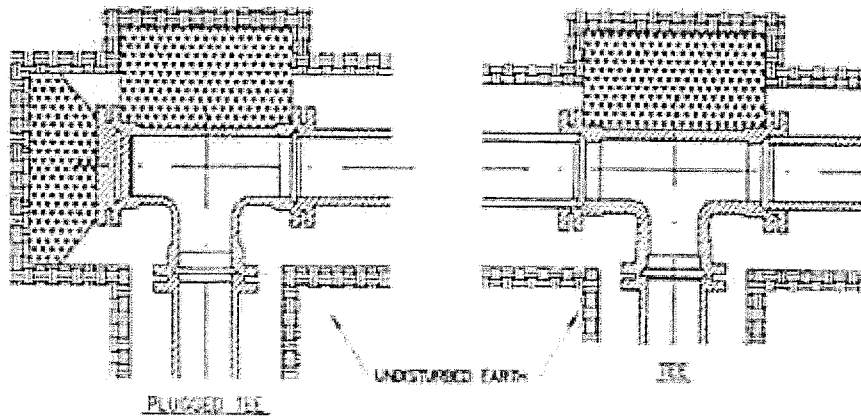
\* THE LOCATION OF THE PROPOSED WATER LINE, FITTINGS, AND VALVES ARE APPROXIMATE AND SHOULD BE ADJUSTED TO FIT THE FIELD CONDITIONS.

Drawing Not-to-Scale

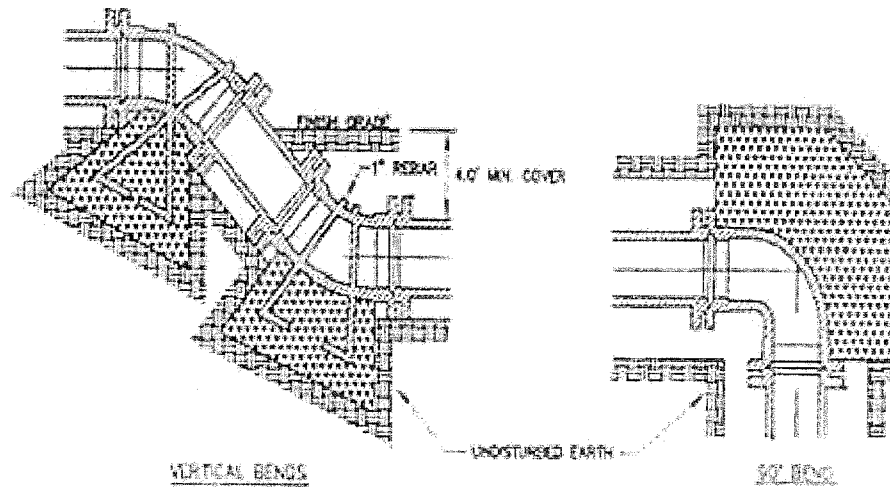
BEARING AREA IN SQ. FT.

NOMINAL PIPE DIAMETER (IN.)	DEAD-END OR TEE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4	2.0	2.0	2.0	2.0	2.0
6	2.0	2.0	2.0	2.0	2.0
8	3.0	3.0	2.0	2.0	2.0
12	5.0	6.0	4.0	3.0	3.0
16	8.0	12.0	6.0	4.0	4.0
VERTICAL BENDS					
4	—	—	6.0(.22)	4.0(.15)	4.0(.15)
6	—	—	14.0(.52)	6.0(.22)	4.0(.15)
8	—	—	27.0(1.0)	9.0(.33)	6.0(.22)
12	—	—	68.0(2.5)	22.0(.80)	9.0(.33)
16	—	—	90.0(3.33)	52.0(1.8)	18.0(.67)
VOLUME OF BLOCKS INCLUDING SOIL LOAD CU. FT. (CU. YDS.)					

74

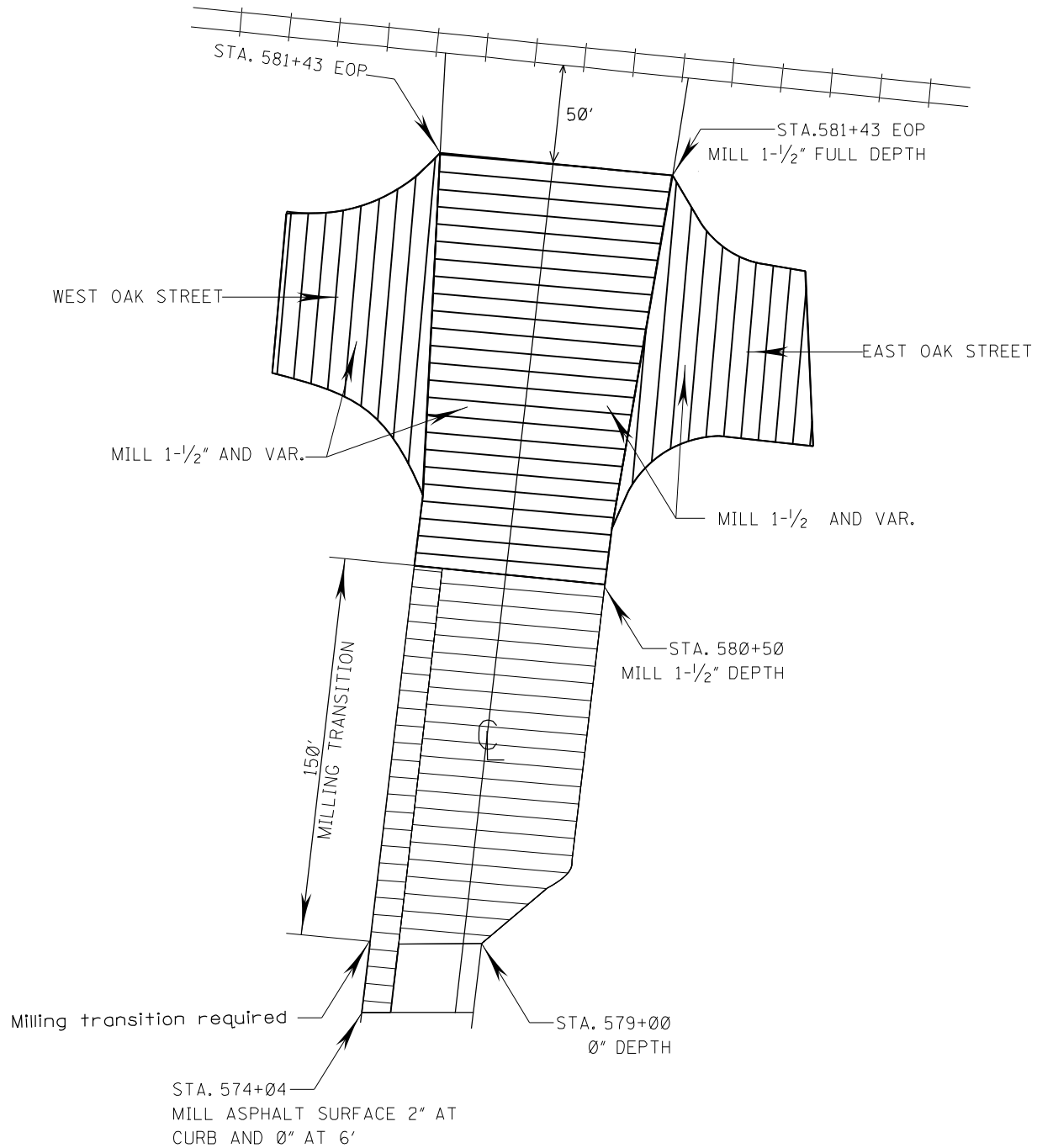


TYPICAL BLOCKING ON WATER MAIN  
(3000 PSI CONCRETE REQUIRED)



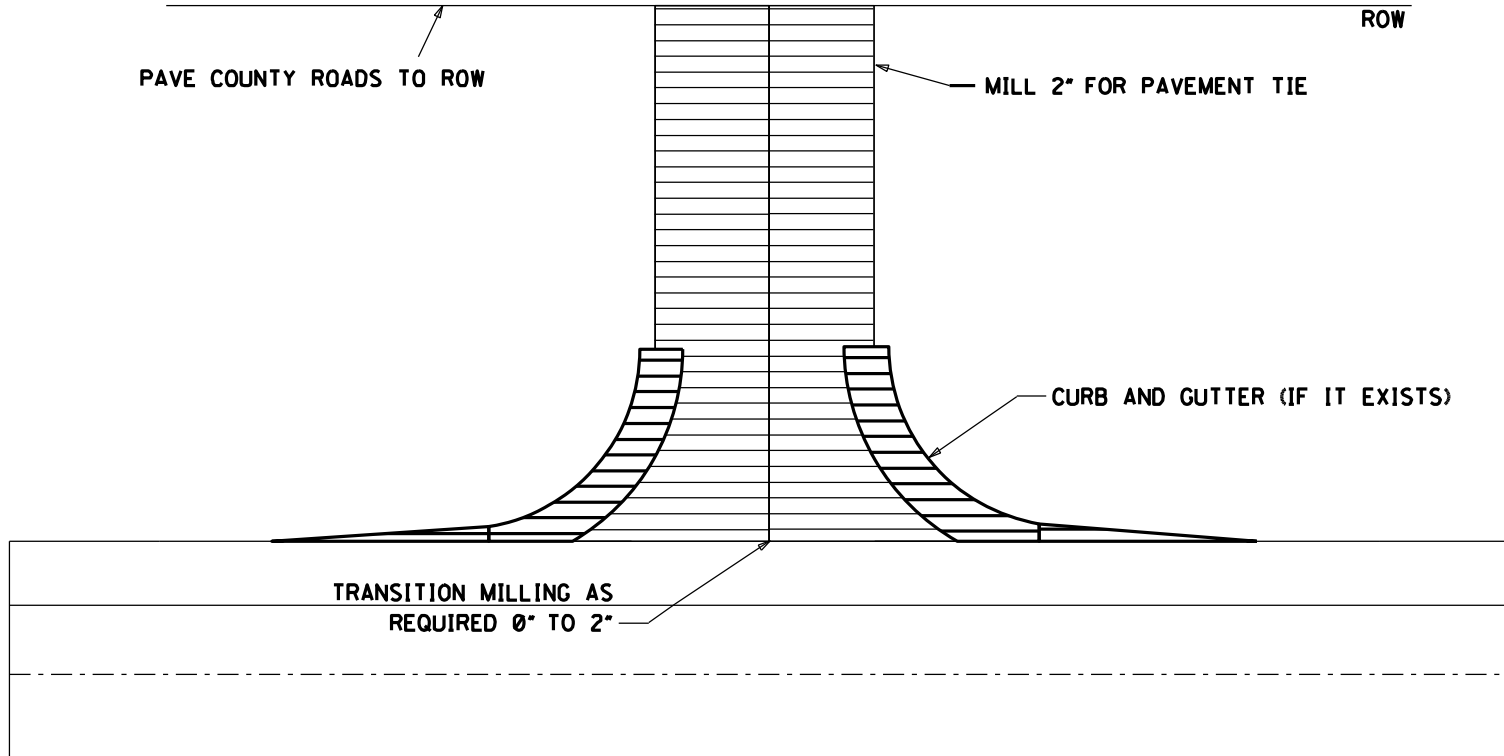
TYPICAL BLOCKING ON WATER MAIN  
(3000 PSI CONCRETE REQUIRED)

MILLING  
 DETAIL #1  
 CROSSROADS AT SR501 AND  
 EAST/WEST OAK STREET



75

TYPICAL MILLING DETAIL FOR COUNTY ROADS



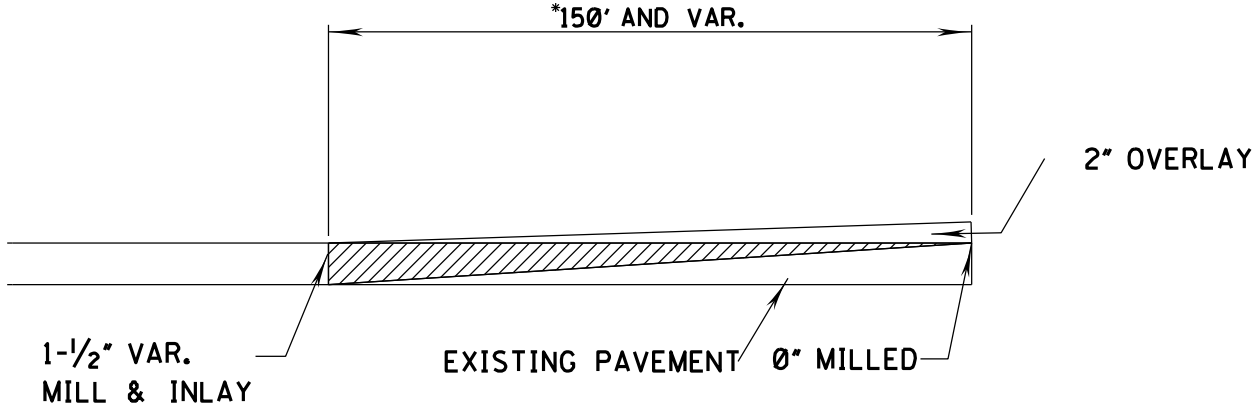
76

COUNTY ROADS

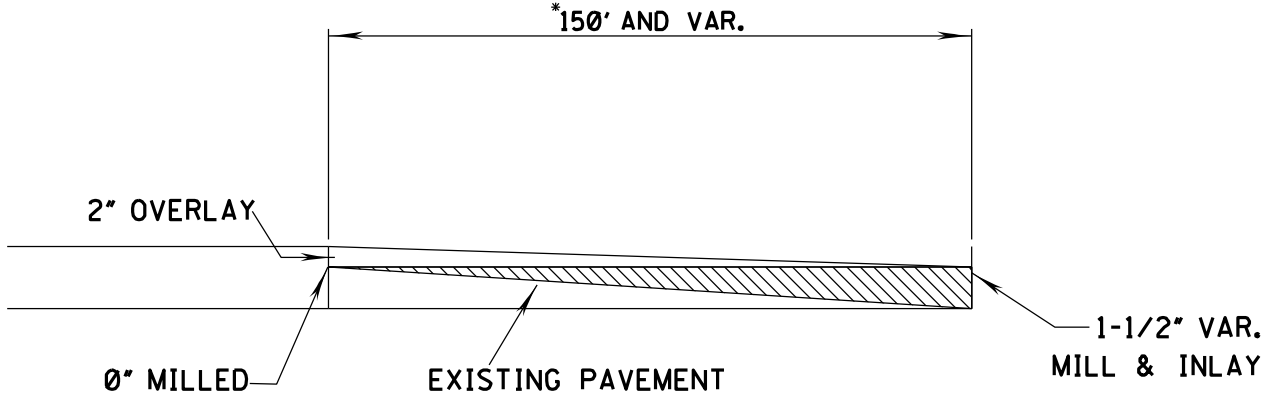
- S. INDUSTRIAL ROAD
- ERLE JOHNSTON ROAD
- GAME RESERVE ENTRANCE
- FOUNTAIN ROAD
- HOMWOOD ROAD
- ELM STREET
- HICKORY MILL STREET
- SOUTH RALEIGH STREET
- TRENTON ROAD
- PACE STREET
- LILES STREET
- HILL STREET
- OAK STREET

MP-5501-62(005) 3039132/301000  
SCOTT COUNTY

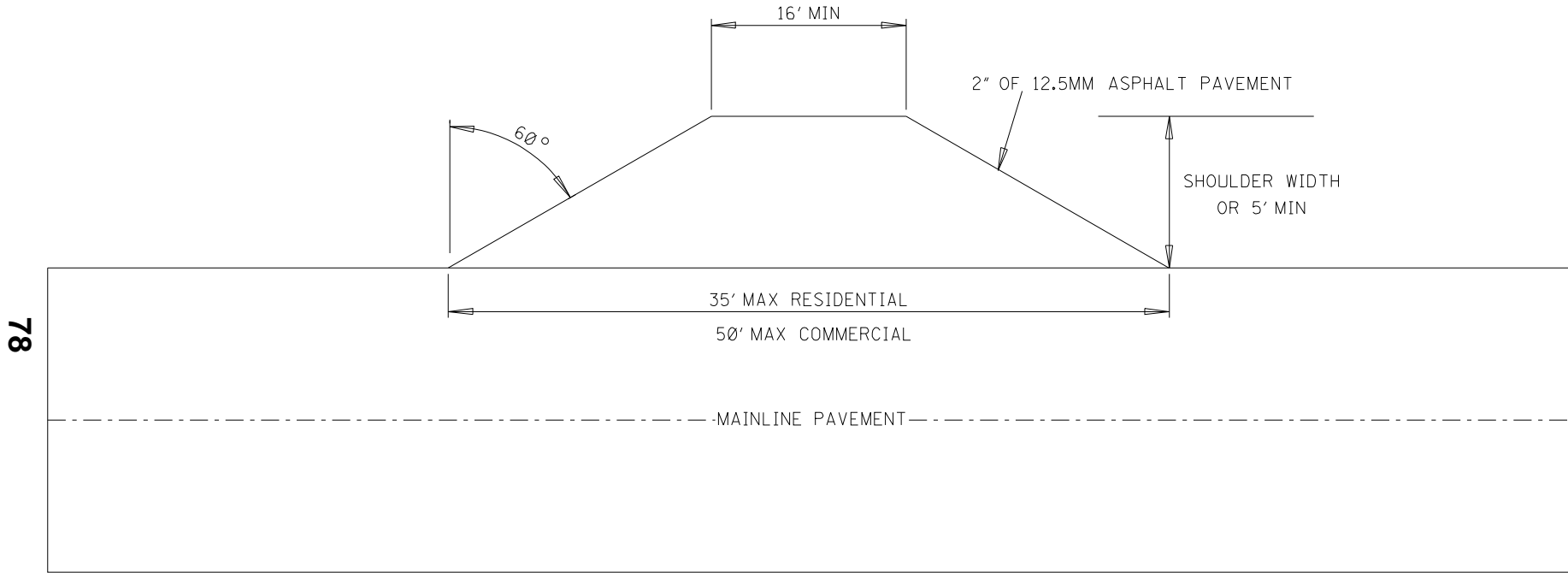
MILLING TRANSITION DETAIL  
AS REQUIRED AT BOP, EOP, AND ETC.



- TRANSITION LENGTH MAY BE ADJUSTED FOR LOCAL ROADS, RAMPS, ETC.



# TYPICAL DRIVEWAY/PAD DETAIL

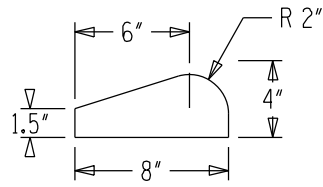


**NOTE:**

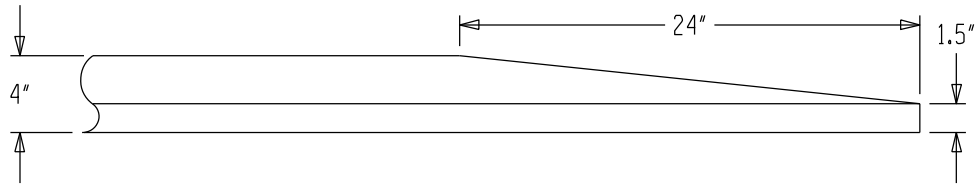
THE ASPHALT ON THE EXISTING DRIVEWAY/RAMP PADS ARE TO REMAIN IN THEIR CURRENT, SIZE, AND LOCATION. IF, IN THE OPINION OF THE ENGINEER, A PAD SHOULD BE MODIFIED OR REPLACED, PAYMENT WILL BE MADE FOR THE WORK USING THE APPROPRIATE PAY ITEMS. GRANULAR MATERIAL AND/OR STABILIZER AGGREGATE SHOULD BE PLACED AROUND THE PADS AS REQUIRED.



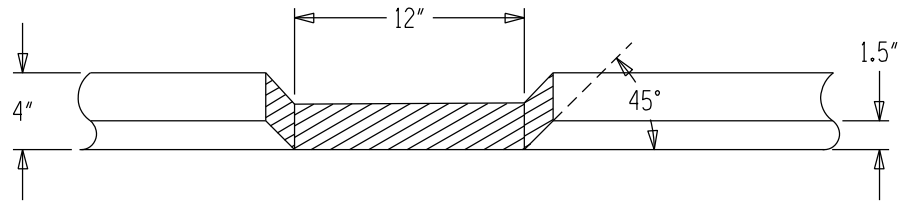
MP-5501-62(005)/ 303913 301000  
SCOTT COUNTY  
DETAIL OF BITUMINOUS CURB



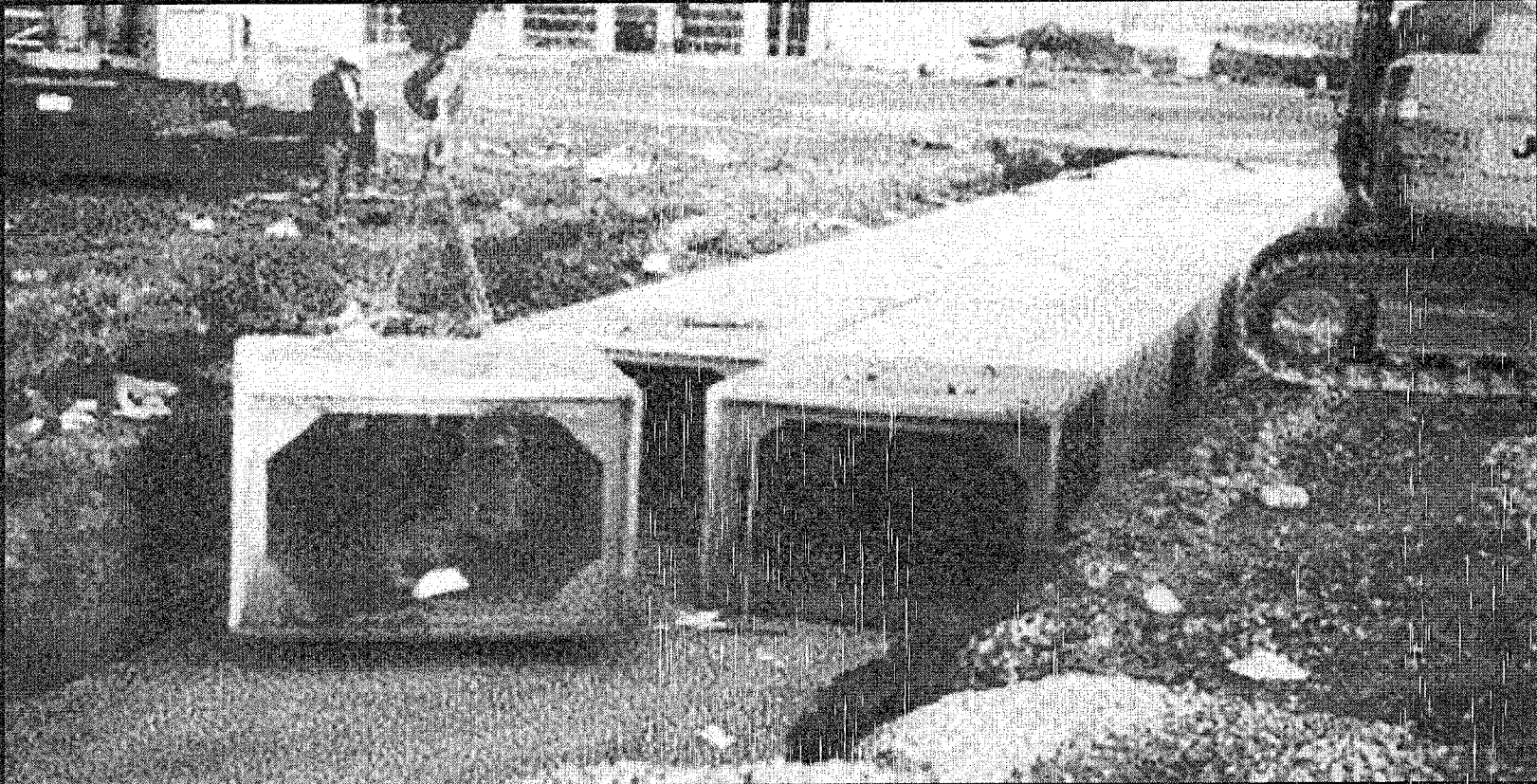
Detail of Curb Terminus



Detail of Spill Thru



# Setting Twin Line

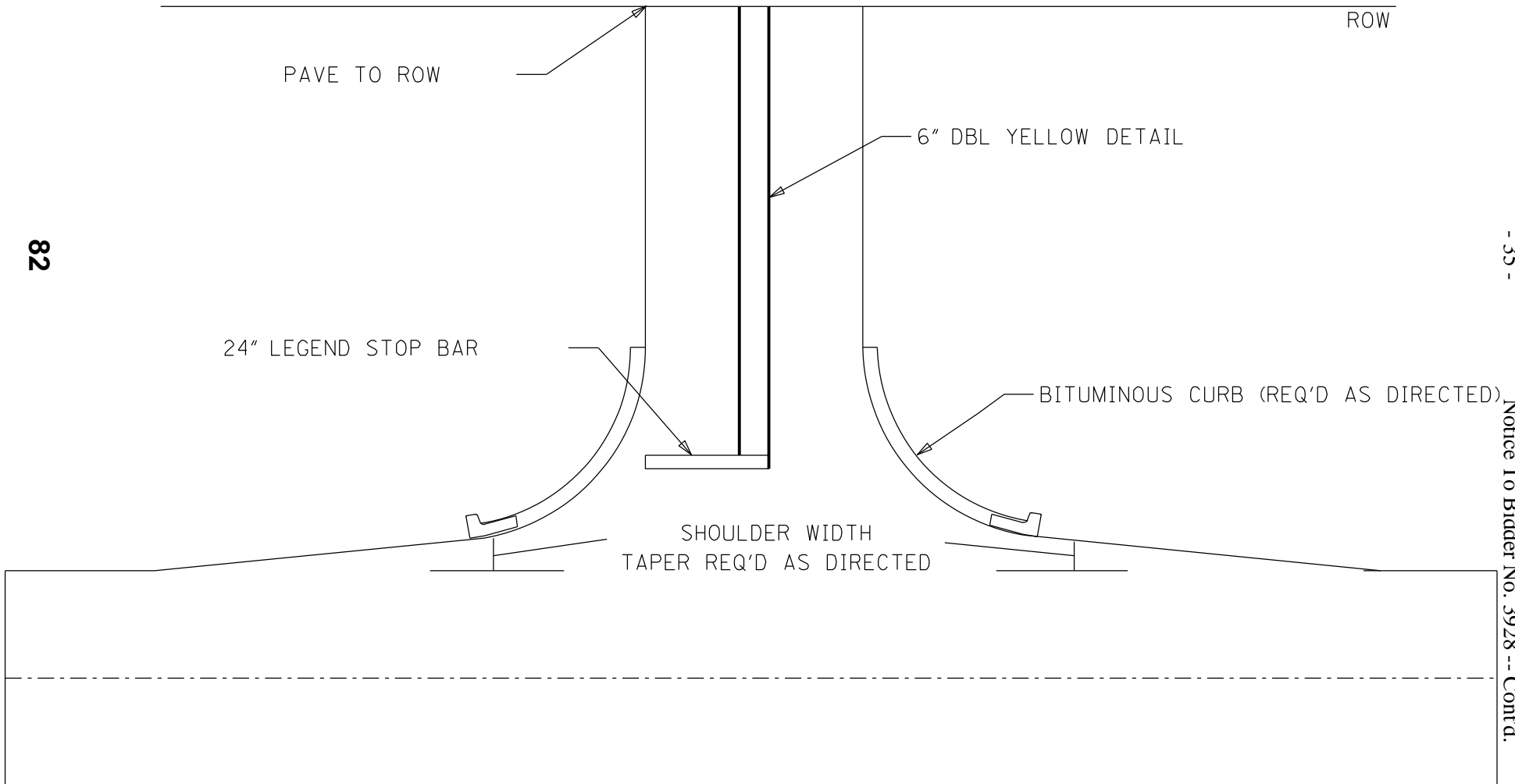


# *RIP-RAP END TREATMENT*



MP-5501-62(005)/ 303913 301000  
SCOTT COUNTY

STRIPING DETAILS FOR  
COUNTY ROADS



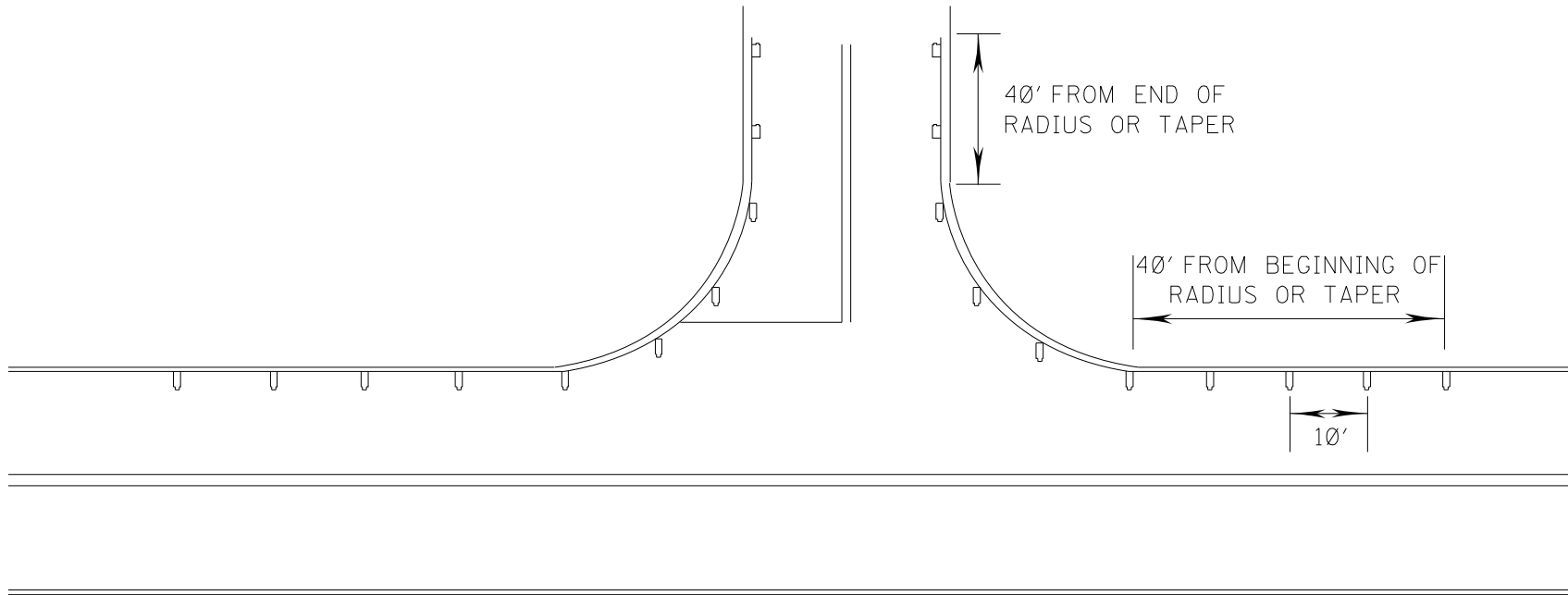
82

- 35 -

Notice To Bidder No. 3928 -- Cont'd.

# TYPICAL FOR RAISED PAVEMENT MARKERS PLACED ON SIDE ROAD RADIUS

83



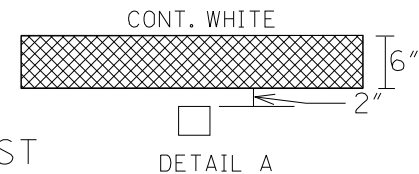
NOTE 1. MARKERS SHALL BE PLACED EVERY 10 FEET.

NOTE 2. MARKERS SHALL BE VISIBLE FROM THE TRAVELING MOTORIST ON STATE DESIGNATED HIGHWAYS.

NOTE 3. MARKERS SHALL BE HIGH PERFORMANCE TWO WAY CLEAR.

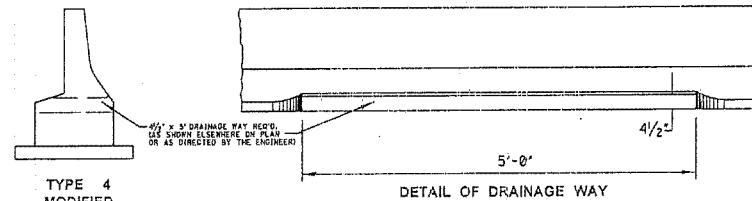
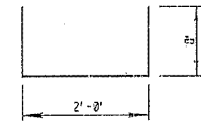
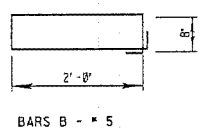
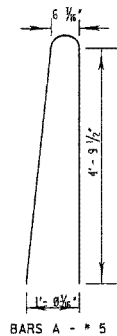
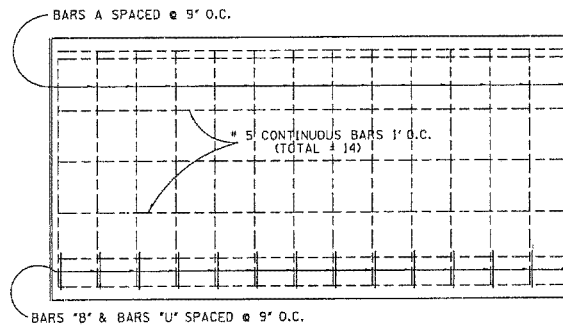
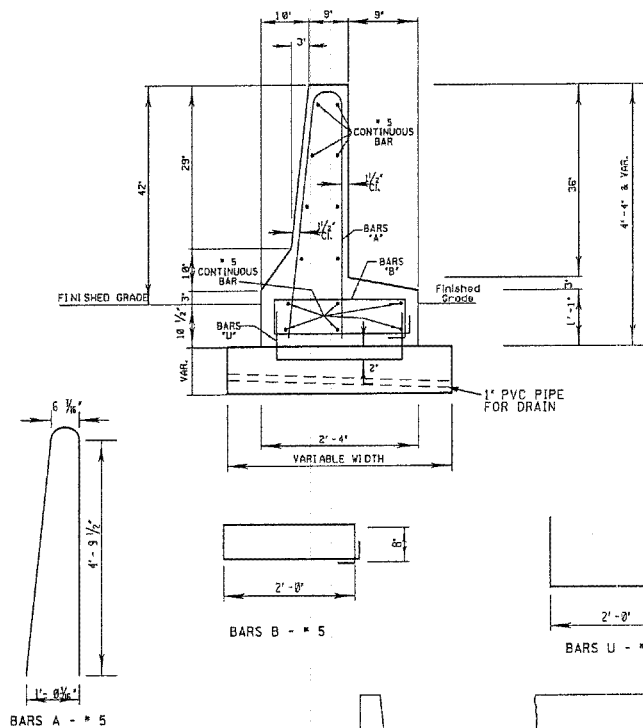
NOTE 4. FIVE (5) MARKERS SHALL BE PLACED ALONG MAINLINE EDGE STRIPE.

NOTE 5. MARKERS FOR COUNTY ROADS SHALL CONTINUE DOWN THE EDGE STRIPE A DISTANCE OF 40 FEET.



STATE	PROJECT NO.
MISS.	

\*\*\* REFERENCE THIS SHEET FOR DETAIL OF DRAINAGE WAY AND WALL FOOTING (ONLY)



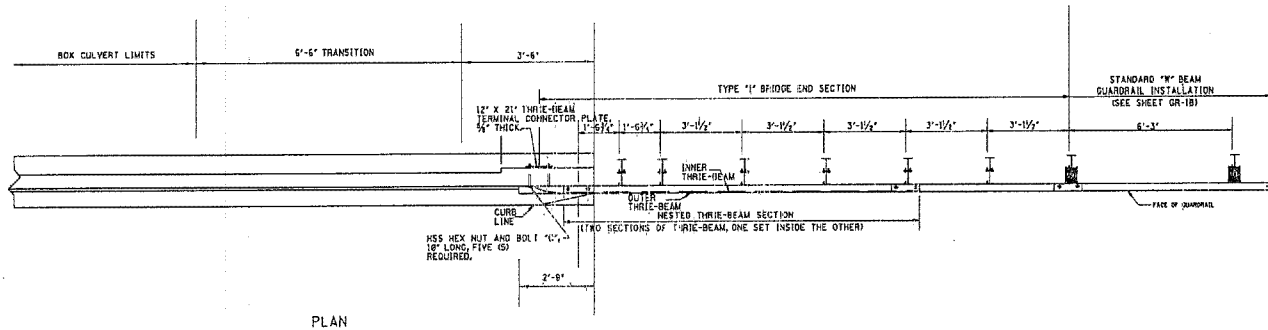
DRAINAGE WAY TO BE USED AS DIRECTED BY ENGINEER. DRAINAGE OPENINGS SHALL BE PLACED AT EACH SAG POINT, 50' EACH SIDE OF SAG POINTS AND AT 100' INTERVALS THEREAFTER, WHERE THE FLOW OF SURFACE WATER RUNOFF IS TOWARD THE BARRIER. REINFORCING STEEL SHALL BE ADJUSTED TO PROVIDE A 2" CLEARANCE OVER THE OPENING.

GENERAL NOTES

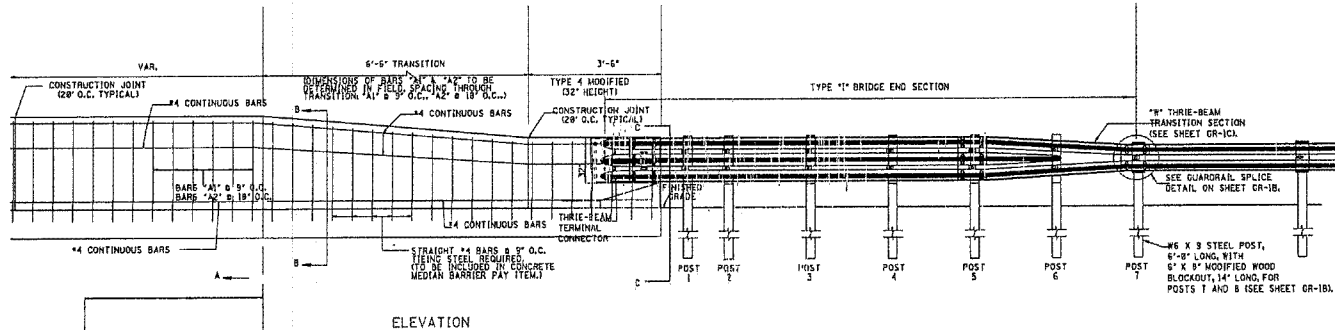
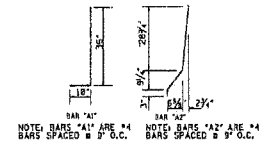
- CONCRETE SHALL BE CLASS "B".
- REINFORCING STEEL SHALL EXTEND THROUGH CONSTRUCTION JOINTS.
- ALL DIMENSIONS ON THIS DRAWING ARE NOT DUPLICATED WHERE ALREADY SHOWN.
- JOINTS
  - CONTRACTION JOINTS REQ'D. AT 20' O.C.
    - 3/4" CHAMFER REQ'D. FROM THE BASE TO TOP OF WALL. CHAMFER MAY BE FORMED OR SCORED.
    - LONGITUDINAL REIN. SHALL CONTINUE AT CONTRACTION JOINTS.
  - EXPANSION JOINTS REQ'D. AT 60' O.C.
    - 3/4" CHAMFER REQ'D. FROM THE BASE TO TOP OF WALL. CHAMFER MAY BE FORMED OR SCORED.
    - 1" x 2'-0" SMOOTH DOWELS SPACED WITH EACH HORIZONTAL BAR IN WALL. PROVIDE 1" x 1'-2" D-15 PAPER TUBING ON EACH DOWEL, AS MANUFACTURED BY DAYTON SURE GRIP & SHORE CO., MIAMISBURG, OHIO OR APPROVED EQUAL (ONE SIDE ONLY).
  - EXPANSION JOINT REQ'D. IN CONCRETE PAD @ 60' O.C. JOINTS IN PAD TO BE LOCATED EQUAL DISTANCE BETWEEN JOINTS IN RAIL.
- CONCRETE FOR FOOTING WILL BE PAID USING THE 907-601-A001; CLASS "B" STRUCTURAL CONCRETE PAY ITEM.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
MEDIAN BARRIER:	
CONCRETE (CAST IN PLACE)	
PROJECT NO. :MP-5501-62(005)	WORKING NUMBER
SCOTT CO.	MB-1
FILENAME: 155/MBARRIER.DGN	SHEET NUMBER
DESIGN TEAM	CHECKED DATE

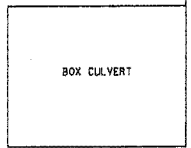
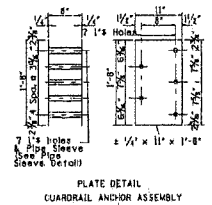
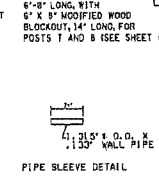
STATE	PROJECT NO.
MISS.	



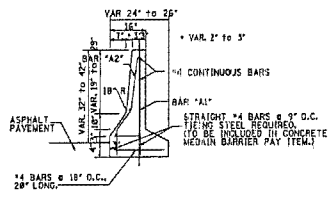
PLAN



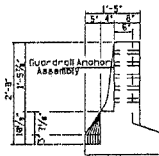
ELEVATION



BOX CULVERT



SECTION B-B



SECTION C-C

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
REVISION		<b>ROADSIDE HAZARD MEDIAN BARRIER: CONCRETE (CAST IN PLACE) TYPE 4 MODIFIED (42" HEIGHT)</b>	
DATE	FILENAME:	WORKING NUMBER	MB-5
DESIGN TEAM	CHECKED	SHEET NUMBER	15

85

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 904 - NOTICE TO BIDDERS NO. 3951**

**CODE: (SP)**

**DATE: 5/16/2012**

**SUBJECT: Project Number Change**

**PROJECT: MP-5501-62(006) / 304356301 -- Scott County**

Bidders are hereby notified that the current project number for this contract is **MP-5501-62(006) 304356/301000**. Please **disregard** any reference to project number **MP-5501-62(005) 303913/301000** and substitute the aforementioned number.



# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-101-4

CODE: (IS)

DATE: 11/05/2008

SUBJECT: Definitions

Section 101, Definitions and Terms, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-101.02--Definitions.** Replace the following definitions in Subsection 101.02 on pages 3 through 13.

**Contract** - The written agreement between the Mississippi Transportation Commission and the Contractor setting forth the obligations of the parties thereunder, including but not limited to, the performance of the work, the furnishing of labor and materials, and the basis of payment.

The contract includes the invitation for bids, proposal, contract form and contract bonds, specifications, supplemental specifications, interim specifications, general and detailed plans, special provisions, notices to bidders, notice to proceed, and also any agreements that are required to complete the construction of the work in an acceptable manner, including authorized extensions thereof, all of which constitute one instrument.

**Contract Bonds** - The approved form of security, executed by the Contractor and the Contractor's Surety(ies), guaranteeing complete execution of the contract and all supplemental agreements pertaining thereto and the payment of all legal debts pertaining to the construction of the project. This term includes Performance and Payment Bond(s).

**Surety** - A corporate body, qualified under the laws of Mississippi, which is bound with and for the successful bidder by "contract bond(s)" to guarantee acceptable performance of the contract and payment of all legal taxes and debts pertaining to the construction of the project, including payment of State Sales Tax as prescribed by law, and any overpayment made to the Contractor.

Add the following to the list of definitions in Subsection 101.02 on pages 3 through 13.

**Performance Bond** - The approved form of security, executed by the Contractor and issued by the Contractor's Surety(ies), guaranteeing satisfactory completion of the contract and all supplemental agreements pertaining thereto.

**Payment Bond** - The approved form of security, executed by the Contractor and issued by the Contractor's Surety(ies), guaranteeing the payment of all legal debts pertaining to the construction of the project including, but not limited to, the labor and materials of subcontractors and suppliers to the prime contractor.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

| SPECIAL PROVISION NO. 907-102-8

CODE: (IS)

| DATE: 01/20/2011

**SUBJECT: Bidding Requirements and Conditions**

**907-102.06--Preparation of Proposal.** Delete the fifth, sixth, and seventh paragraphs of Subsection 102.06 on page 18 and substitute the following:

Bid sheets generated by the Department's Electronic Bid System (Trns•port Expedite Bid) along with a completed proposal package will constitute the official bid and shall be signed on the last sheet of the Expedite Bid generated bid sheets and delivered to the Department in accordance with the provisions of Subsection 102.09.

Bidders are cautioned that using other versions of the Expedite Bid may result in improperly printed bid sheets. The correct version of Expedite Bid can be obtained at no cost from the MDOT Contract Administration Division or at the MDOT website, [www.gomdot.com](http://www.gomdot.com).

If bidders submit Expedite Bid generated bid sheets, then the bid sheets included in the proposal should not be completed. The Expedite Bid generated bid sheets should be stapled together, signed and included in the bid proposal package in the sealed envelope. If both the forms in the proposal and the Expedite Bid generated bid sheets are completed and submitted, only the Expedite Bid generated sheets will be recognized and used for the official bid. The USB Flash Drive containing the information printed on the Expedite Bid generated bid sheets should be placed in the padded envelope included with the bid proposal package and enclosed in the sealed envelope. Bid sheets printed from Expedite Bid should be a representation of the data returned on the flash drive. To have a true representation of the bid sheets, the Bidder must copy the EBS and EBS amendment files used to prepare the bid sheets to the flash drive. Otherwise, the unit prices bid will not be recorded to the flash drive. Bidders are cautioned that failure to follow proper flash drive handling procedures could result in the Department being unable to process the flash drive. Any modification or manipulation of the data contained on the flash drive, other than entering unit bid prices and completing all required Expedite Bid sections, will not be allowed and will cause the Contractor's bid to be considered irregular.

**907-102.08--Proposal Guaranty.** Delete the first and second paragraphs in Subsection 102.08 on page 20 and substitute the following:

No proposal will be considered unless accompanied by certified check, cashier's check or bid bond, made payable to the State of Mississippi, in an amount of not less than five percent (5%) of the total amount of the proposal offered. The guaranty shall be evidence of good faith that, if awarded the contract, the bidder will execute the contract and give performance and payment contract bond(s) as stipulated in Subsection 907-103.05.1, 907-103.05.2, and as required by law.

If a bid bond is offered as guaranty, the bond must be on a form approved by the Executive Director, made by a Surety acceptable to the Executive Director and signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent and the Bidder. Such bid bond shall also conform to the requirements and conditions stipulated in Subsection 907-103.05.2 as applicable.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-103-8

CODE: (SP)

DATE: 12/15/2009

SUBJECT: Award and Execution of Contract

Section 103, Award and Execution of Contract, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-103.04--Return of Proposal Guaranty.** Delete the second paragraph of Subsection 103.04 on page 23 and substitute the following:

Certified checks or cashier's checks submitted as proposal guaranties, except those of the two lowest bidders, will be returned within 10 days of contract award. The retained proposal guaranty of the unsuccessful of the two lowest bidders will be returned within ten days following the execution of a contract with the successful low bidder. The retained proposal guaranty of the successful bidder will be returned after satisfactory performance and payment bonds have been furnished and the contract has been executed.

In the event all bids are rejected by the Commission, certified checks or cashier's checks submitted as proposal guaranty by all bidders will be returned within 10 days of rejection.

Delete Subsection 103.05 on page 23 and substitute the following:

**907-103.05--Contract Bonds.**

**907-103.05.1--Requirement of Contract Bonds.** Prior to the execution of the contract, the successful bidder shall execute and deliver to the Executive Director a performance and payment bond(s), in a sum equal to the full amount of the contract as a guaranty for complete and full performance of the contract and the protection of the claimants and the Department for materials and equipment and full payment of wages in accordance with Section 65-1-85 Miss. Code Ann. (1972 as amended). In the event of award of a joint bid, each individual, partnership, firm or corporation shall assume jointly the full obligations under the contract and the contract bond(s).

**907-103.05.2--Form of Bonds.** The form of bond(s) shall be that provided by or acceptable to the Department. These bonds shall be executed by a Mississippi agent or qualified nonresident agent and shall be accompanied by a certification as to authorization of the attorney-in-fact to commit the Surety company. A power of attorney exhibiting the Surety's original seal supporting the Mississippi agent or the qualified nonresident agent's signature shall be furnished with each bond. The Surety company shall be currently authorized and licensed in good standing to conduct business in the State of Mississippi with a minimum rating by A.M. Best of (A-) in the latest printing "Best's Key Rating Guide" to write individual bonds up to ten percent of the policy holders' surplus or listed on the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as

published by the United States Department of the Treasury, Financial Management Service, Circular 570 (latest revision as published and supplemented on the Financial Management Service Web site and in the Federal Register) within the underwriting limits listed for that Surety. All required signatures on the bond(s) and certifications shall be original signatures, in ink, and not mechanical reproductions or facsimiles. The [Mississippi agent](#) or [qualified nonresident agent](#) shall be in good standing and currently licensed by the Insurance Commissioner of the State of Mississippi to represent the Surety company(ies) executing the bonds.

Surety bonds shall continue to be acceptable to the Commission throughout the life of the Contract and shall not be canceled by the Surety without the consent of the Department. In the event the Surety fails or becomes financially insolvent, the Contractor shall file a new Bond in the amount designated by the Executive Director within thirty (30) days of such failure, insolvency, or bankruptcy. Subsequent to award of Contract, the Commission or the Department may [require additional security for any supplemental agreements executed under the contract or replacement security in the event of the surety\(ies\) loss of the ratings required above](#). Suits concerning bonds shall be filed in the State of Mississippi and adjudicated under its laws without reference to conflict of laws principles.

**907-103.08--Failure to Execute Contract.** In the first sentence of Subsection 103.08 on page 24, change “bond” to “performance and payment bonds”.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-104-4**

**CODE: (SP)**

**DATE: 03/01/2011**

**SUBJECT: Disposal of Materials**

Section 104, Scope of Work, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-104.05--Removal and Disposal of All Materials From the Project.** Delete the second sentence of the first full paragraph of Subsection 104.05 on page 30 and substitute the following:

The Contractor shall also furnish the Engineer a certified letter stating that the area of disposal is not in a wetland or in Waters of the U.S.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT TO SPECIAL PROVISION NO. 907-105-6**

**DATE:** 12/12/2011

**SUBJECT:** Control of Work

After Subsection 907-105.05 on page 1, add the following.

**907-105.14--Maintenance During Construction.** Before the first sentence Subsection 105.14 on page 39, add the following:

The Contractor will be responsible for the maintenance of existing roadways within the limits of this project starting on the date of the Notice To Proceed / Beginning of Contract Time. Anytime work is performed in a travel lane, the Contractor shall install portable lane closure signs meeting the requirement of the MDOT Standard Drawing or MUTCD.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

| SPECIAL PROVISION NO. 907-105-6

CODE: (IS)

| DATE: 01/20/2011

| SUBJECT: Control of Work

Section 105, Control of Work, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is modified as follows:

**907-105.05--Cooperation by Contractor.** In the third sentence of the second paragraph of Subsection 105.05 on page 35, change “Notice to Proceed” to “Notice of Award”.

Delete the fourth paragraph of Subsection 105.05 on page 35, and substitute the following.

| On projects that include erosion control pay items, the Contractor shall also designate a responsible person whose primary duty shall be to monitor and maintain the effectiveness of the erosion control plan, including NPDES permit requirements. This responsible person must be a Certified Erosion Control Person certified by an organization approved by the Department. Prior to or at the pre-construction conference, the Contractor shall designate in writing the Certified Erosion Control Person to the Project Engineer. The designated Certified Erosion Control Person shall be assigned to only one (1) project. When special conditions exist, such as two (2) adjoining projects or two (2) projects in close proximity, the Contractor may request in writing that the State Construction Engineer approve the use of one (1) Certified Erosion Control Person for both projects. The Contractor may request in writing that the Engineer authorize a substitute Certified Erosion Control Person to act in the absence of the Certified Erosion Control Person. The substitute Certified Erosion Control Person must also be certified by an organization approved by the Department. A copy of the Certified Erosion Control Person's certification must be included in the Contractor's Protection Plan as outlined in Subsection 907-107.22.1. This in no way modifies the requirements regarding the assignment and availability of the superintendent.



**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT TO SPECIAL PROVISION NO. 907-107-9**

**DATE: 08/23/2011**

**SUBJECT: Legal Relations and Responsibility to Public**

**907-107.14.2.2--Railroad Protective.** Delete the first sentence of subparagraph (b) of Subsection 907-107.14.2.2 on page 3 and substitute the following.

(b) **Contractor's Liability - Railroad**, including subcontractors, XCU and railroad contractual with limits of \$1,000,000 each occurrence; \$2,000,000 aggregate.

After Subsection 907-107.17 on page 4, add the following:

**907-107.18--Contractor's Responsibility for Utility Property and Services.** After the first sentence of Subsection 107.18 on page 63, add the following:

Prior to any excavation on the project, the Contractor shall contact MS 811 and advise them to mark all known utilities in the area of the excavation.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

| SPECIAL PROVISION NO. 907-107-9

CODE: (IS)

| DATE: 01/20/2011

SUBJECT: Legal Relations and Responsibility to Public

Section 107, Legal Relations and Responsibility to Public, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-107.02--Permits, Licenses and Taxes.** Delete in toto Subsection 107.02 on page 49 and substitute the following:

The Contractor or any Subcontractor shall have the duty to determine any and all permits and licenses required and to procure all permits and licenses, pay all charges, fees and taxes and issue all notices necessary and incidental to the due and lawful prosecution of the work. At any time during the life of this contract, the Department may audit the Contractor's or Subcontractor's compliance with the requirements of this section.

The Contractor or any Subcontractor is advised that the "Mississippi Special Fuel Tax Law", Section 27-55-501, et seq. and the Mississippi Use Tax Law, Section 27-67-1, et seq., and their requirements and penalties, apply to any contract or subcontract for construction, reconstruction, maintenance or repairs, for contracts or subcontracts entered into with the State of Mississippi, any political subdivision of the State of Mississippi, or any Department, Agency, Institute of the State of Mississippi or any political subdivision thereof.

The Contractor or any Subcontractor will be subject to one or more audits by the Department during the life of this contract to make certain that all applicable fuel taxes, as outlined in Section 27-55-501, et seq., and any sales and/or use taxes, as outlined in Section 27-67-1, et seq. are being paid in compliance with the law. The Department will notify the Mississippi State Tax Commission of the names and addresses of any Contractors or Subcontractors.

| **907-107.14--Damage Claims and Insurance.**

**907-107.14.2--Liability Insurance.** Delete Subsection 107.14.2 beginning on page 60 and substitute:

**907-107.14.2.1--General.** The Contractor shall carry Contractor's liability, including subcontractors and contractual, with limits not less than: \$500,000 each occurrence; \$1,000,000 aggregate; automobile liability - \$500,000 combined single limit - each accident; Workers' Compensation and Employers' Liability - Statutory & \$100,000 each accident; \$100,000 each employee; \$500,000 policy limit. Each policy shall be signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent of the Insurance Company.

The Contractor shall have certificates furnished to the Department from the insurance companies providing the required coverage. The certificates shall be on the form furnished by the Department and will show the types and limits of coverage.

**907-107.14.2.2--Railroad Protective.** The following provisions are applicable to all work performed under a contract on, over or under the rights-of-way of each railroad shown on the plans.

The Contractor shall assume all liability for any and all damages to work, employees, servants, equipment and materials caused by railroad traffic.

Prior to starting any work on railroad property, the Contractor shall furnish satisfactory evidence to the Department that insurance of the forms and amounts set out herein in paragraphs (a) and (b) has been obtained. Also, the Contractor shall furnish similar evidence to the Railroad Company that insurance has been obtained in accordance with the Standard Provisions for General Liability Policies and the Railroad Protective Liability Form as published in the Code of Federal Regulations, 23 CFR 646, Subpart A. Evidence to the Railroad Company shall be in the form of a Certificate of Insurance for coverages required in paragraph (b), and the original policy of the Railroad Protective Liability Insurance for coverage required in paragraph (a).

All insurance herein specified shall be carried until the contract is satisfactorily complete as evidenced by a release of maintenance from the Department.

The Railroad Company shall be given at least 30 days notice prior to cancellation of the Railroad Protective Liability Insurance policy.

For work within the limits set out in Subsection 107.18 and this subsection, the Contractor shall provide insurance for bodily injury liability, property damage liability and physical damage to property with coverages and limits no less than shown in paragraphs (a) and (b). Bodily injury shall mean bodily injury, sickness, or disease, including death at anytime resulting therefrom. Property damage shall mean damages because of physical injury to or destruction of property, including loss of use of any property due to such injury or destruction. Physical damage shall mean direct and accidental loss of or damage to rolling stock and their contents, mechanical construction equipment or motive power equipment.

(a) **Railroad Protective Liability Insurance** shall be purchased on behalf of the Railroad Company with limits of \$2,000,000 each occurrence; \$6,000,000 aggregate applying separately to each annual period for lines without passenger trains. If the line carries passenger train(s), railroad protective liability insurance shall be purchased on behalf of the Railroad Company with limits of \$5,000,000 each occurrence; \$10,000,000 aggregate applying separately to each annual period.

Coverage shall be limited to damage suffered by the railroad on account of occurrences arising out of the work of the Contractor on or about the railroad right-of-way, independent of the railroad's general supervision or control, except as noted in paragraph 4 below.

Coverage shall include:

- (1) death of or bodily injury to passengers of the railroad and employees of the railroad not covered by State workmen's compensation laws,
- (2) personal property owned by or in the care, custody or control of the railroads,
- (3) the Contractor, or any of the Contractor's agents or employees who suffer bodily injury or death as a result of acts of the railroad or its agents, regardless of the negligence of the railroads, and
- (4) negligence of only the following classes of railroad employees:
  - (i) any supervisory employee of the railroad at the job site
  - (ii) any employee of the railroad while operating, attached to, or engaged on, work trains or other railroad equipment at the job site which are assigned exclusively to the Contractor, or
  - (iii) any employee of the railroad not within (i) or (ii) above who is specifically loaned or assigned to the work of the Contractor for prevention of accidents or protection or property, the cost of whose services is borne specifically by the Contractor or Governmental authority.

(b) **Regular Contractor's Liability**, including subcontractors, XCU and railroad contractual with limits of \$1,000,000 each occurrence; \$2,000,000 aggregate. **Automobile** with limits of \$1,000,000 combined single limit any one accident; **Workers' Compensation and Employer's Liability** - statutory and \$100,000 each accident; \$100,000 each employee; \$500,000 policy limit. **Excess/Umbrella Liability** \$5,000,000 each occurrence; \$5,000,000 aggregate. All coverage to be issued in the name of the Contractor shall be so written as to furnish protection to the Contractor respecting the Contractor's operations in performing work covered by the contract. Coverage shall include protection from damages arising out of bodily injury or death and damage or destruction of property which may be suffered by persons other than the Contractor's own employees.

In addition, the Contractor shall provide for and on behalf of each subcontractor by means of a separate and individual liability and property damage policy to cover like liability imposed upon the subcontractor as a result of the subcontractor's operations in the same amounts as contained above; or, in the alternative each subcontractor shall provide same.

**907-107.15--Third Party Beneficiary Clause.** In the first sentence of the first paragraph of Subsection 107.15 on page 61, change "create the public" to "create in the public".

**907-107.17--Contractor's Responsibility for Work.** Delete the fifth sentence of the fifth paragraph of Subsection 107.17 on page 63 and substitute the following:

The eligible permanent items shall be limited to traffic signal systems, changeable message signs, roadway signs and sign supports, lighting items, guard rail items, delineators, impact attenuators, median barriers, bridge railing or pavement markings. The eligible temporary items shall be limited to changeable message signs, guard rail items, or median barriers.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

| SPECIAL PROVISION NO. 907-108-24

CODE: (SP)

| DATE: 03/15/2011

**SUBJECT: Prosecution and Progress**

Section 108, Prosecution and Progress, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-108.01--Subletting of Contract.**

**907-108.01.1--General.** At the end of the last paragraph of Subsection 108.01.1 on page 73, add the following:

The Engineer will have the authority to suspend the work wholly or in part and to withhold payments because of the Contractor's failure to make prompt payment within 15 calendar days as required above, or failure to submit the required OCR-484 Form, Certification of Payments to Subcontractors, which is also designed to comply with prompt payment requirements.

**907-108.02--Notice To Proceed.** Delete the second paragraph of Subsection 108.02 on page 75 and substitute the following:

The anticipated date of the Notice to Proceed (NTP) / Beginning of Contract Time (BCT) will be specified in the proposal.

Delete the fourth paragraph of Subsection 108.02 on page 75 and substitute the following:

Upon written request from the Contractor and if circumstances permit, the Notice to Proceed may be issued at an earlier date subject to the conditions stated therein. The Contractor shall not be entitled to any monetary damages or extension of contract time for any delay claim or claim of inefficiency occurring between the early issuance Notice To Proceed date and the Notice to Proceed date stated in the contract.

**907-108.03--Prosecution and Progress.** Delete Subsection 108.03.1 on pages 75 & 76, and substitute the following:

**907-108.03.1--Progress Schedule.** Prior to or at the Pre-Construction Conference, the Contractor shall furnish a progress schedule and be prepared to discuss both its proposed methodologies for fulfilling the scheduling requirements and its sequence of operations. The Engineer will review the schedule and approve the schedule as it relates to compliance with the specifications and logic. The progress schedule must be approved by the Engineer prior to commencing work. The schedule shall be a bar-chart type schedule submitted on 11"x17" paper meeting the below minimum requirements. These activities shall be significantly detailed enough to communicate the Contractor's understanding of the construction sequencing and phasing of the project.

When preparing the progress schedule, the Contractor shall include the following:

- Show a time scale to graphically show the completion of the work within contract time.
- Define and relate activities to the contract pay items.
- Show all activities in the order the work is to be performed including submittals, submittal reviews, fabrication and delivery.
- Show all activities that are controlling factors in the completion of the work.
- Show the time needed to perform each activity and its relationship in time to other activities.

Should the schedule not include the above requirements or becomes unrealistic during construction, the Contractor should immediately submit a revised, more realistic schedule for approval.

**907-108.03.2--Preconstruction Conference.** Delete the first paragraph of Subsection 108.03.2 on page 76 and substitute the following:

Prior to commencement of the work, a preconstruction conference shall be held for the purpose of discussing with the Contractor essential matters pertaining to the prosecution and satisfactory completion of the work. The Contractor will be responsible for scheduling the preconstruction conference. The Contractor will advise the Project Engineer in writing 14 days prior to the requested date that a conference is requested. When the contract requires the Contractor to have a certified erosion control person, the Contractor's certified erosion control person shall be at the preconstruction conference. The Department will arrange for utility representatives and other affected parties to be present.

Delete the third paragraph of Subsection 108.03.2 on page 76.

**907-108.06--Determination and Extension of Contract Time.** Delete Subsections 108.06.1 and 108.06.2 on pages 79 thru 85 and substitute the following:

**907-108.06.1--Blank.**

**907-108.06.2--Based on Calendar Date Completion.**

**907-108.06.2.1--General.** Contract Time will be established on the basis of a Completion Date, as indicated in the contract. The span of time allowed for the completion of the work included in the contract will be indicated in the contract documents and will be known as "Contract Time".

The span of time allowed in the contract as awarded is based on the quantities used for comparison of bids. If satisfactory fulfillment of the contract requires performance of work in greater quantities than those set forth in the proposal, the time allowed for completion shall be increased in Calendar Days in the same ratio that the cost of such added work, exclusive of the cost of work altered by Supplemental Agreement for which a time adjustment is made for such altered work in the Supplemental Agreement, bears to the total value of the original contract unless it can be established that the extra work was of such character that it required more time

than is indicated by the money value.

The Contractor shall provide sufficient materials, equipment and labor to guarantee the completion of the work in the contract in accordance with the plans and specifications within the Contract Time.

**907-108.06.2.2--Contract Time.** The following TABLE OF ANTICIPATED PRODUCTIVE DAYS indicates an average/anticipated number of productive days per month.

**TABLE OF ANTICIPATED PRODUCTIVE DAYS**

Month	Available Productive Days
January	6
February	7
March	11
April	15
May	19
June	20
July	21
August	21
September	20
October	16
November	11
December	5
Calendar Year	172

Allocation of anticipated productive days for a fractional part of the month will be computed as a proportion of the listed anticipated productive days for the applicable month.

An available productive day will be assessed (a) any day of the week, Monday through Friday, exclusive of legal holidays recognized by the Department in Subsection 108.04.1, in which the Contractor works or could have worked for more than six (6) consecutive hours on the controlling items of work, as determined by the Engineer, or (b) any Saturday, exclusive of legal holidays recognized by the Department in Subsection 108.04.1, in which the Contractor works for more than six (6) consecutive hours on the controlling items of work, as determined by the Engineer. When the Contractor works less than four consecutive hours during the day, no time will be charged for that day. When the Contractor works more than four but less than six consecutive hours, one-half (0.5) of an available work day will be charged for that day. When he Contractor works six or more consecutive hours during the day, one (1.0) available work day will be charged for that day.



Should the weather or other conditions be such that four (4) consecutive satisfactory hours are not available prior to noon (for daytime operations) or midnight (for nighttime operations), no time will be assessed for that day regardless of the above conditions. However, if the Contractor elects to work, time will be assessed in accordance with the previous paragraph.

Weather delays will not be considered for Saturdays, Sundays or legal holidays recognized by the Department in Subsection 108.04.1.

Available productive days will be based on soil and weather conditions and other specific conditions cited in the contract. The Engineer will determine on each applicable day the extent to which work in progress could have been productive, regardless of whether the Contractor actually worked.

Each month the Engineer will complete, and furnish to the Contractor, an "Assessment Report for Available Productive Days" (CSD-765). This report shows the number of available productive days during the estimate period and the cumulative available productive days to date. The Contractor should review the Engineer's report as to the accuracy of the assessment and confer with the Resident or Project Engineer to rectify any differences. Each should make a record of the differences, if any, and conclusions reached. In the event mutual agreement cannot be reached, the Contractor will be allowed a maximum of 15 calendar days following the ending date of the monthly report in question to file a protest Notice of Claim in accordance with the provisions of Subsection 105.17. Otherwise, the Engineer's assessment shall be final unless mathematical errors of assessment are subsequently found to exist, and any claim of the Contractor as to such matter shall be waived.

At any given date, the ratio of the accumulated monetary value of that part of the work actually accomplished to the total contract bid amount adjusted to reflect approved increases or decreases shall determine the "percent complete" of the work.

The "percentage of elapsed time" shall be calculated as a direct ratio of the expired calendar days to the total calendar days between the Beginning of Contract Time and the Specified Completion Date in the contract.

When the "percent complete" lags more than 20 percent behind the "percentage of elapsed time", the Contractor shall immediately submit a written statement and revised progress schedule indicating any additional equipment, labor, materials, etc. to be assigned to the work to ensure completion within the specified contract time. When the "percent complete" lags more than 40 percent behind the "percentage of elapsed time", the contract may be terminated.

**907-108.06.2.3--Extension of Time.** The Contractor may, prior to the expiration of the Contract Time, make a written request to the Engineer for an extension of time with a valid justification for the request. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time.

No extension of the specified completion date will be granted except as provided herein. An extension of contract time may be granted for unusually severe weather, abnormal delays caused

solely by the State or other governmental authorities, or unforeseeable disastrous phenomena of nature of the magnitude of earthquakes, hurricanes, tornadoes, or flooded essential work areas which are deemed to unavoidably prevent prosecuting the work.

Unusually severe weather is defined as when the actual available productive days for the contract time are less than the number of available productive days shown in the Table of Anticipated Productive Days.

Any extension of contract time will be based on a calendar days basis, excluding Saturdays, Sundays or legal holidays recognized by the Department in Subsection 108.04.1. No proration of contract time will be made. Any extension of contract time will be made on or after the specified completion date. No extension of contract time will be made on a monthly basis.

Any revision of the specified completion date provided in the contract will be made automatically on the specified completion date as established in the contract, and at a later date if additional conditions so warrant.

If the completion of the project is extended into a season of the year in which completion of certain items of work would be prohibited or delayed because of seasonal or temperature limitations, the Engineer may waive the limitations provided the completion of the work will not result in a reduction in quality. When determined that the completion of the out-of-season items will cause a reduction in the quality of the work, the completion of the project will be further extended so the items may be completed under favorable weather conditions. In either case, the Engineer will notify the Contractor in writing.

Liquidated damages as set forth in Subsection 108.07 under the heading "Daily Charge Per Calendar Day" in the Table titled "Schedule of Deductions for Each Day of Overrun in Contract Time", shall be applicable to each calendar day after the specified completion date, or authorized extension thereof, and until all work under the contract is completed.

**907-108.06.2.4--Cessation of Contract Time.** When the Engineer by written notice schedules a final inspection, time will be suspended until the final inspection is conducted and for an additional 14 calendar days thereafter. If after the end of the 14-day suspension all necessary items of work have not been completed, time charges will resume. If the specified completion date had not been reached at the time the Contractor called for a final inspection, the calendar day difference between the specified completion date and the date the Contractor called for a final inspection will be added after the 14-day period before starting liquidation damages. If a project is on liquidated damages at the time a final inspection is scheduled, liquidated damages will be suspended until the final inspection is conducted and for seven (7) calendar days thereafter. If after the end of the 7-day suspension all necessary items of work have not been completed, liquidated damages will resume. When final inspection has been made by the Engineer as prescribed in Subsection 105.16 and all items of work have been completed, the daily time charge will cease.

**907-108.10--Termination of Contractor's Responsibility.** In the last sentence of Subsection 108.10 on page 88, change "bond" to "performance and payment bond(s)".

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT TO SPECIAL PROVISION NO. 907-109-5**

**DATE: 05/15/2012**

**SUBJECT: Measurement and Payment**

After the last paragraph of Subsection 907-109.01 on page 1, add the following.

After the second sentence of the fourth full paragraph of Subsection 109.01 on page 90, add the following.

Where loose vehicle measurement (LVM) is used, the capacity will be computed to the nearest one-tenth cubic yard and paid to the whole cubic yard. Measurements greater than or equal to nine-tenths of a cubic yard will be rounded to the next highest number. Measurements less than nine-tenths of a cubic yard will not be rounded to the next highest number. Example: A vehicle measurement of 9.9 cubic yards will be classified as a 10-cubic yard vehicle. A vehicle measurement of 9.8 cubic yards will be classified as a 9-cubic yard vehicle.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-109-5**

**CODE: (IS)**

**DATE: 1/20/2011**

**SUBJECT: Measurement and Payment**

Section 109, Measurement and Payment, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-109.01--Measurement of Quantities.** Delete the third full paragraph of Subsection 109.01 on page 90 and substitute the following.

When requested by the Contractor, material specified to be measured by the cubic yard or ton may be converted to the other measure as appropriate. Factors for this conversion will be determined by the District Materials Engineer and agreed to by the Contractor. The conversion of the materials along with the conversion factor will be incorporated into the contract by supplemental agreement. The supplemental agreement must be executed before such method of measurement is used.

**907-109.04--Extra and Force Account Work.** In the last sentence of subparagraph (b) in Subsection 109.04 on page 91, change “bond” to “bond(s)”.

Delete the first sentence of the second paragraph of subparagraph (d) in Subsection 109.04 on page 92 and substitute the following:

In the event an agreement cannot be reached for a particular piece of equipment, the book entitled "Rental Rate Blue Book For Construction Equipment" as published by EquipmentWatch® and is current at the time the force account work is authorized will be used to determine equipment ownership and operating expense rates.

**907-109.06--Partial Payment.**

**907-109.06.1--General.** Delete the fourth and fifth sentences of the third paragraph of Subsection 109.06.1 on page 94, and substitute the following:

In the event mutual agreement cannot be reached, the Contractor will be allowed a maximum of 25 calendar days following the Contractor's receipt of the monthly estimate in question to file in writing, a protest Notice of Claim in accordance with the provisions Subsection 105.17. Otherwise, the Engineer's estimated quantities shall be considered acceptable pending any changes made during the checking of final quantities.

**907-109.07--Changes in Material Costs.** Delete the third full paragraph of Subsection 109.07 on page 96 and substitute the following:

A link to the established base prices for bituminous products and fuels will be included in the contract documents under a Notice to Bidders entitled "Petroleum Products Base Prices."

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-225-3**

**CODE: (IS)**

**DATE: 02/23/2012**

**SUBJECT: Grassing**

Section 907-225, Grassing, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

Delete in toto Section 225 on pages 158 thru 163, and substitute the following.

## **SECTION 907-225--GRASSING**

**907-225-01--Description.** This work consists of furnishing, transporting, placing, plant establishment, and all work, including ground preparation, fertilizing, seeding, and mulching, necessary to produce a satisfactory and acceptable growth of grass.

At the Contractor's option, seeds and mulch may be incorporated using a hydraulically applied method under certain limitations. Under no circumstances shall fertilizer be incorporated hydraulically.

### **907-225.02--Materials.**

**907-225.02.1--Fertilizers.** Fertilizers for purposes of this specification shall be understood to include standard manufactured products consisting of single or combination ingredients and agricultural limestone.

All fertilizer shall comply with the State fertilizer laws, Subsection 715.02, and the requirements of this specification.

**907-225.02.2--Seeds.** Seeds shall meet the requirements of Subsection 715.03, subject to the provisions of this subsection. The Contractor shall acquire seed from persons registered with the Mississippi Department of Agriculture and Commerce.

Except for the germination requirements, bags of seeds properly labeled or tagged according to law and indicating characteristics meeting or exceeding the requirements of Subsection 715.03 will be acceptable for planting.

The Contractor should provide adequate dry storage facilities for seeds, and shall furnish access to the storage for sampling stored seed.

### **907-225.02.3--Mulch.**

**907-225.02.3.1--Vegetative Mulch.** The vegetative materials for mulch shall meet the

requirements of Subsection 215.02.

**907-225.02.3.2--Hydraulically Applied Mulch (Hydromulch).** Fibers for hydromulch shall be produced from wood, straw, cellulose, natural fibers, or recycled fibers which are free of non-biodegradable substances. The fiber shall disperse into a uniform slurry when mixed with water. Fibers shall be colored green, or other approved contrasting color, and shall not stain concrete or other surfaces. The use of tackifiers or activators will be allowed.

Hydromulch shall be listed on the Department's "Approved Sources of Materials".

**907-225.02.3.2.1--Wood Fiber Mulch.** Wood fiber mulch shall be made from wood chip particles manufactured particularly for discharging uniformly on the ground surface when dispersed by a hydraulic water sprayer. It shall remain in uniform suspension in water under agitation and blend with grass seed and fertilizer to form a homogeneous slurry. The fibers shall intertwine physically to form a strong moisture-holding mat on the ground surface and allow rainfall to percolate the underlying soil. The fiber material shall be heat processed so as to contain no germination or growth-inhibiting factors. The mulch shall be dyed an appropriate color to facilitate the application of material using non-toxic dye.

**907-225.02.3.2.2--Cellulose Fiber Mulch.** Cellulose fiber mulch consist of recycled paper stock products which are shredded into small pieces particular for application by hydraulic seeding equipment. It shall mix readily and uniformly under agitation with water and blend with grass seed and fertilizer to form a homogeneous slurry. When applied to the ground surface, the material shall form a strong moisture-holding mat, allow rainfall to percolate the underlying soil, and remain in place until the grass root system is established. The material shall contain no growth inhibiting characteristic or organisms. The mulch shall be dyed an appropriate color to facilitate the application of material using non-toxic dye.

**907-225.02.3.2.3--Wood/Cellulose Fiber Mulch.** Wood/cellulose fiber mix hydroseeding mulch shall consist of a combination of the above wood and cellulose fibers at a ratio recommended by the manufacturer of the products.

**907-225.02.3.2.4--Straw Mulch.** Straw mulch shall consist of a natural straw fiber. This material shall be a minimum 90% straw and essentially free from plastic materials or other non-bio degradable substances. The material shall be disperse into a uniform mulch slurry when mixed with water.

**907-225.02.3.2.5--Tackifier.** The tackifier will serve the purpose of an adhesive to form a bond between the soil, fiber, and seed particles. It will also allow the soil to retain moisture. The tackifier shall be of the organic or synthetic variety.

**907-225.03--Construction Requirements.**

**907-225.03.1--Ground Preparation.** Ground preparation, light or standard, consists of plowing, loosening, and pulverizing the soil to form suitable beds for erosion control items in reasonably close conformity with the established lines and grades without appreciable humps or depressions.

When grassing an area that has been previously planted with temporary grassing, a standard ground preparation will be required. The previously planted grasses shall be disked, tilled, plowed, etc. to assure that the existing temporary grasses are thoroughly mixed into the soil.

Any equipment used for ground preparation shall be approved units suitable to perform the work and subject to the requirements of Subsection 108.05.

The Contractor shall take full advantage of weather and soil conditions, and no attempt shall be made to prepare soil when it is wet or in a condition which will not allow the soil to be properly tilled.

Light ground preparation should be used on areas where seeding is required to improve the coverage of partially vegetated areas.

Standard ground preparation should be used on areas designated to be solid sodded and unvegetated areas designated to be seeded.

Aerating, moistening, or otherwise bringing the soil to a suitable condition for ground preparation shall be considered as incidental to the work and will not be measured for separate payment.

**907-225.03.1.1--Light Ground Preparation.** Light ground preparation consists of scratching the surface with a close-tooth harrow, disk-harrow, or similar equipment. The depth of scratching should be at least three-quarters inch but not deep enough to damage existing grasses of the type being planted.

**907-225.03.1.2--Standard Ground Preparation.** Standard ground preparation consists of plowing or disk-harrowing and thoroughly pulverizing the areas immediately before the application of erosion control (vegetative) items. Unless otherwise specified, the pulverized and prepared seedbed should be at least four inches deep and shall be reasonably free of large clods, earthballs, boulders, stumps, roots and other objectionable matter. Incorporation of fertilizer and ground preparation may be performed simultaneously.

**907-225.03.2--Fertilizing.** Fertilizing consists of furnishing, transporting, spreading, and incorporating fertilizers. The Contractor shall furnish all equipment necessary to properly handle, store, uniformly spread, and incorporate the specified application of fertilizer.

Unless otherwise specified in the contract, the Contractor shall incorporate bag fertilizer at a rate of 1000 pounds per acre of 13-13-13 commercial fertilizer. The equivalent rate of other type fertilizers will be allowed if the equivalent percentages of Nitrogen, Phosphorus and Potassium are obtained. The Contractor shall incorporate agricultural limestone at a rate of 5000 pounds per acre. Fertilization shall be applied uniformly on the areas to be planted or seeded and uniformly incorporated into the soil.

Fertilizers should be applied on individual areas of not more than three acres.



All fertilizer should be incorporated within 24 hours following spreading.

**907-225.03.3--Seeding.** Seeding consists of furnishing and planting seeds in a prepared seedbed, covering the seeds, and providing plant establishment on all areas seeded.

Prior to planting the seeds, ground preparation and fertilizing shall be satisfactorily performed.

The required type of seeds, minimum rates of application, and planting dates of seeds are shown in the vegetation schedule in the plans.

When a vegetation schedule is not shown in the plans, the following types of seed and application rates shall be used, unless otherwise approved by the Engineer.

Bermudagrass -----	20 pounds per acre
Bahiagrass -----	25 pounds per acre
Tall Fescue -----	15 pounds per acre
Crimson Clover -----	20 pounds per acre

It is the Contractor's responsibility to apply an ample amount of each type of seed to produce a satisfactory growth of grass and of the seed type required. At the completion of the project, a satisfactory growth of grass will be required. Reference Section 210 for satisfactory growth and coverage of dormant seed.

Seeding should not be done during windy weather or when the ground is frozen, extremely wet, or in a condition which will not allow the soil to be properly tilled.

**907-225.03.3.1--Conventional Application.** Legume seeds should be treated in accordance with Subsection 715.03.4 immediately before sowing. Seeds should be uniformly sown over the entire area with mechanical seeders. Seeds of different sizes may necessitate separate sowing. When legume seeds become dry, they should be re-inoculated.

All seeds should be covered lightly with soil by raking, rolling, or other approved methods, and the area compacted with a cultipacker.

Mulching should be performed as soon as practicable after seeding.

**907-225.03.3.2--Hydroseeding Application.** Seeds may be applied using the hydroseeding method except during the months of June, July, August, and September. During these months, the seeding shall be incorporated in accordance with the above Conventional Application method.

The seed(s) shall be combined into a distribution tank with all required ingredients on the project site. The application of the seed(s) and all ingredients shall be performed in one operation.

Mulching should be performed simultaneously with or as soon as practicable after seeding.

**907-225.03.3.3--Plant Establishment.** The Contractor should provide plant establishment on all areas seeded until release of maintenance. At the completion of the project, a satisfactory growth of grass will be required. The Contractor should reference Subsection 210 for satisfactory growth and coverage of dormant seed.

Plant establishment should be provided for a minimum period of 45 calendar days after completion of seeding. In the event satisfactory growth and coverage has not been attained by the end of the 45-day period, plant establishment should be continued until a satisfactory growth and coverage is provided for at least one kind of plant as referenced in Section 210. The Contractor shall perform plant establishment on all areas of temporary seeding until the Engineer determines that the temporary seeding has served its purpose.

Plant establishment shall consist of preserving, protecting, watering, reseeding, mowing, and other work necessary to keep the seeded areas in satisfactory condition.

Areas requiring reseeding should be prepared and seeded and all other work performed as if the reseeding was the initial seeding. The types and application rates of fertilizer will be at the discretion of the Contractor.

**907-225.03.3.4--Growth and Coverage.** It shall be the Contractor's responsibility to provide satisfactory growth and coverage of grasses, legumes, or combination produced from the specified seeding.

Growth and coverage on seeded areas will be considered to be in reasonably close conformity with the intent of the contract when the type of vegetation specified, exclusive of that from seeds not expected to have germinated and shows growth at that time, has reached a point of maturity where stems or runners overlap adjacent similar growth in each direction over the entire area.

**907-225.03.4--Mulching.** Mulching consists of furnishing, transporting, and placing mulch on slopes, shoulders, medians, and other designated areas. Unless otherwise noted in the contract or directed by the Engineer, the Contractor has the option to place mulch by the conventional method or by the hydraulic method.

**907-225.03.4.1--Vegetative Mulch.**

**907-225.03.4.1.1--Equipment.** Mulching equipment should be capable of maintaining a constant air stream which will blow or eject controlled quantities of mulch in a uniform pattern.

Mulch stabilizers should consist of dull blades or disks without camber and approximately 20 inches in diameter. The disks should be notched, should be spaced at approximately 8-inch intervals, and should be equipped with scrapers. The stabilizer should weigh approximately 1000 to 1200 pounds, should have a working width of no more than eight feet, and should be equipped with a ballast compartment, so that weight can be increased.

**907-225.03.4.1.2--Placement of Vegetative Mulch.** Mulching should be placed uniformly on designated areas within 24 hours following seeding unless weather conditions are such that

mulching cannot be performed. Placement should begin on the windward side of areas and from tops of slopes. In its final position, the mulch should be loose enough to allow air to circulate but compact enough to partially shade the ground and reduce erosion.

The baled material should be loosened and broken thoroughly before it is fed into the machine to avoid placement of unbroken clumps.

**907-225.03.4.1.3--Anchoring Mulch.** The mulch should be anchored by using a mulch stabilizer when not hydraulically applied. If a mulch stabilizer is used, the mulch should be punched into the soil for a minimum depth of one inch.

When mulch stabilizers are used, anchoring the mulch should be performed along the contour of the ground surface.

**907-225.03.4.2--Hydromulch.** Hydromulch shall be applied in accordance with the installation instructions and recommendations of the manufacturer. Hydromulch shall be uniformly applied at the manufacturer's recommended application rate. In no case shall the application rate be less than one (1) ton per acre.

**907-225.03.4.3--Protection and Maintenance.** The Contractor should maintain and protect mulched areas until the Release of Maintenance of the project. The Contractor should take every precaution to prevent unnecessary foot and vehicular traffic.

The Contractor should mow, remove or destroy any undesirable growth on all areas mulched as soon as any undesirable growth appears. This will prevent competition with the desired plants and to prevent reseeding of undesirable growth.

**907-225.03.5--Hydro Equipment.** The equipment for hydraulically applying seed and mulch shall have a built-in agitation system with an operating capacity sufficient to agitate, suspend, and homogeneously mix slurry of the specified amount of fiber, seed, and water. The slurry distribution lines shall be large enough to prevent stoppage. The discharge line shall be equipped with a set of hydraulic spray nozzles, which will provide even distribution of the slurry on the various areas to be seeded.

The mixture shall all be combined into the slurry tank for distribution of all ingredients in one operation as specified herein. The materials shall be combined in a manner recommended by the manufacturer. The slurry mixture shall be so regulated that the amounts and rates of application shall result in a uniform application of all materials at rates not less than the amounts specified. Using the color of the mulch as a guide, the equipment operator shall spray the prepared seedbed with a uniform visible coat. The slurry shall be applied in a sweeping motion, in an arched stream, so as to fall like rain, allowing the mulch to build upon each other until an even coat is achieved.

**907-225.04--Method of Measurement.** Grassing will be measured by the acre. Acceptance will be based on a satisfactory growth and coverage of seeds planted.

Acceptable quantities of agricultural limestone will be measured by the ton.

Acceptable quantities for mulch will be measured by the ton. For vegetative mulch, the weight for measurement will be the product of the number of bales acceptably placed and the average weight per bale as determined on approved scales provided by the Contractor. Anchoring of vegetative mulch will not be measured for separate payment. The cost of anchoring shall be absorbed in the prices bid for other items of work. For hydromulch, the weight for measurement will be the dry weight of the packaged fibers used in the mixture. No payment will be allowed for water, additives, tackifier, or other liquids used in the mixture.

**907-225.05--Basis of Payment.** Grassing, measured as prescribed above, will be paid for at the contract unit price per acre, which will be full compensation for all required materials, equipment, labor, testing and all work necessary to establish a satisfactory growth of grass.

Hard rock agricultural limestone will be paid for at the contract unit price per ton. Hard rock agricultural limestone with a relative neutralizing value (RNV), determined in accordance with Subsection 907-715-02.2.1.3, of between 60.0% and 62.9% will be paid for at half (1/2) the contract unit price per ton. No payment will be made for hard rock agricultural limestone with an RNV less than 60.0%.

Mulch, measured as prescribed above, will be paid for at the contract unit price per ton, which price shall be full compensation for all materials, equipment, labor, and incidentals necessary to complete the work.

Payment will be made under:

907-225-A:	Grassing	- per acre
907-225-B:	Agricultural Limestone	- per ton
907-225-C:	Mulch, Vegetative Mulch	- per ton
907-225-D:	Mulch, Hydromulch	- per ton

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-304-12**

**CODE: (IS)**

**DATE: 06/01/2009**

**SUBJECT: Granular Courses**

Section 907-304, Granular Courses, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-304.02--Materials.** After the first paragraph of Subsection 304.02.1 on page 183, add the following:

When the contract includes pay item 907-304-E, Granular Material, LVM, RAP, it shall be milled recycled asphalt pavement and shall be visually inspected by the Engineer to insure it is free from chunks and deleterious materials.

Crushed concrete meeting the requirements of Subsection 907-703.04.4 may be used in lieu of other crushed courses specified in the contract.

**907-304.03--Construction Requirements.**

**907-304.03.5--Shaping, Compacting and Finishing.** Delete the sixth paragraph of Subsection 304.03.5 on page 185.

Delete the first table in Subsection 304.03.5 on page 186 and substitute the following:

Granular Material Class	Lot Average	Individual Test
7,8,9 or 10	97.0	93.0
5 or 6	99.0	95.0
3 or 4	100.0	96.0
1 or 2	102.0	98.0
Crushed Courses*	99.0	95.0

\* When placed on filter fabric on untreated subgrade, the individual tests and the average of the five (5) tests shall equal or exceed the following values:

<u>Lot Average</u>	<u>Individual Test</u>
96.0	92.0

Before the last paragraph of Subsection 304.03.5 on page 186, add the following:

Unless otherwise specified, density for granular material, RAP, shall be achieved by two passes of an approved roller and density tests will not be required.

**907-304.05--Basis of Payment.** Add the "907" prefix to the pay items listed on page 187.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

## SUPPLEMENT TO SPECIAL PROVISION NO. 907-401-2

**DATE:** 07/19/2011

**SUBJECT:** Hot Mix Asphalt (HMA)

Add the following before 907-401.02.6.2 on page 1.

**907-401.02.4--Substitution of Mixture.** Delete the table in Subsection 401.02.4 on page 242, and substitute the following:

Mixture	Single Lift Laying Thickness Inches	
	Minimum	Maximum
25 mm	3	4
19 mm	2 ¼	3 ½
12.5 mm	1 ½	2 ½
9.5 mm	1	1 ½
4.75 mm	½	¾

After Subsection 907-401-02.6.2 on page 2, add the following:

**907-401.02.6.4.1--Roadway Density.** Delete subparagraphs 1., 2., & 3. on page 251 and substitute the following:

1. For all leveling lifts, when full lane width and with a thickness as specified in the table in Subsection 401.02.4, the required lot density shall be 92.0 percent of maximum density.
2. For all single lift overlays, with or without leveling and/or milling, the required lot density shall be 92.0 percent of maximum density.
3. For all multiple lift overlays of two (2) or more lifts excluding leveling lifts, the required lot density of the bottom lift shall be 92.0 percent of maximum density. The required lot density for all subsequent lifts shall be 93.0 percent of maximum density.
4. For all pavements on new construction, the required lot density for all lifts shall be 93.0 percent of maximum density.

**907-401.02.6.5--Acceptance Procedure for Pavement Smoothness.** Delete the third sentence of the sixth paragraph of Subsection 401.02.6.5 on page 254, and substitute the following.

The wheel paths shall be designated as being located three feet (3') and nine feet (9') from centerline or longitudinal joint, respectively.

**907-401.03.1.2--Tack Coat.** Delete the three sentences of Subsection 401.03.1.2 on page 259, and substitute the following:

Tack coat shall be applied to previously placed HMA and between lifts, unless otherwise directed by the Engineer. Tack coat shall be applied with a distributor spray bar. A hand wand will only be allowed for applying tack coat on ramp pads, irregular shoulder areas, median crossovers, turnouts, or other irregular areas. Bituminous materials and application rates for tack coat shall be as specified in Table 410-A on page 293. Construction requirements shall be in accordance with Subsection 407.03 of the Standard Specifications.

**907-401.03.1.4--Density.** Delete the first sentence of the first paragraph of Subsection 401.03.1.4 on page 259 and substitute the following:

The lot density for all dense graded pavement lifts, except as provided below for preleveling, wedging [less than fifty percent (50%) of width greater than minimum lift thickness], ramp pads, irregular shoulder areas, median crossovers, turnouts, or other areas where the established rolling pattern cannot be performed, shall not be less than the specified percent (92.0% or 93.0%) of the maximum density based on AASHTO Designation: T 209 for the day's production. For all leveling lifts, when full lane width and with a thickness as specified in the table in Subsection 401.02.4, the required lot density shall be 92.0 percent of maximum density.

**907-401.03.9--Material Transfer Equipment.** Delete the paragraph in Subsection 401.03.9 on page 264 and substitute the following:

Excluding the areas mentioned below, the material transferred from the hauling unit when placing the top lift, or the top two (2) lifts of a multi-lift HMA pavement with density requirements, shall be remixed prior to being placed in the paver hopper or insert by using an approved Materials Transfer Device. Information on approved devices can be obtained from the State Construction Engineer. Areas excluded from this requirement include: leveling courses, temporary work of short duration, detours, bridge replacement projects having less than 1,000 feet of pavement on each side of the structure, acceleration and deceleration lanes less than 1,000 feet in length, tapered sections, transition sections for width, shoulders less than 10 feet in width, crossovers, ramps, side street returns and other areas designated by the Engineer.

After Subsection 401.03.13 on page 266, add the following:

**907-401.03.14--Shoulder Wedge.** The Contractor shall attach a device to the screed of the paver that confines the material at the end gate and extrudes the asphalt material in such a way that results in a compacted wedge shape pavement edge of approximately 30 degrees, but not steeper than 35 degrees. The device shall maintain contact between itself and the road shoulder surface and allow for automatic transition to cross roads, driveways, and obstructions. The device shall be used to constrain the asphalt head reducing the area by 10% to 15% increasing the density of the extruded profile. Conventional single plate strike off shall not be used.

The device shall be TransTech Shoulder Wedge Maker, the Advant-Edge, or a similar approved equal device that produces the same wedge consolidation results. Contact information for these wedge shape compaction devices is the following:

1. TransTech Systems, Inc.  
1594 State Street  
Schenectady, NY 12304  
800-724-6306  
[www.transtechsys.com](http://www.transtechsys.com)
  
2. Advant-Edge Paving Equipment, LLC  
P.O. Box 9163  
Niskayuna, NY 12309-0163  
518-280-6090  
Contact; Gary D. Antonelli  
Cell: 518-368-5699  
email: [garya@nycap.rr.com](mailto:garya@nycap.rr.com)  
Website: [www.advantedgepaving.com](http://www.advantedgepaving.com)

Before using a similar device, the Contractor shall provide proof that the device has been used on previous projects with acceptable results, or construct a test section prior to the beginning of work and demonstrate wedge compaction to the satisfaction of the Engineer. Short sections of handwork will be allowed when necessary for transitions and turnouts, or otherwise authorized by the Engineer.



## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-401-2**

**CODE: (IS)**

**DATE: 11/04/2005**

**SUBJECT: Hot Mix Asphalt (HMA)**

Section 401, Hot Mix Asphalt (HMA) - General, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

Delete in toto Subsection 401.02.6.2 on pages 248 and 249, and substitute:

**907-401.02.6.2--Assurance Program for Mixture Quality.** The Engineer will conduct a quality assurance program. The quality assurance program will be accomplished as follows:

- 1) Conducting verification tests.
- 2) Validate Contractor test results.
- 3) Periodically observing Contractor quality control sampling and testing.
- 4) Monitoring required quality control charts and test results.
- 5) Sampling and testing materials at any time and at any point in the production or laydown process.

The rounding of all test results will be in accordance with Subsection 700.04.

The Engineer will conduct verification tests on samples taken by the Contractor under the direct supervision of the Engineer at a time specified by the Engineer. The frequency will be equal to or greater than ten percent (10%) of the tests required for Contractor quality control and the data will be provided to the Contractor within two asphalt mixture production days after the sample has been obtained by the Engineer. At least one sample shall be tested from the first two days of production. All testing and data analysis shall be performed by a Certified Asphalt Technician-I (CAT-I) or by an assistant under the direct supervision of the CAT-I. Certification shall be in accordance with the *MDOT HMA Technician Certification Program* chapter in the Materials Division Inspection, Testing, and Certification Manual. The Department shall post a chart giving the names and telephone numbers for the personnel responsible for the assurance program.

The Engineer shall be allowed to inspect Contractor testing equipment and equipment calibration records to confirm both calibration and condition. The Contractor shall calibrate and correlate all testing equipment in accordance with the latest versions of the Department's Test Methods and AASHTO Designation: R 18.

Random differences between the Engineer's verification tests and the current running average of four quality control tests at the time of obtaining the verification sample will be considered acceptable if within the following limits:

Item	Allowable Differences
Sieve - % Passing	
3/8-inch and above	6.0
No. 4	5.0
No. 8	4.0
No. 16, for 4.75 mm mixtures ONLY	3.5
No. 30	3.5
No. 200	2.0
AC Content	0.4
Specimen Bulk SG, Gmb @ $N_{Design}$	0.030
Maximum SG, Gmm	0.020

If four quality control tests have not been tested prior to the time of the first verification test, the verification test results will be compared to the average of the preceding quality control tests. If the verification test is the first material tested on the project or if a significant process adjustment was made just prior to the verification test, the verification test results will be compared to the average of four subsequent quality control test results. For all other cases after a significant process adjustment, the verification test results will be compared to the average of the preceding quality control tests (taken after the adjustment) as in the case of a new project start-up when four quality control tests are not available.

In the event that; 1) the comparison of the Contractor’s running average quality control data and Engineer’s quality assurance verification test results are outside the allowable differences in the above table, or 2) if a bias exists between the results, such that one of the results is predominately higher or lower than the other, and the Engineer’s results fail to meet the JMF control limits, the Engineer will investigate the reason immediately. As soon as the need for an investigation becomes known, the Engineer will increase the quality assurance sampling rate to the same frequency required for Contractor testing. The additional samples obtained by the Engineer may be used as part of the investigation process or for routine quality assurance verification tests. The Engineer's investigation may include testing of the remaining quality control split samples, review and observation of the Contractor's testing procedures and equipment, and a comparison of split sample test results by the Contractor quality control laboratory, Department quality assurance laboratory and the Materials Division laboratory. The procedures outlined in the latest edition of MDOT’s Field Manual for HMA may be used as a guide for the investigation. In the event that the Contractor’s results are determined to be incorrect, the Engineer's results will be used for the quality control data and the appropriate payment for the mixture will be based on the procedures specified in Subsection 401.02.5.8(j).

The Engineer will periodically witness the sampling and testing being performed by the Contractor. The Engineer, both verbally and in writing, will promptly notify the Contractor of any observed deficiencies. When differences exist between the Contractor and the Engineer which cannot be resolved, a decision will be made by the State Materials Engineer, acting as the referee. The Contractor will be promptly notified in writing of the decision. If the deficiencies are not corrected, the Engineer will stop production until corrective action is taken.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

## SUPPLEMENT TO SPECIAL PROVISION NO. 907-401-4

**DATE:** 10/05/2010

**SUBJECT:** Warm Mix Asphalt

Delete Subsection 907-401.03.8 on page 2 and substitute the following:

**907-401.03.8--Preparation of Mixture.** After the sentence in Subsection 401.03.8 on page 264, add the following:

Warm mix asphalt is defined as a plant produced asphalt mixture that can be produced and constructed at lower temperatures than typical hot mix asphalt. Typical temperature ranges of non-polymer modified, WMA produced by foaming the asphalt binder at the plant are typically 270°F to 295°F at the point of discharge of the plant. Typical temperature ranges of polymer modified, WMA produced by foaming the asphalt binder at the plant are typically 280°F to 305°F at the point of discharge of the plant. WMA produced by addition of a terminal blended additive may allow the producer to reduce the temperatures below 270°F as long as all mixture quality and field density requirements are met. Production temperatures at the plant may need to be increased or decreased due to factors such as material characteristics, environmental conditions, and haul time to achieve mixture temperatures at the time of compaction in which uniform mat density can be achieved.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-401-4**

**CODE: (SP)**

**DATE: 03/22/2010**

**SUBJECT: Warm Mix Asphalt (WMA)**

Section 401, Hot Mix Asphalt (HMA) - General, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as amended by this special provision is applicable to Warm Mix Asphalt Only.

**907-401.01--Description.** Delete the first and second paragraphs of Subsection 401.01 on page 236, and substitute the following:

These specifications include general requirements for all types of WMA.

This work consists of the construction of one or more lifts of WMA in accordance with these specifications and the specific requirements for the mixture to be produced and in reasonably close conformity with the lines, grades, thicknesses and typical sections shown on the plans or established by the Engineer.

**907-401.02--Materials.** Delete Subsection 401.02.2 on page 239, and substitute the following:

**907-401.02.2--WMA Products and Processes.** The Department will maintain a list of qualified WMA products and processes. No product or process shall be used unless it appears on this list.

The Contractor may propose other products or processes for approval by the Product Evaluation Committee. Documentation shall be provided to demonstrate laboratory performance, field performance, and construction experience.

**907-401.03--Construction Requirements.**

**907-401.03.1.1--Weather Limitations.** Delete the second sentence of the first paragraph and the Temperature Limitation Table in Subsection 401.03.1.1 on page 258, and substitute the following:

The air and pavement temperature at the time of placement shall equal or exceed 40°F, regardless of compacted lift thickness.

**907-401.03.1.2--Tack Coat.** Delete the first sentence of the first paragraph of Subsection 401.03.1.2 on page 259 and substitute the following:

Tack coat shall be applied to previously placed WMA and between lifts, unless otherwise directed by the Engineer.

**907-401.03.8--Preparation of Mixture.** Delete the sentence in Subsection 401.03.8 on page 264, and substitute the following:

The temperature of the WMA mixture, when discharged from the mixer, shall not exceed 280° F.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

## SUPPLEMENT TO SPECIAL PROVISION NO. 907-403-4

**DATE:** 03/15/2012

**SUBJECT:** Hot Mix Asphalt (HMA)

Before Subsection 907-403.05.2 on page 1, add the following:

**907-403.03--Construction Requirements.**

**907-403.03.2--Smoothness Tolerances.** Delete the fourth paragraph of Subsection 403.03.2 on page 267 and substitute the following.

Where only a surface lift is required, the finished surface lift shall have a profile index of not more than 60.0 inches per mile.

Delete the last paragraph of Subsection 403.03.2 at the bottom of page 268, and the table at the top of page 269 and substitute the following:

Except for a single lift overlay, when the Profile Index for the final surface lift is less than or equal to eighteen inches per mile (18.0 inches / mile) per segment, a unit price increase will be added. The following schedule lists the Profile Index range and the corresponding contract price adjustment:

Profile Index inches / mile / segment	Contract Price Adjustment percent of unit bid price
less than 6.0	108
6.0 to 10.0	106
10.1 to 14.0	104
14.1 to 18.0	102
18.1 to Required P.I.	100
over Required P.I.	100 (with correction to Required P.I.)

For a single lift overlay, when the Profile Index for the final surface lift is less than or equal to eighteen inches per mile (18.0 inches / mile) per segment, a unit price increase will be added. The following schedule lists the Profile Index range and the corresponding contract price adjustment:

Profile Index inches / mile / segment	Contract Price Adjustment percent of unit bid price
less than or equal to 18.0	103
18.1 to Required P.I.	100
over Required P.I.	100 (with correction to Required P.I.)

Delete the first full paragraph of Subsection 403.03.2 on page 269 and substitute the following:

Contract price adjustments for rideability shall only be applicable to the surface lift and furthermore to only the segment(s) or portions of the segments(s) of the surface lift that require smoothness be determined by using a profilograph.

Delete the third full paragraph of Subsection 403.03.2 on page 269 and substitute the following:

Any contract price adjustment for rideability will be applied on a segment to segment basis on the theoretical tonnage based on 12-foot lanes, determined in accordance with Subsections 401.02.6.5 and 403.04, for the segment(s) or portions thereof for which an adjustment is warranted.

Delete Subsection 403.03.5.5 on page 273 and substitute the following:

**907-403.03.5.5--Preliminary Leveling.** All irregularities of the existing pavement, such as ruts, cross-slope deficiencies, etc., shall be corrected by spot leveling, skin patching, feather edging or a wedge lift in advance of placing the first overall lift.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-403-4**

**CODE: (IS)**

**DATE: 11/04/2005**

**SUBJECT: Hot Mix Asphalt (HMA)**

Section 403, Hot Bituminous Pavement, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-403.05.2--Pay Items.** Add the "907" prefix to the pay items listed on page 275 & 276.



**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT TO SPECIAL PROVISION NO. 907-403-9**

**DATE: 10/26/2011**

**SUBJECT: Warm Mix Asphalt (WMA)**

Delete Subsection 403.05 on page 1 and substitute the following.

**907-403.04--Method of Measurement.** WMA pavement, complete in place and accepted, will be measured by the ton. The weight of the composite mixture shall be determined in accordance with the provisions of Subsection 401.03.2.1.11.

**907-403.05--Basis of Payment.** Subject to the adjustments set out in Subsections 401.02.6.3, 401.02.6.4, 401.02.6.5 & 403.03.2, warm mix asphalt pavement, complete-in-place, accepted, and measured as prescribed above, will be paid for at the contract unit price per ton for each lift of pavement specified in the bid schedule and shall be full compensation for completing the work.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-403-9**

**CODE: (SP)**

**DATE: 03/15/2010**

**SUBJECT: Warm Mix Asphalt (WMA)**

Section 403, Hot Bituminous Pavement, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as amended by this special provision is applicable to Warm Mix Asphalt Only.

**907-403.01--Description.** Delete the first sentence of Subsection 403.01 on page 266, and substitute the following:

This work consists of constructing one or more lifts of WMA pavement meeting the requirements of Section 401 on a prepared surface in accordance with the requirements of this section and in reasonably close conformity with the lines, grade, thicknesses, and typical cross sections shown on the plans or established by the Engineer.

**907-403.05--Basis of Payment.**

**907-403.05.2--Pay Items.** After the last pay item listed on page 276, add the following:

- |  |           |
|--|-----------|
| 907-403-M: Warm Mix Asphalt, <u>(1)</u> , <u>(2)</u>                     | - per ton |
| Type Mixture   |           |
| 907-403-N: Warm Mix Asphalt, <u>(1)</u> , <u>(3)</u> , Leveling          | - per ton |
| Type Mixture   |           |
| 907-403-O: Warm Mix Asphalt, <u>(1)</u> , <u>(4)</u> , Trench Widening   | - per ton |
| Type Mixture   |           |
| 907-403-P: Warm Mix Asphalt, HT, <u>(3)</u> , Polymer Modified           | - per ton |
| Mixture  |           |
| 907-403-Q: Warm Mix Asphalt, HT, <u>(3)</u> , Polymer Modified, Leveling | - per ton |
| Mixture  |           |

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-407-1**

**CODE: (SP)**

**DATE: 02/26/2008**

**SUBJECT: Tack Coat**

Section 407, Tack Coat, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-407.02.1--Bituminous Material.** Delete the second sentence of the first paragraph of Subsection 407.02.1 on page 281, and substitute the following:

When not specified, the materials shall be as specified in Table 410-A on page 293.

**907-407.03.3--Application of Bituminous Material.** Delete the first paragraph of Subsection 407.03.3 on page 281, and substitute the following.

Tack coat shall be applied with a distributor spray bar. A hand wand will only be allowed for applying tack coat on ramp pads, irregular shoulder areas, median crossovers, turnouts, or other irregular areas. Bituminous materials and application rates for tack coat shall be as specified in Table 410-A on page 293. Tack coat shall not be applied during wet or cold weather, after sunset, or to a wet surface. Emulsions shall be allowed to "break" prior to superimposed construction.

**907-407.05--Basis of Payment.** Delete the pay item at the end of Subsection 407.05 on page 282, and substitute the following:

907-407-A: Asphalt for Tack Coat \*

- per gallon

\* Grade may be specified

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-601-1**

**CODE: (IS)**

**DATE: 08/29/2007**

**SUBJECT: Structural Concrete**

Division 600, Incidental Construction, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

After the heading **DIVISION 600 - INCIDENTAL CONSTRUCTION**, add the following:

Unless otherwise specified, all testing of Portland cement concrete in Division 600 shall be in accordance with the requirements of Subsection 907-601.02.1.

**907-601.02--Materials.**

**907-601.02.1--General.** Delete the second and third sentence of the first paragraph of Subsection 601.02.1 on page 348, and substitute the following:

Sampling and testing will be in accordance with TMD-20-04-00-000 or TMD-20-05-00-000, as applicable.

**907-601.03.6.3--Removal of Falsework, Forms, and Housing.** Delete the first paragraph, the table and second paragraph of Subsection 601.03.6.3 on pages 349 and 350, and substitute the following:

The removal of falsework, forms, and the discontinuance of heating, shall be in accordance with the provisions and requirements of Subsection 907-804.03.15, except that the concrete shall conform to the following compressive strength requirements:

Wingwall and Wall Forms not Under Stress .....	1000 psi
Wall Forms under Stress .....	2200 psi
Backfill and Cover clear .....	2400 psi

In lieu of using concrete strength cylinders to determine when falsework, forms, and housings can be removed, an approved maturity meter may be used to determine concrete strengths by inserting probes into concrete placed in a structure. The minimum number of maturity meter probes required for each structural component shall be in accordance with Subsection 907-804.03.15. Procedures for using the maturity meter and developing the strength/maturity relationship shall follow the requirements of Subsection 907-804.03.15. Technicians using the maturity meter or calculating strength/maturity graphs shall meet the requirements of Subsection 907-804.03.15.

**907-601.05--Basis of Payment.** Add the “907” prefix to the pay items listed on page 352.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-603-8

CODE: (IS)

DATE: 05/12/2008

SUBJECT: Culverts and Storm Drains

Section 603, Culverts and Storm Drains, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

### **907-603.03--Construction Requirements.**

**907-603.03.2--Bedding.** After the first paragraph of the Subsection 603.03.2 on page 356, add the following:

Non-rigid pipe used in cross drains and storm drains shall have a Class B bedding. Non-rigid pipe used in side drains shall have a Class C bedding. No separate measurement will be made for pipe bedding. Costs associated with pipe bedding shall be included in the cost of the pipe.

### **907-603.03.4--Joining Conduit.**

**907-603.03.4.1--Storm Drainage.** Delete the first sentence of the seventh paragraph of Subsection 603.03.4.1 on page 358, and substitute the following:

Flexible steel conduits shall be firmly joined by coupling bands.

**907-603.03.7--Backfilling.** After the first paragraph of the Subsection 603.03.7 on page 360, add the following:

Backfill of non-rigid corrugated polyethylene and poly (vinyl chloride) (PVC) pipe used in cross drains and storm drains shall be performed using one of the following methods:

1. Flowable fill meeting the requirements of Section 631 of the Standard Specifications. If flowable fill is used, care shall be taken to prevent the pipe from "floating".
2. Crushed stone aggregate meeting the requirements of Subsection 703.04.3 of the Standard Specification.

No separate measurement will be made for backfilling pipe. Costs associated with backfilling pipe will be included in the cost of the pipe.

**907-603.05--Basis of Payment.** Add the "907" prefix to pay item nos. 603-ALT, 603-MA thru 603-MH, 603-NA thru 603-NL, 603-PE, and 603-PVC on pages 364 thru 366.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-618-4**

**CODE: (SP)**

**DATE: 12/12/2006**

**SUBJECT: Placement of Temporary Traffic Stripe**

Section 618, Maintenance of Traffic and Traffic Control Plan, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-618.03.3--Safe Movement of Traffic.** Delete subparagraphs (2) and (3) of Subsection 618.03.3 on pages 415 & 416, and substitute the following:

- (2) Temporary edge lines on projects requiring shoulders constructed of granular material may be delayed for a period not to exceed three (3) days.

Temporary edge lines placed on the final pavement course of projects requiring paved shoulders with surface treatment may be placed on the adjacent shoulder in as near the permanent location as possible until the surface treatment is placed. When the edge lines are obliterated by the placement of the surface treatment, the edge lines shall be placed in the permanent stripe location. The replacement of edge lines may be delayed for a period not to exceed three (3) days for a two or three-lane roads.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-626-15**

**CODE: (IS)**

**DATE: 03/17/2008**

**SUBJECT: Thermoplastic Traffic Markings**

Section 626, Thermoplastic Traffic Markings, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-626.05--Basis of Payment.** Add the "907" prefix to the pay items listed on page 446.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-626-22

CODE: (SP)

DATE: 04/06/2010

SUBJECT: Double Drop Thermoplastic Markings

Section 626, Thermoplastic Traffic Markings, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-626.03.1.1--Equipment.** After the second paragraph of Subsection 626.03.1.1 on page 444, add the following:

When edge lines are placed over rumble strips, the equipment must be able to apply the markings using the atomization method instead of extrusion / ribbon method.

**907-626.03.1.2--Construction Details.** After the second sentence of the first full paragraph of Subsection 626.03.1.2 on page 445 add the following:

When edge lines are placed on rumble strips, the thickness of the edge line shall be 90 mils.

After the last sentence of the third full paragraph of Subsection 626.03.1.2 on page 445, add the following:

When double drop thermoplastic stripe is called for in the contract, additional beads by the drop-on method shall be applied as follows:

Class A glass beads at a rate of not less than three pounds of beads per 100 feet of six-inch stripe.  
Class B glass beads at a rate of not less than three pounds of beads per 100 feet of six-inch stripe.

The Class B glass beads shall be applied to the newly placed stripe first, followed by the application of the Class A glass beads.

**907-626.05--Basis of Payment.** Add the following to the list of pay items on page 446.

907-626-A: 6" Thermoplastic Double Drop Traffic Stripe,  
Skip White \* - per linear foot or mile

907-626-B: 6" Thermoplastic Double Drop Traffic Stripe,  
Continuous White \* - per linear foot or mile

907-626-C: 6" Thermoplastic Double Drop Edge Stripe,  
Continuous White \* - per linear foot or mile



907-626-D: 6" Thermoplastic Double Drop Traffic Stripe, Skip Yellow	- per linear foot or mile
907-626-E: 6" Thermoplastic Double Drop Traffic Stripe, Continuous Yellow	- per linear foot or mile
907-626-F: 6" Thermoplastic Double Drop Edge Stripe, Continuous Yellow, *	- per linear foot or mile
907-626-G: Thermoplastic Double Drop Detail Stripe, <u>Color</u>	- per linear foot
907-626-H: Thermoplastic Double Drop Legend, White	- per linear foot or square foot

\* Thickness may be specified

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-631-1**

**CODE: (SP)**

**DATE: 05/04/2010**

**SUBJECT: Flowable Fill**

Section 631, Flowable Fill, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is deleted in toto and replaced as follows:

**SECTION 907-631 - FLOWABLE FILL**

**907-631.01--Description.** This work shall consist of furnishing and placing a flowable fill material. Uses include, but are not limited to, placement under existing bridges, around or within box culverts or pipe culverts, or at other locations shown on the plans.

**907-631.02--Materials.** All materials shall meet the requirements of the following Subsections, or as stated herein:

Fine Aggregate .....	*
Portland Cement .....	701.01 and 701.02
Fly Ash.....	714.05
Air Entraining Admixtures ** .....	713.02
Water.....	714.01.1 and 714.01.2
Calcium Chloride ** .....	714.02

\* The gradation of the fine aggregate shall be fine enough for the fine aggregate to stay in suspension in the mortar to the extent required for proper flow and shall conform to the following grading:

<u>Sieve Size</u>	<u>% Passing</u>
1/2 inch	100
No. 200	< 1

\*\* High air generators shall be used, as required, in order to increase the total air content to 25 – 35%. Only approved high air generators shall be used to obtain the required air content. Either a Type C or E chemical admixture or maximum 1.0% calcium chloride by weight of the total cementitious materials may be added as required by the application and with the approval of the Engineer. Calcium chloride may not be used where the flowable fill comes into contact with metal. Adding the Type C or E chemical admixture or calcium chloride does not require a different or new mixture design from one previously approved.

**907-631.02.1--Mixture Design.** Flowable fill is a mixture of Portland cement, fine aggregate, water, and, as required to obtain the required total air content, either high air generators or air

entraining admixtures. Fly ash shall be used for Non-Excavatable applications. Flowable fill contains a low cementitious content for reduced strength development.

At least 30 days prior to production of flowable fill, the Contractor shall submit to the Engineer proposed flowable fill mixtures design following the mixture design submittal procedures listed in the Department's *Concrete Field Manual*.

The concrete producer shall assign a permanent unique mixture number to each flowable fill mixture design. All flowable fill mixture designs will be reviewed by the Materials Division prior to use. Flowable fill mixture designs disapproved will be returned to the Contractor with a statement explaining the disapproval.

Once approved, a flowable fill mixture design may be transferred to other projects without additional testing provided the material sources have not changed. Allowable changes in material sources shall meet the requirements of the Department's *Concrete Field Manual*, Section 5.7. For allowable changes in material sources, the mixture design shall be re-verified following the requirements of Subsection 907-631.02.1.2.

**907-631.02.1.1--Proportioning of Mixture Design.** The mixture design proportions shall be determined based on batches mixed using production equipment.

Table 1, "Flowable Fill Mixture Design Proportioning Guide", is a guide for proportioning flowable fill, except where noted.

**Table 1**  
**Flowable Fill Mixture Design Proportioning Guide**

	Excavatable	Non-Excavatable
Material	Amount (lbs/yd <sup>3</sup> )	
Cement	75 – 150 *	75 – 150 *
Fly Ash	-	150 – 600 *
Fine Aggregate	**	**
Water	***	***

\* Guideline for proportioning. The actual amount may vary from the amount listed the Table 1.

\*\* Fine aggregate shall be proportioned to yield one cubic yard of mixture as verified by unit weight.

\*\*\* Mixture designs shall produce a consistency that will result in a flowable self-leveling product at time of placement.

Each mixture design shall be verified using production equipment prior to submittal of the mixture design for review. During the verification, the mixture design shall meet the

requirements of the “Performance Requirements Flowable Fill Design” listed in Table 2. The verification performance data and the corresponding batch ticket shall be submitted with the mixture design.

**Table 2**  
**Performance Requirements for Verification of Flowable Fill Mixture Designs**

Mixture Property	Performance Requirement		Required Test Method
	Excavatable	Non-Excavatable	
Consistency	Approximate 8-inch spread		(see below)
Total Air Content (%)	25 – 35	5 – 15	AASHTO T121
28 Day Compressive Strength (psi)	–	Minimum 125	AASHTO T22 and T23
Unit Weight (lbs/ft <sup>3</sup> )	90 – 110	100 – 125	AASHTO T121

The consistency of the fresh mixture shall be that of a thin slurry. The consistency shall be tested by filling to the top a three-inch diameter by six-inch high cylinder which is open on both ends. With the mixture in the cylinder, immediately pull the cylinder straight up. The correct consistency of the mixture will produce a spread meeting the requirements in Table 2 with no segregation.

**907-631.02.1.2--Verification of Mixture Design.** The verification shall be performed by the Contractor prior to submittal of the mixture design proportions for review. The verification performance data and the corresponding batch ticket shall be submitted with the mixture design. The verification shall be performed using the batching and mixing equipment anticipated to be used during production of the mixture for the project. In addition to the performance requirements listed in Table 2, the verification shall meet the batching tolerance requirements for the material weights listed in the Department’s *Concrete Field Manual*.

Adjustments of the proportions of fine aggregate and/or water shall be made to achieve suspension of the fine aggregate.

The requirements in Table 2 for consistency, percent total air content, compressive strength, and unit weight are for verification of the mixture design proportion purposes only and are not intended for jobsite acceptance requirements.

**907-631.02.2--Acceptance of Mixture.** The acceptance of the mixture at the job site will be based on the performance of the flowable fill mixture placed and will be at the discretion of the Engineer. For acceptance of the mixture at the job site, the mixture shall be self-leveling and shall not settle, segregate, or have excessive bleed water.

**907-631.02.3--Manufacturing.** Flowable fill will be batched, mixed, and transported in accordance with the requirements of Section 804.

**907-631.02.4--Sampling and Testing.** The yield shall be determined by testing the first load

placed on each production day in accordance with AASHTO Designation: T121. If adjustments are made to the mixture design proportions to correct for yield, the yield shall be determined on the next load with the adjusted proportions.

**907-631.03--Construction Requirements.** Prior to placing flowable fill, each end of the structure shall be plugged leaving an opening at each end no larger than necessary to accommodate the filling equipment. Flowable fill shall be discharged from the mixer by any reasonable means into the area to be filled. Unless otherwise approved by the Engineer, filling will begin on the downstream end of the structure and continue until no further material will enter the structure. The flowable fill will then be continued from the upstream end of the structure.

**907-631.04--Method of Measurement.** Flowable fill will be measured by the cubic yard which will be determined from the yield in accordance with the requirements of Subsection 907-631.02.4. The yield will be calculated by dividing the actual batch weights of each load by the unit weight of the mix, which will be determined by testing the first load placed on each production day.

**907-631.05--Basis of Payment.** Flowable fill, measured as prescribed above, will be paid for at the contract unit price per cubic yard, which price shall be full compensation for furnishing all labor, equipment, tools and materials to complete the work.

Payment will be made under:

- 907-631-A: Flowable Fill, Excavatable - per cubic yard
- 907-631-B: Flowable Fill, Non-Excavatable - per cubic yard

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

| SPECIAL PROVISION NO. 907-701-4

CODE: (IS)

| DATE: 11/09/2010

**SUBJECT: Hydraulic Cement**

Section 701, Hydraulic Cement, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

Delete Subsection 701.01 on pages 595 & 596, and substitute the following:

**907-701.01--General.** The following requirements shall be applicable to hydraulic cement:

Only hydraulic cements conforming to Section 701 shall be used. Hydraulic cements shall not be listed or designated as meeting more than one AASHTO or Department type.

Different brands of hydraulic cement, or the same brand of hydraulic cement from different mills, shall not be mixed or used alternately in any one class of construction or structure, without written permission from the Engineer; except that this requirement will not be applicable to hydraulic cement treatment of design soils, or bases.

The Contractor shall provide suitable means for storing and protecting the hydraulic cement against dampness. Hydraulic cement, which for any reason, has become partially set or which contains lumps of caked hydraulic cement will be rejected. Hydraulic cement salvaged from discarded or used bags shall not be used.

The temperature of bulk hydraulic cement shall not be greater than 165°F at the time of incorporation in the mix.

Acceptance of hydraulic cement will be based on the certification program as described in the Department's Materials Division Inspection, Testing, and Certification Manual and job control sampling and testing as established by Department SOP.

Retests of hydraulic cement may be made for soundness and expansion within 28 days of test failure and, if the hydraulic cement passes, it may be accepted. Hydraulic cement shall not be rejected due to failure to meet the fineness requirements if upon retests after drying at 212°F for one hour, it meets such requirements.

Delete Subsection 701.02 on page 596, and substitute the following:

**907-701.02--Portland Cement.**

**907-701.02.1--General.**

**907-701.02.1.1--Types of Portland Cement.** Portland cement (cement) shall be either Type I or Type II conforming to AASHTO Designation: M85 or Type I(MS), as defined by the description below Table 1. Type III cement conforming to AASHTO Designation: M85 or Type III(MS), as defined by the description below Table 1, may be used for the production of precast or precast-prestressed concrete members.

**907-701.02.1.2--Alkali Content.** All cement types in this Subsection shall meet the Equivalent alkali content requirement for low-alkali cements listed in AASHTO Designation: M85, Table 2.

**907-701.02.2--Replacement by Other Cementitious Materials.** The maximum replacement of cement by weight is 25% for fly ash or 50% for ground granulated blast furnace slag (GGBFS). The minimum tolerance for replacement shall be 5% below the maximum replacement content. Replacement contents below this minimum tolerance by fly ash or GGBFS may be used, but shall not be given any special considerations, like the maximum acceptance temperature for Portland cement concrete containing pozzolans. Special considerations shall only apply for replacement of cement by fly ash or GGBFS.

**907-701.02.2.1--Portland Cement Concrete Exposed to Soluble Sulfate Conditions or Seawater.** When Portland cement concrete is exposed to moderate or severe soluble sulfate conditions, or to seawater, cement types and replacement of cement by Class F fly ash, GGBFS, or silica fume shall be as follows in Table 1.

**Table 1- Cementitious Materials for Soluble Sulfate Conditions**

Sulfate Exposure	Water-soluble sulfate (SO <sub>4</sub> ) in soil, % by mass	Sulfate (SO <sub>4</sub> ) in water, ppm	Cementitious material required*
Moderate and Seawater	0.10 - 0.20	150 - 1,500	Type II **, ***, **** cement, or Type I cement with one of the following replacements of cement by weight: 25% Class F fly ash, 50% GGBFS, or 8% silica fume
Severe	0.20 - 2.00	1,500 - 10,000	Type I cement with a replacement by weight of 50% GGBFS, or Type II ** cement with one of the following replacements of cement by weight: 25% Class F fly ash, 50% GGBFS, or 8% silica fume

- \* The values listed in this table for replacement of Portland cement by the cementitious materials listed are maximums and shall not be exceeded. The minimum tolerance for replacement shall be 0.5% below the maximum replacement content. Replacement contents below this minimum tolerance by the cementitious materials listed in this table do not meet the requirements for the exposure conditions listed and shall not be allowed.
- \*\* Type I cement conforming to AASHTO Designation: M85 with a maximum 8% tricalcium aluminate (C<sub>3</sub>A) may be used in lieu of Type II cement; this cement is given the designation "Type I(MS)". Type III cement conforming to AASHTO Designation: M85 with a maximum 8% tricalcium aluminate (C<sub>3</sub>A) may be used in lieu of Type II cement as allowed in Subsection 907-701.02.1; this cement is given the designation "Type III(MS)".
- \*\*\* Blended cement meeting the sulfate resistance requirements of Subsection 907-701.04 may be used in lieu of Type II as allowed in Subsection 907-701.04. No additional cementitious materials shall be added to or as a replacement for blended cement.
- \*\*\*\* Class F fly ash or GGBFS may be added as a replacement for cement as allowed in Subsection 907-701.02.2.

Class C fly ash shall not be used as a replacement for cement in any of the sulfate exposure conditions listed above.

**907-701.02.2.2--Cement for Soil Stabilization Exposed to Soluble Sulfate Conditions or Seawater.** When Portland cement for use in soil stabilization is exposed to moderate or severe soluble sulfate conditions, or to seawater, cement types and replacement of cement by Class F fly ash or GGBFS shall meet the requirements of Subsection 907-701.02.2.1. Neither metakaolin nor silica fume shall be used to bring the cementitious materials into compliance with the requirements of Table 1.

Delete Subsection 701.03 on page 596, and substitute the following:

**907-701.03--Masonry Cement.** Masonry cement shall conform to ASTM Designation: C 91 and shall only be used in masonry applications.

Delete Subsection 701.04 on page 596, and substitute the following:

**907-701.04--Blended Hydraulic Cement.**

**907-701.04.1--General.**

**907-701.04.1.1--Types of Blended Cement.** Blended hydraulic cements (blended cements) shall be of the following types and conform to AASHTO Designation: M 240:

- Type I(SM) – Slag-modified Portland cement
- Type IS – Portland blast-furnace slag cement
- Type I(PM) – Pozzolan-modified Portland cement
- Type IP – Portland-pozzolan cement



Blended cement for use in Portland cement concrete or soil stabilization exposed to the moderate soluble sulfate condition or exposure to seawater as defined in Table 1 shall meet the Sulfate resistance requirement listed in AASHTO Designation: M 240, Table 2 and the “(MS)” suffix shall be added to the type designation.

**907-701.04.1.2--Alkali Content.** All blended cement types in this Subsection shall meet the Mortar expansion requirements listed in AASHTO Designation: M 240, Table 2.

**907-701.04.2--Replacement by Other Cementitious Materials.** No additional cementitious materials, such as Portland cement, performance hydraulic cement, fly ash, GGBFS, metakaolin, or others, shall be added to or as a replacement for blended cement.

**907-701.04.3--Exposure to Soluble Sulfate Conditions or Seawater.** When Portland cement concrete or blended cement for soil stabilization is exposed to moderate soluble sulfate conditions or to seawater, where the moderate soluble sulfate condition is defined in Table 1, the blended cement shall meet the sulfate resistance requirement listed in AASHTO Designation: M 240, Table 2.

When Portland cement concrete or blended cement for soil stabilization is exposed to severe soluble sulfate conditions, where the severe soluble sulfate condition is defined in Table 1, blended cements shall not be used.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-702-3**

**CODE: (SP)**

**DATE: 05/08/2012**

**SUBJECT: Polyphosphoric Acid (PPA) Modification of Petroleum Asphalt Cement**

Section 702.05, Petroleum Asphalt Cement, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-702.05--Petroleum Asphalt Cement.** Delete the third paragraph of Subsection 702.05 on page 598, and substitute the following.

The bituminous material used in all types of asphalt mixtures shall conform to AASHTO Designation: M 320, Performance Grade PG 67-22, as modified in the table below, except that Polyphosphoric Acid (PPA) may be used at low dosage rates as a modifier to enhance the physical properties of a base binder to meet the requirements for Performance Grade PG 67-22. In addition, PPA may be used as a catalyst or mixing agent at low dosage rates in the production of Polymer Modified, Performance Grade PG 76-22.

When PPA is used as a modifier, in no case shall the PPA modifier be used to adjust the physical properties of the binder a full binder grade. For example: the base binder (unmodified) is graded as a PG 64-22 and should only be modified by the addition of PPA to a modified binder grade of PG 67-22.

When petroleum asphalt cement is modified by PPA, the following dosage limits shall be applied.

<u>Grade</u>	<u>Dosage Limit</u>
PG 67-22	0.75% by weight of binder
PG 76-22	0.50% by weight of binder

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT TO SPECIAL PROVISION NO. 907-703-9**

**DATE:** 12/12/2011

**SUBJECT:** Aggregates

After the last paragraph on page 3, add the following:

**907-703.20.3--Gradation.** Delete the table and notes in Subsection 703.20.3 at the top of page 626, and substitute the following

**PERCENT PASSING BY WEIGHT**

Square Mesh Sieves	Shell	Coarse			Medium	Fine
		Size I	Size II Note (1)	Size III Note (3)		
3 inch	90-100			100		
2 1/2 inch				90-100		
2 inch		100				
1 1/2 inch		90-100	100	25-60		
1 inch		80-100	97-100			
3/4 inch		55-100	55-100	0-10		
1/2 inch		35-85	35-85	0-5	100	
3/8 inch		12-65	12-65		97-100	
No. 4, Note (2)		0-30	0-30		92-100	
No. 10		0-8	0-8		80-100	100
No. 40				10-40	80-100	
No. 60				0-20	30-100	
No. 100					15-80	
No. 200	0-5	0-4	0-4	0-5	0-30	
PI Material Passing No. 40				6 or less	0	

Note (1): Size II is intended for use in bases in which portland cement is used.

Note (2): Ground shell shall contain at least 97% passing the No. 4 sieve.

Note (3): Size III is intended for use in stabilized construction entrances.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-703-9

CODE: (IS)

DATE: 11/09/2010

SUBJECT: Aggregates

Section 703, Aggregates, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-703.03.2.4--Gradation.** Delete the last sentence of the last paragraph of Subsection 703.03.2.4 on page 611.

**907-703.04--Aggregate for Crushed Stone Courses.**

**907-703.04.1--Coarse Aggregate.** Delete the first paragraph of Subsection 703.04.1 on page 611, and substitute the following:

Coarse aggregate, defined as material retained on No. 8 sieve, shall be either crushed stone, slag, granite, shell, concrete, or combination thereof.

**907-703.04.2--Fine Aggregate.** Delete the first sentence of the first paragraph of Subsection 703..04.2 on page 612, and substitute the following:

Fine aggregate, defined as material passing no. 8 sieve, shall be material resulting from the crushing of stone, slag, concrete, or combination thereof.

**907-703.04.3--Gradation.** Add the following to the "TABLE OF SIZES AND GRADATION OF CRUSHED STONE AGGREGATE" in Subsection 703.04.3 on page 613.

Sieve Size	Percent Passing By Weight	
	Size No. 825	Crushed Stone
2 inch	100	
1 1/2 inch	90 - 100	100
1 inch	75 - 98	90 - 100
3/4 inch		
1/2 inch	60 - 85	62 - 90
3/8 inch		
No. 4	40 - 65	30 - 65
No. 8	28 - 54	
No. 10		15 - 40
No. 16	19 - 42	
No. 40		
No. 50	9 - 27	
No. 200	4 - 18	3 - 16

After the "TABLE OF SIZES AND GRADATION OF CRUSHED STONE AGGREGATE" in Subsection 703.04.3 on page 613, add the following:

**907-703.04.4--Crushed Concrete.** Crushed reclaimed concrete shall also be allowed as a crushed aggregate course provided it meets the requirements of Subsection 703.04 and the following.

**Crushed Concrete**

Sieve Size	Percent Passing By Weight
2 inch	
1 1/2 inch	100
1 inch	90 - 100
3/4 inch	
1/2 inch	60 - 85
3/8 inch	
No. 4	40 - 65
No. 8	28 - 54
No. 10	
No. 16	19 - 42
No. 40	
No. 50	9 - 27
No. 200	2 - 18

**907-703.06--Aggregates for Hot Mix Asphalt.**

**907-703.06.1.2--Fine Aggregates.** Delete the last sentence of Subsection 703.06.1.2 on page 614.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT TO SPECIAL PROVISION NO. 907-708-5**

**DATE: 04/11/2012**

**SUBJECT: Non-Metal Drainage Structures**

After Subsection 907-708.02.1.2 on page 1, add the following.

**907-708.02.1.4--Coarse Aggregate.** Delete the last sentence of Subsection 708.02.1.4 on page 639.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-708-5**

**CODE: (IS)**

**DATE: 05/12/2008**

**SUBJECT: Non-Metal Drainage Structures**

Section 708, Non-Metal Structures and Cattlepasses, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-708.02.1.2--Fly Ash.** In the first sentence of Subsection 708.02.1.2 on page 639, change “20 percent” to “25%”.

**907-708.02.3.2--Marking.** Delete the second sentence of Subsection 708.02.3.2 on page 640, and substitute the following:

Machine made pipe shall be marked in accordance with one of the following methods: 1) the pipe shall be inscribed on the outside of the pipe and stenciled on the inside of the pipe, or 2) the pipe shall be inscribed on the inside of the pipe, only. All other pipe may be stenciled.

## **907-708.17--Corrugated Plastic Pipe Culverts.**

**907-708.17.1--Corrugated Polyethylene Pipe Culverts.** Delete the first sentence of the first paragraph of Subsection 708.17.1 on page 645 and substitute the following.

Corrugated polyethylene pipe shall conform to the requirements of AASHTO Designation: M 294, Type S and/or SP, as applicable, and shall have soil tight joints, unless otherwise specified.

Delete the last sentence of the second paragraph of Subsection 708.17.1 on page 645.

After Subsection 708.17.1 on page 645, add the following:

### **907-708.17.1.1--Inspection and Final Acceptance of Corrugated Polyethylene Pipe Culverts.**

Approximately 50% of the installed length of corrugated polyethylene pipe shall be inspected for excess deflection no sooner than 30 days after the embankment material over the pipe is placed to the required subgrade elevation or the maximum required fill height. The inspection shall be performed using either electronic deflectometers, calibrated television or video cameras, or a “go, no-go” mandrel that has an effective diameter of 95% of the nominal inside diameter of the pipe.

Pipe found to have deflection values greater than 5% shall be removed and replaced at no cost to the State.

**907-708.17.2--Corrugated Poly (Vinyl Chloride) (PVC) Pipe Culverts.** Delete the first sentence of the first paragraph of Subsection 708.17.2 on page 645 and substitute the following.



Corrugated poly (vinyl chloride) (PVC) pipe shall conform to the requirements of AASHTO Designation: M 304 and shall have soil tight joints, unless otherwise specified. Non-perforated PVC pipe used in underdrains shall either be manufactured with an ultra-violet light inhibitor or be fully coated with an ultra-violet light inhibitor.

After Subsection 708.17.2 on page 645, add the following:

**907-708.17.2.1--Inspection and Final Acceptance of Poly (Vinyl Chloride) (PVC) Pipe Culverts.** Approximately 50% of the installed length of PVC pipe shall be inspected for excess deflection no sooner than 30 days after the embankment material over the pipe is placed to the required subgrade elevation or the maximum required fill height. The inspection shall be performed using either electronic deflectometers, calibrated television or video cameras, or a “go, no-go” mandrel that has an effective diameter of 95% of the nominal inside diameter of the pipe.

Pipe found to have deflection values greater than 5% shall be removed and replaced at no cost to the State.

**907-708.18--Sewer Pipe Used for Underdrains.**

**907-708.18.1--General.** After the second paragraph of Subsection 708.18.1 on page 645 add the following:

In lieu of the pipe listed in this subsection, pipe meeting the requirements of Subsection 708.19 may also be used for plastic underdrain pipe.

**907-708.18.3--Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe.** After the first sentence of Subsection 708.18.3 on page 645, add the following.

Non-perforated PVC pipe shall either be manufactured with an ultra-violet light inhibitor or be fully coated with an ultra-violet light inhibitor.

**907-708.18.4--Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe.** Delete the paragraph in Subsection 708.18.4 on page 645 and substitute the following.

This pipe shall conform to the following requirements. For pipe sizes less than or equal to six inches ( $\leq 6''$ ), the pipe shall be Class PS46 meeting the requirements of AASHTO Designation: M 278. For pipe sizes greater than six inches ( $> 6''$ ), the pipe shall meet the requirements of AASHTO Designation: M 304. Non-perforated PVC pipe shall either be manufactured with an ultra-violet light inhibitor or be fully coated with an ultra-violet light inhibitor.

Delete Subsection 708.19 on page 645 and substitute the following:

**907-708.19--Corrugated Polyethylene Pipe.** This pipe shall be high density polyethylene pipe or drainage tubing meet the requirements of AASHTO Designation: M 294, Type S or SP, or

AASHTO Designation: M 252, Type S or Type SP, as applicable.

**907-708.22.2--Exceptions to AASHTO.** Delete the sixth paragraph of Subsection 708.22.2 on page 647.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-709-1

CODE: (IS)

DATE: 05/05/2008

SUBJECT: Metal Pipe

Section 709, Metal Pipe, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

After Subsection 709.02 on page 649, add the following:

**907-709.02.1--Aluminized Corrugated Metal Culvert Pipe and Pipe Arches.** All aluminized metal pipe and arches shall be manufactured from Type 2 corrugated metal pipe and arches in accordance with the requirements of Subsection 709.02.

**907-709.03--Bituminous Coated Corrugated Metal pipe and Pipe Arches.**

**907-709.03.1--Materials.** Delete the first sentence of the first paragraph of Subsection 709.03.1 on page 649, and substitute the following:

Bituminous coated corrugated metal pipe and arches shall conform to the requirements of AASHTO Designation: M 190 and be completely coated inside and out with an asphalt cement which will meet the performance requirements hereinafter set forth.

**907-709.05--Polymer Coated Corrugated Metal Pipe and Pipe Arches.** Delete the first sentence of the first paragraph of Subsection 709.05 on pages 649 and 650, and substitute the following:

Polymer coated corrugated metal pipe and arches shall conform to the requirements of AASHTO Designation: M 245, except the minimum gauge thickness shall be as shown on the plans or in the contract; however, corrugated metal pipe manufactured from sheets thicker than that specified will be acceptable when approved by the Engineer. The internal diameter of corrugated metal pipe will be determined by inside measurement between the crests of the corrugations. Corrugations greater than 3" x 1" will not be allowed in arch pipe.

**907-709.06--Corrugated Metal Pipe for Underdrains.** Delete the sentence in Subsection 709.06 on page 650, and substitute the following:

Corrugated metal pipe shall conform to AASHTO Designation: M 36, Type III. Type I pipe which has been perforated to permit the in-flow or out-flow of water may be used in lieu of Type III pipe.

**907-709.06.1--Aluminized Corrugated Metal Culvert Pipe For Underdrains.** All aluminized corrugated metal pipe for underdrains shall be manufactured from Type 2 corrugated metal pipe

and arches in accordance with the requirements of AASHTO Designation: M 36, Type III. Manufacturer must repair any damaged coating caused from perforating the pipe.

**907-709.07--Bituminous Coated Corrugated Metal Pipe for Underdrains.** Delete the sentence in Subsection 709.07 on page 650, and substitute the following:

Bituminous coated corrugated metal pipe shall conform to the requirements of AASHTO Designation: M 190, Type A with a bituminous coating applied in accordance with the requirements of Subsection 709.03. Manufacturer must repair any damaged coating caused from perforating the pipe.

**907-709.08--Polymer Coated Corrugated Metal Pipe for Underdrains.** Delete the sentence in Subsection 709.08 on page 650, and substitute the following:

The metal pipe for underdrains shall conform to the requirements of AASHTO Designation: M 245, Type III and the polymer coating shall conform to the requirements of Subsection 709.05. Type I pipe which has been perforated to permit the in-flow or out-flow of water may be used in lieu of Type III pipe. Manufacturer must repair any damaged coating caused from perforating the pipe.

**907-709.09--Corrugated Aluminum Alloy Culvert Pipe and Arches.** Delete the first sentence in Subsection 709.09 on page 650, and substitute the following:

Corrugated aluminum culvert pipe and arches shall conform to the requirements of AASHTO Designation: M 196, Type IA.

**907-709.10--Corrugated Aluminum Alloy Pipe for Underdrains.** Delete the first sentence in Subsection 709.10 on page 650, and substitute the following:

Corrugated aluminum pipe underdrains shall conform to the requirements of AASHTO Designation: M 196, Type III. Type I pipe which has been perforated to permit the in-flow or out-flow of water may be used in lieu of Type III pipe.

**907-709.11--Bituminous Coated Corrugated Aluminum Alloy Culvert Pipe and Arches.** Delete the sentence in Subsection 709.11 on page 650, and substitute the following:

Bituminous coated aluminum culvert pipe and arches shall conform to AASHTO Designation: M 196, Type IA, and in addition shall be coated inside and out as specified in Subsection 709.03. Manufacturer must repair any damaged coating caused from perforating the pipe.

**907-709.13--Bituminous Coated Corrugated Aluminum Alloy Pipe for Underdrains.** Delete the sentence in Subsection 709.13 on page 650, and substitute the following:

This pipe shall conform to AASHTO Designation: M 196, Type III, and shall be coated with bituminous material conforming to AASHTO Designation: M 190, type coating as specified. Manufacturer must repair any damaged coating caused from perforating the pipe.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-710-1

CODE: (SP)

DATE: 06/24/10

SUBJECT: Fast Dry Solvent Traffic Paint

Section 710, Paint, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is amended as follows:

After Subsection 710.05 on Page 661, add the following:

**907-710.06--Fast Dry Solvent Traffic Paint.** Fast dry solvent traffic paints intended for use under this specification shall include products that are single packaged and ready mixed. Upon curing, these materials shall produce an adherent, reflective pavement marking capable of resisting deformation by traffic. The manufacturer shall have the option of formulating the material according to their own specifications. However, the requirements delineated in this specification, Section 619 and Section 710 shall apply regardless of the formulation used. The material shall be free from all skins, dirt and foreign objects.

**907-710.06.1--Composition.**

**907-710.06.1.1--Percent Pigment.** The percent pigment by weight shall be not less than 51% nor more than 58% when tested in accordance with ASTM D 3723.

**907-710.06.1.2--Viscosity.** The consistency of the paint shall be not less than 75 nor more than 95 Krebs Units (KU) when tested in accordance with ASTM D 562.

**907-710.06.1.3--Weight per Gallon.** The paint shall weigh a minimum 11.8 pounds per gallon and the weight of the production batches shall not vary more than +/- 0.5 pounds per gallon from the weight of the qualification samples when tested in accordance with ASTM D 1475.

**907-710.06.1.4--Total Solids.** The percent of total solids shall not be less than 70% by weight when tested in accordance with ASTM D 2369.

**907-710.06.1.5--Dry Time (No pick-up).** The paint shall dry to a no tracking condition in a maximum of 10 minutes.

**907-710.06.1.6--Volatile Organic Content.** The volatile organic content (VOC) shall contain a maximum of 1.25 pounds of volatile organic matter per gallon of total non-volatile paint material when tested in accordance with ASTM D 3960.

**907-710.06.1.7--Bleeding.** The paint shall have a minimum bleeding ratio of 0.95 when tested in accordance with Federal Specification TT-P-115D.

**907-710.06.1.8--Color.** The initial daytime chromaticity for yellow materials shall fall within the box created by the following coordinates:

**Initial Daytime Chromaticity Coordinates (Corner Points)**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>x</b>	<b>0.53</b>	<b>0.51</b>	<b>0.455</b>	<b>0.472</b>
<b>y</b>	<b>0.456</b>	<b>0.485</b>	<b>0.444</b>	<b>0.4</b>

The initial daytime chromaticity of white materials shall fall within the box created by the following coordinates:

**Initial Daytime Chromaticity Coordinates (Corner Points)**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>x</b>	<b>0.355</b>	<b>0.305</b>	<b>0.285</b>	<b>0.355</b>
<b>y</b>	<b>0.355</b>	<b>0.305</b>	<b>0.325</b>	<b>0.375</b>

**907-710.06.2--Environmental Requirements.** All yellow materials using lead chromate pigments shall meet the criteria of non-hazardous waste as defined by 40 CFR 261.24 when tested in accordance with EPA Test Method 1311, Toxicity Characteristics Leaching Procedures (TCLP). The striping and marking material , upon preparation and installation, shall not exude fumes which are toxic, or detrimental to persons or property. All material using lead free pigments shall NOT contain either lead or other Resource Conservation and Recovery Act (RCCA) materials in excess of the standard defined by EPA Method 3050 and 6010.

**907-710.06.3--Acceptance Procedures.** Acceptance of all fast dry solvent based traffics paint will be based on the Manufacturer's Certification and Certified Test Results. The Contractor shall furnish the Engineer with three copies of the manufacturer's certification stating that each lot of material in a shipment complies with the requirements of this contract. In addition, the Contractor shall provide Certified Test Reports for all tests required by this specification. The test results shall be representative of the material contained with the shipment.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-711-4

CODE: (IS)

DATE: 06/26/2009

SUBJECT: Synthetic Structural Fiber Reinforcement

Section 711, Reinforcement and Wire Rope, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

After Subsection 711.03.4.3 on page 665, add the following:

**907-711.04--Synthetic Structural Fiber.** The synthetic structural fibers shall be approved for listing in the Department's "Approved Sources of Materials" prior to use. The synthetic structural fibers shall be added to the concrete and mixed in accordance with the manufacturer's recommended methods.

**907-711.04.1--Material Properties.** The fibers shall meet the requirements of ASTM Designation: C 1116, Section 4.1.3. The fibers shall be made of polypropylene, polypropylene/polyethylene blend, nylon, or polyvinyl alcohol (PVA).

**907-711.04.2--Minimum Dosage Rate.** The dosage rate shall be such that the average residual strength ratio ( $R_{150,3.0}$ ) of fiber reinforced concrete beams is a minimum of 20.0 percent when the beams are tested in accordance with ASTM Designation: C 1609. The dosage rate for fibers shall be determined by the following.

The fiber manufacturer shall have the fibers tested by an acceptable, independent laboratory acceptable to the Department and regularly inspected by the Cement and Concrete Reference Laboratory of the National Institutes of Standards and Technology and approved to perform ASTM Designations: C 39, C 78, and C192.

The laboratory shall test the fibers following the requirements of ASTM Designation: C 1609 in a minimum of three (3) test specimens cast from the same batch of concrete, molded in 6 x 6 x 20-inch standard beam molds meeting the requirements of ASTM Designation: C 31. The beams shall be tested on an 18-inch span. The tests for  $R_{150,3.0}$  shall be performed when the average compressive strength of concrete used to cast the beams is between 3500 and 4500 psi. The tests for compressive strength shall follow the requirements of ASTM Designation: C 39. The average compressive strength shall be determined from a minimum of two (2) compressive strength cylinders.

The value for  $R_{150,3}$  shall be determined using the following equation:

$$R_{150,3.0} = \frac{f_{150,3.0}}{f_1} \times 100$$

The residual flexural strength ( $f_{150,3.0}$ ) shall be determined using the following equation:

$$f_{150,3.0} = \frac{P_{150,3.0} \times L}{b \times d^2}$$

where:

$f_{150,3.0}$  is the residual flexural strength at the midspan deflection of  $L/150$ , (psi),

$P_{150,3.0}$  is the residual load capacity at the midspan deflection of  $L/150$ , (lbf),

$L$  is the span, (in),

$b$  is the width of the specimen at the fracture, (in), and

$d$  is the depth of the specimen at the fracture, (in).

For a 6 x 6 x 20-inch beam, the  $P_{150,3.0}$  shall be measured at a midspan deflection of 0.12 inch.

Additionally,  $R_{150,3.0}$ ,  $f_{150,3.0}$ , and  $P_{150,3.0}$  may also be referred to as  $R_{150}^{150}$ ,  $f_{150}^{150}$ , and  $P_{150}^{150}$  respectively.

At the dosage rate required to achieve the minimum  $R_{150,3}$ , the mixture shall both be workable and the fibers shall not form clumps.

The manufacturer shall submit to the State Materials Engineer certified test reports from the independent laboratory showing the test results of each test specimen.

**907-711.04.3--Job Control Requirements.** The synthetic structural fibers shall be one from the Department's "Approved Sources of Materials."

At the required dosage rate, the mixture shall both be workable and the fibers shall not form clumps to the satisfaction of the Engineer. If the mixture is determined by the Engineer to not be workable or have clumps of fibers, the mixture may be rejected.



**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT TO SPECIAL PROVISION NO. 907-713-2**

**DATE: 04/04/2012**

**SUBJECT: Admixtures for Concrete**

After the last sentence of the first paragraph of Subsection 907-713.02 on page 1, add the following.

Admixtures providing a specific performance characteristic(s) other than those of water reduction or set retardation shall meet the minimum requirements for Type S. For admixtures meeting the requirements for Type S, the manufacturer shall provide data to substantiate the specific performance characteristic(s) to the satisfaction of the State Materials Engineer.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

| SPECIAL PROVISION NO. 907-713-2

CODE: (IS)

| DATE: 11/09/2010

SUBJECT: Admixtures for Concrete

Section 713, Concrete Curing Materials and Admixtures, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

After the second paragraph of Subsection 713.01.2 on page 676, add the following.

Type 1-D compound may be used on bridge rails, median barriers, and other structures requiring a spray finish. When Type 1-D compound is used, it will be the Contractor's responsibility to assure that the compound has dissipated from the structure prior to applying the spray finish and that the spray finish adheres soundly to the structure.

Delete Subsection 713.02 on pages 676 & 677, and substitute the following:

**907-713.02--Admixtures for Concrete.** Air-entraining admixtures used in Portland cement concrete shall comply with AASHTO Designation: M 154. Set-retarding, accelerating, and/or water-reducing admixtures shall comply with AASHTO Designation: M 194. Water-reducing admixture shall meet the minimum requirements for Type A. Set-retarding admixtures shall meet the minimum requirements for Type D.

In order to obtain approval of an admixture, the State Materials Engineer shall have been furnished certified test reports, made by an acceptable independent laboratory regularly inspected by the Cement and Concrete Reference Laboratory of the National Institutes of Standards and Technology, which show that the admixture meets all the requirements of the applicable AASHTO Standard Specification.

The Department reserves the right to sample, for check tests, any shipment or lot of admixture delivered to a project.

The Department reserves the right to require tests of the material to be furnished, using the specific cement and aggregates proposed for use on the project, as suggested in AASHTO Designation: M 154 and outlined in AASHTO Designation: M 194.

After an admixture has been approved, the Contractor shall submit to the State Materials Engineer, with each new lot of material shipped, a certification from the manufacturer in accordance with the requirements of Subsection 700.05.1 and stating the material is of the same composition as originally approved and has not been changed or altered in any way. The requirement in Subsection 700.05.1(b) is not required on the certification from the manufacturer.

Admixtures containing chlorides will not be permitted.

Failure to maintain compliance with any requirement of these specifications shall be cause for rejection of any previously approved source or brand of admixture.

Admixtures shall only be used in accordance with the manufacturer's recommended dosage range as set forth in the manufacturer's approval request correspondence. When an admixture is used in Portland cement concrete, it shall be the responsibility of the Contractor to produce satisfactory results.

**907-713.02.1--Source Approval.** In order to obtain approval of an admixture, the Producer/Suppliers shall submit to the State Materials Engineer the following for review: certified test reports, made by an acceptable independent laboratory regularly inspected by the Cement and Concrete Reference Laboratory of the National Institutes of Standards and Technology, which show that the admixture meets all the requirements of the applicable AASHTO or Department Specification for the specific type and the dosage range for the specific type of admixture.

**907-713.02.2--Specific Requirements.** Admixtures containing chlorides will not be permitted.

**907-713.02.3--Acceptance.** The Department reserves the right to sample, for check tests, any shipment or lot of admixture delivered to a project.

The Department reserves the right to require tests of the material to be furnished, using the specific cement and aggregates proposed for use on the project, as suggested in AASHTO Designation: M 154 and outlined in AASHTO Designation: M 194.

Failure to maintain compliance with any requirement of these specifications shall be cause for rejection of any previously approved source or brand of admixture.

With each new lot of material shipped the Contractor shall submit to the State Materials Engineer, a notarized certification from the manufacturer showing that the material complies with the requirements of the applicable AASHTO or Department Specification.

When an admixture is used, it shall be the responsibility of the Contractor to produce satisfactory results.

## MISSISSIPPI DEPARTMENT OF TRANSPORTATION

| SPECIAL PROVISION NO. 907-714-6

CODE: (IS)

| DATE: 11/09/2010

SUBJECT: Miscellaneous Materials

Section 714, Miscellaneous Materials, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-714.05--Fly Ash.** Delete Subsections 714.05.1 & 714.05.2 on pages 680 & 681, and substitute the following:

**907-714.05.1--General.** The fly ash source must be approved for listing in the Department's "Approved Sources of Materials" prior to use. The acceptance of fly ash shall be based on certified test reports, certification of shipment from the supplier, and tests performed on samples obtained after delivery in accordance with the Department's Materials Division Inspection, Testing, and Certification Manual and Department SOP.

Different classes of fly ash or different sources of the same class shall not be mixed or used in the construction of a structure or unit of a structure without written permission from the Engineer.

The Contractor shall provide suitable means for storing and protecting the fly ash from dampness. Separate storage silos, bins, or containers shall be provided for fly ash. Fly ash which has become partially set or contains lumps of caked fly ash shall not be used.

The temperature of the bulk fly ash shall not be greater than 165°F at the time of incorporation into the work.

All classes of fly ash shall meet the supplementary option chemical requirement for available alkalis listed in AASHTO Designation: M 295, Table 2. Class F fly ash shall have a calcium oxide (CaO) content of less than 6.0%. Class C fly ash shall have a CaO content of greater than or equal to 6.0%.

The replacement of Portland cement with fly ash shall be in accordance with the applicable replacement content specified in Subsection 907-701.02.2.

In addition to these requirements, fly ash shall meet the following specific requirements for the intended use.

**907-714.05.2--Fly Ash for Use in Concrete.** When used with Portland cement in the production of concrete or grout, the fly ash shall meet the requirements of AASHTO Designation: M 295, Class C or F, with the following exception:

| The loss on ignition shall not exceed 6.0 percent.

No additional cementitious materials, such as blended hydraulic cement, GGBFS, metakaolin, or others, shall be added to or as a replacement for Portland cement when used with fly ash.

**907-714.06--Ground Granulated Blast Furnace Slag (GGBFS).** Delete Subsection 714.06.1 on page 681, and substitute the following:

**907-714.06.1--General.** The GGBFS source must be approved for listing in the Department's "Approved Sources of Materials" prior to use. The acceptance of GGBFS shall be based on certified test reports, certification of shipment from the supplier, and tests performed on samples obtained after delivery in accordance with the Department's Materials Division Inspection, Testing, and Certification Manual and Department SOP.

The Contractor shall provide suitable means for storing and protecting the GGBFS against dampness and contamination. Separate storage silos, bins, or containers shall be provided for GGBFS. GGBFS which has become partially set, caked or contains lumps shall not be used.

The State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing or other additions made to the GGBFS during production.

GGBFS from different mills shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer; except that this requirement will not be applicable to cement treatment of design soils or bases.

No additional cementitious materials, such as blended hydraulic cement, fly ash, metakaolin, or others, shall be added to or as a replacement for Portland cement when used with GGBFS in the production of concrete. The replacement of Portland cement with GGBFS shall be in accordance with the applicable replacement content specified in Subsection 907-701.02.2.

Delete Subsection 714.07 on page 682, and substitute the following:

**907-714.07--Additional Cementitious Materials.**

**907-714.07.1--Metakaolin.**

**907-714.07.1.1--General.** Metakaolin shall only be used as a supplementary cementitious material in Portland cement concrete for compliance with the requirements for cementitious materials exposed to soluble sulfate conditions. Metakaolin from different sources shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer. No additional cementitious materials, such as blended hydraulic cement, fly ash, GGBFS, or others, shall be added to or as a replacement for Portland cement when used with metakaolin in the production of concrete.

The State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing, or other additions made to the metakaolin during production.

**907-714.07.1.2--Source Approval.** The approval of each metakaolin source shall be on a case by case basis as determined by the State Materials Engineer. In order to obtain approval of a metakaolin source, the Producer/Suppliers shall submit to the State Materials Engineer the

following for review: certified test reports, made by an acceptable, independent laboratory regularly inspected by the Cement and Concrete Reference Laboratory of the National Institutes of Standards and Technology, which show that the metakaolin meets all the requirements of AASHTO Designation: M295, including the Effectiveness in contributing to sulfate resistance, Procedure A, listed in AASHTO Designation: M295, Table 4 for Supplementary Optional Physical Requirements, and other requirements listed herein.

In order to demonstrate effectiveness in contributing to sulfate resistance, included in this test data shall be results of metakaolin from the proposed source tested in accordance with ASTM Designation: C 1012. There shall be two sets of test specimens per the following:

- a. One set of test specimens shall be prepared using a Type I Portland cement meeting the requirements of AASHTO Designation: M85 and having a tricalcium aluminate ( $C_3A$ ) content of more than 8.0%,
- b. One set of test specimens shall be prepared using a Type II Portland cement meeting the requirements of AASHTO Designation: M85.
- c. The proposed metakaolin shall be incorporated at the rate of 10% cement replacement in each set of test specimens and shall meet both of the acceptance criteria listed below for source approval.

The requirement for acceptance of the test sample using Type I Portland cement is an expansion of 0.10% or less at the end of six months. The requirement for acceptance of the test sample using Type II Portland cement is an expansion of 0.05% or less at the end of six months.

**907-714.07.1.3--Storage.** The Contractor shall provide suitable means for storing and protecting the metakaolin against dampness and contamination. Metakaolin which has become partially set, caked, or contains lumps shall not be used.

**907-714.07.1.4--Specific Requirements.** Metakaolin shall meet the requirements of AASHTO Designation: M 295, Class N with the following modifications:

1. The sum of  $SiO_2 + Al_2O_3 + Fe_2O_3$  shall be at least 85%. The Material Safety Data Sheet shall indicate that the amount of crystalline silica, as measured by National Institute of Occupation Safety and Health (NIOSH) 7500 method, after removal of the mica interference, is less than 1.0%.
2. The loss on ignition shall be less than 3.0%.
3. The available alkalies, as equivalent  $Na_2O$ , shall not exceed 1.0%.
4. The amount of material retained on a No. 325 mesh sieve shall not exceed 1.0%.
5. The strength activity index at seven (7) days shall be at least 85%.

**907-714.07.1.5--Acceptance.** With each new lot of material shipped the Contractor shall submit to the State Materials Engineer a certified test report from the manufacturer showing that the material meets the requirements AASHTO Designation: M295, Class N and the requirements of this Subsection.

The Department reserves the right to sample, for check tests, any shipment or lot of metakaolin delivered to a project.

**907-714.07.2--Silica Fume.**

**907-714.07.2.1--General.** Silica fume shall only be used as a supplementary cementitious material in Portland cement concrete for compliance with the requirements for cementitious materials exposed to soluble sulfate conditions. Silica fume from different sources shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer. No additional cementitious materials, such as blended hydraulic cement, performance hydraulic cement, fly ash, GGBFS, or others, shall be added to or as a replacement for Portland cement when used with silica fume in the production of concrete.

The State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing, or other additions made to the silica fume during production.

**907-714.07.2.2--Source Approval.** The approval of each silica fume source shall be on a case by case basis as determined by the State Materials Engineer. In order to obtain approval of a silica fume source, the Producer/Suppliers shall submit to the State Materials Engineer the following for review: certified test reports, made by an acceptable, independent laboratory regularly inspected by the Cement and Concrete Reference Laboratory of the National Institutes of Standards and Technology, which show that the silica fume meets all the requirements of AASHTO Designation: M307, Table 3, including the Sulfate resistance expansion, listed in the table for Optional Physical Requirements, and other requirements listed herein.

In order to demonstrate effectiveness in contributing to sulfate resistance, included in this test data shall be results of silica fume from the proposed source tested in accordance with ASTM Designation: C 1012. There shall be two sets of test specimens per the following:

- a. One set of test specimens shall be prepared using a Type I Portland cement meeting the requirements of AASHTO Designation: M85 and having a tricalcium aluminate ( $C_3A$ ) content of more than 8.0%,
- b. One set of test specimens shall be prepared using a Type II Portland cement meeting the requirements of AASHTO Designation: M85.
- c. The proposed silica fume shall be incorporated at the rate of 8% cement replacement in each set of test specimens and shall meet both of the acceptance criteria listed below for source approval.

The requirement for acceptance of the test sample using Type I Portland cement is an expansion of 0.10% or less at the end of six months. The requirement for acceptance of the test sample using Type II Portland cement is an expansion of 0.05% or less at the end of six months.

**907-714.07.2.3--Storage.** The Contractor shall provide suitable means for storing and protecting the silica fume against dampness and contamination. Silica fume which has become partially set, caked, or contains lumps shall not be used.

**907-714.07.2.4--Acceptance.** With each new lot of material shipped, the Contractor shall submit to the State Materials Engineer a certified test report from the manufacturer showing that the material meets the Chemical and Physical Requirements of AASHTO Designation: M307.

The Department reserves the right to sample, for check tests, any shipment or lot of silica fume

delivered to a project.

Delete Subsection 714.11.6 on pages 690 and 691, and substitute the following:

**907-714.11.6--Rapid Setting Cementitious Patching Compounds for Concrete Repair.**

Rapid setting concrete patching compounds must be approved for listing in the Department's "Approved Sources of Materials" prior to use. Upon approval, a product must be recertified every four (4) years to remain on the "Approved Sources of Materials" list. Each product shall be pre-measured and packaged dry by the manufacturer. All liquid solutions included by the manufacturer as components of the packaged material shall be packaged in a watertight container. The manufacturer may include aggregates in the packaged material or recommend the addition of Contractor furnished aggregates.

The type, size and quantity of aggregates, if any, to be added at the job site shall be in accordance with the manufacturer's recommendations and shall meet the requirements of Subsection 703.02 for fine aggregate and Subsection 703.03 for coarse aggregate. Required mixing water to be added at the job site shall meet the requirements of Subsection 714.01.2.

Only those bonding agents, if any, recommended by the manufacturer of the grout or patching compounds may be used for increasing the bond to old concrete or mortar surfaces.

Patching compounds containing soluble chlorides will not be permitted when in contact with steel.

Site preparation, proportioning of materials, mixing, placing and curing shall be performed in accordance with the manufacturer's recommendation for the specific type of application, and the Contractor shall furnish a copy of these recommendations to the Engineer.

Rapid setting cementitious concrete patching compounds, including components to be added at the job site, shall conform to the following physical requirements:

Non-shrink cementitious grouts shall not be permitted for use.

Compressive strength shall equal or exceed 3000 psi in 24 hours in accordance with ASTM C 928 for Type R2 concrete or mortar.

Bond strength shall equal or exceed 1000 psi in 24 hours in accordance with ASTM C 928 for Type R2 concrete or mortar.

The material shall have a maximum length change of  $\pm 0.15\%$  in accordance with ASTM C 928 for Type R2 concrete or mortar.

The Contractor shall furnish to the Engineer three copies of the manufacturer's certified test report(s) showing results of all required tests and certification that the material meets the specifications when mixed and placed in accordance with the manufacturer's instructions. When the mixture is to be placed in contact with steel, the certification shall further state that the packaged material contains no chlorides. Certified test report(s) and certification shall be furnished for each lot in a shipment.



The proportioning of materials must be approved by the State Materials Engineer and any subsequent change in proportioning must also be approved. A sample of each component shall be submitted to the Engineer along with the quantity or percentage of each to be blended. At least 45 days must be allowed for initial approval.

The proportioning of materials for subsequent lots may be approved by the State Materials Engineer upon receipt of certification from the manufacturer that the new lot of material is the same composition as that originally approved by the Department and that the material has not been changed or altered in any way.

**907-714.11.7--Commercial Grout for Anchoring Doweled Tie Bars in Concrete.** Before Subsection 714.11.7.1 on page 691, add the following:

Approved Non-“Fast Set” Epoxy anchor systems as specified below may be used for the repair of concrete pavements that do not involve permanent sustained tension applications or overhead applications.

“*Fast Set Epoxy*” may not be used for any Adhesive Anchor Applications. Adhesive Anchor Systems (Fast Set epoxy or otherwise) shall not be used for permanent sustained tension applications or overhead applications. “Fast Set Epoxy” refers to an epoxy produced by the Sika Corporation called Sikadur AnchorFix-3 and repackaged for sale under a variety of names/companies listed at the Federal Highway Administration web site at the following link:

<http://www.fhwa.dot.gov/Bridge/adhesives.cfm>

**907-714.11.7.4--Acceptance Procedure.** After the last sentence of the first paragraph of Subsection 714.11.4 on page 691, add the following:

Upon approval, a product must be recertified every four (4) years to remain on the “Approved Sources of Materials” list.

**907-714.11.8--Epoxy Joint Repair System.**

**907-714.11.8.1--General.** After the last sentence of the first paragraph of Subsection 714.11.8.1 on page 692, add the following:

Upon approval, a product must be recertified every four (4) years to remain on the “Approved Sources of Materials” list.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-715-3

CODE: (IS)

DATE: 01/25/2008

SUBJECT: Roadside Development Materials

Section 715, Roadside Development Materials, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-715-02.2.1--Agricultural Limestone. Delete the first sentence of Subsection 715-02.2.1 on page 704 and substitute the following.

Agricultural limestone shall be either a hard-rock limestone material or a marl or chalk agricultural liming material as addressed in the latest amendment to the Mississippi Agricultural Liming Material Act of 1993, published by the Mississippi Department of Agriculture and Commerce.

907-715.02.2.1.1--Screening Requirements. Delete the first sentence of Subsection 715.02.2.1.1 on page 704.

Delete Subsection 715.02.2.1.2 on page 704 and substitute the following:

907-715-02.2.1.2--Calcium Carbonate Equivalent. Marl or chalk liming material shall not have less than 70% calcium and magnesium carbonate calculated as calcium carbonate equivalent when expressed on a dry weight basis.

907-715-02.2.1.3--Neutralizing Values. Hard-rock limestone material shall have a minimum Relative Neutralizing Value (RNV) of 63.0%, which is determined as follows:

$$\% \text{ RNV} = \text{CCE} \times (\% \text{ passing \#10 mesh} + \% \text{ passing \#50 mesh})/2$$

Where: CCE = Calcium Carbonate Equivalent

907-715.03--Seed.

907-715.03.2--Germination and Purity Requirements. Add the following to Table B on page 705.

Name (Kind)	Name (Variety)	Percent Germination	Percent Purity
<b>GRASSES</b>			
Rye Grass	Annual	80	98

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-720-1**

**CODE: (IS)**

**DATE: 3/17/2008**

**SUBJECT: Pavement Markings Materials**

Section 720, Pavement Marking Materials, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-720.02--Thermoplastic Pavement Markings.** Delete the first paragraph of Subsection 720.02 on page 730 and substitute the following:

The thermoplastic material shall be lead free and conform to AASHTO Designation: M 249 except the glass beads shall be moisture resistant coated.

After the first sentence of the second paragraph of Subsection 720.02 on page 730, add the following:

In addition, the certification for the thermoplastic material shall state that the material is lead free.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

## SUPPLEMENT TO SPECIAL PROVISION NO. 907-804-13

**DATE:** 06/05/2012

**SUBJECT:** Concrete Bridges And Structures

After the second paragraph of Subsection 907-804.02.10 on page 2, add the following.

After the first paragraph of Subsection 804.02.10 on page 850, add the following.

If the Contractor chooses to cure the concrete in accordance with the requirements listed under **Length of Time Defined by Development of Compressive Strength** in Subsection 907-804.03.17, the compressive strength/maturity relationship shall be developed for the mixture design for a minimum of 28 days following the requirements of Subsection 907-804.03.15. The compressive strength/maturity relationship information shall be submitted with the mixture design information.

In the \*\* Note of Subsection 907-804.02.10 on page 2, delete “metakaolin” from the list of other cementitious materials.

After the first sentence of the last paragraph of Subsection 907-804.02.10 on page 3, add the following.

Mixture designs containing accelerating admixtures will not be approved. Admixtures providing a specific performance characteristic other than those of water reduction or set retardation may be used in accordance with the manufacturer’s recommended dosage range.

After Subsection 907-804.02.10.1.1 on page 3, add the following.

**907-804.02.10.1.2--Proportioning on the Basis of Laboratory Trial Mixtures.** Delete subparagraph d) of Subsection 804.02.10.1.2 on pages 852 & 853, and substitute the following.

- d) For each proposed mixture, at least three compressive test cylinders shall be made and cured in accordance with AASHTO Designation: T 126. Each change of water-cementitious ratio shall be considered a new mixture. The cylinders shall be tested for strength in accordance with AASHTO Designation: T 22 and shall be tested at 28 days.

After Subsection 907-804.02.10.3 on page 4, add the following.

After Subsection 804.02.10.3 on page 853, add the following.

**907-804.02.10.3.1--Slump Retention of Class DS Concrete Mixture Designs.** Prior to concrete placement, the Contractor shall provide test results of a slump loss test using approved methods to demonstrate that the mixture meets the four hour requirement in Subsection 907-803.02.7.1. These tests shall be conducted successfully by an approved testing laboratory within

30 days prior to installation of the trial shaft, with personnel from the Department's Central Laboratory present. The slump loss test shall be conducted at temperatures and conditions similar to those expected at the job site at the time of the installation of the trial shaft. The sample for the slump loss test shall be from a minimum batch size of four cubic yards of concrete. If the time between the previous successful slump loss test and the installation of the trial shaft exceeds 30 days, another successful slump loss test shall be performed on the first truckload of concrete as part of the installation of the trial shaft. This requirement limiting the time between the previous slump loss test and an installation of the trial shaft also applies to Class DS concrete mixture designs being transferred from another project. During any shaft installation a slump loss test shall be conducted by the Contractor at the direction of the Engineer from the concrete at the site for verification of slump loss requirements using a sample from a minimum batch size of four cubic yards of concrete.

Before Subsection 907-804.02.12.3 on page 5, add the following.

**907-804.02.12.1.1--Elements of Plan.** After item 3) in Subsection 804.02.12.1.1 on page 855, add the following.

4) Job Site Batch Adjustments by Addition of Chemical Admixtures:

The Plan shall address if the Contractor intends to adjust either the slump and/or total air content of a batch on the job site by adding chemical admixture(s) to a batch. The Contractor shall include the names of the personnel designated to perform this batch adjustment, the equipment used to add the chemical admixture(s), and the procedure by which the batch adjustment will be accomplished. Only the Contractor's designated personnel shall adjust a batch. Only calibrated dispensing equipment shall be used to add chemical admixture(s) to a batch. Only the procedure described in section of the Plan shall be utilized.

If the maximum permitted slump or total air content is exceeded after the addition of admixtures at the job site, the concrete shall be rejected.

If the Contractor elects to utilize Job Site Batch Adjustments by Addition of Chemical Admixture within Item 2, Procedures for Corrective Actions for Non Compliance of Specifications, to adjust batches which do not meet the minimum specification requirements for slump and/or total air content, no more than three batches on any one project shall be allowed to be adjusted.

5) Construction of Concrete Bridge Decks, including the following:

- the description of the equipment used for placing concrete on the bridge deck in accordance with Subsection 907-804.03.6 and, as applicable, Subsections 907-804.03.7 and 907-804.03.8 including any accessories added to the pump to ensure the entrained air in the concrete mixture remains entrained during pumping and depositing of the concrete mixture,
- the description of and the number of pieces of equipment used to consolidate the concrete in accordance with Subsection 907-804.03.6.2,

- the description of the equipment used to finish the bridge deck in accordance with Subsection 907-804.03.19.7,
- the plan for ensuring a continuous rate of finishing the bridge deck without delaying the application of curing materials within the time specified in Subsection 907-804.03.17, including ensuring a continuous supply of concrete throughout the placement with an adequate quantity of concrete to complete the deck and filling diaphragms and end walls in advance of deck placement,
- the plan for applying the curing materials within the time specified in Subsection 907-804.03.17,
- the description of the powered fogging equipment in accordance with Subsection 907-804.03.17,
- a sample of the documentation used as the daily inspection report for ensuring maintenance of the continuous wet curing in accordance with Subsection 907-804.03.17, as required,
- the description of the equipment used to apply the liquid membrane, including but not limited to, the nozzles, pumping/pressurization equipment, and liquid membrane tanks, in accordance with Subsection 907-804.03.17,
- the method for determining the rate of applied liquid membrane meets the application rate requirements in accordance with Subsection 907-804.03.17,
- a sample of the documentation used for the application rate verification of the liquid membrane in accordance with Subsection 907-804.03.17.

After Subsection 907-804.03.6.2 on page 7, add the following.

**907-804.03.8--Pumping Concrete.** Delete the second paragraph of Subsection 804.03.8 on page 866, and substitute the following.

Where concrete mixture is conveyed and placed by mechanically applied pressure (pumping), the equipment shall be suitable in kind and adequate in capacity for the work. The Contractor shall select concrete mixture proportions such that the concrete mixture is pumpable and placeable with the selected equipment.

The pumping equipment shall be thoroughly cleaned prior to concrete placement. Excess form release agent shall be removed from the concrete pump hopper. The Contractor shall prime the pump at no additional cost to the Department by pumping and discarding enough concrete mixture to produce a uniform mixture exiting the pump. At least 0.25 cubic yard of concrete mixture shall be pumped and discarded to prime the pump. This shall be accomplished by using the pump to fill a commercially-available six (6) cubic foot wheelbarrow to overflowing or filling a commercially-available eight (8) cubic foot wheel barrow to level. Only concrete mixture shall be added directly into the concrete pump hopper after placement has commenced. If anything other than concrete mixture is added to the concrete pump hopper, all concrete mixture in the concrete pump hopper and pump line shall be discarded and the pump re-primed at no additional cost to the Department.

The discharge end of the pump shall be of such a configuration that the concrete does not move in the pump line under its own weight. The intent of this requirement is to ensure that entrained air in the concrete mixture remains entrained during pumping and depositing the concrete mixture. This shall be accomplished with one or both of the following:

- a minimum 10-foot flexible hose attached to the discharge end of a steel reducer having a minimum length of three (3) feet and a minimum reduction in area of 20% which is attached to the discharge end of the pump line, or
- a flexible reducing hose to the discharge end of the pumpline with a minimum reduction in area of 20% over a minimum 10-foot hose length.

Regardless of the configuration chosen, the Contractor shall ensure that the concrete is pumped and does not free-fall more than five (5) feet within the entire length of pump line and after discharge from the end of pump line.

The Contractor shall not have any type of metal elbow, metal pipe, or other metal fitting within five (5) feet of any person during discharge of concrete mixture.

Boom pumps shall have a current Concrete Pump Manufacturers Association's ASME/ANSI B30.27 certification. Equipment added to the boom and pump line shall meet the pump manufacturer's specifications and shall not exceed the manufacturer's maximum recommended weight limit for equipment added to the boom and pump line.

The operation of the pump shall be such that a continuous stream of concrete without air pockets is produced. When pumping is completed, the concrete remaining in the pipe line, if it is to be used, shall be ejected in such a manner that there will be no contamination of the concrete or separation of the ingredients. After this operation, the entire equipment shall be thoroughly cleaned.

Delete Table 6 of Subsection 907-804.03.15 on page 8, and substitute the following.

**Table 6**  
**Minimum Compressive Strength Requirements for Form Removal**

**Forms:**

Columns .....	1000 psi
Side of Beams .....	1000 psi
Walls not under pressure .....	1000 psi
Other Parts .....	1000 psi

**Centering:**

Under Beams .....	2400 psi
Under Bent Caps .....	2000 psi

**Limitation for Placing Beams on:**

Pile Bents, pile under beam .....	2000 psi
Frame Bents, two or more columns .....	2200 psi
Frame Bents, single column .....	2400 psi

Forms for bridge deck slabs overhead and bridge deck slabs between beams shall be removed with the approval of the Engineer, between two weeks and four weeks after the removal of the

wet burlap applied in accordance with Subsection 907-804.03.17.1, or application of liquid membrane applied in accordance with Subsection 907-804.03.17.2.

Delete the second paragraph of Subsection 907-804.03.16.1 on page 9, and substitute the following.

At the option of the Contractor with the approval of the Engineer, when concrete is placed during cold weather and there is a probability that the ambient temperatures will be lower than 40°F, an approved maturity meter may be used to determine concrete strengths by inserting probes into concrete placed in a structure. The minimum number of maturity meter probes required for each structural component shall be in accordance with Table 7. An approved insulating blanketing material shall be used to protect the work when ambient temperatures are less than 40°F and shall remain in place until the required concrete strength in Table 6 is achieved. Within 30 minutes of removal of the insulating blanketing material in any area, the Contractor shall have curing of the concrete established in accordance with the requirements in Subsection 907-804.03.17. Procedures for using the maturity meter and developing the strength/maturity relationship shall follow the requirements of AASHTO Designation: T 325 and ASTM Designation: C 1074 specifications. Technicians using the maturity meter or calculating strength/maturity graphs shall be required to have at least two hours of training prior to using the maturity equipment.

Before Subsection 907-804.03.19 on page 9, add the following.

**907-804.03.17--Curing Concrete.** Delete Subsection 804.03.17 on pages 874 & 875, and substitute the following.

Curing is defined as all actions taken to ensure the moisture and temperature conditions of freshly placed concrete exist so the concrete may develop its potential properties. Curing shall take place from the time of placement until its potential properties have developed. The Contractor shall use the guidance in ACI 308R-01 to:

- a) cure the concrete in such a manner as to prevent premature moisture loss from the concrete,
- b) supply additional moisture to the concrete as required in order to ensure sufficient moisture within the concrete, and
- c) maintain a concrete temperature beneficial to the concrete.

Curing in accordance with the requirements in either Subsection 907-804.03.17.1 or Subsection 907-804.03.17.2 shall be completely established within 20 minutes after finishing, except as noted for bridge decks. Finishing is complete when the pan drag, burlap drag, or other is complete.

The length of time for curing shall be maintained in accordance with either of the following:

**1. Prescribed Length of Time:**

- a) Curing following the requirements of Subsection 804.03.17.1 shall continue uninterrupted for at least 14 days.



- b) Curing following the requirements of Subsection 804.03.17.2 shall continue uninterrupted for at least 10 days.

OR

**2. Length of Time Defined by Development of Compressive Strength:**

Curing following the application requirements of Subsection 907-804.03.17.1 or Subsection 907-804.03.17.2 shall continue uninterrupted for each day's production until the compressive strength of the concrete exceeds 75% of the 28-day compressive strength submitted as the Basis of Proportioning per Subsection 907-804.02.10.1. Therefore, if an area is being cured in accordance with Subsection 907-804.03.17.1, the curing by wet burlap shall continue until the concrete in that area has attained a minimum of 75% of the 28-day compressive strength submitted as the Basis of Proportioning per Subsection 907-804.02.10.1. Likewise, if an area is being cured in accordance with Subsection 907-804.03.17.2, the curing by liquid membrane shall continue until the concrete in that area has attained a minimum of 75% of the 28-day compressive strength submitted as the Basis of Proportioning per Subsection 907-804.02.10.1.

The compressive strength of the concrete may be determined by the use of maturity meter in accordance with Subsection 907-804.03.15.

**907-804.03.17.1--Water With Waterproof Cover.** All burlap shall be completely saturated and wet prior to placing it on the concrete. The burlap shall have been fully soaked in water for a minimum of 12 hours prior to placement on the concrete.

For bridge decks, the Contractor shall apply one (1) layer of saturated burlap within 20 minutes of the initial strike-off for bridges without a skew and 25 minutes of the initial strike-off for bridges with a skew. For all other concrete, the Contractor shall apply one (1) layer of saturated burlap within 20 minutes of completing finishing.

Following the first layer of burlap, the Contractor shall apply a second layer of saturated burlap within five (5) minutes of applying the first layer. The concrete surface shall not be allowed to dry after strike-off or at any time during the curing period.

The Contractor shall maintain the burlap in a fully wet condition using powered fogging equipment capable of producing a fog spray of atomized droplets of water until the concrete has gained sufficient strength to allow foot traffic without the foot traffic marring the surface of the concrete. Burlap shall not be maintained in the fully wet condition using equipment which does not produce a fog spray of atomized droplets of water or by use of manually pressurized sprayers. For bridge decks, once the concrete has gained sufficient strength to allow foot traffic which does not mar the surface of the concrete, soaker hoses shall be placed on the burlap. The soaker hoses shall then be supplied with running water continuously to maintain continuous saturation of all burlap and the entire concrete surface.

If there is a delay in the placement of the first layer of saturated burlap outside the time limit, the struck-off and finished concrete shall be kept wet by use of the powered fogging equipment used to keep the burlap wet.

White polyethylene sheets shall be placed on top of the wet burlap and, as applicable, soaker hoses covering the entire concrete surface as soon as practical and not more than 12 hours after the placement of the concrete. White polyethylene sheets of the widest practical width shall be used, overlapping adjacent sheets a minimum of six inches (6") and tightly sealed with an adhesive like pressure sensitive tape, mastic, glue, or other approved methods to form a complete waterproof cover of the entire concrete surface. White polyethylene sheets which overlap a minimum of two feet (2') may be held in place using means other than an adhesive. The white polyethylene sheets shall be secured so that wind will not displace them. The Contractor shall immediately repair the broken or damaged portions or replace sections that have lost their waterproof qualities.

If burlap and/or white polyethylene sheets are temporarily removed for any reason during the curing period, the Contractor shall keep the entire exposed area continuously wet. The saturated burlap and white polyethylene sheets shall be replaced, resuming the specified curing conditions, as soon as possible.

The Contractor shall inspect the concrete surface once every 8 hours for the entirety of the curing period, so that all areas remain wet for the entire curing period and all curing requirements are satisfied and document the inspection in accordance with Subsection 907-804.03.17.1.1.

At the end of the curing period, one coating of liquid membrane shall be applied following the requirements of Subsection 907-804.03.17.1.2. The purpose of the coating of liquid membrane is to allow for slow drying of the concrete. The application of liquid membrane to any area shall be complete within 30 minutes of the beginning of removal of the white polyethylene sheets, soaker hoses, and burlap from this area.

**907-804.03.17.1.1--Documentation.** The Contractor shall provide the Engineer with a daily inspection report that includes:

- documentation that identifies any deficiencies found (including location of deficiency);
- documentation of corrective measures taken;
- a statement of certification that all areas are wet and all curing material is in place on the entire bridge deck;
- documentation showing the time and date of all inspections and the inspector's signature;
- documentation of any temporary removal of curing materials including location, date and time, length of time curing was removed, and means taken to ensure exposed area was kept continuously wet.

**907-804.03.17.1.2--Liquid Membrane.** At the end of the 14-day wet curing period the wet burlap and polyethylene sheets shall be removed and within 30 minutes, the Contractor shall apply white liquid membrane to the deck. The liquid membrane shall be thoroughly mixed within the time recommended by the liquid membrane producer but no more than an hour before use. If the use of liquid membrane results in a streaked or blotched appearance, the method shall be stopped and water curing applied until the cause of defective appearance is corrected.

The liquid membrane shall be applied when no free water remains on the surface but while the surface is still wet. The liquid membrane shall be applied according to the manufacturer's instructions with a minimum spreading rate per coat of one (1) gallon per 200 square feet of

concrete surface. If the concrete is dry or becomes dry, the Contractor shall thoroughly wet it with water applied as a fog spray by means of approved equipment.

The application of liquid membrane shall be accomplished by the use of power applied spray equipment using nozzles and other equipment recommended by the liquid membrane producer. Manually pressurized or manual pump-up type sprayers shall not be used to apply the first application of liquid membrane.

As a visual guide, the color of concrete covered with the required amount of liquid membrane should be indistinguishable from a sheet of commercially available standard "letter" size white copier paper placed on top of it when viewed from a distance of about five feet (5') away horizontally if standing on the same grade as the concrete. The appearance of the concrete does not supersede applying the minimum spreading rate.

The coating shall be protected against marring for at least seven (7) days after the application of the curing compound. The coating on bridge decks shall receive extra attention and may require additional protection as required by the Engineer. All membrane marred or otherwise disturbed shall be given an additional coating. Manually pressurized or manual pump-up type sprayers may be used for giving marred areas the required additional application of liquid membrane. Should the surface coating be subjected repeatedly to injury, the Engineer may require that the water curing method be applied at once.

The 7-day period during which the liquid membrane is applied and protected shall not be reduced even if the period of wet curing is extended past the required 14 days.

**907-804.03.17.1.2.1--Liquid Membrane Documentation.** The Contractor shall make available to the Engineer an application rate verification method and any information necessary during application of the liquid membrane to verify that the rate of application meets the prescribed rate for the various surfaces of the concrete, including, but not limited to, the top surface of the bridge deck and exposed sides of the bridge deck after any forms are removed. The Contractor shall submit this application verification method to the Engineer in accordance with Subsection 907-804.02.12.1.1.

One method of verifying the rate of application is as follows:

1. Determine the volume of liquid membrane in the container. For a container with a uniform cross-sectional area, for example a 55-gallon drum, determine the area of the cross-section. Determine the height of the surface of the liquid membrane from the bottom of the container. This may be accomplished by inserting a sufficiently long, clean dip-stick parallel with the axis of the container into the liquid membrane until the inserted end of the dip-stick contacts the bottom of the container. On removing the dip-stick, measure the length from the end which was inserted to the point on the dip-stick where the liquid membrane ceases to coat the dip-stick. Multiply the area of the cross-section by the height of the level of liquid membrane, maintaining consistent units, to determine the volume.
2. Perform step 1 prior to beginning applying the liquid membrane to establish the initial volume.
3. During the period of application, perform step 1 each 100 square feet of bridge deck.

4. In order to meet the required application rate of one (1) gallon per 200 square feet, the amount in the container shall be at least 0.5 gallon less than the previous volume in the previous 100 square feet. Other changes in volume may apply depending on the manufacturer's recommended application rate.
5. Additional applications to an area shall be applied until the required rate is satisfied. Areas which are not visually satisfactory to the Engineer shall have additional liquid membrane applied as directed by the Engineer.

The amount of liquid membrane applied shall be determined each day using the application verification method. This information shall be submitted to the Engineer within 24 hours of applying the liquid membrane.

**907-804.03.17.2--Liquid Membrane Method.** Surfaces on which curing is to be by liquid membrane shall be given the required surface finish prior to the application of liquid membrane. Concrete surfaces cured by liquid membrane shall receive two applications of white liquid membrane. Neither application shall be made from a position supported by or in contact with the freshly placed concrete. Both applications shall be applied perpendicularly to the surface of the concrete.

When using liquid membrane, the liquid membrane shall be thoroughly mixed within the time recommended by the liquid membrane producer but no more than an hour before use. If the use of liquid membrane results in a streaked or blotched appearance, the method shall be stopped and water curing applied until the cause of defective appearance is corrected.

The application of liquid membrane shall be accomplished by the use of power applied spray equipment using nozzles and other equipment recommended by the liquid membrane producer. Manually pressurized or manual pump-up type sprayers shall not be used to apply the first two applications of liquid membrane.

The liquid membrane shall be applied when no free water remains on the surface but while the surface is still wet. The liquid membrane shall be applied according to the manufacturer's instructions with a minimum spreading rate per coat of one (1) gallon per 200 square feet of concrete surface. If the concrete is dry or becomes dry, the Contractor shall thoroughly wet it with water applied as a fog spray by means of approved equipment.

The first application of the liquid membrane shall be made as the work progresses. For bridge decks, the first application shall be completed in each area of the deck within 20 minutes of initial strike-off for bridges with no skew and within 25 minutes of initial strike-off for bridges with skew. For all other concrete, the first application of the liquid membrane shall be completed within 20 minutes of finishing.

The second application shall be applied within 30 minutes after the first application. The liquid membrane shall be uniformly applied to all exposed concrete surfaces.

As a visual guide, the color of concrete covered with the required amount of liquid membrane should be indistinguishable from a sheet of commercially available standard "letter" size white copier paper placed on top of it when viewed from a distance of about five feet (5') away

horizontally if standing on the same grade as the concrete. The appearance of the concrete does not supersede applying the minimum spreading rate.

The Contractor shall make available to the Engineer an application rate verification in accordance with Subsection 907-804.03.17.1.2.1.

The coating shall be protected against marring for at least 10 days after the application of the curing compound. The coating on bridge decks shall receive extra attention and may require additional protection as required by the Engineer. All membrane marred or otherwise disturbed shall be given an additional coating. Manually pressurized or manual pump-up type sprayers may be used for giving marred areas the required additional application of liquid membrane. Should the surface coating be subjected repeatedly to injury, the Engineer may require that the water curing method be applied at once.

Delete Subsection 907-804.19.7 on page 9, and substitute the following.

**907-804.03.19.7--Finishing Bridge Decks.**

**907-804.03.19.7.1--General.** Delete the third paragraph of Subsection 804.03.19.7.1 on page 884, and substitute the following.

Except when indicated otherwise on the plans, the finish of the bridge deck shall be either a belt finish, a broom finish, or one of the following drag methods: pan, double pan, burlap, or pan and burlap. Manual finishing of the bridge deck shall be performed only in areas inaccessible by the finishing equipment mounted to the strike-off screed, but shall not hinder the requirements for curing in accordance with Subsection 907-804.03.17.1. The surface texture specified and surface requirements shall be in accordance with the applicable requirements of Subsections 501.03.17 and 501.03.18 modified only as the Engineer deems necessary for bridge deck construction operations.

At no time shall water on the surface of the concrete from bleeding, fogging, curing, or other sources be worked into the concrete or used as an aid for finishing.

Regardless of the method of finishing selected, requirements for curing per Subsection 907-804.03.17 shall be completed within the specified time limits. If the requirements in Subsection 907-804.03.17 are not completed within the specific time limits, the Contractor shall cease operations, revise his operations up to and including acquiring new or additional equipment or additional personnel in order to satisfy the requirements in Subsection 907-804.03.17, and, on approval from the Engineer, resume operations

**907-804.03.19.7.2--Longitudinal Method.** Before the first paragraph of Subsection 804.03.19.7.2 on page 884, add the following.

The longitudinal method may be used for repairs to bridge decks or bridge widening projects. For bridge widening projects, the time for establishing curing in accordance with Subsections 907-804.03.17 shall be increased to within 30 minutes for bridges without skew and within 35 minutes for bridges with skew.

**907-804.03.19.7.3--Transverse Method.** Delete the first sentence of the second paragraph of Subsection 804.03.19.7.3 on page 885, and substitute the following.

The machine shall be so constructed and operated as to produce a bridge deck of uniform density with minimum manipulation of the fresh concrete and achieved in the shortest possible time.

Delete the fourth paragraph of Subsection 804.03.19.7.3 on page 885, and substitute the following.

At least one dry run shall be made the length of each pour with a "tell-tale" device attached to the screed carriage to assure the specified clearance to the reinforcing steel.

Delete the last sentence of the fifth paragraph of Subsection 804.03.19.7.3 on page 885, and substitute the following.

The screed shall be mechanically actuated to deliver the screeding action and for travel in a longitudinal direction at a uniform rate along the bridge deck.

Delete the last paragraph of Subsection 804.03.19.7.3 on page 886, and substitute the following.

Other finishing requirements shall be in accordance with the general requirements in Subsection 907-804.03.19.7.1 and as specified on the plans.

Regardless of the finish, the requirements for curing per Subsection 907-804.03.17 shall be completed within the specified time limits.

After Subsection 907-804.03.19.7.4 on page 9, add the following.

Delete the title of Subsection 804.03.19.7.4.1.3 on page 888, and substitute the following.

**907-804.03.19.7.4.1.3--Final Surface Texture.**

**907-804.03.20--Opening Bridges.**

**907-804.03.20.2--Construction Traffic.** Delete the paragraph in Subsection 804.03.20.2 on page 889, and substitute the following:

Unless otherwise specified, the concrete bridge decks shall be closed to construction traffic for the time required for curing in Subsection 907-804.03.17 and until the required compressive strength for the concrete is obtained.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-804-13**

**CODE: (IS)**

**DATE: 11/09/2010**

**SUBJECT: Concrete Bridges And Structures**

Section 804, Concrete Bridges And Structures, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-804.02-- Materials.**

**907-804.02.1--General.** Delete the third and fourth sentences of the first paragraph of Subsection 804.02.1 on page 846, and substitute the following:

For projects with 1000 cubic yards and more, quality control and acceptance shall be achieved through statistical evaluation of test results. For projects of more than 200 but less than 1000 cubic yards, quality control and acceptance shall be achieved by individual test results.

Add the following materials to the list of materials in Subsection 804.02.1 on page 847.

- Blended Cement..... 907-701.01 and 907-701.04
- Ground Granulated Blast Furnace Slag (GGBFS)..... 907-714.06
- Silica Fume ..... 907-714.07.2

**907-804.02.8--Laboratory Accreditation.** In Table 1 of Subsection 804.02.8 on page 849, substitute AASHTO: R 39 - Making and Curing Concrete Test Specimens in the Laboratory for AASHTO: T 126 - Making and Curing Concrete Test Specimens in the Laboratory.

**907-804.02.9--Testing Personnel.** Delete Table 2 in this subsection and replace it with the following.

**Table 2**

<b>Concrete Technician's Tasks</b>	<b>Test Method Required</b>	<b>Certification Required**</b>
Sampling or Testing of Plastic Concrete	AASHTO Designation:T 23, T 119, T 121, T 141, T 152, T 196, and ASTM Designation: C 1064	MDOT Class I certification
Compressive Strength Testing of Concrete Cylinders	AASHTO Designation: T 22 and T 231	MDOT Concrete Strength Testing Technician certification
Sampling of Aggregates	AASHTO Designation: T 2	Work under the supervision of an MDOT Class II certified technician

Testing of Aggregates	AASHTO Designation: T 19, T 27, T 84, T 85, T 248, and T 255	MDOT Class II certification
Proportioning of Concrete Mixtures*	AASHTO Designation: M 157 and R 39	MDOT Class III
Interpretation and Application of Maturity Meter Readings	AASHTO Designation: T 325 and ASTM Designation: C 1074	MDOT Class III or Two hours maturity method training

- \* Technicians making concrete test specimens for meeting the requirements of Subsection 804.02.10.1.2 shall be MDOT Class I certified and under the direct supervision of an MDOT Class III certified technician.
- \*\* MDOT Class I certification encompasses the same test procedures and specifications as ACI Concrete Field Testing Technician Grade I. MDOT Class II certification encompasses the same test procedures and specifications as ACI Aggregate Testing Technician - Level 1. MDOT Concrete Strength Testing Technician encompasses the same test procedures and specifications as ACI Concrete Strength Testing certification.

For specifics about the requirements for each level of certification, please refer to the latest edition of the Department’s *Concrete Field Manual*. Technicians holding current MDOT Class I, MDOT Class II and/or MDOT Class III certifications shall be acceptable until those certifications expire. Upon a current certification expiration, recertification with the certifications listed in Table 2 shall be required. Technicians currently performing either specific gravity testing of aggregates or compressive strength tests shall be required to either:

- have the required MDOT certification listed in Table 2, or
- have a current MDOT Class III certification or work under the direct supervision of current MDOT Class III technician, and have demonstrated the specific gravity and/or compressive strength test during the inspection of laboratory equipment by the Materials Division, Concrete Section.

**907-804.02.10--Portland Cement Concrete Mix Design.** Delete the first sentence of the first paragraph of Subsection 804.02.10 on page 850 and substitute the following:

At least 30 days prior to production of concrete, the Contractor shall submit to the Engineer proposed concrete mixture designs complying with the Department’s *Concrete Field Manual*.

Delete the Notes under Table 3 of Subsection 804.02.10 on pages 850 & 851, and substitute the following:

- \* Maximum size aggregate shall conform to the concrete mix design for the specified aggregate.
- \*\* The replacement limits of Portland cement by weight by other cementitious materials (such as fly ash, GGBFS, metakaolin, silica fume, or others) shall be in accordance with the values in Subsection 907-701.02. Other hydraulic cements may be used in accordance with the specifications listed in Section 701.



\*\*\* The slump may be increased up to eight (8) inches with :

- an approved water-reducing admixture,
- an approved water-reducing/set-retarding admixture, or
- a combination of an approved water-reducing admixture and an approved set-retarding admixture, in accordance with 907-713.02. Minus slump requirements shall meet those set forth in Table 3 of AASHTO Designation: M157.

\*\*\*\* Entrained air is not required except for concrete exposed to seawater. For concrete exposed to seawater, the total air content shall be 3.0 % to 6.0%. For concrete not exposed to seawater, the total air content shall not exceed 6.0%.

\*\*\*\*\* Class DS Concrete for drilled shafts shall have an 8±1 -inch slump.

Delete the last paragraph of Subsection 804.02.10 on page 851 and substitute the following:

At least one water-reducing admixture shall be used in all classes of concrete in accordance with the manufacturer's recommended dosage range. Any combinations of admixtures shall be approved by the Engineer before their use.

**907-804.02.10.1.1--Proportioning on the Basis of Previous Field Experience of Trial Mixtures.** Delete the first sentence of the first paragraph of Subsection 804.02.10.1.1 on page 851, and substitute the following:

Where a concrete production facility has a record, based on at least 10 consecutive strength tests from at least 10 different batches within the past 12 months from a mixture not previously used on Department projects, the standard deviation shall be calculated.

**907-804.02.10.3--Field Verification of Concrete Mix Design.** Delete the first sentence of the third paragraph of Subsection 804.02.10.3 on page 853 and substitute the following:

For all Classes of concrete, the mixture shall be verified to yield within 2.0% of the correct volume when all the mix water is added to the batch.

For all Classes of concrete other than DS, F, and FX, the mixture shall produce a slump within a minus 1½-inch tolerance of the maximum permitted for mixtures with a maximum permitted slump of three inches (3") or less or within a minus 2½-inch tolerance of the maximum permitted for mixtures with a maximum permitted slump of greater than three inches (3"), and producing a total air content within a minus 1½ percent tolerance of the maximum allowable air content in Table 3.

For Class DS, the slump shall be within the requirements in Note \*\*\*\*\* below Table 3. For Class DS exposed to seawater, the total air content shall be within a minus 1½ percent tolerance of the maximum allowable air content in Note \*\*\*\* below Table 3. For Class DS not exposed to seawater the total air content shall be within the requirements in Note \*\*\*\* below Table 3.

For Classes F and FX, the slump shall be within a minus 1½-inch tolerance of the maximum permitted for mixtures with a maximum permitted slump of three inches (3") or less or within a minus 2½-inch tolerance of the maximum permitted for mixtures with a maximum permitted

slump of greater than three inches (3"). For Classes F and FX exposed to seawater, the total air content shall be within a minus 1½ percent tolerance of the maximum allowable air content in Note \*\*\*\* below Table 3. For Classes F and FX not exposed to seawater the total air content shall be within the requirements in Note \*\*\*\* below Table 3.

Delete the third sentence of the third paragraph of Subsection 804.02.10.3 on page 853, and substitute the following:

If the requirements of yield, slump, or total air content are not met within three (3) production days after the first placement, subsequent field verification testing shall not be permitted on department projects, and the mix design shall not be used until the requirements listed above are met

**907-804.02.10.4--Adjustments of Mixture Proportions.** Delete the paragraph in Subsection 804.02.10.4 on page 854, and substitute the following:

The mixture may be adjusted by the Class III Certified Technician representing the Contractor in accordance with the allowable revisions listed in the Department's Concrete Field Manual, paragraph 5.7. Written notification shall be submitted to the Engineer a minimum of seven (7) days prior to any source or brand of material change, aggregate size change, allowable material type change, or decrease in any cementitious material content. Any adjustments of the concrete mixture design shall necessitate repeat of field verification procedure as described in Subsection 804.02.10.3 and approval by the Engineer.

**907-804.02.11--Concrete Batch Plants.** Delete the first three paragraphs of Subsection 804.02.11 on page 854, and substitute the following:

The concrete batch plant shall meet the requirements of the National Ready Mixed Concrete Association *Quality Control Manual, Section 3, Plant Certification Checklist* as outlined in the latest edition of the Department's *Concrete Field Manual*. The Contractor shall submit a copy of the approved checklist along with proof of calibration of batching equipment, i.e., scales, water meter, and admixture dispenser, to the Engineer 30 days prior to the production of concrete.

For projects with 1000 cubic yards and more, the concrete batch plant shall meet the requirements for an automatic system capable of recording batch weights. It shall also have automatic moisture compensation for the fine aggregate. For projects of more than 200 but less than 1000 cubic yards the plant can be equipped for manual batching with a fine aggregate moisture meter visible to the plant operator.

The concrete batch plant shall have available adequate facilities to cool concrete during hot weather.

Mixer trucks to be used on the project are to be listed in the checklist and shall meet the requirements of the checklist.

**907-804.02.12--Contractor's Quality Control.** Delete the fourth paragraph of Subsection 804.02.12 on page 854 & 855, and substitute the following:

The Contractor's Quality Control program shall encompass the requirements of AASHTO Designation: M 157 into concrete production and control, equipment requirements, testing, and batch ticket information. The requirement of AASHTO Designation: M 157, Section 11.7 shall be followed except, on arrival to the job site, a maximum of 1½ gallons per cubic yard is allowed to be added. Water shall not be added at a later time. If the maximum permitted slump is exceeded after the addition of water at the job site, the concrete shall be rejected.

**907-804.02.12.3--Documentation.** After the second sentence of the second paragraph of Subsection 804.02.12.3 on page 856, add the following:

Batch tickets and gradation data shall be documented in accordance with Department requirements. Batch tickets shall contain all the information in AASHTO Designation: M157, Section 16 including the additional information in Subsection 16.2 with the following exception: the information listed in paragraphs 16.2.7 and 16.2.8 is not required. Batch tickets shall also contain the concrete producer's permanent unique mix number assigned to the concrete mix design.

**907-804.02.12.5--Non-Conforming Materials.** In Table 4 of Subsection 804.02.12.5 on page 857, delete “/ FM” from the requirements on line B.3.a.

In Table 4 of Subsection 804.02.12.5 on page 857, replace “One set ( two cylinders ) for 0 -100 yd<sup>3</sup> inclusive” with “A minimum of one set (two cylinders) for each 100 yd<sup>3</sup>,”

**907-804.02.13--Quality Assurance Sampling and Testing.** Delete subparagraph c) in Subsection 804.02.13 on page 858 and substitute the following:

- c) For concrete, the Contractor's QC and Department's QA testing of concrete compressive strengths compare when using the data comparison computer program with an alpha value of 0.01 for projects with 1000 cubic yards and more; or, strength comparisons are within 990 psi for projects of more than 200 but less than 1000 cubic yards.

In Table 5 of Subsection 804.02.13 on page 858, delete “and FM” from the requirements on line A.3.

Delete Subsection 907-804.02.13.1 beginning on page 859 and substitute the following:

**907-804.02.13.1--Basis of Acceptance.**

**907-804.02.13.1.1--Sampling.** Sampling of concrete mixture shall be performed in accordance with the latest edition of the Department's *Concrete Field Manual*.

**907-804.02.13.1.2--Slump.** Slump of plastic concrete shall meet the requirements of Table 3: MASTER PROPORTION TABLE FOR STRUCTURAL CONCRETE DESIGN. A check test shall be made on another portion of the sample before rejection of any load.

**907-804.02.13.1.3--Air.** Total air content of concrete shall be within the specified range for the class of concrete listed in Table 3: MASTER PROPORTION TABLE FOR STRUCTURAL CONCRETE DESIGN. A check test shall be made on another portion of the sample before rejection of any load.

**907-804.02.13.1.4--Yield.** If the yield of the concrete mix design is more than plus or minus 3% of the designed volume, the mix shall be adjusted by a Class III Certified Technician representing the Contractor to yield the correct volume plus or minus three percent (±3%). If batching of the proportions of the mix design varies outside the batching tolerance range of the originally approved proportions by more than the tolerances allowed in Subsection 804.02.12.1, the new proportions shall be field verified per Subsection 804.02.10.3.

**907-804.02.13.1.5--Temperature.** Cold weather concreting shall follow the requirements of Subsection 907-804.03.16.1. Hot weather concreting shall follow the requirements of Subsection 804.03.16.2 with a maximum temperature of 95°F for Class DS concrete or for concrete mixes containing cementitious materials meeting the requirements of Subsection 907-701.02.2 as a replacement of Portland cement. For other concrete mixes, the maximum concrete temperature shall be 90°F. Concrete with a temperature more than the maximum allowable temperature shall be rejected and not used in Department work.

**907-804.02.13.1.6--Compressive Strength.** Laboratory cured concrete compressive strength tests shall conform to the specified strength ( $f'_c$ ) listed in the specifications. Concrete represented by compressive strength test below the specified strength ( $f'_c$ ) may be removed and replaced by the Contractor. If the Contractor elects not to remove the material, it will be evaluated by the Department as to the adequacy for the use intended. All concrete evaluated as unsatisfactory for the intended use shall be removed and replaced by the Contractor at no additional cost to the Department. For concrete allowed to remain in place, reduction in payment will be as follows:

**Projects with 1000 Cubic Yards and More.** When the evaluation indicates that the work may remain in place, a statistical analysis will be made of the QC and QA concrete test results. If this statistical analysis indicates at least 93% of the material would be expected to have a compressive strength equal to or greater than the specified strength ( $f'_c$ ) and 99.87% of the material would be expected to have a compressive strength at least one standard deviation above the allowable design stress ( $f_c$ ), the work will be accepted. If the statistical analysis indicates that either of the two criteria are not met, the Engineer will provide for an adjustment in pay as follows for the material represented by the test result.

Total Pay on Material in Question = Unit Price - (Unit Price x % Reduction)

$$\% \text{ Reduction} = \frac{(f'_c - X)}{f'_c - (f_c + s)} \times 100$$

where:

$f'_c$  = Specified 28-day compressive strength, psi

- $X$  = Individual compressive strength below  $f'_c$ , psi
- $s$  = standard deviation, psi\*
- $f_c$  = allowable design stress, psi

\* Standard deviation used in the above reduction of pay formula shall be calculated from the applicable preceding compressive strengths test results plus the individual compressive strength below  $f'_c$ . If below  $f'_c$  strengths occur during the project's first ten compressive strength tests, the standard deviation shall be calculated from the first ten compressive strength tests results.

**Projects of More Than 200 but Less Than 1000 Cubic Yards.** When the evaluation indicates that the work may remain in place, a percent reduction in pay will be assessed based on a comparison of the deficient 28-day test result to the specified strength. The Engineer will provide for an adjustment in pay as follows for the material represented by the test result.

Total Pay on Material in Question = Unit Price - (Unit Price x % Reduction)

$$\% \text{ Reduction} = \frac{(f'_c - X)}{f'_c} \times 100$$

where:

- $f'_c$  = Specified 28-day compressive strength, psi
- $X$  = Individual compressive strength below  $f'_c$ , psi

**907-804.03--Construction Requirements.**

**907-804.03.6--Handling and Placing Concrete.**

**907-804.03.6.2--Consolidation.** After the last sentence of Subsection 804.03.6.2 on page 864, add the following:

If the Department determines that there is an excessive number of projections, swells, ridges, depressions, waves, voids, holes, honeycombs or other defects in the completed structure, removal of the entire structure may be required as set out in Subsection 105.12.

**907-804.03.15--Removal of Falsework, Forms, and Housing.** Delete the first sentence of the second paragraph of Subsection 804.03.15 on page 871, and substitute the following:

Concrete in the last pour of a continuous superstructure shall have attained a compressive strength of 2,400 psi, as determined by cylinder tests or maturity meter probe, prior to striking any falsework.

Delete the first sentence of the third paragraph of Subsection 804.03.15 on page 871, and substitute the following:

At the Contractor's option and with the approval of the Engineer, the time for removal of forms may be determined by cylinder tests, in accordance with the requirements listed in Table 6, in which case the Contractor shall furnish facilities for testing the cylinders.

Delete the fourth and fifth paragraphs of Subsection 804.03.15 on pages 871 & 872, and substitute the following:

The cylinders shall be cured under conditions which are not more favorable than those existing for the portions of the structure which they represent.

Delete the table in Subsection 804.03.15 on page 872, and substitute the following:

**Table 6**  
**Minimum Compressive Strength Requirements for Form Removal**

**Forms:**

Columns .....	1000 psi
Side of Beams .....	1000 psi
Walls not under pressure .....	1000 psi
Floor Slabs, overhead .....	2000 psi
Floor Slabs, between beams .....	2000 psi
Slab Spans .....	2400 psi
Other Parts .....	1000 psi

**Centering:**

Under Beams .....	2400 psi
Under Bent Caps .....	2000 psi

**Limitation for Placing Beams on:**

Pile Bents, pile under beam .....	2000 psi
Frame Bents, two or more columns .....	2200 psi
Frame Bents, single column .....	2400 psi

In lieu of using concrete strength cylinders to determine when falsework, forms, and housings can be removed, an approved maturity meter may be used to determine concrete strengths by inserting probes into concrete placed in a structure. The minimum number of maturity meter probes required for each structural component shall be in accordance with Table 7. Falsework, forms, and housings may be removed when maturity meter readings indicate that the required concrete strength is achieved. Procedures for using the maturity meter and developing the strength/maturity relationship shall follow the requirements of AASHTO Designation: T 325 and ASTM Designation: C 1074 specifications. Technicians using the maturity meter or calculating strength/maturity graphs shall be required to have at least two hours of training prior to using the maturity equipment.

**Table 7  
Requirements for use of Maturity Meter Probes**

<b>Structure Component</b>	<b>Quantity of Concrete</b>	<b>No. of Probes</b>
Slabs, beams, walls, & miscellaneous items	0 - 30 yd <sup>3</sup>	2
	> 30 to 60 yd <sup>3</sup>	3
	> 60 to 90 yd <sup>3</sup>	4
	> 90 yd <sup>3</sup>	5
Footings, Columns & Caps	0 - 13 yd <sup>3</sup>	2
	> 13 yd <sup>3</sup>	3
Pavement, Pavement Overlays	1200 yd <sup>2</sup>	2
Pavement Repairs	Per repair or 900 yd <sup>2</sup> Whichever is smaller	2

**907-804.03.16--Cold or Hot Weather Concreting.**

**907-804.03.16.1--Cold Weather Concreting.** After the third paragraph of Subsection 804.03.16.1 on page 873, add the following:

In lieu of the protection and curing of concrete in cold weather, at the option of the Contractor with the approval of the Engineer, when concrete is placed during cold weather and there is a probability of ambient temperatures lower than 40°F, an approved maturity meter may be used to determine concrete strengths by inserting probes into concrete placed in a structure. The minimum number of maturity meter probes required for each structural component shall be in accordance with Table 7. An approved insulating blanketing material shall be used to protect the work when ambient temperatures are less than 40°F and shall remain in place until the required concrete strength in Table 6 is achieved. Procedures for using the maturity meter and developing the strength/maturity relationship shall follow the requirements of AASHTO Designation: T 325 and ASTM Designation: C 1074 specifications. Technicians using the maturity meter or calculating strength/maturity graphs shall be required to have at least two hours of training prior to using the maturity equipment.

Rename the Table in Subsection 804.03.16.1 on page 874 from “Table 6” to “Table 8”.

**907-804.03.19--Finishing Concrete Surfaces.**

**907-804.03.19.7--Finishing Bridge Floors.**

**907-804.03.19.7.4--Acceptance Procedure for Bridge Deck Smoothness.** After the first sentence of the second paragraph of Subsection 804.03.19.7.4 on page 886, add the following:

Auxiliary lanes, tapers, shoulders and other areas that are not checked with the profilograph, shall meet a 1/8 inch in 10-foot straightedge check made transversely and longitudinally across the deck or slab.

**907-804.05--Basis of Payment.** Add the "907" prefix to the pay items listed on page 898.

# S E C T I O N 9 0 5 - P R O P O S A L

Date \_\_\_\_\_

Mississippi Transportation Commission  
Jackson, Mississippi

Sirs: The following proposal is made on behalf of \_\_\_\_\_  
\_\_\_\_\_ of \_\_\_\_\_

for constructing the following designated project(s) within the time(s) hereinafter specified.

The plans are composed of drawings and blue prints on file in the offices of the Mississippi Department of Transportation, Jackson, Mississippi.

The Specifications are the current Standard Specifications of the Mississippi Department of Transportation approved by the Federal Highway Administration, except where superseded or amended by the plans, Special Provisions and Notice(s) to Bidders attached hereto and made a part thereof.

I (We) certify that I (we) possess a copy of said Standard and any Supplemental Specifications.

Evidence of my (our) authority to submit the Proposal is hereby furnished. The proposal is made without collusion on the part of any person, firm or corporation. I (We) certify that I (we) have carefully examined the Plans, the Specifications, including the Special Provisions and Notice(s) to Bidders, herein, and have personally examined the site of the work. On the basis of the Specifications, Special Provisions, Notice(s) to Bidders, and Plans, I (we) propose to furnish all necessary machinery, tools, apparatus and other means of construction and do all the work and furnish all the materials in the manner specified. I (We) understand that the quantities mentioned herein are approximate only and are subject to either increase or decrease, and hereby propose to perform any increased or decreased quantities of work at the unit prices bid, in accordance with the above.

Attached hereto is a certified check, cashier's check or Proposal Guaranty Bond in the amount as required in the Advertisement (or, by law).

**INSTRUCTION TO BIDDERS:** Alternate and Optional Items on Bid Schedule.

1. Two or more items entered opposite a single unit quantity WITHOUT DEFINITE DESIGNATION AS "ALTERNATE ITEMS" are considered as "OPTIONAL ITEMS". Bidders may or may not indicate on bids the Optional Item proposed to be furnished or performed WITHOUT PREJUDICE IN REGARD TO IRREGULARITY OF BIDS.
2. Items classified on the bid schedule as "ALTERNATE ITEMS" and/or "ALTERNATE TYPES OF CONSTRUCTION" must be preselected and indicated on bids. However, "Alternate Types of Construction" may include Optional Items to be treated as set out in Paragraph 1, above.
3. Optional items not preselected and indicated on the bid schedule MUST be designated in accordance with Subsection 102.06 prior to or at the time of execution of the contract.
4. Optional and Alternate items designated must be used throughout the project.

I (We) further propose to perform all "force account or extra work" that may be required of me (us) on the basis provided in the Specifications and to give such work my (our) personal attention in order to see that it is economically performed.



**SECTION 905 -- PROPOSAL (CONTINUED)**

I (We) further propose to execute the attached contract agreement (Section 902) as soon as the work is awarded to me (us), and to begin and complete the work within the time limit(s) provided for in the Specifications and Advertisement. I (We) also propose to execute the attached contract bond (Section 903) in an amount not less than one hundred (100) percent of the total of my (our) part, but also to guarantee the excellence of both workmanship and materials until the work is finally accepted.

I (We) enclose a certified check, cashier's check or bid bond for **five percent (5%) of total bid** and hereby agree that in case of my (our) failure to execute the contract and furnish bond within Ten (10) days after notice of award, the amount of this check (bid bond) will be forfeited to the State of Mississippi as liquidated damages arising out of my (our) failure to execute the contract as proposed. It is understood that in case I am (we are) not awarded the work, the check will be returned as provided in the Specifications.

Respectfully Submitted,

DATE \_\_\_\_\_

\_\_\_\_\_  
Contractor

BY \_\_\_\_\_  
Signature

TITLE \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY, STATE, ZIP \_\_\_\_\_

PHONE \_\_\_\_\_

FAX \_\_\_\_\_

E-MAIL \_\_\_\_\_

(To be filled in if a corporation)

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

\_\_\_\_\_  
President Address

\_\_\_\_\_  
Secretary Address

\_\_\_\_\_  
Treasurer Address

The following is my (our) itemized proposal.

Overlay approximately 3 miles of SR 501 from I-20 to the RR Crossing in Forest, known as State Project No. MP-5501-62(006) / 304356301 in Scott County.

I (We) agree to complete the entire project within the specified contract time.

**\*\*\* SPECIAL NOTICE TO BIDDERS \*\*\***

**BIDS WILL NOT BE CONSIDERED UNLESS BOTH UNIT PRICES AND ITEM TOTALS ARE ENTERED.  
 BIDS WILL NOT BE CONSIDERED UNLESS THE BID CERTIFICATION LOCATED AT THE END OF THE BID SHEETS IS SIGNED**

**\*\*\*BID SCHEDULE\*\*\***

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Item Amount	
						Dollar	Ct	Dollar	Ct
<b>Roadway Items</b>									
0010	202-A001		1	Lump Sum	Removal of Obstructions	XXXXXXXX	XXX		
0020	202-B005		3,765	Square Yard	Removal of Asphalt Pavement, All Depths				
0030	202-B035		8	Square Yard	Removal of Concrete Sidewalk				
0040	202-B038		175	Linear Feet	Removal of Curb, All Types				
0050	202-B064		40	Linear Feet	Removal of Pipe, 8" And Above				
0060	202-B084		3,765	Square Yard	Removal of Base				
0070	202-B142		1	Each	Removal of Junction Box				
0080	203-EX030	(E)	200	Cubic Yard	Borrow Excavation, AH, LVM, Class B15				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0090	203-G004	(E)	25	Cubic Yard	Excess Excavation, LVM, AH				
0100	206-A001	(S)	150	Cubic Yard	Structure Excavation				
0110	206-B001	(E)	41	Cubic Yard	Select Material for Undercuts, Contractor Furnished, FM				
0120	234-A001		50	Linear Feet	Temporary Silt Fence				
0130	305-B001	(GY)	90	Cubic Yard	Size I Stabilizer Aggregate, Coarse				
0140	406-A001		5,200	Square Yard	Cold Milling of Bituminous Pavement, All Depths				
0150	602-A001	(S)	514	Pounds	Reinforcing Steel				
0160	603-PA009	(S)	88	Linear Feet	10' x 6' Precast Concrete Box Culvert				
0170	603-SB028	(S)	1	Each	30" Branch Connections, Stub into Box Culvert				
0180	606-B004		50	Linear Feet	Guard Rail, Class A, Type 1, Metal Post				
0190	606-D014		3	Each	Guard Rail, Bridge End Section, Type I, Metal Post				
0200	606-E003		3	Each	Guard Rail, Terminal End Section, Non-Flared				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0210	608-A001	(S)	26	Square Yard	Concrete Sidewalk, Without Reinforcement				
0220	609-D001	(S)	68	Linear Feet	Combination Concrete Curb and Gutter Type 1				
0230	609-E001		38	Linear Feet	Bituminous Curb				
0240	613-A001		1	Lump Sum	Adjustment of Castings, Gratings & Utility Appurtenances	XXXXXXXX	XXX		
0250	615-A012	(S)	135	Linear Feet	Concrete Type IV Modified, 42" Height, Cast-in-Place Median Barrier				
0260	618-A001		1	Lump Sum	Maintenance of Traffic	XXXXXXXX	XXX		
0270	619-A1002		5	Mile	Temporary Traffic Stripe, Continuous White				
0280	619-A2002		5	Mile	Temporary Traffic Stripe, Continuous Yellow				
0290	619-A4007		1	Mile	Temporary Traffic Stripe, Skip Yellow, Paint				
0300	619-A5001		1,926	Linear Feet	Temporary Traffic Stripe, Detail				
0310	619-A6001		1,160	Linear Feet	Temporary Traffic Stripe, Legend				
0320	619-A6002		63	Square Feet	Temporary Traffic Stripe, Legend				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0330	619-D1001		214	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet				
0340	619-D2001		260	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More				
0350	619-F3004		12	Each	Delineators, Guard Rail, White				
0360	619-G4001		48	Linear Feet	Barricades, Type III, Single Faced				
0370	619-G4005		24	Linear Feet	Barricades, Type III, Double Faced				
0380	619-G7001		4	Each	Warning Lights, Type "B"				
0390	620-A001		1	Lump Sum	Mobilization	XXXXXXXXX	XXX		
0400	627-J001		268	Each	Two-Way Clear Reflective High Performance Raised Markers				
0410	627-L001		371	Each	Two-Way Yellow Reflective High Performance Raised Markers				
0420	815-B001	(S)	75	Square Yard	Grouted Riprap				
0430	907-225-A001		1	Acre	Grassing				
0440	907-304-A001	(GY)	1,150	Cubic Yard	Granular Material, LVM, Class 5, Group C				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0450	907-304-H001	(GY)	50	Cubic Yard	Size 825 Crushed Stone Base, LVM				
0460	907-407-A001	(A2)	4,500	Gallon	Asphalt for Tack Coat				
0470	907-601-A001	(S)	10	Cubic Yard	Class "B" Structural Concrete				
0480	907-601-B003	(S)	2	Cubic Yard	Class "B" Structural Concrete, Minor Structures				
0490	907-603-PE207	(S)	40	Linear Feet	30" Corrugated Polyethylene Pipe				
0500	907-626-C006		5	Mile	6" Thermoplastic Double Drop Edge Stripe, Continuous White, 90 min				
0510	907-626-D006		1	Mile	6" Thermoplastic Double Drop Traffic Stripe, Skip Yellow				
0520	907-626-E006		5	Mile	6" Thermoplastic Double Drop Traffic Stripe, Continuous Yellow				
0530	907-626-G006		1,286	Linear Feet	Thermoplastic Double Drop Detail Stripe, White				
0540	907-626-G007		640	Linear Feet	Thermoplastic Double Drop Detail Stripe, Yellow				
0550	907-626-H009		1,160	Linear Feet	Thermoplastic Double Drop Legend, White				
0560	907-626-H010		63	Square Feet	Thermoplastic Double Drop Legend, White				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price	Bid Amount	
0570	907-631-B001		5	Cubic Yard	Flowable Fill, Non-Excavatable			
<b>ALTERNATE GROUP AA NUMBER 1</b>								
0580	907-403-A011 (BA1)		4,200	Ton	Hot Mix Asphalt, ST, 12.5-mm mixture			
<b>ALTERNATE GROUP AA NUMBER 2</b>								
0590	907-403-M003 (BA1)		4,200	Ton	Warm Mix Asphalt, ST, 12.5-mm mixture			
<b>ALTERNATE GROUP BB NUMBER 1</b>								
0600	907-403-B007 (BA1)		3,350	Ton	Hot Mix Asphalt, ST, 12.5-mm mixture, Leveling			
0610	907-403-N002 (BA1)		3,350	Ton	Warm Mix Asphalt, ST, 12.5-mm mixture, Leveling			
<b>ALTERNATE GROUP CC NUMBER 1</b>								
0620	907-403-A012 (BA1)		25	Ton	Hot Mix Asphalt, ST, 19-mm mixture			
<b>ALTERNATE GROUP CC NUMBER 2</b>								
0630	907-403-M004 (BA1)		25	Ton	Warm Mix Asphalt, ST, 19-mm mixture			

\*\*\* BID CERTIFICATION \*\*\*

TOTAL BID.....\$\_\_\_\_\_

\*\*\* SIGNATURE STATEMENT \*\*\*

BIDDER ACKNOWLEDGES THAT HE/SHE HAS CHECKED ALL ITEMS IN THIS PROPOSAL FOR ACCURACY AND CERTIFIED THAT THE FIGURES SHOWN THEREIN CONSTITUTE THEIR OFFICIAL BID.

\_\_\_\_\_  
BIDDER'S SIGNATURE

\_\_\_\_\_  
BIDDER'S COMPANY

\_\_\_\_\_  
BIDDER'S FEDERAL TAX ID NUMBER



**CONDITIONS FOR COMBINATION BID**

If a bidder elects to submit a combined bid for two or more of the contracts listed for this month's letting, the bidder must complete and execute these sheets of the proposal in each of the individual proposals to constitute a combination bid. In addition to this requirement, each individual contract shall be completed, executed and submitted in the usual specified manner.

Failure to execute this Combination Bid Proposal in each of the contracts combined will be just cause for each proposal to be received and evaluated as a separate bid.

\*\*\*\*\*

**COMBINATION BID PROPOSAL**

I. This proposal is tendered as one part of a Combination Bid Proposal utilizing option \_\_\_\* of Subsection 102.11 on the following contracts:

\* Option to be shown as either (a), (b), or (c).

<u>Project No.</u>	<u>County</u>	<u>Project No.</u>	<u>County</u>
1. _____	_____	6. _____	_____
2. _____	_____	7. _____	_____
3. _____	_____	8. _____	_____
4. _____	_____	9. _____	_____
5. _____	_____	10. _____	_____

A. If option (a) has been selected, then go to II, and sign Combination Bid Proposal.

B. If option (b) has been selected, then complete the following, go to II, and sign Combination Bid Proposal.

SECTION 905 - COMBINATION BID PROPOSAL (Continued)

Project Number	Pay Item Number	Unit	Unit Price Reduction	Total Item Reduction	Total Contract Reduction
1. _____	_____ _____	_____ _____	_____ _____	_____ _____	
2. _____	_____ _____	_____ _____	_____ _____	_____ _____	
3. _____	_____ _____	_____ _____	_____ _____	_____ _____	
4. _____	_____ _____	_____ _____	_____ _____	_____ _____	
5. _____	_____ _____	_____ _____	_____ _____	_____ _____	
6. _____	_____ _____	_____ _____	_____ _____	_____ _____	
7. _____	_____ _____	_____ _____	_____ _____	_____ _____	
8. _____	_____ _____	_____ _____	_____ _____	_____ _____	

SECTION 905 - COMBINATION BID PROPOSAL (Continued)

Project Number	Pay Item Number	Unit	Unit Price Reduction	Total Item Reduction	Total Contract Reduction
9. _____	_____ _____	_____ _____	_____ _____	_____ _____	
10. _____	_____ _____	_____ _____	_____ _____	_____ _____	

C. If option (c) has been selected, then initial and complete one of the following, go to II. and sign Combination Bid Proposal.

\_\_\_\_\_ I (We) desire to be awarded work not to exceed a total monetary value of \$ \_\_\_\_\_.

\_\_\_\_\_ I (We) desire to be awarded work not to exceed \_\_\_\_\_ number of contracts.

II. It is understood that the Mississippi Transportation Commission not only reserves the right to reject any and all proposals, but also the right to award contracts upon the basis of lowest separate bids or combination bids most advantageous to the State.

It is further understood and agreed that the Combination Bid Proposal is for comparison of bids only and that each contract shall operate in every respect as a separate contract in accordance with its proposal and contract documents.

I (We), the undersigned, agree to complete each contract on or before its specified completion date.

SIGNED \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TO: EXECUTIVE DIRECTOR, MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
JACKSON, MISSISSIPPI

**CERTIFICATE**

If awarded this contract, I (we) contemplate that portions of the contract will be sublet. I (we) certify that those subcontracts which are equal to or in excess of fifty thousand dollars (\$50,000.00) will be in accordance with regulations promulgated and adopted by the Mississippi State Board of Contractors on January 13, 1999.

I (we) agree that this notification of intent DOES NOT constitute APPROVAL of the subcontracts.

NOTE: Insert name and address of subcontractors. (Subcontracts equal to or in excess of fifty thousand dollars (\$50,000.00) ONLY.)

_____	_____
(Individual or Firm)	(Address)
_____	_____
(Individual or Firm)	(Address)
_____	_____
(Individual or Firm)	(Address)
_____	_____
(Individual or Firm)	(Address)

NOTE: Failure to complete the above DOES NOT preclude subsequent subcontracts. Subsequent subcontracts, if any, equal to or in excess of fifty thousand dollars (\$50,000.00) will be in accordance with regulations promulgated and adopted by the Mississippi State Board of Contractors on January 13, 1999.

Contractor \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

**CERTIFICATE MUST BE EXECUTED**

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

CERTIFICATION  
(Execute in duplicate)

I, \_\_\_\_\_,  
(Name of person signing certification)

individually, and in my capacity as \_\_\_\_\_ of  
(Title)

\_\_\_\_\_ do hereby certify under  
(Name of Firm, Partnership, or Corporation)

penalty of perjury under the laws of the United States and the State of Mississippi that  
\_\_\_\_\_, Bidder  
(Name of Firm, Partnership, or Corporation)

on Project No. **MP-5501-62(006) / 304356301** \_\_\_\_\_,

in Scott County(ies), Mississippi, 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 this contract; nor have any of its corporate officers or principal owners.

Except as noted hereafter, it is further certified that said legal entity and its corporate officers, principal owners, managers, auditors and others in a position of administering federal funds are not currently under suspension, debarment, voluntary exclusion or determination of ineligibility; nor have a debarment pending; nor been suspended, debarred, voluntarily excluded or determined ineligible within the past three years by the Mississippi Transportation Commission, the State of Mississippi, any other State or a federal agency; nor been indicted, convicted or had a civil judgment rendered by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

Initial here " \_\_\_\_\_ " if exceptions are attached and made a part thereof. Any exceptions shall address to whom it applies, initiating agency and dates of such action.

Note: 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.

All of the foregoing and attachments (when indicated) is true and correct.

Executed on \_\_\_\_\_ Signature \_\_\_\_\_

(5/29/2008S)

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

CERTIFICATION  
(Execute in duplicate)

I, \_\_\_\_\_,  
(Name of person signing certification)

individually, and in my capacity as \_\_\_\_\_ of  
(Title)

\_\_\_\_\_ do hereby certify under  
(Name of Firm, Partnership, or Corporation)

penalty of perjury under the laws of the United States and the State of Mississippi that  
\_\_\_\_\_, Bidder  
(Name of Firm, Partnership, or Corporation)

on Project No. **MP-5501-62(006) / 304356301** \_\_\_\_\_,

in Scott County(ies), Mississippi, 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 this contract; nor have any of its corporate officers or principal owners.

Except as noted hereafter, it is further certified that said legal entity and its corporate officers, principal owners, managers, auditors and others in a position of administering federal funds are not currently under suspension, debarment, voluntary exclusion or determination of ineligibility; nor have a debarment pending; nor been suspended, debarred, voluntarily excluded or determined ineligible within the past three years by the Mississippi Transportation Commission, the State of Mississippi, any other State or a federal agency; nor been indicted, convicted or had a civil judgment rendered by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

Initial here "\_\_\_\_\_" if exceptions are attached and made a part thereof. Any exceptions shall address to whom it applies, initiating agency and dates of such action.

Note: 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.

All of the foregoing and attachments (when indicated) is true and correct.

Executed on \_\_\_\_\_  
Signature

(5/29/2008S)

**S E C T I O N   9 0 2**

CONTRACT FOR MP-5501-62(006) / 304356301

LOCATED IN THE COUNTY(IES) OF Scott

STATE OF MISSISSIPPI,  
COUNTY OF HINDS

This contract entered into by and between the Mississippi Transportation Commission on one hand, and the undersigned contractor, on the other witnesseth;

That, in consideration of the payment by the Mississippi Transportation Commission of the prices set out in the proposal hereto attached, to the undersigned contractor, such payment to be made in the manner and at the time of times specified in the specifications and the special provisions, if any, the undersigned contractor hereby agrees to accept the prices stated in the proposal in full compensation for the furnishing of all materials and equipment and the executing of all the work contemplated in this contract.

It is understood and agreed that the advertising according to law, the Advertisement, the instructions to bidders, the proposal for the contract, the specifications, the revisions of the specifications, the special provisions, and also the plans for the work herein contemplated, said plans showing more particularly the details of the work to be done, shall be held to be, and are hereby made a part of this contract by specific reference thereto and with like effect as if each and all of said instruments had been set out fully herein in words and figures.

It is further agreed that for the same consideration the undersigned contractor shall be responsible for all loss or damage arising out of the nature of the work aforesaid; or from the action of the elements and unforeseen obstructions or difficulties which may be encountered in the prosecution of the same and for all risks of every description connected with the work, exceptions being those specifically set out in the contract; and for faithfully completing the whole work in good and workmanlike manner according to the approved Plans, Specifications, Special Provisions, Notice(s) to Bidders and requirements of the Mississippi Department of Transportation.

It is further agreed that the work shall be done under the direct supervision and to the complete satisfaction of the Executive Director of the Mississippi Department of Transportation, or his authorized representatives, and when Federal Funds are involved subject to inspection at all times and approval by the Federal Highway Administration, or its agents as the case may be, or the agents of any other Agency whose funds are involved in accordance with those Acts of the Legislature of the State of Mississippi approved by the Governor and such rules and regulations issued pursuant thereto by the Mississippi Transportation Commission and the authorized Federal Agencies.

The Contractor agrees that all labor as outlined in the Special Provisions may be secured from list furnished by

It is agreed and understood that each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein and this contract shall be read and enforced as though it were included herein, and, if through mere mistake or otherwise any such provision is not inserted, then upon the application of either party hereto, the contract shall forthwith be physically amended to make such insertion.

The Contractor agrees that he has read each and every clause of this Contract, and fully understands the meaning of same and that he will comply with all the terms, covenants and agreements therein set forth.

Witness our signatures this the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Contractor (s)

By \_\_\_\_\_

MISSISSIPPI TRANSPORTATION COMMISSION

Title \_\_\_\_\_

By \_\_\_\_\_

Signed and sealed in the presence of:  
(names and addresses of witnesses)

Executive Director

\_\_\_\_\_  
Secretary to the Commission

Award authorized by the Mississippi Transportation Commission in session on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, Minute Book No. \_\_\_\_\_, Page No. \_\_\_\_\_.

**S E C T I O N   9 0 3**  
**PERFORMANCE AND PAYMENT BOND**

CONTRACT BOND FOR: MP-5501-62(006) / 304356301

LOCATED IN THE COUNTY(IES) OF: Scott

STATE OF MISSISSIPPI,

COUNTY OF HINDS

Know all men by these presents: that we, \_\_\_\_\_  
( Contractor )

\_\_\_\_\_ Principal, a \_\_\_\_\_

residing at \_\_\_\_\_ in the State of \_\_\_\_\_

and \_\_\_\_\_  
( Surety )

residing at \_\_\_\_\_ in the State of \_\_\_\_\_,

authorized to do business in the State of Mississippi, under the laws thereof, as surety, are held and firmly bound unto the State of Mississippi in the sum of \_\_\_\_\_

\_\_\_\_\_ (\$ \_\_\_\_\_ ) Dollars, lawful money of the United States of America, to be paid to it for which payment well and truly to be made, we bind ourselves, our heirs, administrators, successors, or assigns jointly and severally by these presents.

Signed and sealed this the \_\_\_\_\_ day of \_\_\_\_\_ A.D. \_\_\_\_\_.

The conditions of this bond are such, that whereas the said \_\_\_\_\_

\_\_\_\_\_ principal, has (have) entered into a contract with the Mississippi Transportation Commission, bearing the date of \_\_\_\_\_ day of \_\_\_\_\_ A.D. \_\_\_\_\_ hereto annexed, for the construction of certain projects(s) in the State of Mississippi as mentioned in said contract in accordance with the Contract Documents therefor, on file in the offices of the Mississippi Department of Transportation, Jackson, Mississippi.

Now therefore, if the above bounden \_\_\_\_\_

\_\_\_\_\_ in all things shall stand to and abide by and well and truly observe, do keep and perform all and singular the terms, covenants, conditions, guarantees and agreements in said contract, contained on his (their) part to be observed, done, kept and performed and each of them, at the time and in the manner and form and furnish all of the material and equipment specified in said contract in strict accordance with the terms of said contract which said plans, specifications and special provisions are included in and form a part of said contract and shall maintain the said work contemplated until its final completion and acceptance as specified in Subsection 109.11 of the approved specifications, and save harmless said Mississippi Transportation Commission from any loss or damage arising out of or occasioned by the negligence, wrongful or criminal act, overcharge, fraud, or any other loss or damage whatsoever, on the part of said principal (s), his (their) agents, servants, or employees in



**SECTION 903 - CONTINUED**

the performance of said work or in any manner connected therewith, and shall be liable and responsible in a civil action instituted by the State at the instance of the Mississippi Transportation Commission or any officer of the State authorized in such cases, for double any amount in money or property, the State may lose or be overcharged or otherwise defrauded of, by reason of wrongful or criminal act, if any, of the Contractor(s), his (their) agents or employees, and shall promptly pay the said agents, servants and employees and all persons furnishing labor, material, equipment or supplies therefor, including premiums incurred, for Surety Bonds, Liability Insurance, and Workmen's Compensation Insurance; with the additional obligation that such Contractor shall promptly make payment of all taxes, licenses, assessments, contributions, damages, any liquidated damages which may arise prior to any termination of said principal's contract, any liquidated damages which may arise after termination of the said principal's contract due to default on the part of said principal, penalties and interest thereon, when and as the same may be due this state, or any county, municipality, board, department, commission or political subdivision: in the course of the performance of said work and in accordance with Sections 31-5-51 et seq. Mississippi Code of 1972, and other State statutes applicable thereto, and shall carry out to the letter and to the satisfaction of the Executive Director of the Mississippi Department of Transportation, all, each and every one of the stipulations, obligations, conditions, covenants and agreements and terms of said contract in accordance with the terms thereof and all of the expense and cost and attorney's fee that may be incurred in the enforcement of the performance of said contract, or in the enforcement of the conditions and obligations of this bond, then this obligation shall be null and void, otherwise to be and remain in full force and virtue.

Witness our signatures and seals this the \_\_\_\_\_ day of \_\_\_\_\_ A.D. \_\_\_\_\_.

_____	_____
(Contractors) Principal	Surety
By _____	By _____
	(Signature) Attorney in Fact
	Address _____
	_____
Title _____	_____
(Contractor's Seal)	(Printed) MS Agent
	_____
	(Signature) MS Agent
	Address _____
	_____
	_____
	(Surety Seal)
	_____
	Mississippi Insurance ID Number



# BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we \_\_\_\_\_  
Contractor

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State ZIP

as Principal, hereinafter called the Principal, and \_\_\_\_\_  
Surety

a corporation duly organized under the laws of the state of \_\_\_\_\_

as Surety, hereinafter called the Surety, are held and firmly bound unto State of Mississippi, Jackson, Mississippi

As Obligee, hereinafter called Obligee, in the sum of **Five Per Cent (5%) of Amount Bid**  
Dollars (\$ \_\_\_\_\_)

for the payment of which sum will and truly to be made, the said Principal and said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for **Overlaying approximately 3 miles of SR 501 from I-20 to the RR Crossing in Forest, known as State Project No. MP-5501-62(006) / 304356301 in Scott County.**

NOW THEREFORE, the condition of this obligation is such that if the aforesaid Principal shall be awarded the contract, the said Principal will, within the time required, enter into a formal contract and give a good and sufficient bond to secure the performance of the terms and conditions of the contract, then this obligation to be void; otherwise the Principal and Surety will pay unto the Obligee the difference in money between the amount of the bid of the said Principal and the amount for which the Obligee legally contracts with another party to perform the work if the latter amount be in excess of the former, but in no event shall liability hereunder exceed the penal sum hereof.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Principal) (Seal)

\_\_\_\_\_  
(Witness)

By: \_\_\_\_\_  
(Name) (Title)

\_\_\_\_\_  
(Surety) (Seal)

\_\_\_\_\_  
(Witness)

By: \_\_\_\_\_  
(Attorney-in-Fact)

\_\_\_\_\_  
MS Agent

\_\_\_\_\_  
Mississippi Insurance ID Number