MDOT Use Only
Checked _____
Loaded _____
Keyed _____

01 -

SM No. CSP0059031031

PROPOSAL AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

01
Bridge Repair on I-20/59 over SR 145/22nd Ave. (Bridge No. 153.0B), known as State Project No. SP-0059-03(103) / 109488301 in Lauderdale County.

Project Completion: 12/18/2023

(STATE DELEGATED)

NOTICE

BIDDERS MUST COMPLETE AN ONLINE REQUEST FOR PERMISSION TO BID THIS PROJECT.

Electronic addendum updates will be posted on www.gomdot.com

SECTION 900

OF THE CURRENT 2017 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

JACKSON, MISSISSIPPI

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
TABLE OF CONTENTS

PROJECT: SP-0059-03(103)/109488301 - Lauderdale

PROJECT: SP-0059-03(103)/109488301 - Lauderdale

907-808-1	Joint Repair
907-823-7	Preformed Joint Seal

Section 905 - Proposal, Proposal Bid Items, Combination Bid Proposal
State Board of Contractors Requirement
State Certification Regarding Non-Collusion, Debarment and Suspensions
Section 902 - Contract Form
Section 903 - Contract Bond Forms

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

10/17/2023 03:43 PM

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 901 - ADVERTISEMENT

Electronic bids will be received by the Mississippi Transportation Commission at 10:00 o'clock A.M., Thursday, October 26, 2023, from Bid Express Service and shortly thereafter publicly read in the Construction Division for:

Emergency Bridge Repair on I-20/59 over SR 145/22nd Avenue on Bridge No. 153.0B, known as State Project No. SP-0059-03(103) / 109488301 in Lauderdale County.

In accordance with authority granted under Section 65-1-85 Mississippi Code of 1972, Annotated, the work to be accomplished under this contract has been declared by the Executive Director to be an emergency, and it is desired that you submit a bid for performing the needed and necessary work for alleviating the situation that exists at this site.

The attention of bidders is directed to the Contract Provisions governing selection and employment of labor. Minimum wage rates have been predetermined by the Secretary of Labor and are subject to Public Law 87-581, Work Hours Act of 1962, as set forth in the Contract Provisions.

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 award of this contract will be contingent upon the Contractor satisfying the DBE requirements.

Contractors may request permission to bid online at http://shopmdot.ms.gov at no cost. Upon approval, Contractors shall be eligible to submit a bid using Bid Express at http://bidx.com. Specimen proposals may be viewed and downloaded online at no cost at http://mdot.ms.gov or purchased online at https://shopmdot.ms.gov. Specimen proposals are available at a cost of Ten Dollars ($10.00) per proposal plus a small convenience fee. Cash or checks will not be accepted as payment.

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.

BRAD WHITE
EXECUTIVE DIRECTOR

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO NOTICE TO BIDDERS NO. 1

DATE: **06/08/2021**

SUBJECT: **Governing Specifications**

Change the web address at the end of the first paragraph to the following.

https://shop.mdot.ms.gov/default.aspx?StoreIndex=1

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1 **CODE: (IS)**

DATE: 03/01/2017

SUBJECT: Governing Specifications

The current (2017) 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 within this proposal. Copies of the specification book may be purchased from the MDOT Construction Division, or online at shopmdot/default.aspx?StoreIndex=1.

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 2004 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 2017 Edition of the Standard Specifications.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 3 **CODE: (SP)**

DATE: 01/17/2017

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 a 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. 9 **CODE: (IS)**

DATE: 03/01/2017

SUBJECT: Federal Bridge Formula

Bidders are hereby advised that the latest revision of Federal Highway Administration Publication No. FHWA-HOP-06-105, **BRIDGE FORMULA WEIGHTS**, dated August 2006, 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 7th Street, SW
Washington, DC 20590
(202) 366-2212

or

http://www.ops.fhwa.dot.gov/Freight/publications/brdg_frm_wghts/bridge_formula_all_rev.pdf

An on line **BRIDGE FORMULA WEIGHTS CALCULATOR** is available at

http://ops.fhwa.dot.gov/freight/sw/brdgcalc/calc_page.htm

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 296 **CODE: (SP)**

DATE: 07/25/2017

SUBJECT: Reduced Speed Limit Signs

Bidders are advised that when the plans or contract documents require the speed limit on a project to be reduced, the Contractor shall begin work within 48 hours of installing the reduced speed limit signs. Should the Contractor not start work or have no plans to start work within 48 hours of installing the signs, the reduced speed limit signs shall be covered and existing speed limit signs uncovered.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 445 **CODE: (SP)**

DATE: 10/10/2017

SUBJECT: Mississippi Agent or Qualified Nonresident Agent

Bidders are hereby advised of the requirements of Subsections 102.08, 103.05.2, and 107.14.2.1 of the *2017 Standard Specifications for Road and Bridge Construction* as it refers to bonding agents. Proposal guaranties, bonds, and liability insurance policies must be signed by a **Mississippi Agent or Qualified Nonresident Agent.**

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 516 **CODE: (IS)**

DATE: 11/28/2017

SUBJECT: Errata and Modifications to the 2017 Standard Specifications

Page	Subsection	Change
16	102.06	In the seventh full paragraph, change "Engineer" to "Director."
33	105.05.1	In the sixth sentence, change "Contract Administration Engineer" to "Contract Administration Director."
34	105.05.2.1	In subparagraph 2, change "SWPPP, ECP" to "SWPPP and the ECP"
35	105.05.2.2	In subparagraphs 2, add " and" to the end of the sentence. In subparagraph 3, remove ", and" and add ".".
90	109.04.2	In the last paragraph of subparagraph (a), place a period "." at the end of the sentence.
93	109.04.2	In the last paragraph of subparagraph (g), place a period "." at the end of the sentence. Also, in the first paragraph of subparagraph (h), place a period "." at the end of the sentence.
97	109.07	Under ADJUSTMENT CODE, subparagraph (A1), change "HMA mixture" to "Asphalt mixtures."
98	109.11	In the third sentence, change "Engineer" to "Director."
219	308.04	In the last sentence of the last paragraph, change "Contractor's decision" to "Engineer's decision."
300	405.02.5.9	In the first sentence of the second paragraph, change "Hot Mix Asphalt" to "Asphalt Mixtures."
502	630.01.1	In the first paragraph, change "AASHTO" to "AASHTO's LRFD".
636	646.05	Change "each" to "per each" for the pay item units of payment.
640	656.02.6.2	In item 7), change "down stream" to "downstream".
688	630.03.2	Change the subsection number from "630.03.2" to "680.03.2."

725	702.08.3	In the second sentence of the first paragraph, change "hot-mix" to "asphalt."
954	804.02.13.1.6	In the definition for "M" in the % Reduction formulas, change "paragraph 7.3" to "paragraph 5.3."

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1226 **CODE: (IS)**

DATE: 11/16/2018

SUBJECT: Material Storage Under Bridges

Bidders are advised that Subsection 106.08 of the Standard Specifications allows the Contractor to store materials and equipment on portions of the right-of-way. However, the Contractor will not be allowed to store or stockpile materials under bridges without written permission from the Project Engineer. The Contractor shall submit a detailed request of all proposed materials to be stored under bridges to the Engineer a minimum of 14 calendar days prior to anticipated storage. This detail shall include, but not limited to, bridge location, material type, material quantity, and duration of storage. The Project Engineer and any other needed Division will review this information and determine whether to grant approval. The Contractor shall not store any material under any bridge without written approval from the Project Engineer.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1241 **CODE: (IS)**

DATE: 11/27/2018

SUBJECT: Fuel and Material Adjustments

Bidder's attention is brought to the last paragraph of Subsection 109.07 of the Standard Specifications which states that no fuel or material adjustment will be made after the completion of contract time. Any fuels consumed or materials incorporated into the work during the monthly estimate period falling wholly after the expiration of contract time will not be subject a fuel or material adjustment.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 2206 **CODE: (IS)**

DATE: 01/14/2020

SUBJECT: MASH Compliant Devices

Bidders are hereby advised that compliance associated with the requirements of meeting either the National Cooperative Highway Research Program (NCHRP) Report 350 or the Manual for Assessing Safety Hardware (MASH) for installations of certain traffic control devices and permanent safety hardware devices (guardrails, guardrail terminals, permanent portable barriers, cast-in-place barriers, all other permanent longitudinal barriers, crash cushions, cable barriers, cable barrier terminals, bridge rails, bridge rail transitions, all other terminals, sign supports, and all other breakaway hardware) as listed throughout the Standard Specifications and/or the Standard Drawings, or both, is now replaced with the requirements of meeting the 2016 version of MASH after December 31, 2019. This change applies to new permanent installations and to full replacements of existing installations.

At the preconstruction conference or prior to starting any work on the project, the Contractor shall submit a letter stating that the traffic control devices and permanent safety hardware devices as outlined within the paragraph above that are to be used on the project are certified to meet MASH 2016.

When a MASH 2016-compliant device does not exist for the new permanent installations and/or full replacement installations of permanent safety hardware devices, as listed above, a MASH 2009-compliant or a NCHRP 350-compliant device may be proposed by the Contractor for the project. A written request for such instances must be submitted by the Contractor either at the preconstruction conference or prior to starting any work on the project. The Contractor shall submit the following items to the Project Engineer: (1) a detailed list of the proposed devices and locations thereof; and (2) certification letters indicating that the proposed devices are compliant with either MASH 2009 or NCHRP 350.

When a MASH 2016-compliant device does not exist for the temporary work zone traffic control devices (Category 1, Category 2, and Category 3 devices) , a MASH 2009-compliant or a NCHRP 350-compliant device may be proposed by the Contractor for the project. Temporary work zone traffic control devices (Category 1, Category 2, and Category 3 devices) that are MASH 2009-compliant or NCHRP 350–compliant that have been in use prior to December 31, 2019, and that have a remaining service life may be proposed for use throughout their normal service life on the project by the Contractor. For either of these scenarios for temporary work zone traffic control devices, a written request must be submitted by the Contractor either at the preconstruction conference or prior to starting any work on the project. The Contractor shall submit the following items to the Project Engineer: (1) a detailed list of the proposed devices and locations thereof; and (2) certification letters indicating that the proposed devices are compliant with either MASH 2009 or NCHRP 350.

Work will only be allowed to proceed after the Department has granted written concurrence(s) with the proposed request(s) as listed above.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 2273 **CODE: (SP)**

DATE: 02/12/2020

SUBJECT: Mississippi Special Fuel Tax Law

Bidder's attention is brought to the second paragraph of Subsection 107.02 of the Standard Specifications which states that all Contractors and Subcontractors must comply with all requirements contained in the Mississippi Special Fuel Tax Law, Section 27-55-501, *et seq*. Attached are two Fact Sheets provided by the Mississippi Department of Revenue (MDOR) with additional information.

DEPARTMENT OF REVENUE
STATE OF MISSISSIPPI

Gasoline and Dyed Diesel Used for Non-Highway Purposes

Mississippi provides a reduced rate for gasoline and dyed diesel used for non-highway purposes. The reduced rates are 6.44 cents per gallon and 5.75 cents per gallon of gasoline or dyed diesel. These fuels are generally taxed at 18 cents per gallon if for on road use.

Gasoline Used for Non-Highway Purposes

You may be entitled to a refund of 11.56 cents per gallon (making this an equivalent to a tax rate of 6.44 cents per gallon) if you desire to purchase gasoline to be used off road. The gasoline must be used for agricultural, maritime, industrial, manufacturing, domestic or non-highway purposes only.

Examples of non-highway include gasoline used in boats, golf carts, machinery used for manufacturing or farm equipment used exclusively in plowing, planting or harvesting farm products.

Refund Gasoline User

The refund is based on the amount of gallons used. Before a refund is issued, you are required to…

1. Obtain a refund gasoline user's permit and a certificate for refund booklet from the Department of Revenue;
2. Have a storage tank marked "REFUND GASOLINE"; and,
3. Purchase the gasoline from someone who holds a refund gasoline dealer's permit.

No refund will be allowed for gasoline used in motor vehicles owned or operated by a government entity or used in Mississippi government contracts.

Refund Gasoline Dealer

You must obtain a refund gasoline dealer's permit from the Department of Revenue before selling refund gasoline. At no time should the gasoline be delivered to a tank that is not properly marked. The gasoline must be dyed a distinctive mahogany color at the time of delivery.

The Department of Revenue may waive the dye requirement if the dye may cause damage to the equipment. The refund gasoline user is required to obtain the waiver from the Department of Revenue.

Dyed Diesel Used for Non-Highway Purposes

Unlike gasoline, you are not required to apply for a refund if you desire to purchase dyed diesel to be used off road. Mississippi provides a reduced rate of 5.75 cents per gallon on dyed diesel used off road. Diesel used on road is subjected to 18 cents per gallon. Dyed diesel used in motor vehicles owned or operated by a government entity or used in Mississippi government contracts will be subjected to 18 cents per gallon.

Dyed Diesel Used on the Highway

Any person who purchases, receives, acquires or uses dyed diesel for highway use will be liable to pay 18 cents per gallon and subject to a penalty in the amount of $1000.

Identifying Dyed Diesel

Storage facilities for dyed diesel must be plainly marked "NONHIGHWAY DIESEL FUEL" or "NONHIGHWAY KEROSENE". Retailers are also required to mark all pumps or dispensing equipment.

Petroleum Tax Bureau
P. O. Box 1033
Jackson, MS 39215-1033
Phone: (601) 923-7150

DEPARTMENT OF REVENUE
STATE OF MISSISSIPPI

Special Fuel Used on Government Contracts

State and Local Government Contracts

Special fuel purchased, acquired or used in performing contracts with the State of Mississippi, counties, municipalities or any political subdivision is taxed at a rate of 18 cents per gallon. Special fuel includes but is not limited to the following:

- Dyed diesel fuel;
- Kerosene;
- Undyed diesel fuel; and,
- Fuel oil.

State and local government contracts include construction, reconstruction and maintenance or repairs of projects such as roads, bridges, water systems, sewer systems, buildings, drainage canals and recreational facilities. The Department of Revenue may require contractors to remit the excise tax directly to the state in lieu of paying the tax to a distributor.

Special Fuel Direct Pay Permit

Contractors that remit the excise tax to the state will be issued a Special Fuel Direct Pay Permit. This permit relieves the distributor from collecting the tax and requires the contractor to file a monthly special fuel return. The distributor should include the contractor's permit number on all invoices that are related to tax-free sales.

The contractor is required to furnish a surety or cash bond guaranteeing the payment of the excise tax prior to receiving the Special Fuel Direct Pay Permit. The Department of Revenue may accept a contractors tax bond if the bond covers the excise tax levied on special fuel.

Special Fuel Distributors

If the contractor does not have a Special Fuel Direct Pay Permit, distributors are required to collect the 18 cents excise tax and remit the tax to the Department of Revenue. The additional 12.25 cents levied on special fuel (excluding undyed diesel) should be reported on schedules 5F and 5G of the special fuel return.

Environmental Protection Fee

Special fuel distributors are required to collect the environmental protection fee even if the contractor has a Special Fuel Direct Pay Permit. The fee is levied at 4/10^{ths} of a cent per gallon. The fee is suspended or reinstated when the trust fund has exceeded or fallen below the obligatory balance.

Penalties

Any person who knowingly and willfully purchases untaxed fuel for use in equipment utilized on a road or highway construction site in this state is guilty of a misdemeanor and, upon conviction, shall be fined not less than $1,000 or more than $100,000, or imprisoned in the county jail for not more than one year, or both.

Petroleum Tax Bureau
P. O. Box 1033
Jackson, MS 39215-1033
Phone: (601) 923-7150

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO NOTICE TO BIDDERS NO. 2654

DATE: 05/02/2020

The goal is 0 percent for the Disadvantaged Business Enterprise. The low bidder is required to submit Form OCR-481 for all DBEs. Bidders are advised to check the bid tabulation link for this project on the MDOT website at:

https://mdot.ms.gov/portal/current_letting

Bid tabulations are usually posted by 3:00 pm on Letting Day.

Delete the section entitled “PRE-BID MEETING” on page 5.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 2654 **CODE: (SP)**

DATE: 05/02/2020

SUBJECT: Disadvantaged Business Enterprises In Special Funded Projects

The Department has developed a Disadvantaged Business Enterprise Program that is applicable to this contract and is made a part thereof by reference, except approvals and concurrences by the Federal Highway Administration is not applicable to this contract since it is not financed in whole or in part with Federal Funds.

Copies of the program may be obtained from:

Office of Civil Rights
Mississippi Department of Transportation
P. O. Box 1850
Jackson, Mississippi 39215-1850

POLICY

It is the policy of the Mississippi Department of Transportation to provide a level playing field, to foster equal opportunity in all contracts, to improve the flexibility of the DBE Program, to reduce the burdens on small businesses, and to achieve that amount of participation that would be obtained in a non-discriminatory market place. In doing so, it is the policy of MDOT that there will be no discrimination in the award and performance of these contracts on the basis of race, color, sex, or national origin.

ASSURANCES THAT CONTRACTORS MUST TAKE:

MDOT will require that each contract which MDOT signs with a subrecipient or a Contractor, and each subcontract the Prime Contractor signs with a Subcontractor, includes the following assurances:

> "The Contractor, subrecipient or Subcontractor shall not discriminate on the basis of race, color, sex or national origin in the performance of this contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as MDOT deems appropriate."

DEFINITIONS

For purposes of this provision the following definitions will apply:

"Disadvantaged Business" means a small business concern: (a) which is at least 51 percent owned by one or more socially and economically disadvantaged individual(s) or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more socially

and economically disadvantaged individual(s); and (b) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individual(s) who own it. It is important to note that the business owners themselves must control the operations of the business. Absentee ownership or title ownership by an individual who does not take an active role in controlling the business is not consistent with eligibility as a DBE under 49 CFR Part 26.71.

CONTRACTOR'S OBLIGATION

The Contractor and all Subcontractors shall take all necessary and reasonable steps to ensure that DBE firms compete for and participate in the performance of a portion of the work in this contract and shall not discriminate on the basis of race, color, sex or national origin. Failure on the part of the Contractor to carry out the DBE requirements of this contract constitutes a breach of contract and after proper notification the Department may terminate the contract or take other appropriate action as determined by the Department.

When a contract has a zero percent (0%) DBE goal, the Contractor still has the responsibility to take all necessary and reasonable steps to ensure that DBE firms can compete for and participate in the performance of the work in the contract. In this case, all work performed by a certified DBE firm is considered to be a "race neutral" measure and the Department will receive DBE credit towards the overall State goals when the DBE firm is paid for their work. If the Prime Contractor is a certified DBE firm, the Department can receive DBE credit only for the work performed by the Prime Contractor's work force or any work subcontracted to another DBE firm. Work performance by a non-DBE Subcontractor is not eligible for DBE credit.

CONTRACT GOAL

The goal for participation by DBEs is established for this contract in the attached Supplement. The Contractor shall exercise all necessary and reasonable steps to ensure that participation is equal to or exceeds the contract goal.

If the percentage of the contract that is proposed for DBEs is 1% or greater, shall be so stated on the last bid sheet of the proposal.

All Bidders shall submit to the Office of Civil Rights Form OCR-481, signed by the Prime Contractor and the DBE Subcontractors, no later than the 3rd business day after opening of the bids.

Form OCR-481 is available on the MDOT website at www.mdot.ms.gov under the Civil Rights tab, or by calling 601-359-7466.

The OCR-481 Form must contain the following information:

The name and address of each certified DBE Contractor/Supplier;

The Reference Number, percent of work to be completed by the DBE subcontractor and the dollar amount of each item. If a portion of an item is subcontracted, a breakdown of that item

including quantities and unit price must be attached, detailing what part of the item the DBE firm is to perform and who will perform the remainder of the item.

If the DBE Commitment shown on the last bid sheet of the proposal, does not equal or exceed the contract goal, the bidder must submit, to MDOT Contract Administration Division prior to bid opening, information to satisfy the Department that adequate good faith efforts have been made to meet the contract goal.

Failure of the lowest bidder to furnish acceptable proof of good faith efforts, submitted to MDOT Contract Administration Division prior to bid opening, shall be just cause for rejection of the proposal. Award may then be made to the next lowest responsive bidder or the project may be re-advertised.

GOOD FAITH EFFORTS

The following factors are illustrative of matters the Department will consider in judging whether or not the bidder has made adequate good faith effort to satisfy the contract goal.

(1) Whether the bidder attended the pre-bid meeting that was scheduled by the Department to inform DBEs of subcontracting opportunities;

(2) whether the bidder advertised in general circulation, trade association, and minority-focus media concerning the subcontracting opportunities;

(3) whether the bidder provided written notice to a reasonable number of specific DBEs that their interest in the contract is being solicited;

(4) whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with certainty whether they were interested;

(5) whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goal;

(6) whether the bidder provided interested DBEs with adequate information about the plans, specifications and requirements of the contract;

(7) whether the bidder negotiated in good faith with interested DBEs and did not reject them as unqualified without sound reasons based on a thorough investigation of their capabilities; and

(8) whether the bidder made efforts to assist interested DBEs in obtaining any required bonding or insurance.

(9) whether the bidder has written notification to certified DBE Contractors soliciting subcontracting for items of work in the contract.

(10) whether the bidder has a statement of why an agreement was not reached.

(11) Proof of written notification to certified DBE Contractors by certified mail that their interest is solicited in subcontracting the work defaulted by the previous DBE or in subcontracting other items of work in the contract.

The bidder's execution of the signature portion of the proposal shall constitute execution of the following assurance:

The bidder hereby gives assurance that a good faith effort has been made to meet the contract goal for DBE participation for which this proposal is submitted.

DIRECTORY

A list of "Certified DBE Contractors" which have been certified as such by the Mississippi Department of Transportation and other Unified Certification Partners (UPC) can be found on the Mississippi Department of Transportation website at www.mdot.ms.gov. The DBE firm must be certified at the time the project is let and approved by MDOT to count towards meeting the DBE goal.

REPLACEMENT

If a DBE Subcontractor cannot perform satisfactorily, and this causes the OCR-481 commitment to fall below the contract goal, the Contractor shall take all necessary reasonable steps to replace the DBE with another certified DBE Subcontractor or submit information to satisfy the Mississippi Department of Transportation that adequate good faith efforts have been made to replace the DBE. The good faith efforts outlined previously in this document still apply. The replacement DBE must be a DBE who was on the Department's list of "Certified DBE Contractors" when the job was let, and who is still active All DBE replacements must be approved by the Department.

Under no circumstances shall the Prime or any Subcontractor perform the DBE's work (as shown on the OCR-481) without prior written approval from the Department. See "Sanctions" at the end of this document for penalties for performing DBE's work.

When a Contractor proposes to substitute/replace/terminate a DBE that was originally named on the OCR-481, the Contractor must obtain a release, in writing, from the named DBE explaining why the DBE Subcontractor cannot perform the work. A copy of the original DBE's release must be attached to the Contractor's written request to substitute/replace/terminate along with appropriate subcontract forms for the substitute/replacement/terminated Subcontractor, all of which must be submitted to the DBE Coordinator and approved, in advance, by MDOT.

PREBID MEETING

A pre-bid meeting will be held in the Commission Room on the 1st floor of the MDOT Administration Building in Jackson at 2:00 P.M. on the day preceding the date of the bid opening.

This meeting is to inform DBE firms of subcontracting and material supply opportunities. Attendance at this meeting is considered of prime importance in demonstrating good faith effort to meet the contract goal.

PARTICIPATION / DBE CREDIT

Participation shall be counted toward meeting the goal in this contract as follows:

(1) If the Prime Contractor is a certified DBE firm, only the value of the work actually performed by the DBE Prime can be counted towards the project goal, along with any work subcontracted to a certified DBE firm.

(2) If the Prime Contractor is not a DBE, the work subcontracted to a certified DBE Contractor will be counted toward the goal.

(3) The Contractor may count toward the goal a portion of the total dollar value of a contract with a joint venture eligible under the standards of this provision equal to the percentage of the DBE partner in the joint venture. The joint venture must submit a Joint Venture Eligibility Form provided by the Mississippi Department of Transportation.

(4) Expenditures to DBEs that perform a commercially useful function may be counted toward the goal. A business is considered to perform a commercially useful function when it is responsible for the execution of a distinct element of the work and carries out its responsibilities by actually performing, managing, and supervising the work involved.

(5) The Contractor may count 100% of the expenditures for materials and supplies obtained from certified DBE suppliers and manufacturers that produce goods from raw materials or substantially alters them for resale provided the suppliers and manufacturers assume the actual and contractual responsibility for the provision of the materials and supplies. The Contractor may count 60 percent of the expenditures to suppliers that are not manufacturers, provided the supplier performs a commercially useful function in the supply process. Within 30 days after receipt of the materials, the Prime Contractor shall furnish to the DBE Coordinator invoices from the certified supplier to verify the DBE goal.

(6) Any work that a certified DBE firm subcontracts or sub-subcontracts to a non-DBE firm will not count towards the DBE goal

(7) Only the dollars actually paid to the DBE firm may be counted towards the DBE goal.

AWARD

Award of this contract to the low bidder will be contingent upon the following condition:

(1) All Bidders must submit to the Office of Civil Rights for approval, Form OCR-481 (DBE Commitment) no later than the 3rd business day after opening of the bids, or submit information with the bid proposal to satisfy the Department and that adequate good faith

efforts have been made to meet the contract goal. For answers to questions regarding Form OCR-481, contact the MDOT Office of Civil Rights at (601) 359-7466.

(2) Bidder must include OCR-485 information with their bid proposal listing all firms that submitted quotes for material supplies or items to be subcontracted. OCR-485 information must be signed and included with the bid proposal. If the OCR-485 information is not included as part of bid proposal, your bid will be deemed irregular.

Prior to the start of any work, the bidder must notify the Project Engineer, in writing, of the name of the designated "DBE Liaison Officer" for this project. This notification must be posted on the bulletin board at the project site.

DEFAULT

If the contract goal established by MDOT in this proposal is 1% or greater, it must be met to fulfill the terms of the contract. The Contractor may list DBE Subcontractors and items that exceed MDOT's contract goal, but should unforeseen problems arise that would prevent a DBE from completing its total commitment percentage, the Contractor will meet the terms of the contract as long as it meets or exceeds MDOT's Contract Goal. For additional information, refer to "Replacement" section of this Notice.

DBE REPORTS

(1) OCR-481: Refer to "CONTRACT GOAL" section of this Notice to Bidders for information regarding this form.

(2) OCR-482: At the conclusion of the project the Contractor will submit to the Project Engineer for verification of quantities and further handling Form OCR-482 whereby the Contractor certifies to the amounts of payments made to each Contractor/Supplier. The Project Engineer shall submit the completed Form OCR-482 to the DBE Coordinator (Office of Civil Rights). Final acceptance of the project is dependent upon Contract Administration Division's receipt of completed Form OCR-482 which they will receive from the Office of Civil Rights.

(3) OCR-483: The Project Engineer/Inspector will complete Form OCR-483, the Commercially Useful Function (CUF) Performance Report, in accordance with MDOT S.O.P. No. OCR-03-05-02-483. Evaluations reported on this form are used to determine whether or not the DBE firm is performing a CUF. The Prime Contractor should take corrective action when the report contains any negative evaluations. DBE credit may be disallowed and/or other sanctions imposed if it is determined the DBE firm is not performing a CUF. This form should also be completed and returned to the DBE Coordinator (Office of Civil Rights).

(4) OCR-484: Each month, the Prime Contractor will submit to the Project Engineer OCR-484 that certifies payments to all Subcontractors and shows all firms even if

the Prime Contractor has paid no monies to the firm during that estimate period (negative report). The Project Engineer will attach the form to the monthly estimate before forwarding to the Contract Administration Division for further processing. Failure of the Contractor to submit the OCR-484 will result in the estimate not being processed and paid.

(5) OCR-485: Bidder must submit **signed form with bid proposal** of all firms that submitted quotes for material supplies or items to be subcontracted. If the OCR-485 information is not included as part of bid proposal, your bid will be deemed irregular.

(6) OCR-487: Only used by Prime Contractors that are certified DBE firms. This form is used in determining the exact percentage of DBE credit for the specified project. The low Bidder should return this form to MDOT with the OCR-481 form, or can also be returned with the Permission to Subcontract Forms (CAD-720, CAD-725 and CAD-521).

DBE Forms, can be obtained from the Office of Civil Rights Division, MDOT Administration Building, 401 North West Street, Jackson, MS, or at www.mdot.ms.gov under the Civil Rights tab.

SANCTIONS

The Department has the option to enforce any of the following penalties for failure of the Prime Contractor to fulfill the DBE goal as stated on the OCR-481 form or any violations of the DBE program guidelines:

(1) Disallow credit towards the DBE goal

(2) Withhold progress estimate payments

(3) Deduct from the final estimate or recover an amount equal to the unmet portion of the DBE goal which may include additional monetary penalties as outlined below based on the number of offenses and the severity of the violation as determined by MDOT.

Offense #1	10% of unmet portion of goal	or	$5,000 lump sum payment	or	Both
Offense #2	20% of unmet portion of goal	or	$10,000 lump sum payment	or	Both
Offense #3	40% of unmet portion of goal	or	$20,000 lump sum payment	or	$20,000 lump sum payment and debarment

(4) Debar the Contractor involved from bidding on Mississippi Department of Transportation projects for a period of up to 12 months after notification by certified email.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 2895 **CODE: (SP)**

DATE: 10/14/2020

SUBJECT: Exploratory Joint Cleanout

Bidders are hereby advised that work on this project shall consist of exploratory investigation of bridge joints to determine the appropriate level of repair and will include removal of any trash and debris (including, but not limited to, compacted dirt, vegetation and trash) located at any depth within the joint. Costs of this work will be absorbed in the cost of other items of work if further joint repair work is not required.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 2954 **CODE: (IS)**

DATE: **12/01/2020**

SUBJECT: **Reflective Sheeting for Signs**

Bidders are hereby advised that the retroreflective sign sheeting used for signs on this project shall be as listed below and shall meet the requirements of Subsection 721.06.

Temporary Construction Signs

Temporary traffic control (orange) sign sheeting shall be a minimum Type IX Fluorescent Orange sheeting as shown in Special Provision 907-721.

Permanent Signs

Permanent signs, except signs on traffic signal poles/mast arms, shall be as follows:

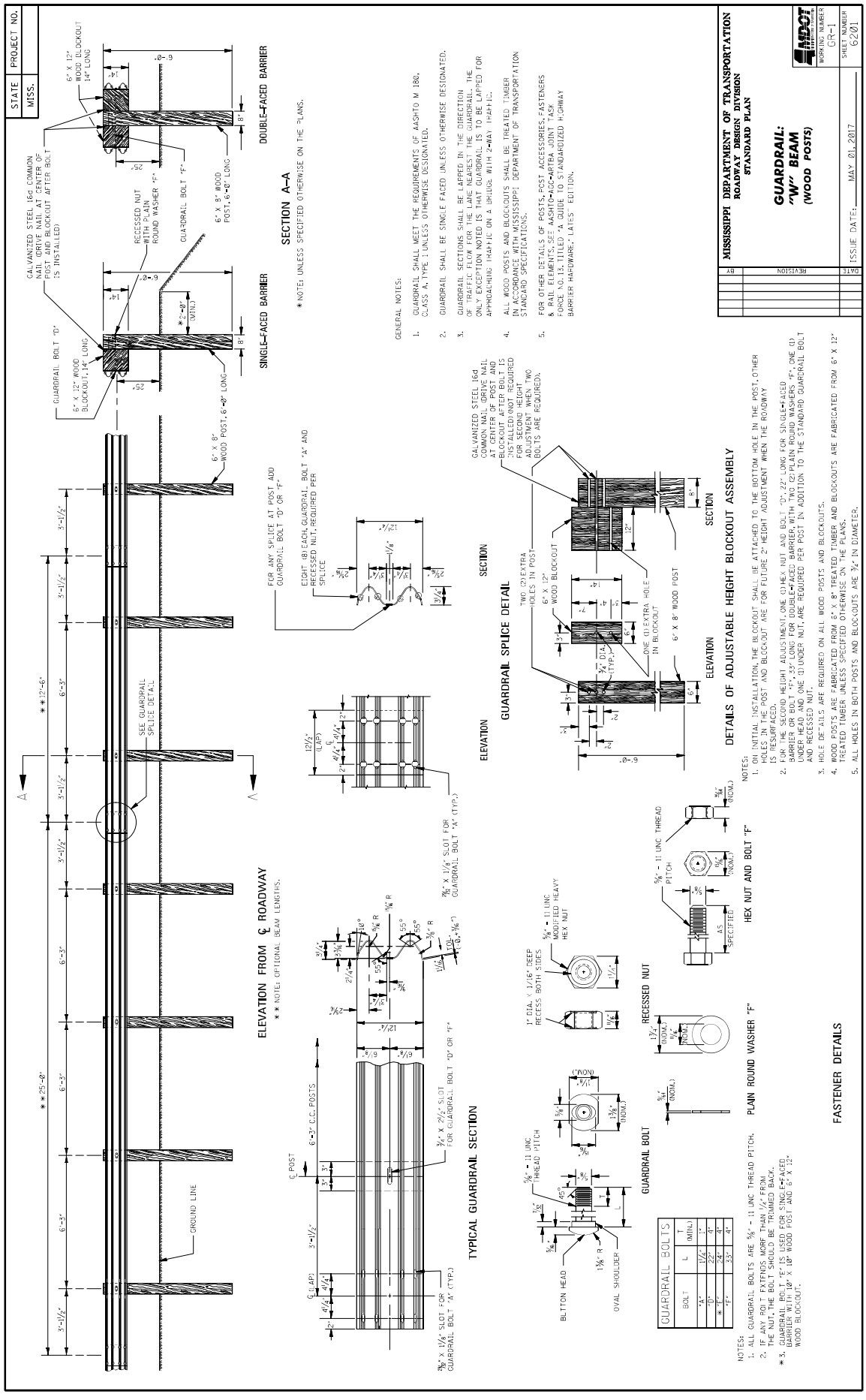
- Brown background sheeting on guide signs shall be a minimum Type VIII sheeting,
- Green and blue background sheeting on guide signs shall be a minimum Type IX sheeting, and
- All white, yellow, red, fluorescent yellow, and fluorescent yellow/green sheeting shall be Type XI sheeting.

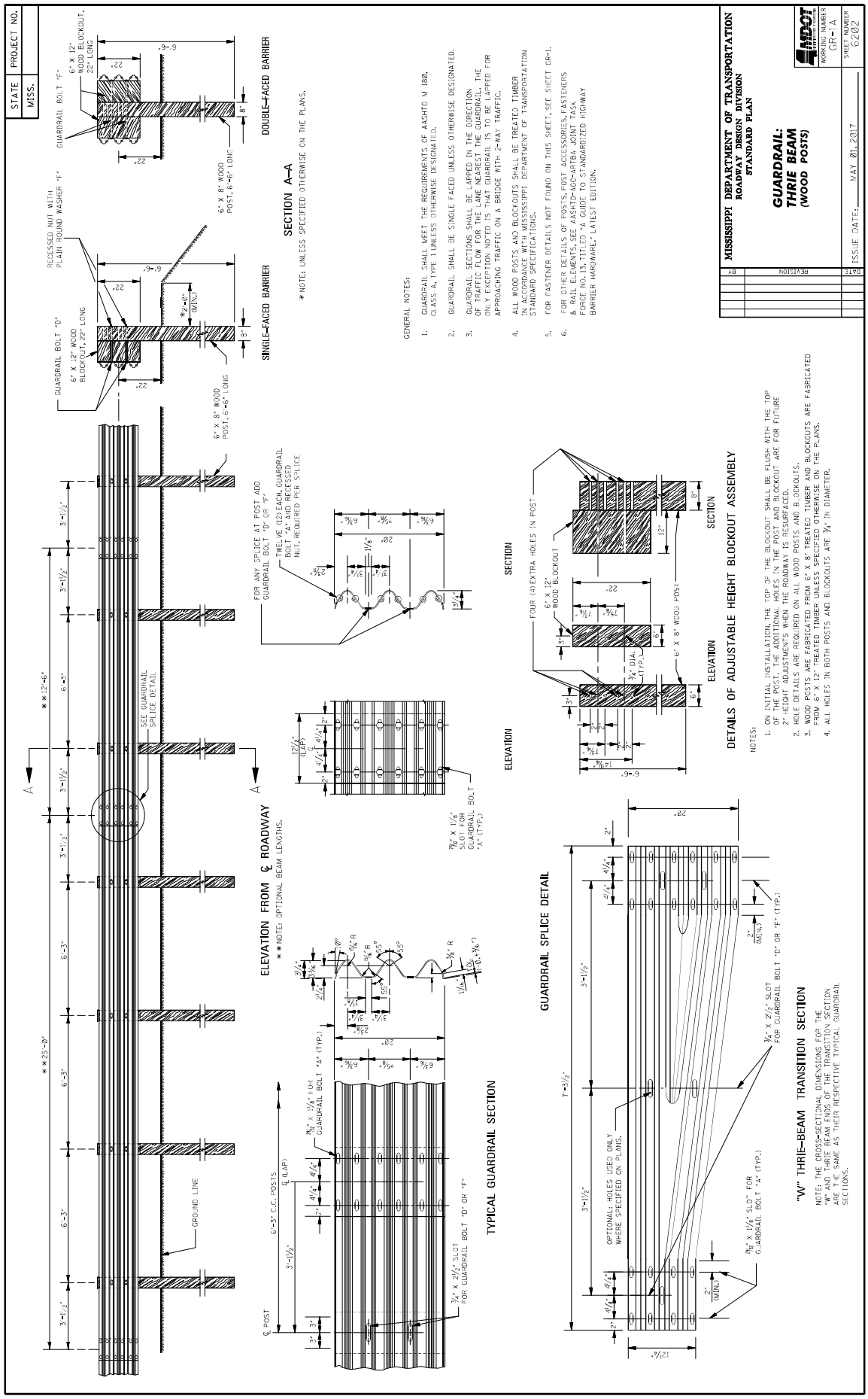
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

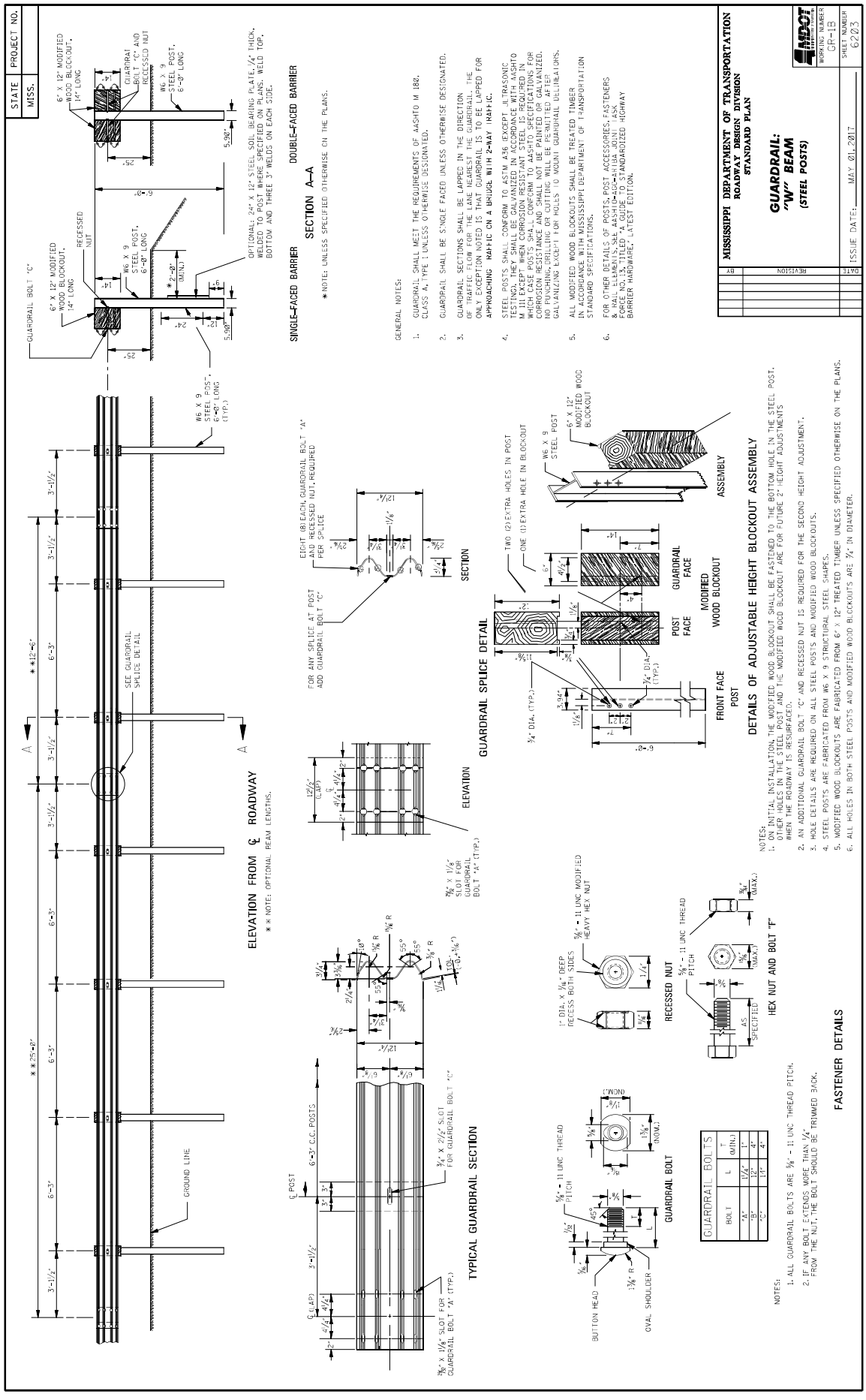
SUPPLEMENT TO NOTICE TO BIDDERS NO. 3599

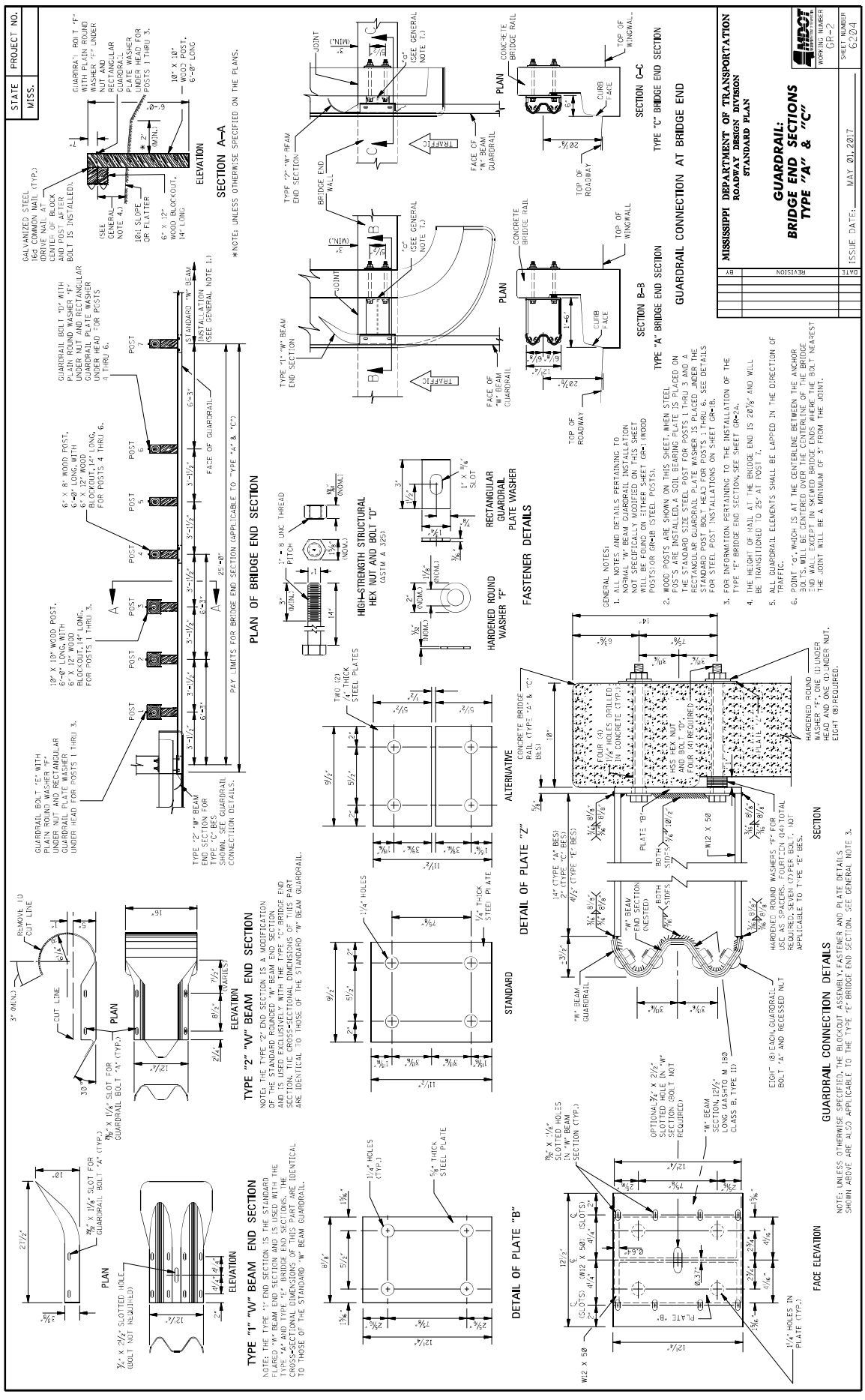
DATE: 08/11/2021

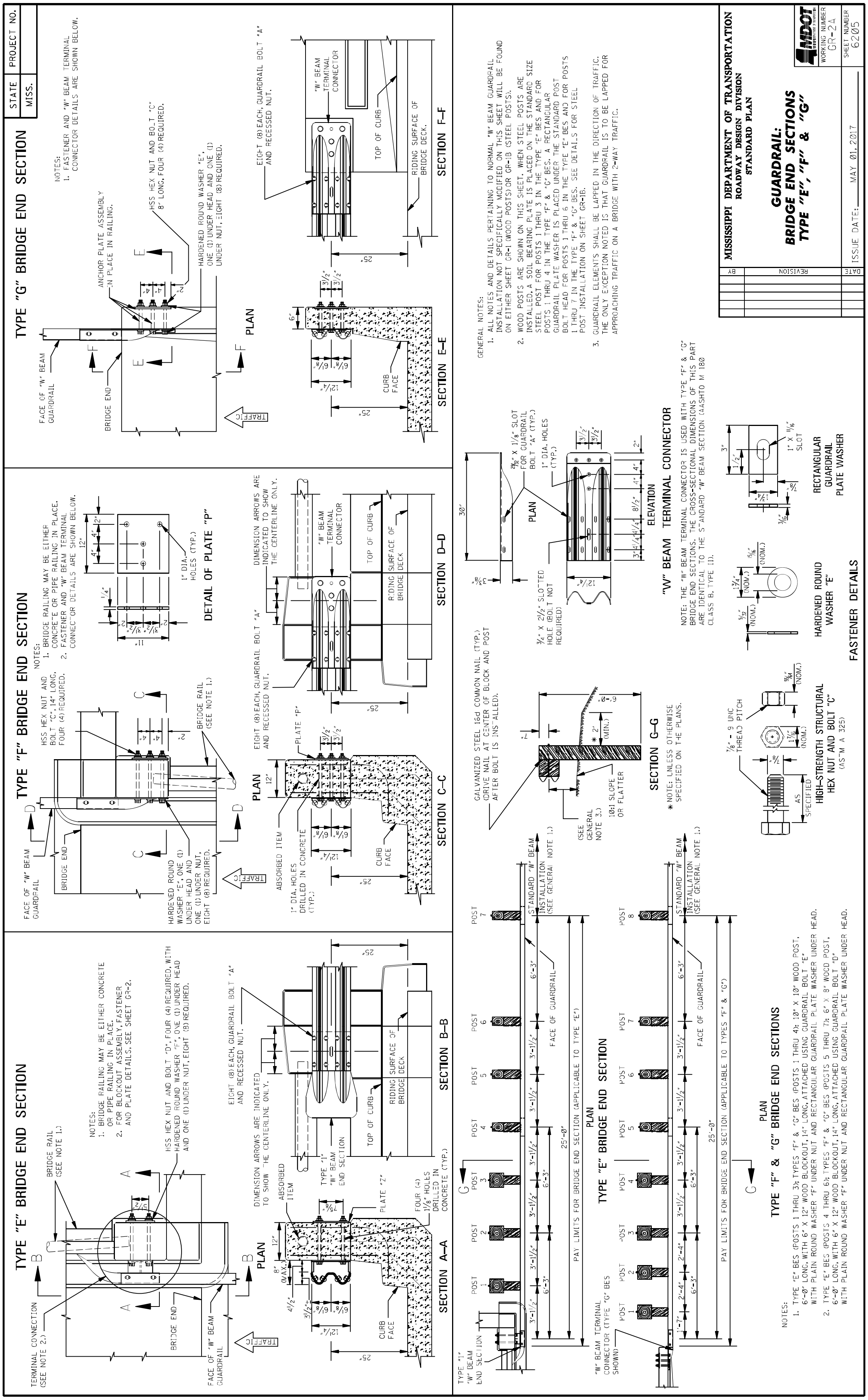
After the last drawing on page 33, add the following.

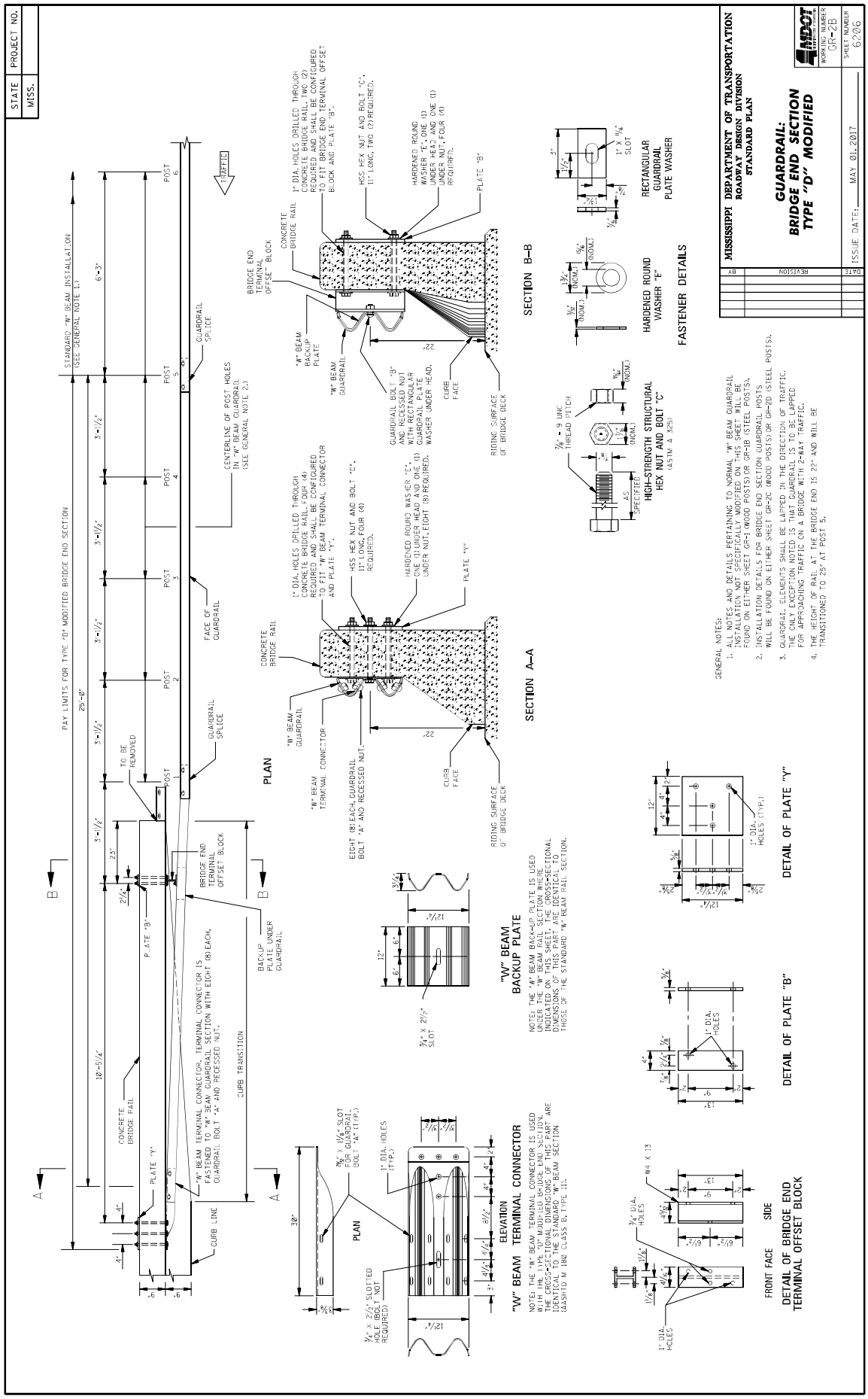

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL: "W" BEAM (WOOD POSTS)
WORKING NUMBER GR-1
SHEET NUMBER 6201
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
DOUBLE-FACED BARRIER
SINGLE-FACED BARRIER
SECTION A-A
*NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.
GENERAL NOTES:
1. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE I UNLESS OTHERWISE DESIGNATED.
2. GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
3. GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL, THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL IS TO BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
4. ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
5. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
ELEVATION FROM ℄ ROADWAY
** NOTE: OPTIONAL BEAM LENGTHS.
TYPICAL GUARDRAIL SECTION
GUARDRAIL SPLICE DETAIL
ELEVATION
SECTION
DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY
NOTES:
1. ON INITIAL INSTALLATION, THE BLOCKOUT SHALL BE ATTACHED TO THE BOTTOM HOLE IN THE POST. OTHER HOLES IN THE POST AND BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENT WHEN THE ROADWAY IS RESURFACED.
2. FOR THE SECOND HEIGHT ADJUSTMENT, ONE (1) HEX NUT AND BOLT "D", 22" LONG FOR SINGLE-FACED BARRIER OR BOLT "F", 33" LONG FOR DOUBLE-FACED BARRIER, WITH TWO (2) PLAIN ROUND WASHERS "F", ONE (1) UNDER HEAD AND ONE (1) UNDER NUT, ARE REQUIRED PER POST IN ADDITION TO THE STANDARD GUARDRAIL BOLT AND RECESSED NUT.
3. HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
4. WOOD POSTS ARE FABRICATED FROM 6" X 8" TREATED TIMBER AND BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
5. ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 9/16" IN DIAMETER.
FASTENER DETAILS
GUARDRAIL BOLTS
BOLT L T (MIN.)
"A" 14" 2"
"D" 22" 6"
* "E" 24" 4"
"F" 33" 4"
NOTES:
1. ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
2. IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.
* 3. GUARDRAIL BOLT "E" IS USED FOR SINGLE-FACED BARRIER WITH 10" X 10" WOOD POST AND 6" X 12" WOOD BLOCKOUT.

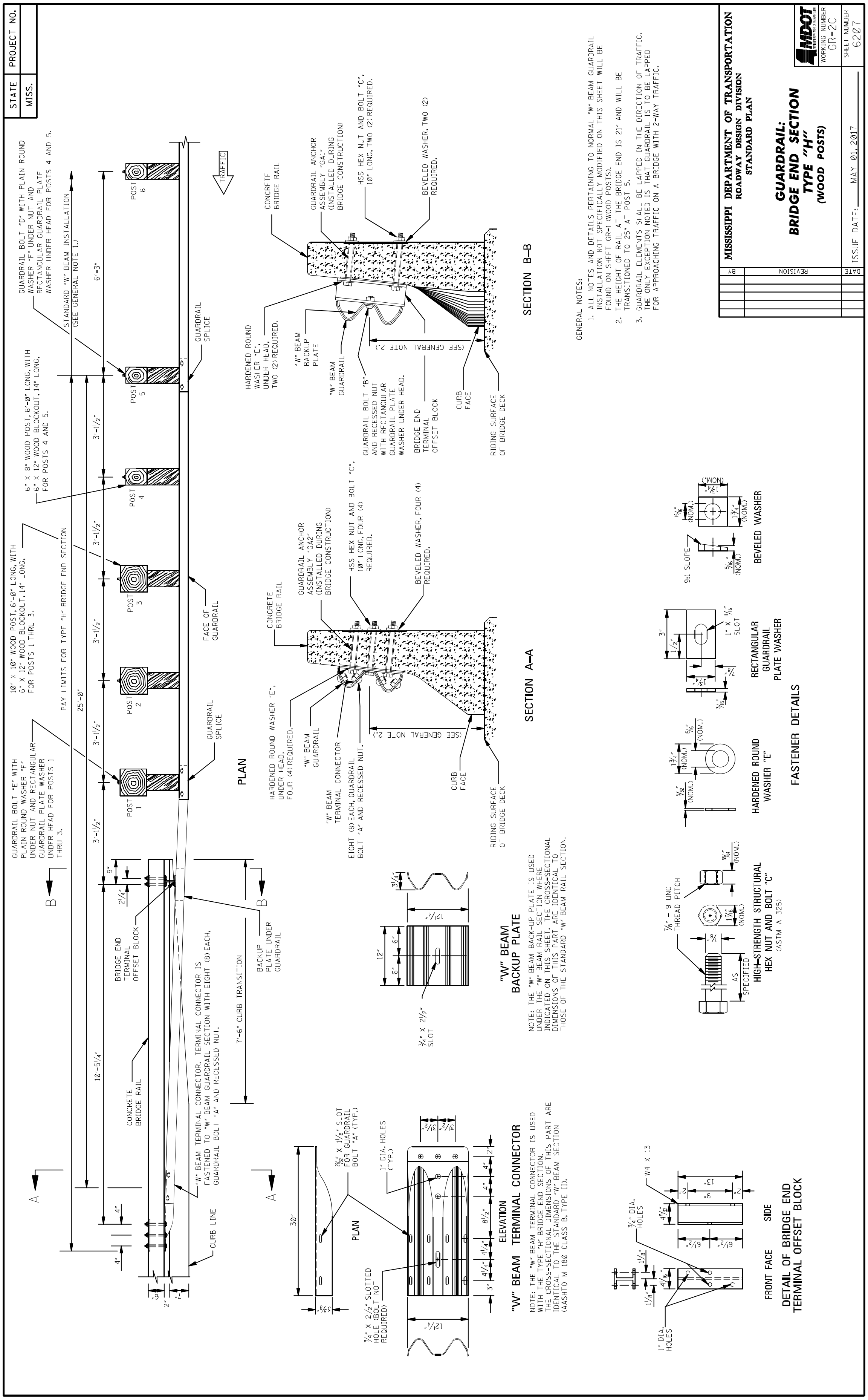

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL: THRIE BEAM (WOOD POSTS)
WORKING NUMBER GR-1A
SHEET NUMBER 6202
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
GENERAL NOTES:
1. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE I UNLESS OTHERWISE DESIGNATED.
2. GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
3. GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL IS TO BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
4. ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
5. FOR FASTENER DETAILS NOT FOUND ON THIS SHEET, SEE SHEET GR-1.
6. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
SECTION A–A
* NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.
SINGLE-FACED BARRIER
DOUBLE-FACED BARRIER
GUARDRAIL BOLT "D"
6" X 12" WOOD BLOCKOUT, 22" LONG
RECESSED NUT WITH PLAIN ROUND WASHER "F"
6" X 8" WOOD POST, 6'-6" LONG
GUARDRAIL BOLT "F"
6" X 12" WOOD BLOCKOUT, 22" LONG
ELEVATION FROM ℄ ROADWAY
** NOTE: OPTIONAL BEAM LENGTHS.
SEE GUARDRAIL SPLICE DETAIL
GROUND LINE
TYPICAL GUARDRAIL SECTION
℄ POST
6'-3" C.C. POSTS
(LAP)
OPTIONAL HOLES USED ONLY WHERE SPECIFIED ON PLANS.
3/4" X 2 1/2" SLOT FOR GUARDRAIL BOLT "D" OR "F"
FOR ANY SPLICE AT POST ADD GUARDRAIL BOLT "D" OR "F"
TWELVE (12) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT REQUIRED PER SPLICE
3/4" X 1 1/2" SLOT FOR GUARDRAIL BOLT "A" (TYP.)
ELEVATION
SECTION
FOUR (4) EXTRA HOLES IN POST
6" X 12" WOOD BLOCKOUT
6" X 8" WOOD POST
DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY
NOTES:
1. ON INITIAL INSTALLATION, THE TOP OF THE BLOCKOUT SHALL BE FLUSH WITH THE TOP OF THE POST. THE ADDITIONAL HOLES IN THE POST AND BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENTS WHEN THE ROADWAY IS RESURFACED.
2. HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
3. WOOD POSTS ARE FABRICATED FROM 6" X 8" TREATED TIMBER AND BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
4. ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.
GUARDRAIL SPLICE DETAIL
OPTIONAL HOLES USED ONLY WHERE SPECIFIED ON PLANS.
3/4" X 2 1/2" SLOT FOR GUARDRAIL BOLT "D" OR "F" (TYP.)
3/4" X 1 1/8" SLOT FOR GUARDRAIL BOLT "A" (TYP.)
"W" THRIE-BEAM TRANSITION SECTION
NOTE: THE CROSS-SECTIONAL DIMENSIONS FOR THE "W" AND THRIE BEAM ENDS OF THE TRANSITION SECTION ARE THE SAME AS THEIR RESPECTIVE TYPICAL GUARDRAIL SECTIONS.

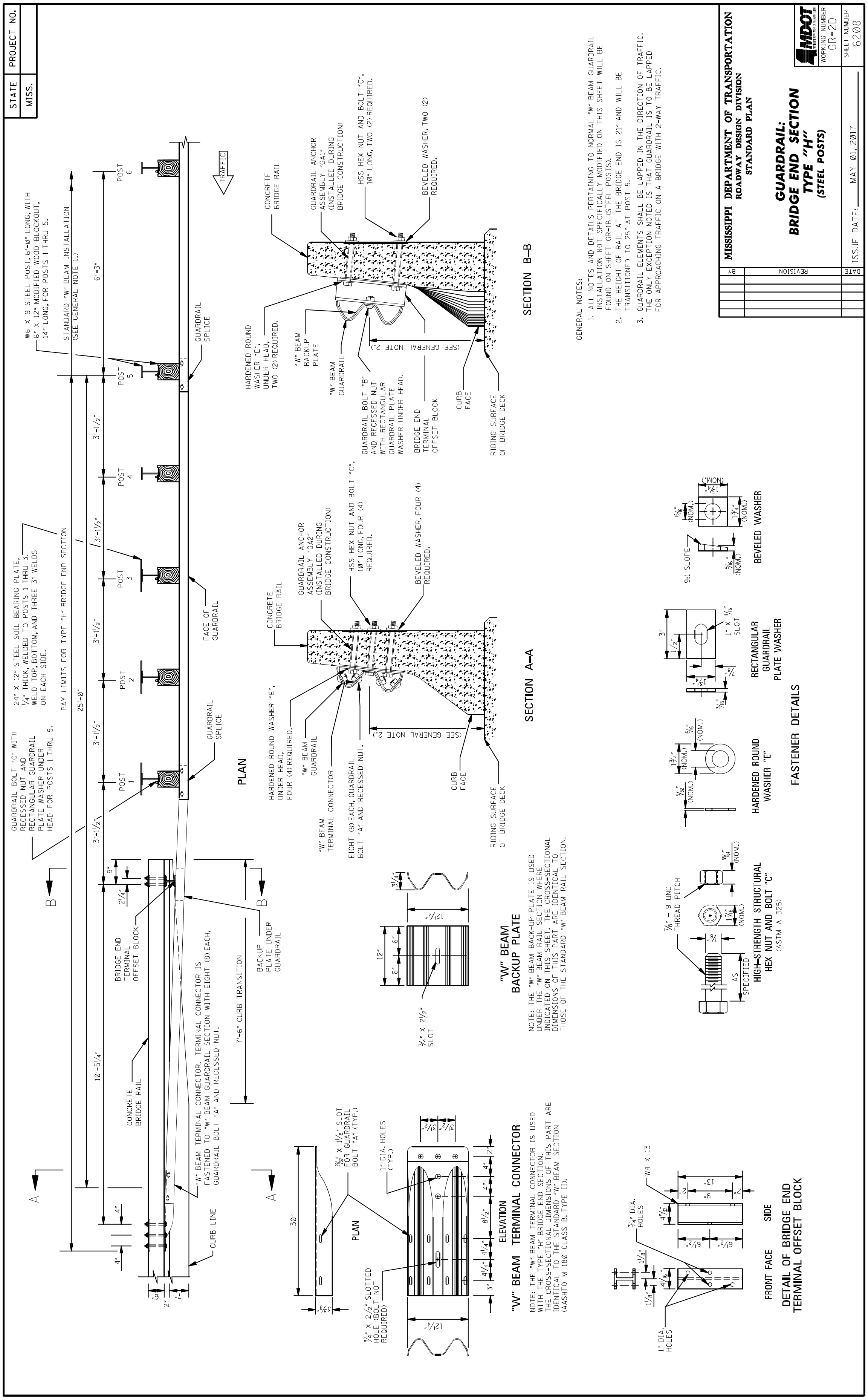

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL: "W" BEAM (STEEL POSTS)
WORKING NUMBER GR-1B
SHEET NUMBER 6203
BY REVISION DATE
ISSUE DATE: MAY 01, 2017
SINGLE-FACED BARRIER
DOUBLE-FACED BARRIER
SECTION A-A
*NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.
GENERAL NOTES:
1. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE I UNLESS OTHERWISE DESIGNATED.
2. GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
3. GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL IS TO BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
4. STEEL POSTS SHALL CONFORM TO ASTM A36 (EXCEPT ULTRASONIC TESTING) AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111 EXCEPT WHEN CORROSION RESISTANT STEEL IS REQUIRED IN WHICH CASE POSTS SHALL CONFORM TO AASHTO SPECIFICATIONS FOR CORROSION RESISTANCE AND SHALL NOT BE PAINTED OR GALVANIZED. NO PUNCHING, DRILLING OR CUTTING WILL BE PERMITTED AFTER GALVANIZING EXCEPT FOR HOLES TO MOUNT GUARDRAIL DELINEATORS.
5. ALL MODIFIED WOOD BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
6. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
ELEVATION FROM ℄ ROADWAY
** NOTE: OPTIONAL BEAM LENGTHS.
SEE GUARDRAIL SPLICE DETAIL
GROUND LINE
TYPICAL GUARDRAIL SECTION
GUARDRAIL SPLICE DETAIL
ELEVATION
SECTION
FOR ANY SPLICE AT POST ADD GUARDRAIL BOLT "C"
EIGHT (8) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT, REQUIRED PER SPLICE
TWO (2) EXTRA HOLES IN POST
ONE (1) EXTRA HOLE IN BLOCKOUT
W6 X 9 STEEL POST
6" X 12" MODIFIED WOOD BLOCKOUT
POST FACE
GUARDRAIL FACE
MODIFIED WOOD BLOCKOUT ASSEMBLY
FRONT FACE POST
DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY
NOTES:
1. ON INITIAL INSTALLATION, THE MODIFIED WOOD BLOCKOUT SHALL BE FASTENED TO THE BOTTOM HOLE IN THE STEEL POST. OTHER HOLES IN THE STEEL POST AND THE MODIFIED WOOD BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENTS WHEN THE ROADWAY IS RESURFACED.
2. AN ADDITIONAL GUARDRAIL BOLT "C" AND RECESSED NUT IS REQUIRED FOR THE SECOND HEIGHT ADJUSTMENT.
3. HOLE DETAILS ARE REQUIRED ON ALL STEEL POSTS AND MODIFIED WOOD BLOCKOUTS.
4. STEEL POSTS ARE FABRICATED FROM W6 X 9 STRUCTURAL STEEL SHAPES.
5. MODIFIED WOOD BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
6. ALL HOLES IN BOTH STEEL POSTS AND MODIFIED WOOD BLOCKOUTS ARE 3/4" IN DIAMETER.
FASTENER DETAILS
GUARDRAIL BOLTS
BOLT | L | T (MIN.)
"A" | 1'-3" | 1"
"B" | 1'-12" | 4"
"C" | 1'-14" | 4"
GUARDRAIL BOLT
RECESSED NUT
HEX NUT AND BOLT "F"
BUTTON HEAD
OVAL SHOULDER

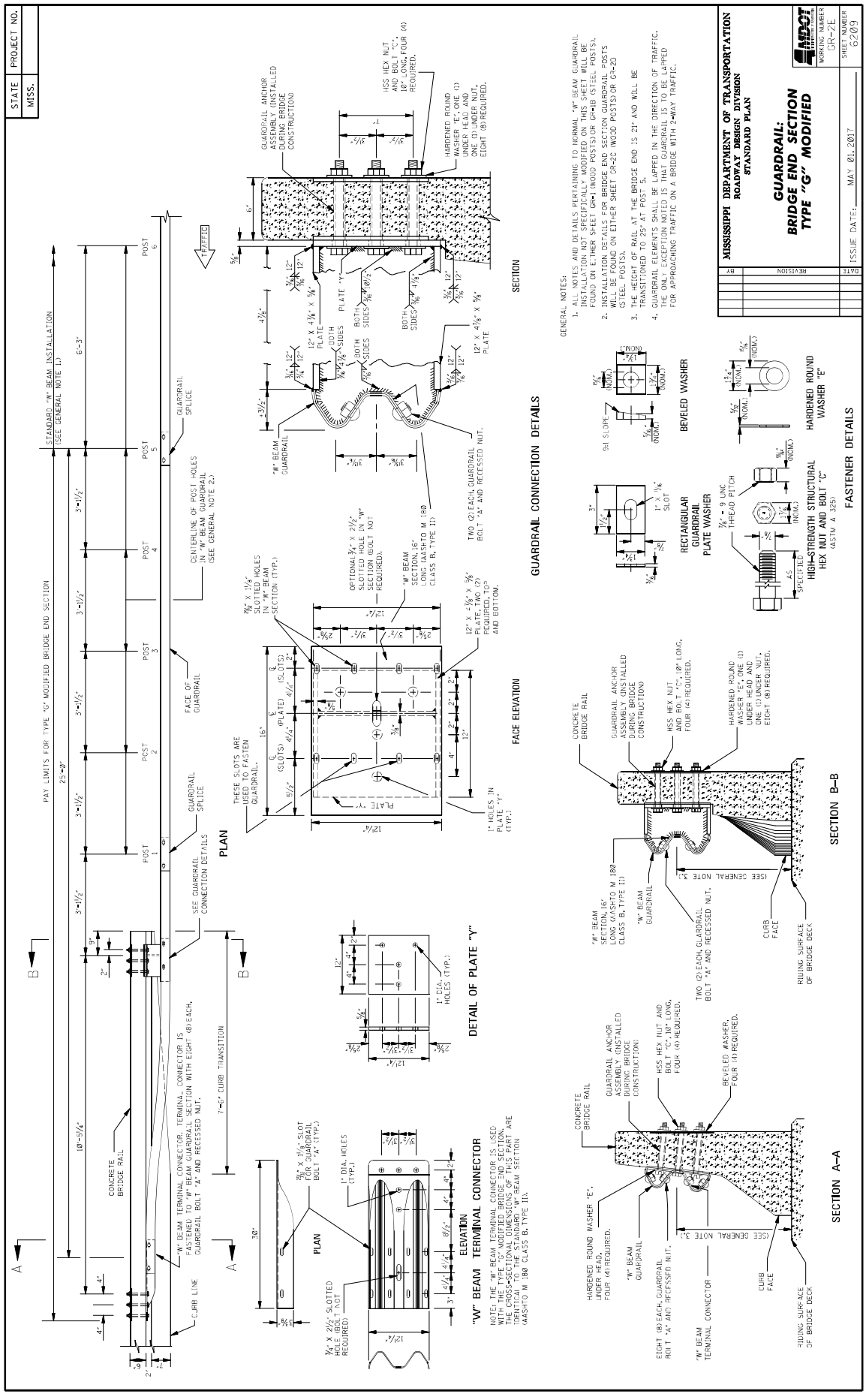

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTIONS
TYPE "A" & "C"
WORKING NUMBER GR-2
SHEET NUMBER 6204
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
PLAN OF BRIDGE END SECTION
SECTION A–A
*NOTE: UNLESS OTHERWISE SPECIFIED ON THE PLANS.
TYPE "2" "W" BEAM END SECTION
TYPE "1" "W" BEAM END SECTION
DETAIL OF PLATE "B"
DETAIL OF PLATE "Z"
FASTENER DETAILS
GUARDRAIL CONNECTION DETAILS
SECTION B–B
SECTION C–C
TYPE "A" BRIDGE END SECTION
TYPE "C" BRIDGE END SECTION
GUARDRAIL CONNECTION AT BRIDGE END
GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON EITHER SHEET GR-1 (WOOD POSTS)OR GR-1B (STEEL POSTS).
2. WOOD POSTS ARE SHOWN ON THIS SHEET. WHEN STEEL POSTS ARE INSTALLED, A SOIL BEARING PLATE IS PLACED ON THE STANDARD SIZE STEEL POST FOR POSTS 1 THRU 3 AND A RECTANGULAR GUARDRAIL PLATE WASHER IS PLACED UNDER THE STANDARD POST HEAD FOR POSTS 1 THRU 6. SEE DETAILS FOR STEEL POST INSTALLATIONS ON SHEET GR-1B.
3. FOR INFORMATION PERTAINING TO THE INSTALLATION OF THE TYPE "E" BRIDGE END SECTION, SEE SHEET GR-2A.
4. THE HEIGHT OF RAIL AT THE BRIDGE END IS 20⅞" AND WILL BE TRANSITIONED TO 25" AT POST 7.
5. ALL GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC.
6. POINT "G", WHICH IS AT THE CENTERLINE BETWEEN THE ANCHOR BOLTS, WILL BE CENTERED OVER THE CENTERLINE OF THE BRIDGE END WALL EXCEPT IN SKEWED BRIDGE ENDS WHERE THE BOLT NEAREST THE JOINT WILL BE A MINIMUM OF 3" FROM THE JOINT.

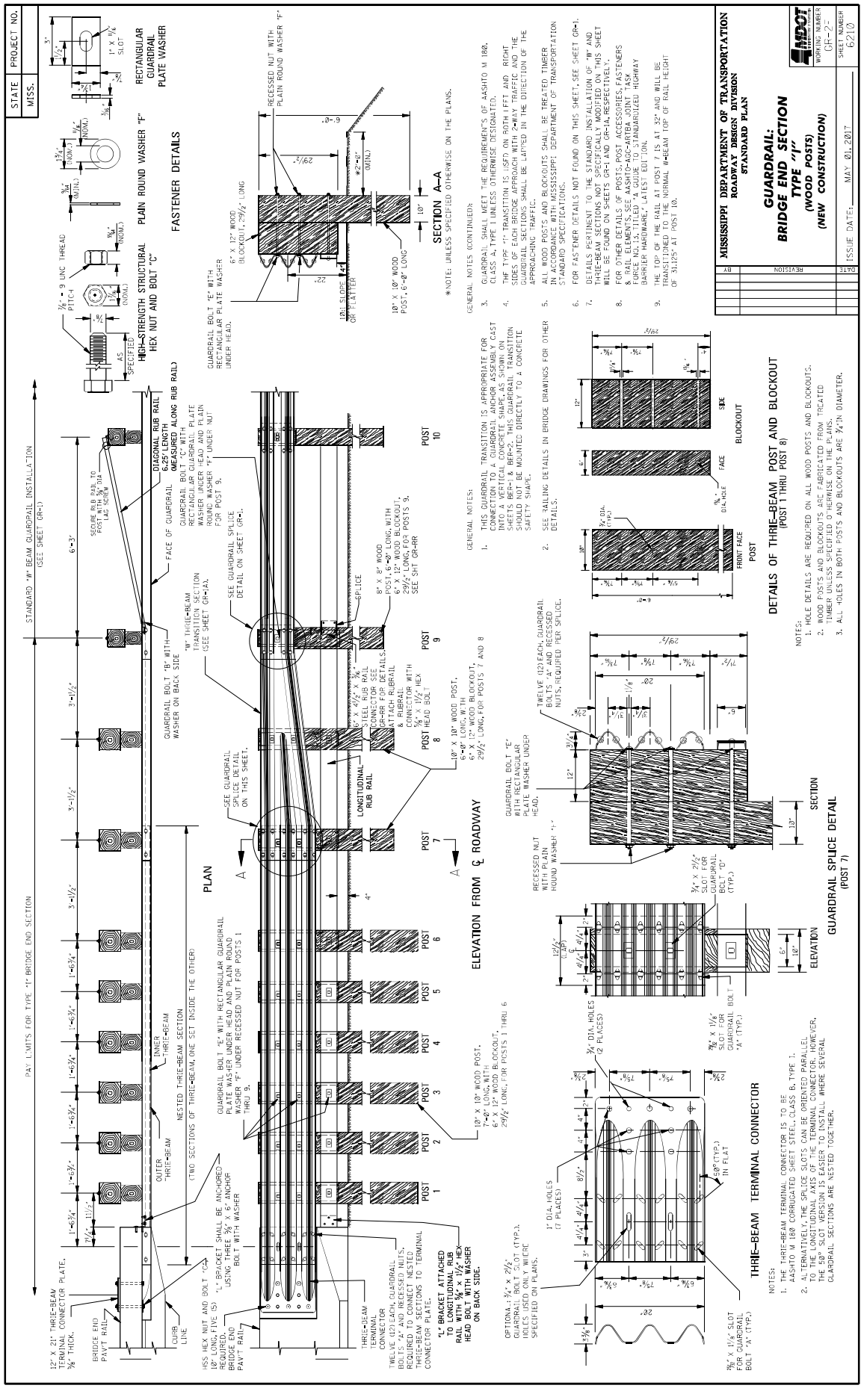

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTIONS
TYPE "E", "F" & "G"
ISSUE DATE: MAY 01, 2017
WORKING NUMBER GR-24
SHEET NUMBER 6205
STATE MISS.
PROJECT NO.
TYPE "E" BRIDGE END SECTION
TYPE "F" BRIDGE END SECTION
TYPE "G" BRIDGE END SECTION
PLAN
SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D
SECTION E-E
SECTION F-F
SECTION G-G
DETAIL OF PLATE "P"
TYPE "E" BRIDGE END SECTION
TYPE "F" & "G" BRIDGE END SECTIONS
"W" BEAM TERMINAL CONNECTOR
ELEVATION
FASTENER DETAILS
HARDENED ROUND WASHER "E"
RECTANGULAR GUARDRAIL PLATE WASHER
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C" (ASTM A 325)
GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON EITHER SHEET GR-1 (WOOD POSTS) OR GR-1B (STEEL POSTS).
2. WOOD POSTS ARE SHOWN ON THIS SHEET. WHEN STEEL POSTS ARE INSTALLED, A SOIL BEARING PLATE IS PLACED ON THE STANDARD SIZE STEEL POST FOR POSTS 1 THRU 3 IN THE TYPE "E" BES AND FOR POSTS 1 THRU 4 IN THE TYPE "F" & "G" BES. A RECTANGULAR GUARDRAIL PLATE WASHER IS PLACED UNDER THE STANDARD POST BOLT HEAD FOR POSTS 1 THRU 6 IN THE TYPE "E" BES AND FOR POSTS 1 THRU 7 IN THE TYPE "F" & "G" BES. SEE DETAILS FOR STEEL POST INSTALLATION ON SHEET GR-1B.
3. GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL IS TO BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
NOTES:
1. TYPE "E" BES (POSTS 1 THRU 3): TYPES "F" & "G" BES (POSTS 1 THRU 4): 10" X 10" WOOD POST, 6'-0" LONG, WITH 6" X 12" WOOD BLOCKOUT, 14" LONG, ATTACHED USING GUARDRAIL BOLT "E" WITH PLAIN ROUND WASHER "F" UNDER NUT AND RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD.
2. TYPE "E" BES (POSTS 4 THRU 6): TYPES "F" & "G" BES (POSTS 5 THRU 7): 6" X 8" WOOD POST, 6'-0" LONG, WITH 6" X 12" WOOD BLOCKOUT, 14" LONG, ATTACHED USING GUARDRAIL BOLT "D" WITH PLAIN ROUND WASHER "F" UNDER NUT AND RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD.

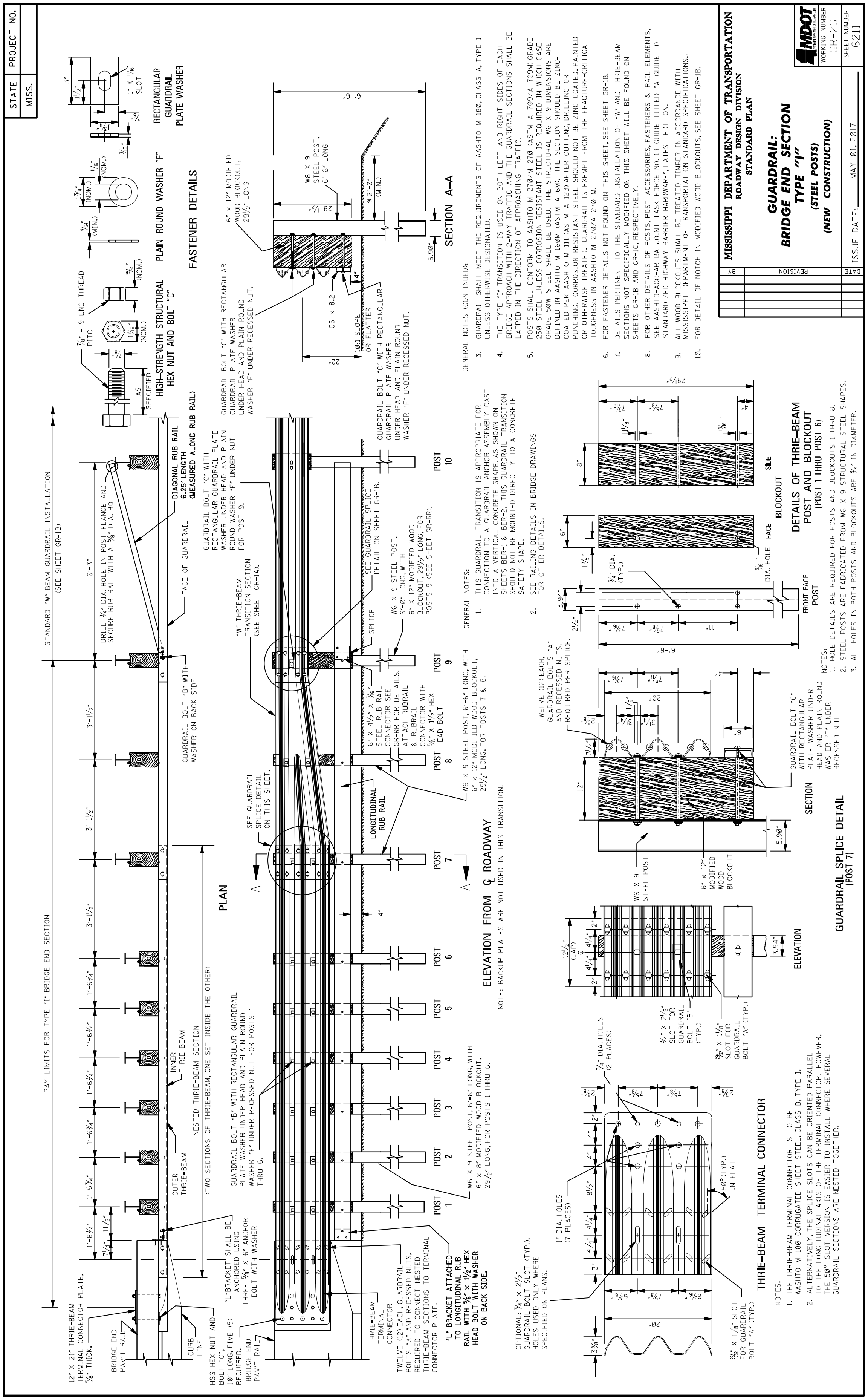

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "D" MODIFIED
WORKING NUMBER GR-2B
SHEET NUMBER 6206
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
PAY LIMITS FOR TYPE "D" MODIFIED BRIDGE END SECTION
STANDARD "W" BEAM INSTALLATION (SEE GENERAL NOTE 1.)
CENTERLINE OF POST HOLES IN "W" BEAM GUARDRAIL (SEE GENERAL NOTE 2.)
FACE OF GUARDRAIL
GUARDRAIL SPLICE
TRAFFIC
TO BE REMOVED
BRIDGE END TERMINAL OFFSET BLOCK
BACKUP PLATE UNDER GUARDRAIL
CURB TRANSITION
CONCRETE BRIDGE RAIL
PLATE "Y"
CURB LINE
"W" BEAM TERMINAL CONNECTOR, TERMINAL CONNECTOR IS FASTENED TO "W" BEAM GUARDRAIL SECTION WITH EIGHT (8) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
PLAN
SECTION A–A
SECTION B–B
"W" BEAM GUARDRAIL
"W" BEAM TERMINAL CONNECTOR
EIGHT (8) EACH GUARDRAIL BOLT "A" AND RECESSED NUT.
1" DIA. HOLES DRILLED THROUGH CONCRETE BRIDGE RAIL FOUR (4) REQUIRED AND SHALL BE CONFIGURED TO FIT "W" BEAM TERMINAL CONNECTOR AND PLATE "Y".
HSS HEX NUT AND BOLT "C", 11" LONG, FOUR (4) REQUIRED.
HARDENED ROUND WASHER "E", ONE (1) UNDER HEAD AND ONE (1) UNDER NUT, EIGHT (8) REQUIRED.
PLATE "Y"
CURB FACE
RIDING SURFACE OF BRIDGE DECK
BRIDGE END TERMINAL OFFSET BLOCK
CONCRETE BRIDGE RAIL
"W" BEAM BACKUP PLATE
"W" BEAM GUARDRAIL
1" DIA. HOLES DRILLED THROUGH CONCRETE BRIDGE RAIL TWO (2) REQUIRED AND SHALL BE CONFIGURED TO FIT BRIDGE END TERMINAL OFFSET BLOCK AND PLATE "B".
HSS HEX NUT AND BOLT "C", 11" LONG, TWO (2) REQUIRED.
HARDENED ROUND WASHER "E", ONE (1) UNDER HEAD AND ONE (1) UNDER NUT, FOUR (4) REQUIRED.
PLATE "B"
GUARDRAIL BOLT "B" AND RECESSED NUT WITH RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD.
"W" BEAM BACKUP PLATE
NOTE: THE "W" BEAM BACK-UP PLATE IS USED UNDER THE "W" BEAM RAIL SECTION WHERE INDICATED ON THE SHEET. THE DIMENSIONS OF THIS PART ARE IDENTICAL TO THOSE OF THE STANDARD "W" BEAM RAIL SECTION.
"W" BEAM BACKUP PLATE
ELEVATION
PLAN
FRONT FACE
SIDE
DETAIL OF BRIDGE END TERMINAL OFFSET BLOCK
DETAIL OF PLATE "B"
DETAIL OF PLATE "Y"
FASTENER DETAILS
HARDENED ROUND WASHER "E"
RECTANGULAR GUARDRAIL PLATE WASHER
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C" (ASTM A 325)
GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION AS SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON EITHER SHEET GR-1 (WOOD POSTS) OR GR-1B (STEEL POSTS).
2. INSTALLATION DETAILS FOR BRIDGE END SECTION GUARDRAIL POSTS WILL BE FOUND ON EITHER SHEET GR-2C (WOOD POSTS) OR GR-2D (STEEL POSTS).
3. GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL IS TO BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
4. THE HEIGHT OF RAIL AT THE BRIDGE END IS 22" AND WILL BE TRANSITIONED TO 25" AT POST 5.

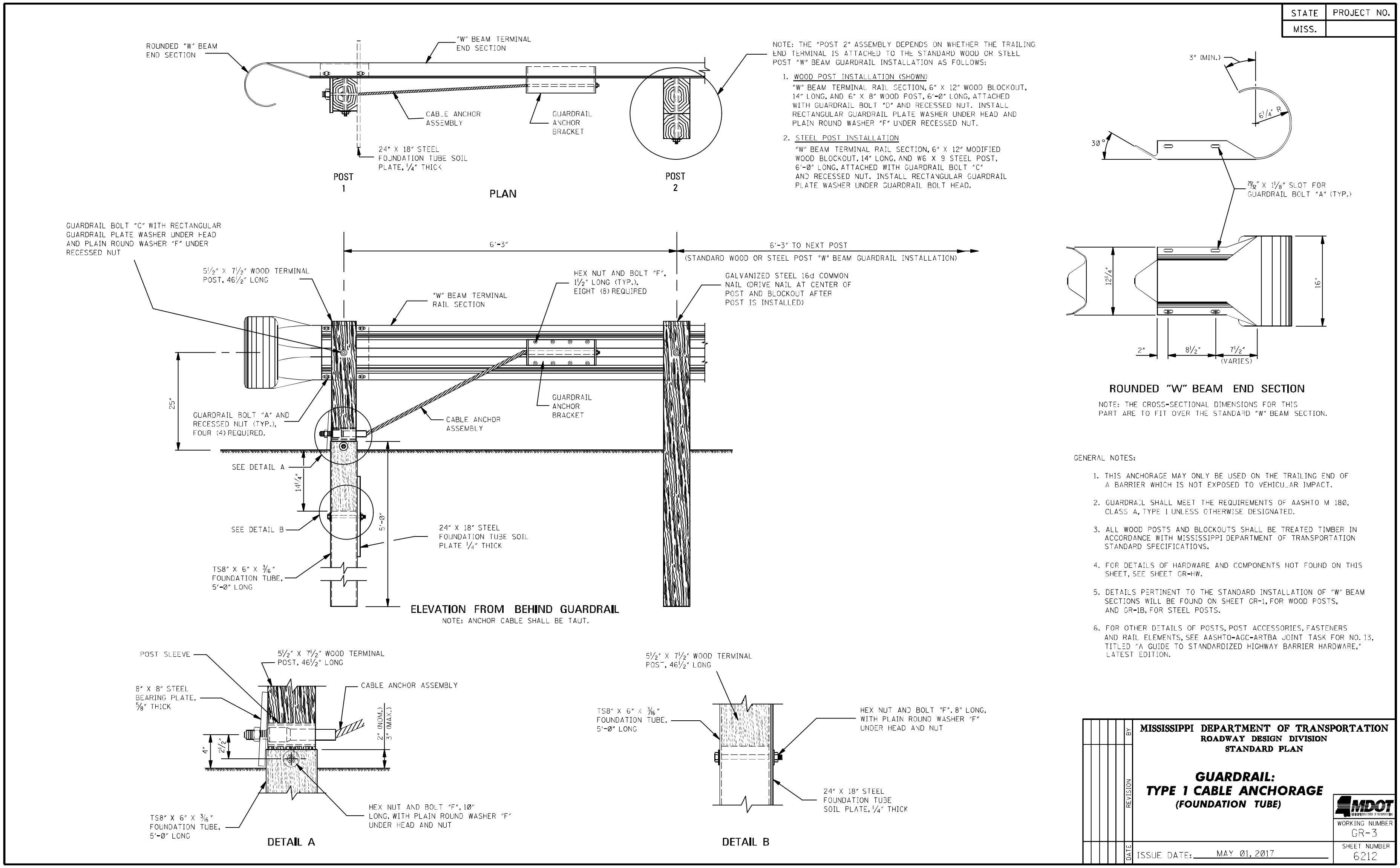

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "H"
(WOOD POSTS)
ISSUE DATE: MAY 01, 2017
WORKING NUMBER GR-2C
SHEET NUMBER 6207
STATE MISS.
PROJECT NO.
PLAN
SECTION A–A
SECTION B–B
"W" BEAM BACKUP PLATE
"W" BEAM TERMINAL CONNECTOR
DETAIL OF BRIDGE END TERMINAL OFFSET BLOCK
FASTENER DETAILS
HARDENED ROUND WASHER "E"
RECTANGULAR GUARDRAIL PLATE WASHER
BEVELED WASHER
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C" (ASTM A 325)
GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON SHEET GR-1 (WOOD POSTS).
2. THE HEIGHT OF RAIL AT THE BRIDGE END IS 21" AND WILL BE TRANSITIONED TO 25" AT POST 5.
3. GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL IS TO BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.

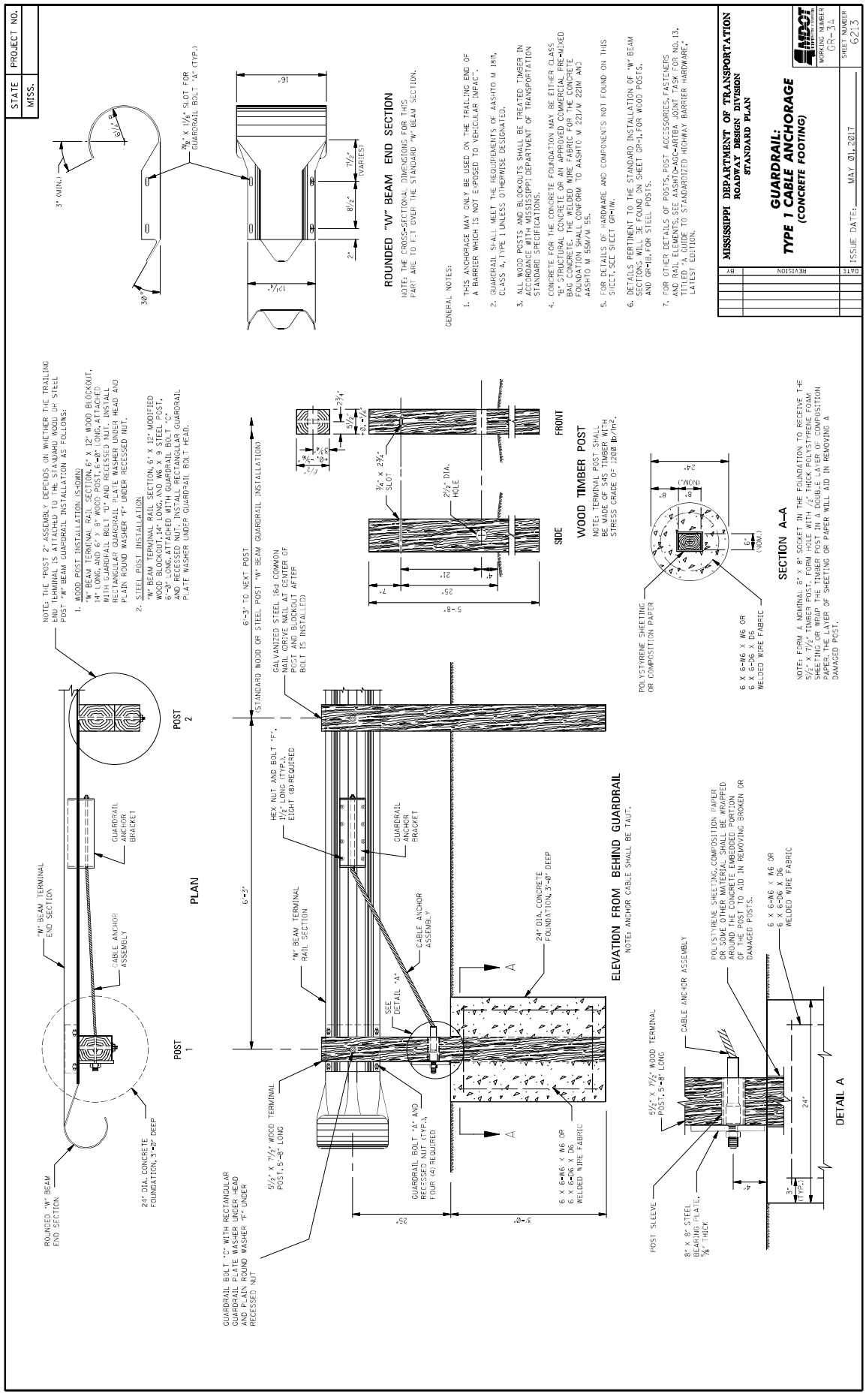

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "H"
(STEEL POSTS)
ISSUE DATE: MAY 01, 2017
WORKING NUMBER GR-2D
SHEET NUMBER 6208
GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON SHEET GR-1B (STEEL POSTS).
2. THE HEIGHT OF RAIL AT THE BRIDGE END IS 21" AND WILL BE TRANSITIONED TO 25" AT POST 5.
3. GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL IS TO BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
PLAN
SECTION A-A
SECTION B-B
"W" BEAM TERMINAL CONNECTOR
"W" BEAM BACKUP PLATE
FASTENER DETAILS
DETAIL OF BRIDGE END TERMINAL OFFSET BLOCK

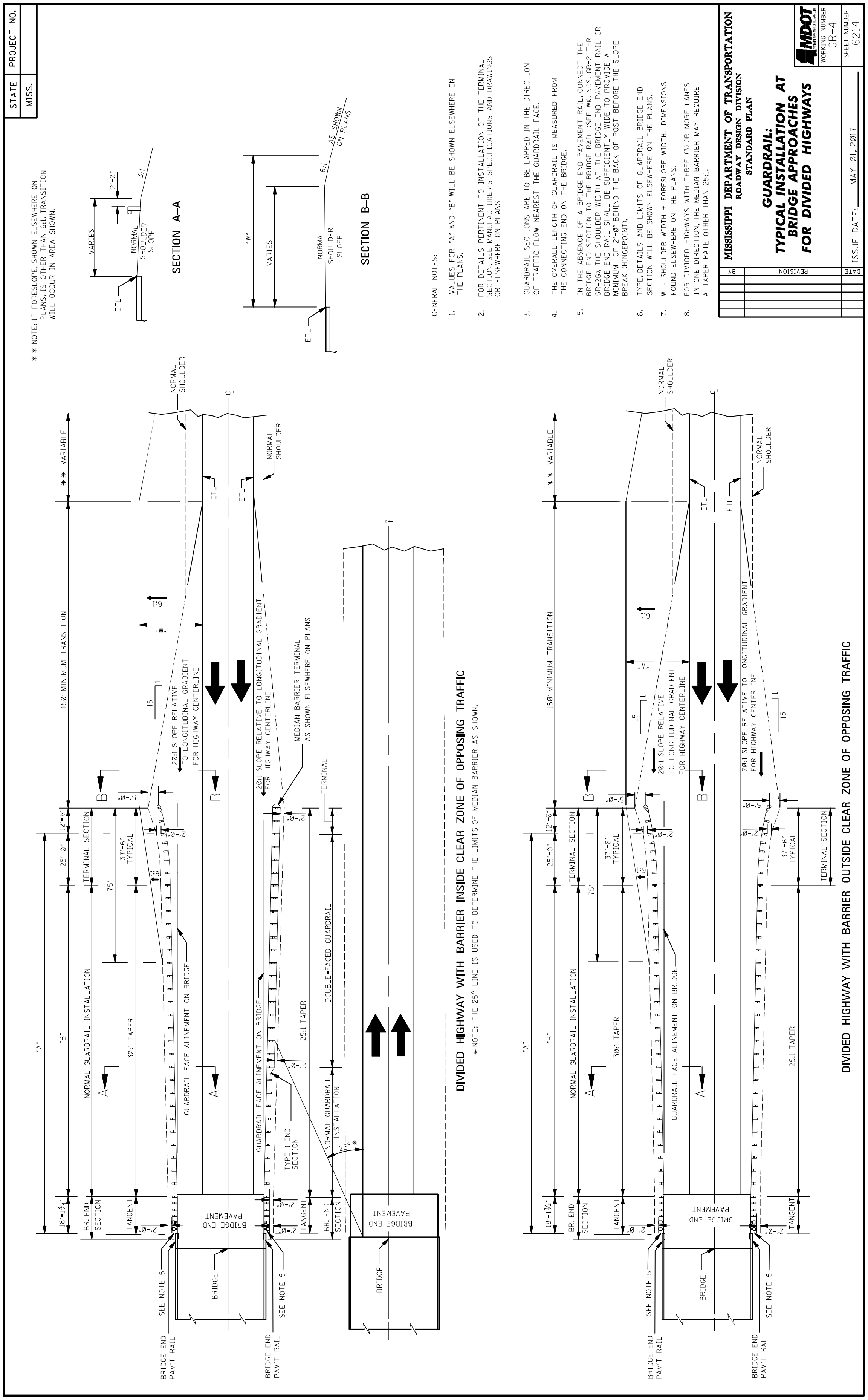

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "G" MODIFIED
WORKING NUMBER GR-2E
SHEET NUMBER 6209
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON EITHER SHEET GR-1 (WOOD POSTS) OR GR-1B (STEEL POSTS).
2. INSTALLATION DETAILS FOR BRIDGE END SECTION GUARDRAIL POSTS WILL BE FOUND ON EITHER SHEET GR-2C (WOOD POSTS) OR GR-2D (STEEL POSTS).
3. THE HEIGHT OF RAIL AT THE BRIDGE END IS 21" AND WILL BE TRANSITIONED TO 25" AT POST 5.
4. GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL IS TO BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
PLAN
SECTION A–A
SECTION B–B
FACE ELEVATION
SECTION
GUARDRAIL CONNECTION DETAILS
DETAIL OF PLATE "Y"
"W" BEAM TERMINAL CONNECTOR
ELEVATION
PLAN
BEVELED WASHER
RECTANGULAR GUARDRAIL PLATE WASHER
HARDENED ROUND WASHER "E"
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C"
FASTENER DETAILS
PAY LIMITS FOR TYPE "G" MODIFIED BRIDGE END SECTION
STANDARD "W" BEAM INSTALLATION (SEE GENERAL NOTE 1.)
CENTERLINE OF POST HOLES IN "W" BEAM GUARDRAIL (SEE GENERAL NOTE 2.)
FACE OF GUARDRAIL
GUARDRAIL SPLICE
SEE GUARDRAIL CONNECTION DETAILS
CONCRETE BRIDGE RAIL
CURB LINE
TRAFFIC
POST 1
POST 2
POST 3
POST 4
POST 5
POST 6
"W" BEAM TERMINAL CONNECTOR, TERMINAL CONNECTOR IS ATTACHED TO THE ADJACENT SECTION WITH EIGHT (8) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
7'-6" CURB TRANSITION
GUARDRAIL ANCHOR ASSEMBLY (INSTALLED DURING BRIDGE CONSTRUCTION)
HSS HEX NUT AND BOLT "C", 10" LONG, FOUR (4) REQUIRED.
HARDENED ROUND WASHER "E", ONE (1) UNDER HEAD AND ONE (1) UNDER NUT, EIGHT (8) REQUIRED.
"W" BEAM GUARDRAIL
PLATE "Y"
12" X 4⅛" X ⅜" PLATE
BOTH SIDES
TWO (2) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
"W" BEAM SECTION, 16' LONG (AASHTO M 180 CLASS B, TYPE II)
⅝" X 1⅛" SLOTTED HOLES IN "W" BEAM SECTION (TYP.)
OPTIONAL ¾" X 2½" SLOTTED HOLE IN "W" SECTION (BOLT NOT REQUIRED).
12" X ⅛" X ⅜" PLATE, TWO (2) REQUIRED, TO" AND BOTTOM.
1" HOLES IN PLATE "Y" (TYP.)
THESE SLOTS ARE USED TO FASTEN GUARDRAIL.
1" DIA. HOLES (TYP.)
¾" X 2½" SLOTTED HOLE NOT REQUIRED
¾" X 1⅛" SLOT FOR GUARDRAIL BOLT "A" (TYP.)
NOTE: THE "W" BEAM TERMINAL CONNECTOR IS USED WITH THE TYPE "G" MODIFIED BRIDGE END SECTION. THE CROSS-SECTIONAL DIMENSIONS OF THIS PART ARE IDENTICAL TO THE STANDARD "W" BEAM SECTION (AASHTO M 180 CLASS B, TYPE II).
CONCRETE BRIDGE RAIL
GUARDRAIL ANCHOR ASSEMBLY (INSTALLED DURING BRIDGE CONSTRUCTION)
HSS HEX NUT AND BOLT "C", 10" LONG, FOUR (4) REQUIRED.
HARDENED ROUND WASHER "E", ONE (1) UNDER HEAD AND ONE (1) UNDER NUT, EIGHT (8) REQUIRED.
"W" BEAM SECTION, 16' LONG (AASHTO M 180 CLASS B, TYPE II)
"W" BEAM GUARDRAIL
TWO (2) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
(SEE GENERAL NOTE 3)
CURB FACE
RIDING SURFACE OF BRIDGE DECK
HARDENED ROUND WASHER "E", UNDER HEAD, FOUR (4) REQUIRED.
HSS HEX NUT AND BOLT "C", 10" LONG, FOUR (4) REQUIRED.
BEVELED WASHER, FOUR (4) REQUIRED.
EIGHT (8) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
"W" BEAM TERMINAL CONNECTOR
9:1 SLOPE
1" X 1⅛" SLOT
⅝" - 9 UNC THREAD PITCH
AS SPECIFIED

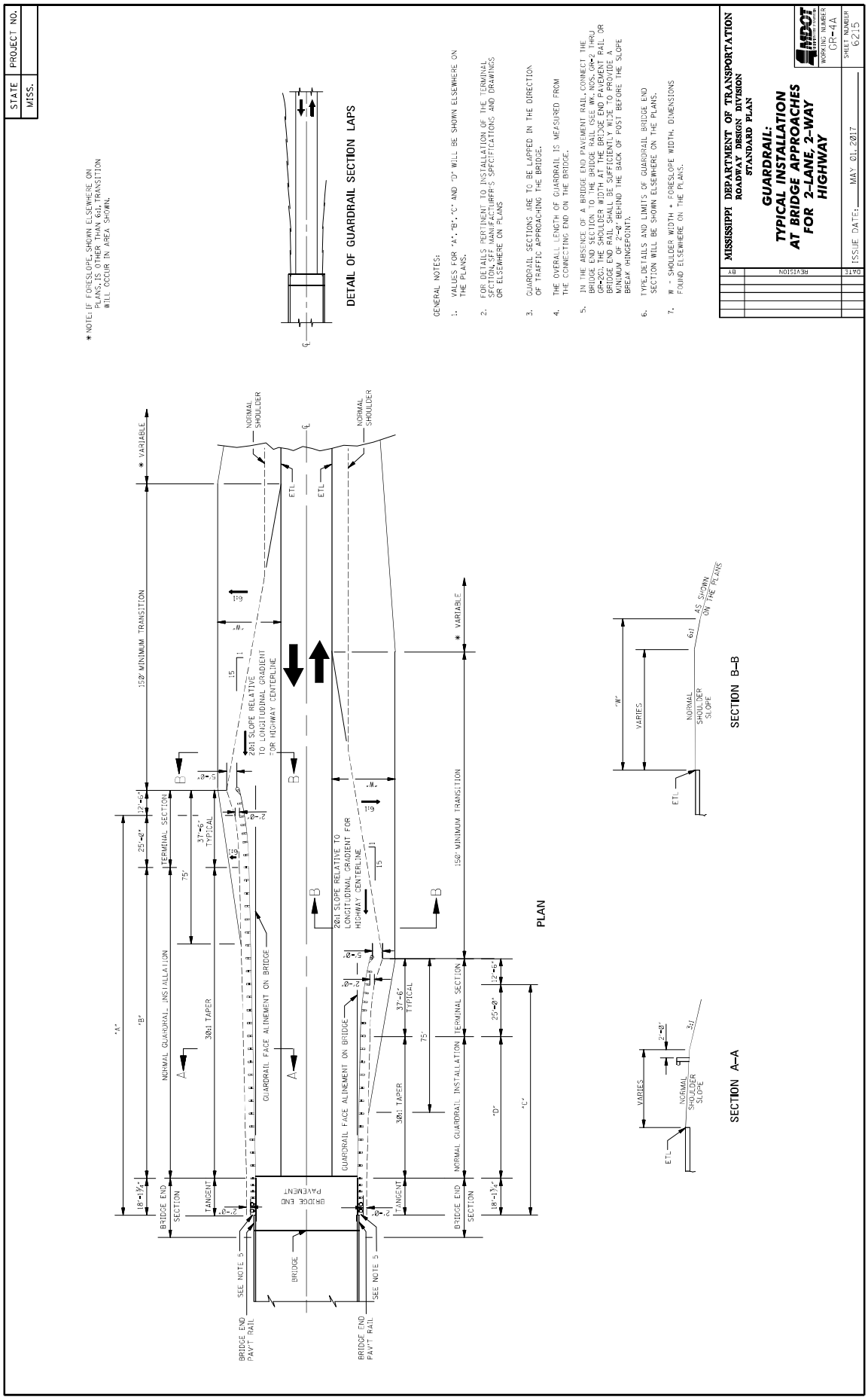

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "I"
(WOOD POSTS)
(NEW CONSTRUCTION)
STATE MISS.
PROJECT NO.
WORKING NUMBER GR-2-
SHEET NUMBER 6210
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
STANDARD "W" BEAM GUARDRAIL INSTALLATION (SEE SHEET GR-1)
PAY LIMITS FOR TYPE "I" BRIDGE END SECTION
PLAN
ELEVATION FROM ℄ ROADWAY
SECTION A-A
*NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.
FASTENER DETAILS
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C"
PLAIN ROUND WASHER "F"
RECTANGULAR GUARDRAIL PLATE WASHER
THRIE-BEAM TERMINAL CONNECTOR
THRIE-BEAM TERMINAL CONNECTOR
GENERAL NOTES:
GENERAL NOTES (CONTINUED):
DETAILS OF THRIE-BEAM POST AND BLOCKOUT (POST 1 THRU POST 8)
GUARDRAIL SPLICE DETAIL (POST 7)
SECTION
ELEVATION
NOTES:
1. HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
2. WOOD POSTS AND BLOCKOUTS ARE FABRICATED FROM TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
3. ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4"IN DIAMETER.

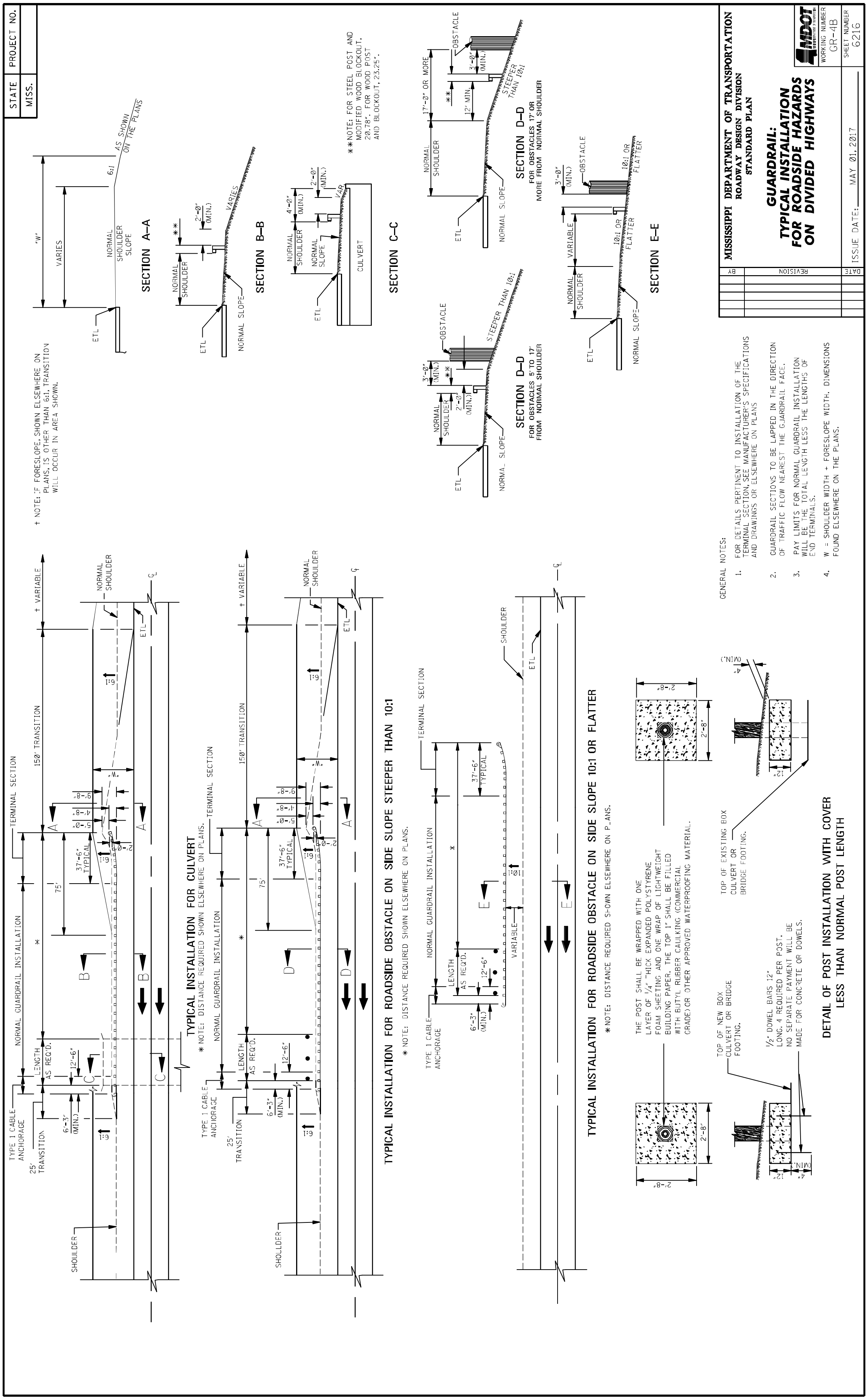

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "I"
(STEEL POSTS)
(NEW CONSTRUCTION)
ISSUE DATE: MAY 01, 2017
WORKING NUMBER GR-2C
SHEET NUMBER 6211
STATE MISS.
PROJECT NO.
PLAN
ELEVATION FROM ℄ ROADWAY
NOTE: BACKUP PLATES ARE NOT USED IN THIS TRANSITION.
SECTION A–A
FASTENER DETAILS
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C"
PLAIN ROUND WASHER "F"
RECTANGULAR GUARDRAIL PLATE WASHER
THRIE-BEAM TERMINAL CONNECTOR
GUARDRAIL SPLICE DETAIL (POST 7)
DETAILS OF THRIE-BEAM POST AND BLOCKOUT (POST 1 THRU POST 6)

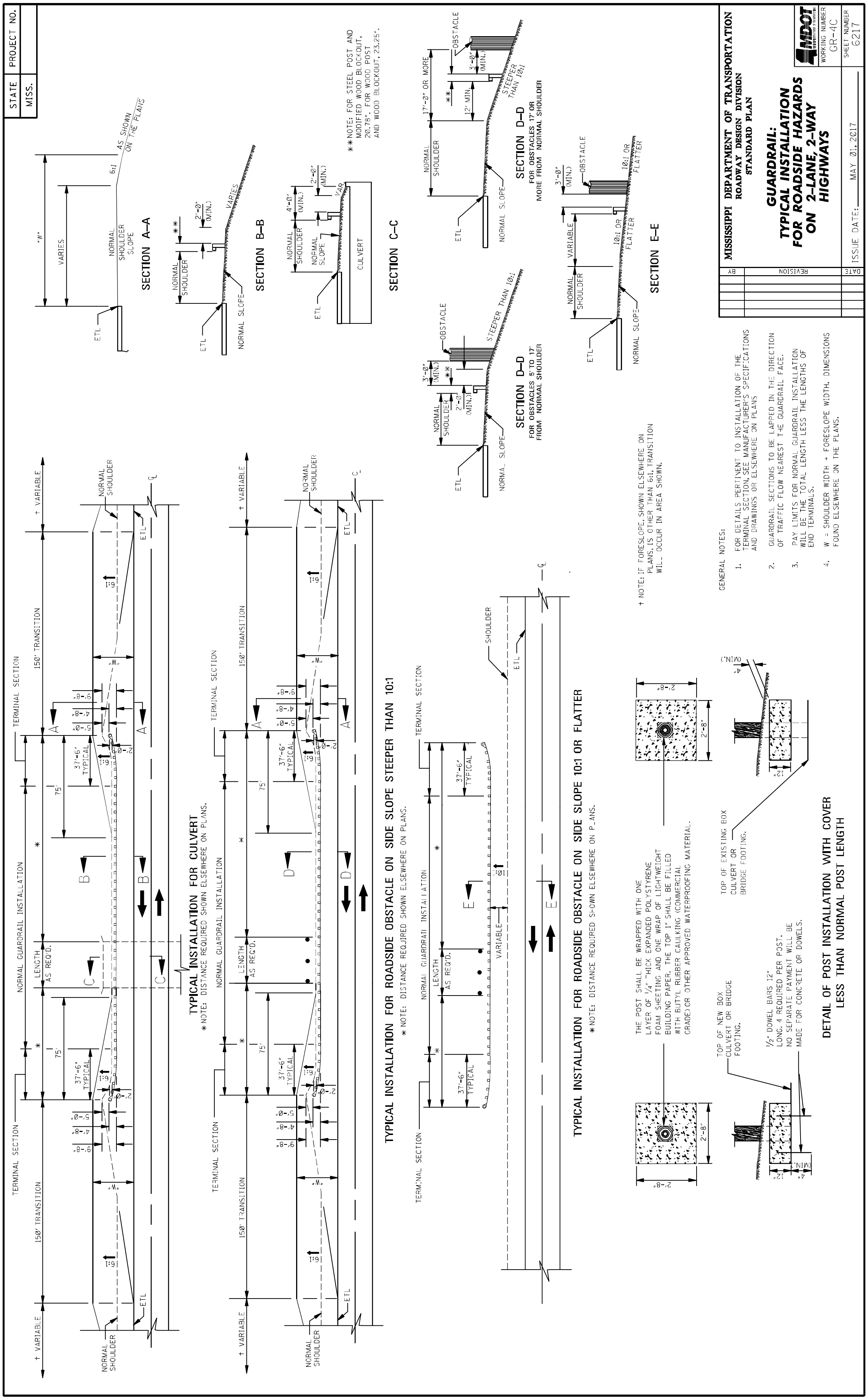

STATE
PROJECT NO.
MISS.
ROUNDED "W" BEAM END SECTION
"W" BEAM TERMINAL END SECTION
CABLE ANCHOR ASSEMBLY
GUARDRAIL ANCHOR BRACKET
24" X 18" STEEL FOUNDATION TUBE SOIL PLATE, 1/4" THICK
POST 1
POST 2
PLAN
NOTE: THE "POST 2" ASSEMBLY DEPENDS ON WHETHER THE TRAILING END TERMINAL IS ATTACHED TO THE STANDARD WOOD OR STEEL POST "W" BEAM GUARDRAIL INSTALLATION AS FOLLOWS:
1. WOOD POST INSTALLATION (SHOWN)
"W" BEAM TERMINAL RAIL SECTION, 6" X 12" WOOD BLOCKOUT, 14" LONG, AND 6" X 8" WOOD POST, 6'-0" LONG, ATTACHED WITH GUARDRAIL BOLT "D" AND RECESSED NUT. INSTALL RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT.
2. STEEL POST INSTALLATION
"W" BEAM TERMINAL RAIL SECTION, 6" X 12" MODIFIED WOOD BLOCKOUT, 14" LONG, AND W6 X 9 STEEL POST, 6'-0" LONG, ATTACHED WITH GUARDRAIL BOLT "C" AND RECESSED NUT. INSTALL RECTANGULAR GUARDRAIL PLATE WASHER UNDER GUARDRAIL BOLT HEAD.
3" (MIN.)
6 1/4" R
30°
29/32" X 1 1/8" SLOT FOR GUARDRAIL BOLT "A" (TYP.)
12 1/4"
16"
2"
8 1/2"
7 1/2" (VARIES)
ROUNDED "W" BEAM END SECTION
NOTE: THE CROSS-SECTIONAL DIMENSIONS FOR THIS PART ARE TO FIT OVER THE STANDARD "W" BEAM SECTION.
GUARDRAIL BOLT "C" WITH RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT
6'-3"
6'-3" TO NEXT POST (STANDARD WOOD OR STEEL POST "W" BEAM GUARDRAIL INSTALLATION)
5 1/2" X 7 1/2" WOOD TERMINAL POST, 46 1/2" LONG
"W" BEAM TERMINAL RAIL SECTION
HEX NUT AND BOLT "F", 1 1/2" LONG (TYP.), EIGHT (8) REQUIRED
GALVANIZED STEEL 16d COMMON NAIL (DRIVE NAIL AT CENTER OF POST AND BLOCKOUT AFTER POST IS INSTALLED)
25"
GUARDRAIL BOLT "A" AND RECESSED NUT (TYP.), FOUR (4) REQUIRED.
CABLE ANCHOR ASSEMBLY
GUARDRAIL ANCHOR BRACKET
SEE DETAIL A
14 1/4"
SEE DETAIL B
5'-0"
24" X 18" STEEL FOUNDATION TUBE SOIL PLATE 1/4" THICK
TS8" X 6" X 3/16" FOUNDATION TUBE, 5'-0" LONG
ELEVATION FROM BEHIND GUARDRAIL
NOTE: ANCHOR CABLE SHALL BE TAUT.
GENERAL NOTES:
1. THIS ANCHORAGE MAY ONLY BE USED ON THE TRAILING END OF A BARRIER WHICH IS NOT EXPOSED TO VEHICULAR IMPACT.
2. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE I UNLESS OTHERWISE DESIGNATED.
3. ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
4. FOR DETAILS OF HARDWARE AND COMPONENTS NOT FOUND ON THIS SHEET, SEE SHEET GR-HW.
5. DETAILS PERTINENT TO THE STANDARD INSTALLATION OF "W" BEAM SECTIONS WILL BE FOUND ON SHEET GR-1, FOR WOOD POSTS, AND GR-1B, FOR STEEL POSTS.
6. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS AND RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FOR NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
POST SLEEVE
5 1/2" X 7 1/2" WOOD TERMINAL POST, 46 1/2" LONG
8" X 8" STEEL BEARING PLATE, 5/8" THICK
CABLE ANCHOR ASSEMBLY
4"
2 1/2"
2" (NOM.)
3" (MAX.)
HEX NUT AND BOLT "F", 10" LONG, WITH PLAIN ROUND WASHER "F" UNDER HEAD AND NUT
TS8" X 6" X 3/16" FOUNDATION TUBE, 5'-0" LONG
DETAIL A
5 1/2" X 7 1/2" WOOD TERMINAL POST, 46 1/2" LONG
TS8" X 6" X 3/16" FOUNDATION TUBE, 5'-0" LONG
HEX NUT AND BOLT "F", 8" LONG, WITH PLAIN ROUND WASHER "F" UNDER HEAD AND NUT
24" X 18" STEEL FOUNDATION TUBE SOIL PLATE, 1/4" THICK
DETAIL B
BY
REVISION
DATE
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
TYPE 1 CABLE ANCHORAGE
(FOUNDATION TUBE)
MDOT
WORKING NUMBER
GR-3
ISSUE DATE: MAY 01, 2017
SHEET NUMBER
6212

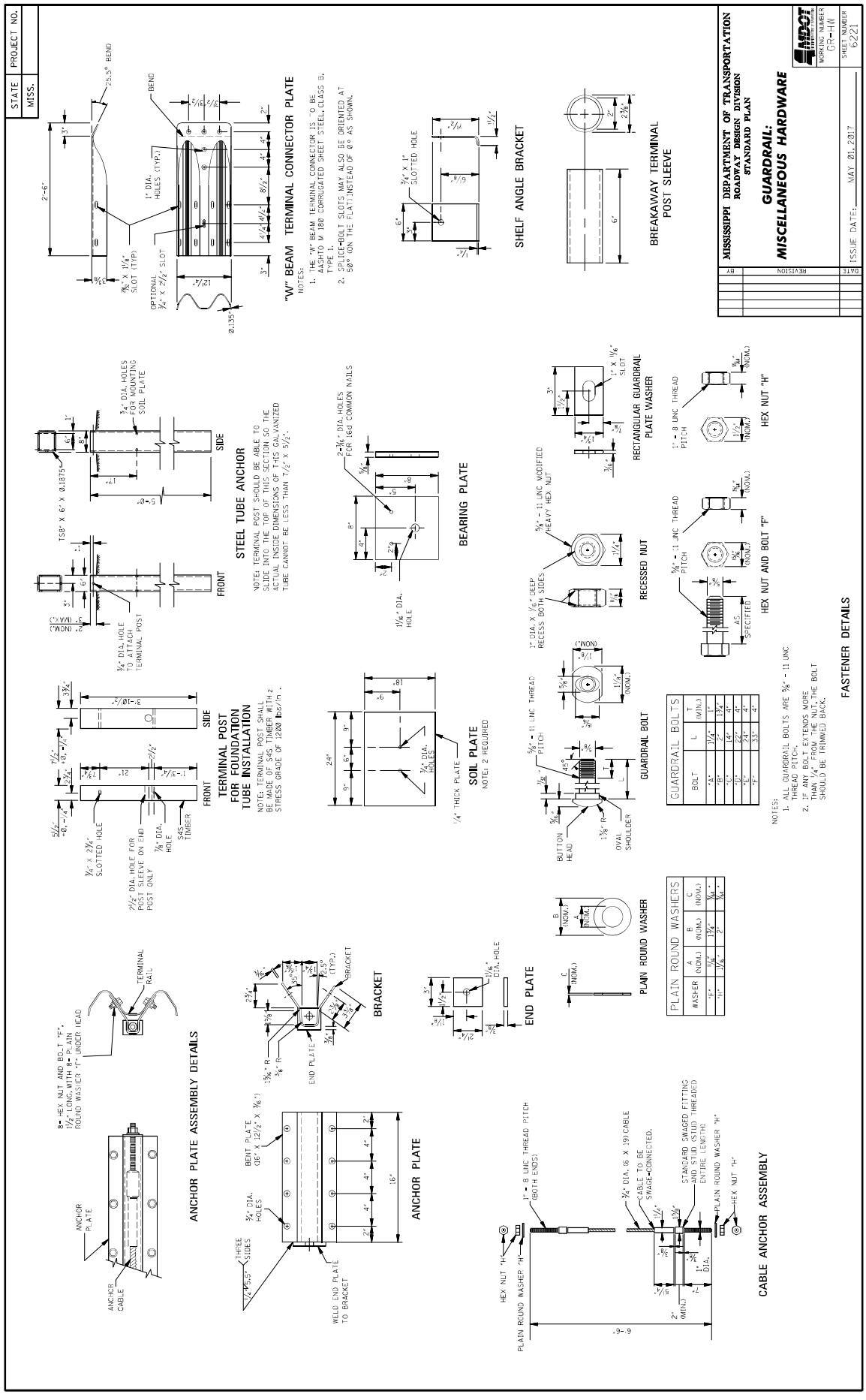

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
TYPE 1 CABLE ANCHORAGE
(CONCRETE FOOTING)
WORKING NUMBER GR-34
SHEET NUMBER 6213
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
ROUNDED "W" BEAM END SECTION
NOTE: THE CROSS-SECTIONAL DIMENSIONS FOR THIS PART ARE TO FIT OVER THE STANDARD "W" BEAM SECTION.
GENERAL NOTES:
1. THIS ANCHORAGE MAY ONLY BE USED ON THE TRAILING END OF A BARRIER WHICH IS NOT EXPOSED TO VEHICULAR IMPACT.
2. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE I UNLESS OTHERWISE DESIGNATED.
3. ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
4. CONCRETE FOR THE CONCRETE FOUNDATION MAY BE EITHER CLASS "B" STRUCTURAL CONCRETE OR AN APPROVED COMMERCIAL PRE-MIXED BAG CONCRETE. THE WELDED WIRE FABRIC FOR THE CONCRETE FOUNDATION SHALL CONFORM TO AASHTO M 221/M 221M AND AASHTO M 55M/M 55.
5. FOR DETAILS OF HARDWARE AND COMPONENTS NOT FOUND ON THIS SHEET, SEE SHEET GR-1W.
6. DETAILS PERTINENT TO THE STANDARD INSTALLATION OF "W" BEAM SECTIONS WILL BE FOUND ON SHEET GR-1, FOR WOOD POSTS, AND GR-1B, FOR STEEL POSTS.
7. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS AND RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FOR NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
NOTE: THE "POST 2" ASSEMBLY DEPENDS ON WHETHER THE TRAILING END TERMINAL IS ATTACHED TO THE STANDARD WOOD OR STEEL POST "W" BEAM GUARDRAIL INSTALLATION AS FOLLOWS:
1. WOOD POST INSTALLATION (SHOWN)
"W" BEAM TERMINAL RAIL SECTION, 6' X 12" WOOD BLOCKOUT, 14" LONG, AND 6'-9" X 8" WOOD POST, 6'-6" LONG, ATTACHED WITH GUARDRAIL BOLT 'D' AND RECESSED NUT; INSTALL RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT.
2. STEEL POST INSTALLATION
"W" BEAM TERMINAL RAIL SECTION, 6' X 12" MODIFIED WOOD BLOCKOUT, 14" LONG, AND W6 X 9 STEEL POST, 6'-6" LONG, ATTACHED WITH GUARDRAIL BOLT 'C' AND RECESSED NUT; INSTALL RECTANGULAR GUARDRAIL PLATE WASHER UNDER GUARDRAIL BOLT HEAD.
"W" BEAM END SECTION
CABLE ANCHOR ASSEMBLY
GUARDRAIL ANCHOR BRACKET
24" DIA. CONCRETE FOUNDATION, 3'-9" DEEP
ROUNDED "W" BEAM END SECTION
GUARDRAIL BOLT 'C' WITH RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT
POST 1
POST 2
PLAN
6'-3" TO NEXT POST (STANDARD WOOD OR STEEL POST "W" BEAM GUARDRAIL INSTALLATION)
GALVANIZED STEEL 16d COMMON NAIL (DRIVE NAIL AT CENTER OF BOLT AFTER BOLT IS INSTALLED)
HEX NUT AND BOLT "F", 1½" LONG (TYP.), EIGHT (8) REQUIRED
"W" BEAM TERMINAL RAIL SECTION
GUARDRAIL ANCHOR BRACKET
CABLE ANCHOR ASSEMBLY
SEE DETAIL "A"
24" DIA. CONCRETE FOUNDATION, 3'-9" DEEP
5½" X 7½" WOOD TERMINAL POST, 5'-8" LONG
GUARDRAIL BOLT "A" AND RECESSED NUT (TYP.), FOUR (4) REQUIRED
6 X 6-W6 X W6 OR 6 X 6-D6 X D6 WELDED WIRE FABRIC
ELEVATION FROM BEHIND GUARDRAIL
NOTE: ANCHOR CABLE SHALL BE TAUT.
SIDE
FRONT
WOOD TIMBER POST
NOTE: TERMINAL POST SHALL BE MADE OF S4S TIMBER WITH STRESS GRADE OF 1200 lb/in².
POLYSTYRENE SHEETING OR COMPOSITION PAPER
6 X 6-W6 X W6 OR 6 X 6-D6 X D6 WELDED WIRE FABRIC
SECTION A-A
NOTE: FORM A NOMINAL 6" X 8" SOCKET IN THE FOUNDATION TO RECEIVE THE SIZE X 7½" TIMBER POST. FORM VOIDS WITH CARDBOARD TUBES, FOAM SHEETING OR WRAP THE TIMBER POST IN A DOUBLE LAYER OF COMPOSITION PAPER. THE LAYER OF SHEETING OR PAPER WILL AID IN REMOVING A DAMAGED POST.
5½" X 7½" WOOD TERMINAL POST, 5'-8" LONG
CABLE ANCHOR ASSEMBLY
POLYSTYRENE SHEETING, COMPOSITION PAPER OR SOME OTHER MATERIAL SHALL BE WRAPPED AROUND THE CONCRETE EMBEDDED PORTION OF THE POST TO AID IN REMOVING BROKEN OR DAMAGED POSTS.
6 X 6-W6 X W6 OR 6 X 6-D6 X D6 WELDED WIRE FABRIC
POST SLEEVE
8" X 8" STEEL BEARING PLATE, ⅜" THICK
DETAIL A

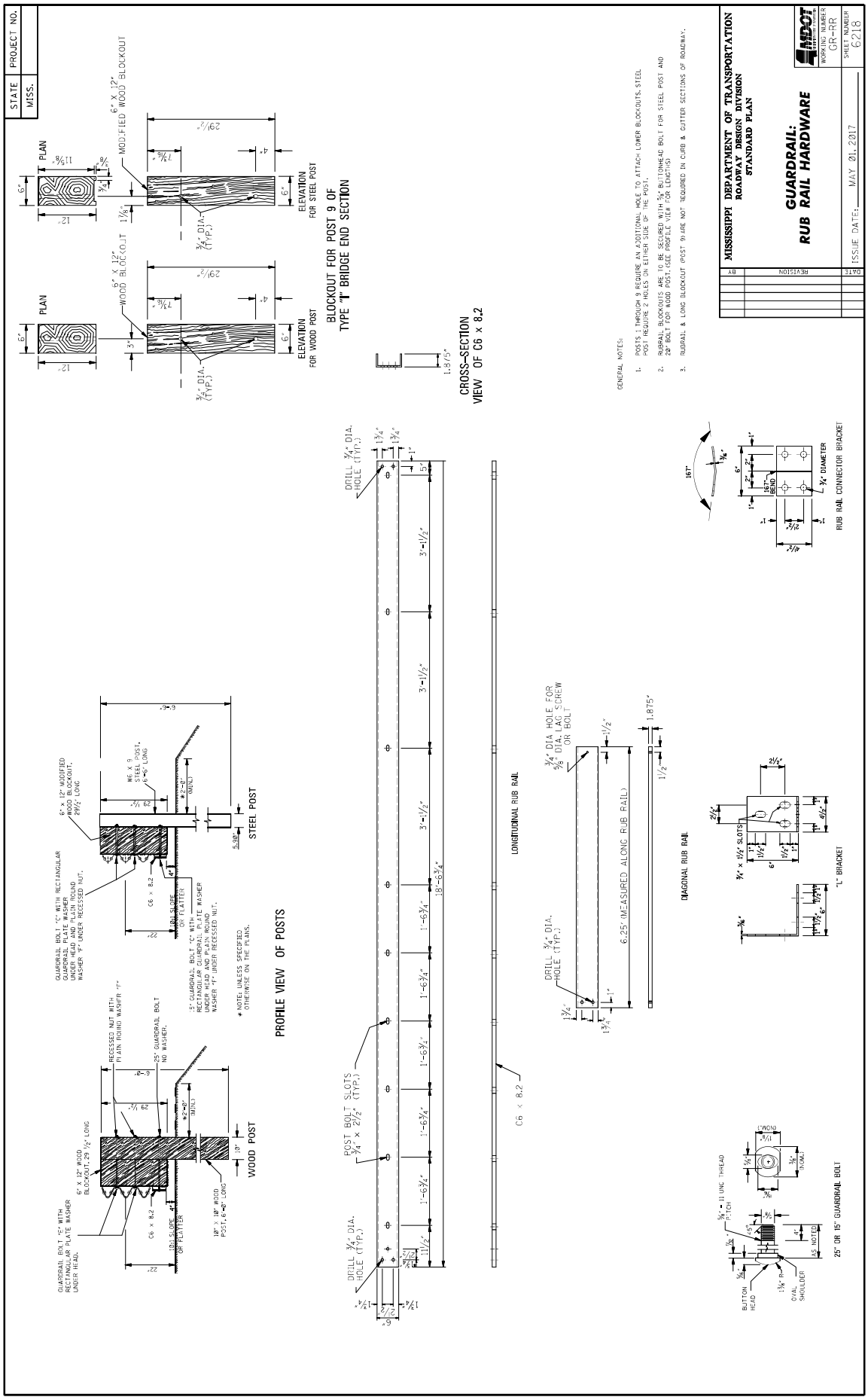

STATE | PROJECT NO.
MISS.
DIVIDED HIGHWAY WITH BARRIER INSIDE CLEAR ZONE OF OPPOSING TRAFFIC
* NOTE: THE 25° LINE IS USED TO DETERMINE THE LIMITS OF MEDIAN BARRIER AS SHOWN.
DIVIDED HIGHWAY WITH BARRIER OUTSIDE CLEAR ZONE OF OPPOSING TRAFFIC
"A"
"B"
18'-1¾"
25'-0"
12'-6"
150' MINIMUM TRANSITION
** VARIABLE
BR. END SECTION
NORMAL GUARDRAIL INSTALLATION
TERMINAL SECTION
TANGENT
30:1 TAPER
25:1 TAPER
75'
37'-6" TYPICAL
2'-0"
5'-0"
6:1
15
1
"W"
BRIDGE END PAV'T RAIL
SEE NOTE 5
BRIDGE
BRIDGE END PAVEMENT
GUARDRAIL FACE ALINEMENT ON BRIDGE
20:1 SLOPE RELATIVE TO LONGITUDINAL GRADIENT FOR HIGHWAY CENTERLINE
ETL
NORMAL SHOULDER
TYPE 1 END SECTION
MEDIAN BARRIER TERMINAL AS SHOWN ELSEWHERE ON PLANS
NORMAL GUARDRAIL INSTALLATION
DOUBLE-FACED GUARDRAIL
TERMINAL
25°*
** NOTE: IF FORESLOPE, SHOWN ELSEWHERE ON PLANS, IS OTHER THAN 6:1, TRANSITION WILL OCCUR IN AREA SHOWN.
VARIES
NORMAL SHOULDER SLOPE
3:1
SECTION A–A
"W"
AS SHOWN ON PLANS
SECTION B–B
GENERAL NOTES:
1. VALUES FOR "A" AND "B" WILL BE SHOWN ELSEWHERE ON THE PLANS.
2. FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
3. GUARDRAIL SECTIONS ARE TO BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW NEAREST THE GUARDRAIL FACE.
4. THE OVERALL LENGTH OF GUARDRAIL IS MEASURED FROM THE CONNECTING END ON THE BRIDGE.
5. IN THE ABSENCE OF A BRIDGE END PAVEMENT RAIL, CONNECT THE BRIDGE END SECTION TO THE BRIDGE RAIL (SEE WK. NOS. GR-2 THRU GR-2G). THE SHOULDER WIDTH AT THE BRIDGE END PAVEMENT RAIL OR BRIDGE END RAIL SHALL BE SUFFICIENTLY WIDE TO PROVIDE A MINIMUM OF 2'-0" BEHIND THE BACK OF POST BEFORE THE SLOPE BREAK (HINGEPOINT).
6. TYPE, DETAILS AND LIMITS OF GUARDRAIL BRIDGE END SECTION WILL BE SHOWN ELSEWHERE ON THE PLANS.
7. W = SHOULDER WIDTH + FORESLOPE WIDTH. DIMENSIONS FOUND ELSEWHERE ON THE PLANS.
8. FOR DIVIDED HIGHWAYS WITH THREE (3) OR MORE LANES IN ONE DIRECTION, THE MEDIAN BARRIER MAY REQUIRE A TAPER RATE OTHER THAN 25:1.
BY
REVISION
DATE
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
TYPICAL INSTALLATION AT BRIDGE APPROACHES FOR DIVIDED HIGHWAYS
MDOT
WORKING NUMBER
GR-4
ISSUE DATE: MAY 01, 2017
SHEET NUMBER
6214

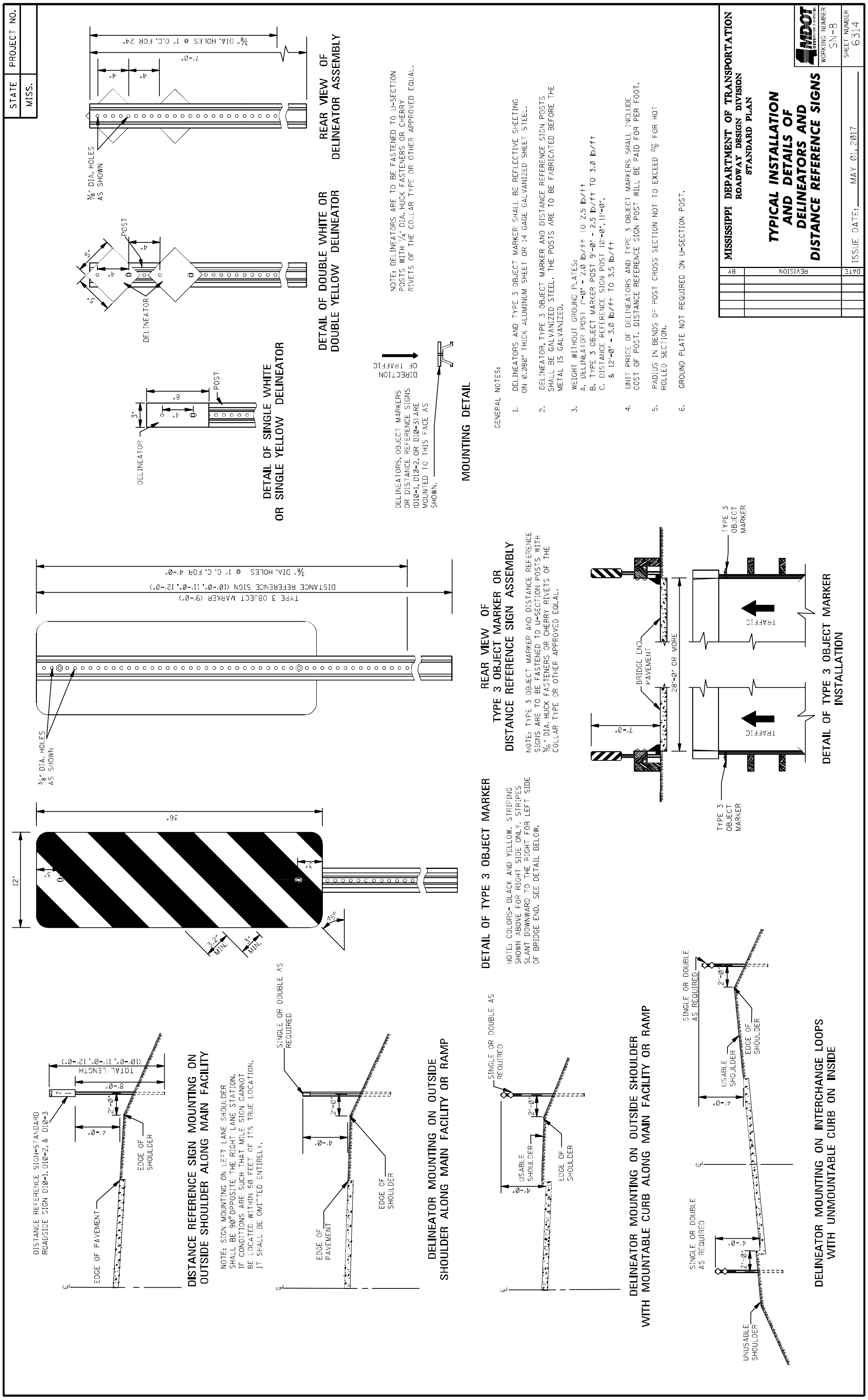

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
TYPICAL INSTALLATION
AT BRIDGE APPROACHES
FOR 2-LANE 2-WAY
HIGHWAY
WORKING NUMBER GR-4A
SHEET NUMBER 6215
ISSUE DATE: MAY 01, 2017
BY REVISION DATE
* NOTE: IF FORESLOPE SHOWN ELSEWHERE ON PLANS, IS OTHER THAN 6:1, TRANSITION WILL OCCUR IN AREA SHOWN.
DETAIL OF GUARDRAIL SECTION LAPS
GENERAL NOTES:
1. VALUES FOR "A", "B", "C" AND "D" WILL BE SHOWN ELSEWHERE ON THE PLANS.
2. FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
3. GUARDRAIL SECTIONS ARE TO BE LAPPED IN THE DIRECTION OF TRAFFIC APPROACHING THE BRIDGE.
4. THE OVERALL LENGTH OF GUARDRAIL IS MEASURED FROM THE CONNECTING END ON THE BRIDGE.
5. IN THE ABSENCE OF A BRIDGE END PAVEMENT RAIL, CONNECT THE BRIDGE END SECTION TO THE BRIDGE RAIL (SEE MS-GR-2 THRU GR-5). THE SHOULDER WIDTH AT THE BRIDGE END PROVIDED BY BRIDGE END RAIL SHALL BE SUFFICIENT TO PROVIDE A MINIMUM OF 2'-0" BEHIND THE BACK OF POST BEFORE THE SLOPE BREAK (HINGEPOINT).
6. TYPE DETAILS AND LIMITS OF GUARDRAIL BRIDGE END SECTION WILL BE SHOWN ELSEWHERE ON THE PLANS.
7. "W" = SHOULDER WIDTH + FORESLOPE WIDTH. DIMENSIONS FOUND ELSEWHERE ON THE PLANS.
PLAN
SECTION A-A
SECTION B-B
NORMAL GUARDRAIL INSTALLATION
TERMINAL SECTION
BRIDGE END SECTION
TANGENT
30:1 TAPER
37'-6" TYPICAL
75'
25'-0"
12'-6"
18'-1¾"
150' MINIMUM TRANSITION
* VARIABLE
20:1 SLOPE RELATIVE TO LONGITUDINAL GRADIENT FOR HIGHWAY CENTERLINE
GUARDRAIL FACE ALINEMENT ON BRIDGE
BRIDGE END PAVEMENT
BRIDGE
SEE NOTE 5
BRIDGE END PAVT' RAIL
NORMAL SHOULDER
ETL
VARIES
NORMAL SHOULDER SLOPE
AS SHOWN ON THE PLANS
6:1
3:1
2'-0"


STATE MISS. PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
TYPICAL INSTALLATION
FOR ROADSIDE HAZARDS
ON DIVIDED HIGHWAYS
ISSUE DATE: MAY 01, 2017
WORKING NUMBER GR-4B
SHEET NUMBER 6216
TYPICAL INSTALLATION FOR ROADSIDE OBSTACLE ON SIDE SLOPE STEEPER THAN 10:1
* NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
TYPICAL INSTALLATION FOR CULVERT
* NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
TYPICAL INSTALLATION FOR ROADSIDE OBSTACLE ON SIDE SLOPE 10:1 OR FLATTER
* NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D FOR OBSTACLES 5' TO 17' FROM NORMAL SHOULDER
SECTION D-D FOR OBSTACLES 17' OR MORE FROM NORMAL SHOULDER
SECTION E-E
† NOTE: IF FORESLOPE, SHOWN ELSEWHERE ON PLANS, IS OTHER THAN 6:1, TRANSITION WILL OCCUR IN AREA SHOWN.
** NOTE: FOR STEEL POST AND MODIFIED WOOD BLOCKOUT, 20.78". FOR WOOD POST AND BLOCKOUT, 23.25".
GENERAL NOTES:
1. FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
2. GUARDRAIL SECTIONS TO BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW NEAREST THE GUARDRAIL FACE.
3. PAY LIMITS FOR NORMAL GUARDRAIL INSTALLATION WILL BE THE TOTAL LENGTH LESS THE LENGTHS OF END TERMINALS.
4. W = SHOULDER WIDTH + FORESLOPE WIDTH. DIMENSIONS FOUND ELSEWHERE ON THE PLANS.
DETAIL OF POST INSTALLATION WITH COVER LESS THAN NORMAL POST LENGTH
THE POST SHALL BE WRAPPED WITH ONE LAYER OF 1/4" THICK EXPANDED POLYSTYRENE FOAM SHEETING AND ONE WRAP OF LIGHTWEIGHT BUILDING PAPER. THE TOP 1" SHALL BE FILLED WITH BUTYL RUBBER CAULKING (COMMERCIAL GRADE) OR OTHER APPROVED WATERPROOFING MATERIAL.
1/2" DOWEL BARS 12" LONG. 4 REQUIRED PER POST. NO SEPARATE PAYMENT WILL BE MADE FOR CONCRETE OR DOWELS.
TOP OF NEW BOX CULVERT OR BRIDGE FOOTING.
TOP OF EXISTING BOX CULVERT OR BRIDGE FOOTING.
TYPE 1 CABLE ANCHORAGE
25' TRANSITION
NORMAL GUARDRAIL INSTALLATION
TERMINAL SECTION
150' TRANSITION
† VARIABLE
NORMAL SHOULDER
SHOULDER
ETL
LENGTH AS REQ'D.
37'-6" TYPICAL
6'-3" (MIN.)
12'-6"
75'


STATE
PROJECT NO.
MISS.
TYPICAL INSTALLATION FOR CULVERT
∗NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
TYPICAL INSTALLATION FOR ROADSIDE OBSTACLE ON SIDE SLOPE STEEPER THAN 10:1
∗NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
TYPICAL INSTALLATION FOR ROADSIDE OBSTACLE ON SIDE SLOPE 10:1 OR FLATTER
∗NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
TERMINAL SECTION
NORMAL GUARDRAIL INSTALLATION
† VARIABLE
150' TRANSITION
LENGTH AS REQ'D.
37'-6" TYPICAL
75'
NORMAL SHOULDER
ETL
SHOULDER
VARIABLE
SECTION A–A
"W"
VARIES
NORMAL SHOULDER SLOPE
6:1
AS SHOWN ON THE PLANS
SECTION B–B
NORMAL SLOPE
2'-0" (MIN.)
SECTION C–C
CULVERT
4'-0" (MIN.)
∗∗NOTE: FOR STEEL POST AND MODIFIED WOOD BLOCKOUT, 20.78". FOR WOOD POST AND WOOD BLOCKOUT, 23.25".
SECTION D–D
FOR OBSTACLES 5' TO 17' FROM NORMAL SHOULDER
STEEPER THAN 10:1
OBSTACLE
3'-0" (MIN.)
SECTION D–D
FOR OBSTACLES 17' OR MORE FROM NORMAL SHOULDER
17'-0" OR MORE
12" MIN.
SECTION E–E
10:1 OR FLATTER
† NOTE: IF FORESLOPE, SHOWN ELSEWHERE ON PLANS, IS OTHER THAN 6:1, TRANSITION WILL OCCUR IN AREA SHOWN.
THE POST SHALL BE WRAPPED WITH ONE LAYER OF 1/4" THICK EXPANDED POLYSTYRENE FOAM SHEETING AND ONE WRAP OF LIGHTWEIGHT BUILDING PAPER. THE TOP 1" SHALL BE FILLED WITH BUTYL RUBBER CAULKING (COMMERCIAL GRADE) OR OTHER APPROVED WATERPROOFING MATERIAL.
2'-8"
TOP OF NEW BOX CULVERT OR BRIDGE FOOTING.
1/2" DOWEL BARS 12" LONG. 4 REQUIRED PER POST. NO SEPARATE PAYMENT WILL BE MADE FOR CONCRETE OR DOWELS.
TOP OF EXISTING BOX CULVERT OR BRIDGE FOOTING.
4" (MIN.)
12"
DETAIL OF POST INSTALLATION WITH COVER LESS THAN NORMAL POST LENGTH
GENERAL NOTES:
1. FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
2. GUARDRAIL SECTIONS TO BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW NEAREST THE GUARDRAIL FACE.
3. PAY LIMITS FOR NORMAL GUARDRAIL INSTALLATION WILL BE THE TOTAL LENGTH LESS THE LENGTHS OF END TERMINALS.
4. W = SHOULDER WIDTH + FORESLOPE WIDTH. DIMENSIONS FOUND ELSEWHERE ON THE PLANS.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL: TYPICAL INSTALLATION FOR ROADSIDE HAZARDS ON 2-LANE, 2-WAY HIGHWAYS
BY
REVISION
DATE
ISSUE DATE: MAY 01, 2017
MDOT
WORKING NUMBER GR-4C
SHEET NUMBER 6217


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
MISCELLANEOUS HARDWARE
WORKING NUMBER GR-HW
SHEET NUMBER 6221
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
"W" BEAM TERMINAL CONNECTOR PLATE
NOTES:
1. THE "W" BEAM TERMINAL CONNECTOR IS TO BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE I.
2. SPLICE-BOLT SLOTS MAY ALSO BE ORIENTED AT 50° (ON THE FLAT) INSTEAD OF 0° AS SHOWN.
SHELF ANGLE BRACKET
BREAKAWAY TERMINAL POST SLEEVE
STEEL TUBE ANCHOR
NOTE: TERMINAL POST SHOULD BE ABLE TO SLIDE INTO THE TOP OF THIS SECTION SO THE ACTUAL INSIDE DIMENSIONS OF TUBE CANNOT BE LESS THAN 7 1/2" X 5 1/2".
BEARING PLATE
TERMINAL POST FOR FOUNDATION TUBE INSTALLATION
NOTE: TERMINAL POST SHALL BE MADE OF S4S TIMBER WITH A STRESS GRADE OF 1200 lbs/in².
SOIL PLATE
NOTE: 2 REQUIRED
RECTANGULAR GUARDRAIL PLATE WASHER
RECESSED NUT
HEX NUT "H"
HEX NUT AND BOLT "F"
GUARDRAIL BOLT
GUARDRAIL BOLTS
BOLT L T (MIN.)
"A" 1 1/4" 2" 1"
"B" 1 3/4" 2" 1 3/4"
"C" 2" 4" 4"
"D" 2 1/2" 4" 4"
"E" 3" 4" 4"
"F" 3 1/2" 4" 4"
PLAIN ROUND WASHER
PLAIN ROUND WASHERS
WASHER A (NOM.) B (NOM.) C (NOM.)
"F" 1 1/2" 3" 3/16"
"H" 1 1/2" 2" 3/16"
END PLATE
BRACKET
ANCHOR PLATE ASSEMBLY DETAILS
ANCHOR PLATE
CABLE ANCHOR ASSEMBLY
FASTENER DETAILS
NOTES:
1. ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
2. IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
RUB RAIL HARDWARE
WORKING NUMBER GR-RR
SHEET NUMBER 6218
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
GENERAL NOTES:
1. POSTS 1 THROUGH 9 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS. STEEL POST REQUIRE 2 HOLES ON EITHER SIDE OF THE POST.
2. RUBRAIL BLOCKOUTS ARE TO BE SECURED WITH ¾" BUTTONHEAD BOLT FOR STEEL POST AND 20" BOLT FOR WOOD POST. (SEE PROFILE VIEW FOR LENGTHS)
3. RUBRAIL & LONG BLOCKOUT (POST 9) ARE NOT REQUIRED IN CURB & GUTTER SECTIONS OF ROADWAY.
BLOCKOUT FOR POST 9 OF TYPE "T" BRIDGE END SECTION
PLAN
ELEVATION FOR WOOD POST
ELEVATION FOR STEEL POST
6" X 12" MODIFIED WOOD BLOCKOUT
5" X 12" WOOD BLOCKOUT
¾" DIA. (TYP.)
CROSS-SECTION VIEW OF C6 x 8.2
PROFILE VIEW OF POSTS
WOOD POST
STEEL POST
GUARDRAIL BOLT "C" WITH RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT.
6" X 12" MODIFIED WOOD BLOCKOUT, 29½" LONG
W6 X 9 STEEL POST, 4'-6" LONG
C6 x 8.2
10H SLOPE OR FLATTER
RECESSED NUT WITH PLAIN RDING WASHER "F"
25' GUARDRAIL BOLT NO WASHER
6" X 12" WOOD BLOCKOUT, 29 ½" LONG
GUARDRAIL BOLT "C" WITH RECTANGULAR PLATE WASHER UNDER HEAD
10" X 10" WOOD POST, 6'-0" LONG
* NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.
DRILL ¾" DIA. HOLE (TYP.)
POST BOLT SLOTS ¾" x 2½" (TYP.)
LONGITUDINAL RUB RAIL
C6 x 8.2
18'-6¾"
DIAGONAL RUB RAIL
6.25' (MEASURED ALONG RUB RAIL)
¾" DIA HOLE FOR ⅝" DIA. LAG SCREW OR BOLT
1.875"
RUB RAIL CONNECTOR BRACKET
¾" DIAMETER
16°
"L" BRACKET
¾" x 1½" SLOTS
25' OR 15' GUARDRAIL BOLT
¾" - 11 UNC THREAD
BUTTON HEAD
OVAL SHOULDER
AS NOTED


STATE PROJECT NO.
MISS.
DISTANCE REFERENCE SIGN-STANDARD ROADSIDE SIGN D10-1, D10-2, & D10-3
EDGE OF PAVEMENT
EDGE OF SHOULDER
TOTAL LENGTH (10'-0", 11'-0", 12'-0")
DISTANCE REFERENCE SIGN MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY
NOTE: SIGN MOUNTING ON LEFT LANE SHOULDER SHALL BE 90° OPPOSITE THE RIGHT LANE STATION. IF CONDITIONS ARE SUCH THAT MILE SIGN CANNOT BE LOCATED WITHIN 50 FEET OF ITS TRUE LOCATION, IT SHALL BE OMITTED ENTIRELY.
SINGLE OR DOUBLE AS REQUIRED
DELINEATOR MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY OR RAMP
USABLE SHOULDER
DELINEATOR MOUNTING ON OUTSIDE SHOULDER WITH MOUNTABLE CURB ALONG MAIN FACILITY OR RAMP
UNUSABLE SHOULDER
DELINEATOR MOUNTING ON INTERCHANGE LOOPS WITH UNMOUNTABLE CURB ON INSIDE
DETAIL OF TYPE 3 OBJECT MARKER
NOTE: COLORS- BLACK AND YELLOW. STRIPING SHOWN ABOVE FOR RIGHT SIDE ONLY. STRIPES SLANT DOWNWARD TO THE RIGHT FOR LEFT SIDE OF BRIDGE END. SEE DETAIL BELOW.
3/8" DIA. HOLES AS SHOWN
TYPE 3 OBJECT MARKER (9'-0")
DISTANCE REFERENCE SIGN (10'-0", 11'-0", 12'-0")
3/8" DIA. HOLES @ 1" O.C. FOR 4'-0"
REAR VIEW OF TYPE 3 OBJECT MARKER OR DISTANCE REFERENCE SIGN ASSEMBLY
NOTE: TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGNS ARE TO BE FASTENED TO U-SECTION POSTS WITH 3/16" DIA. HUCK FASTENERS OR CHERRY RIVETS OF THE COLLAR TYPE OR OTHER APPROVED EQUAL.
BRIDGE END PAVEMENT
28'-0" OR MORE
TYPE 3 OBJECT MARKER
TRAFFIC
DETAIL OF TYPE 3 OBJECT MARKER INSTALLATION
DELINEATOR
POST
DETAIL OF SINGLE WHITE OR SINGLE YELLOW DELINEATOR
DETAIL OF DOUBLE WHITE OR DOUBLE YELLOW DELINEATOR
3/8" DIA. HOLES @ 1" O.C. FOR 24"
REAR VIEW OF DELINEATOR ASSEMBLY
DELINEATORS, OBJECT MARKERS OR DISTANCE REFERENCE SIGNS (D10-1, D10-2, OR D10-3) ARE MOUNTED TO THIS FACE AS SHOWN.
DIRECTION OF TRAFFIC
MOUNTING DETAIL
NOTE: DELINEATORS ARE TO BE FASTENED TO U-SECTION POSTS WITH 1/4" DIA. HUCK FASTENERS OR CHERRY RIVETS OF THE COLLAR TYPE OR OTHER APPROVED EQUAL.
GENERAL NOTES:
1. DELINEATORS AND TYPE 3 OBJECT MARKER SHALL BE REFLECTIVE SHEETING ON 0.080" THICK ALUMINUM SHEET OR 14 GAGE GALVANIZED SHEET STEEL.
2. DELINEATOR, TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGN POSTS SHALL BE GALVANIZED STEEL. THE POSTS ARE TO BE FABRICATED BEFORE THE METAL IS GALVANIZED.
3. WEIGHT WITHOUT GROUND PLATES:
A. DELINEATOR POST 7'-0" - 2.0 lb/ft TO 2.5 lb/ft
B. TYPE 3 OBJECT MARKER POST 9'-0" - 2.5 lb/ft TO 3.0 lb/ft
C. DISTANCE REFERENCE SIGN POST 10'-0", 11'-0", & 12'-0" - 3.0 lb/ft TO 3.5 lb/ft
4. UNIT PRICE OF DELINEATORS AND TYPE 3 OBJECT MARKERS SHALL INCLUDE COST OF POST. DISTANCE REFERENCE SIGN POST WILL BE PAID FOR PER FOOT.
5. RADIUS IN BENDS OF POST CROSS SECTION NOT TO EXCEED 3/16 FOR HOT ROLLED SECTION.
6. GROUND PLATE NOT REQUIRED ON U-SECTION POST.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TYPICAL INSTALLATION AND DETAILS OF DELINEATORS AND DISTANCE REFERENCE SIGNS
ISSUE DATE: MAY 01, 2017
WORKING NUMBER SN-8
SHEET NUMBER 6314

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 – NOTICE TO BIDDERS NO. 3599 **CODE: (SP)**

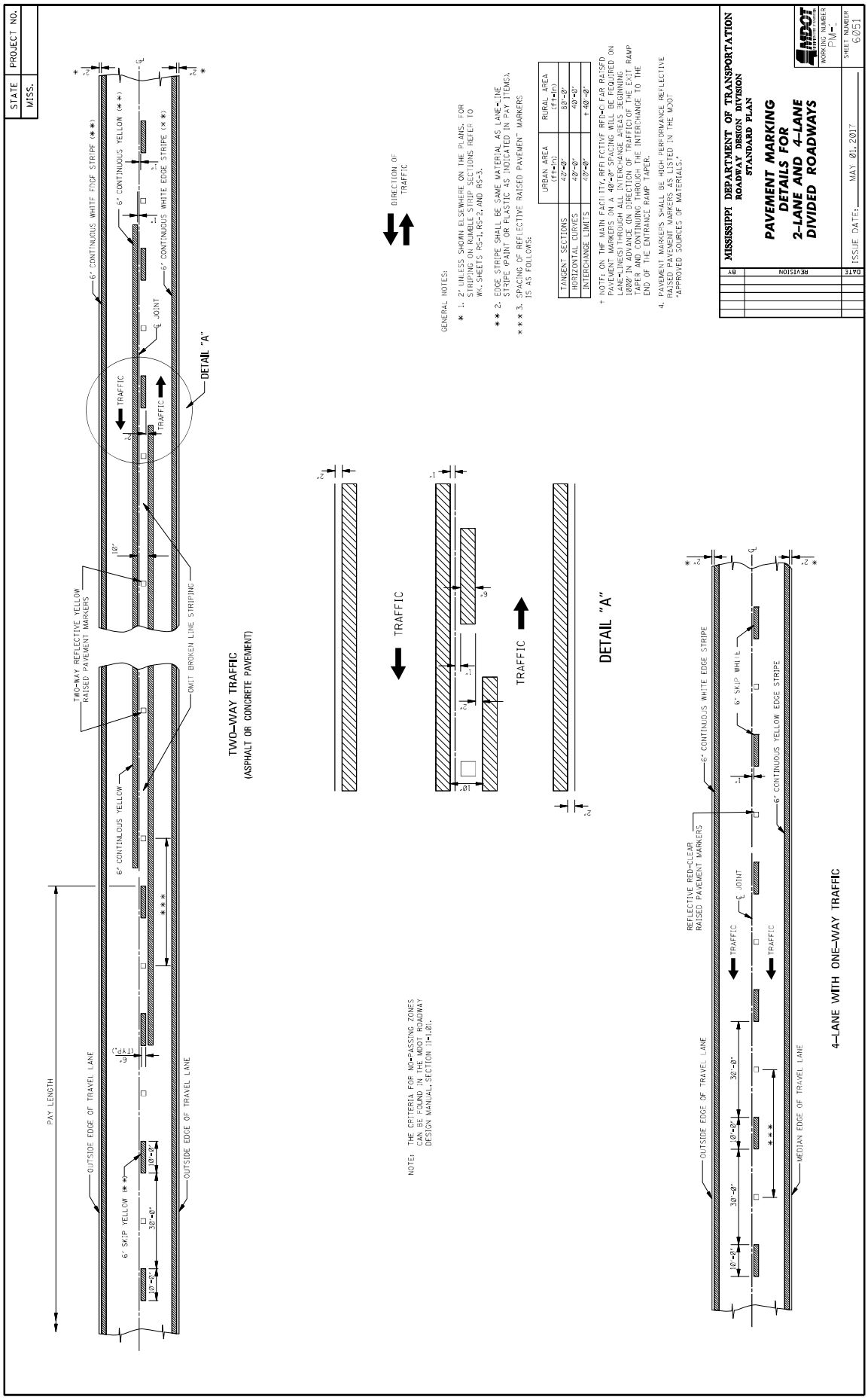
DATE: **08/11/2021**

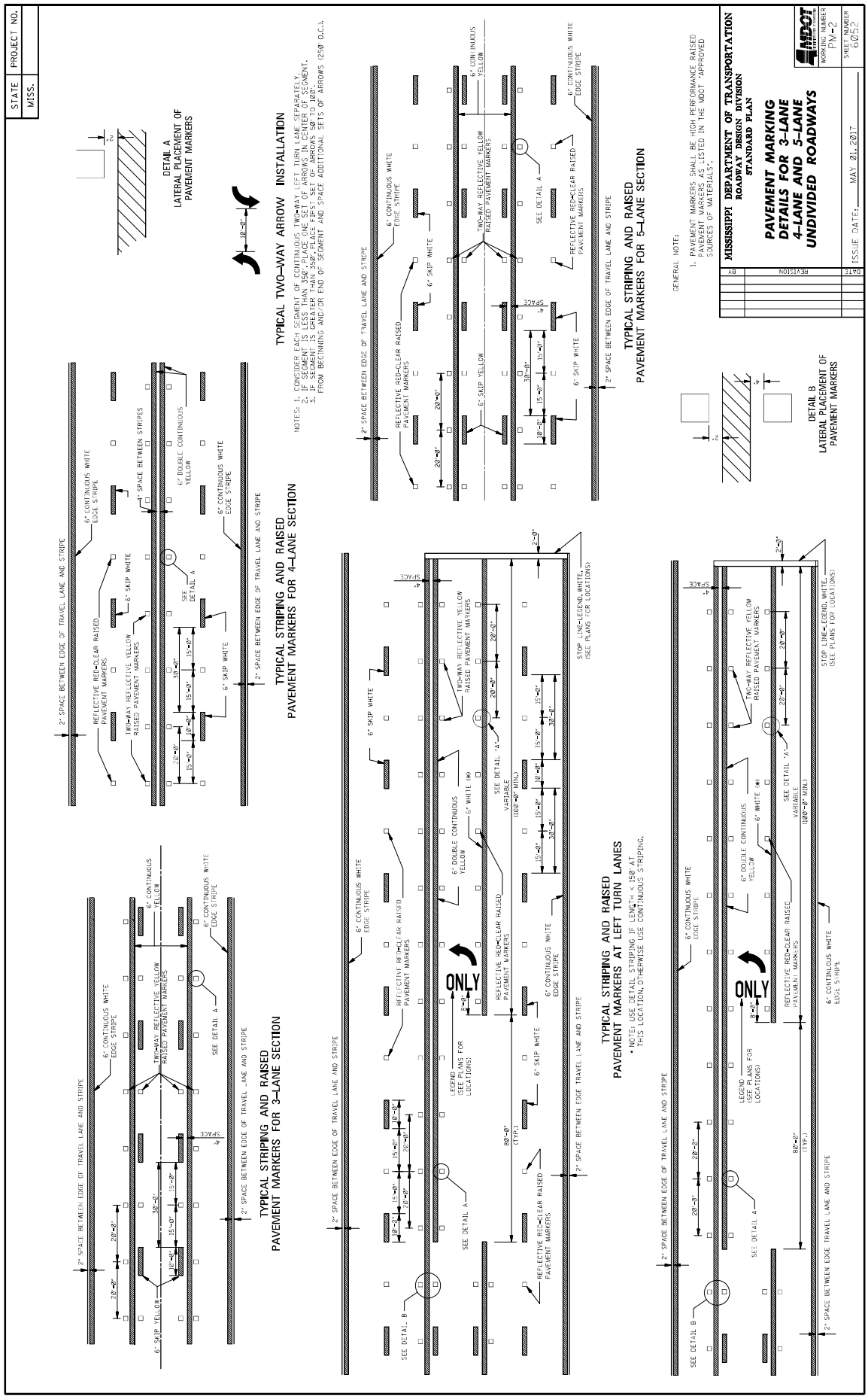
SUBJECT: **Standard Drawings**

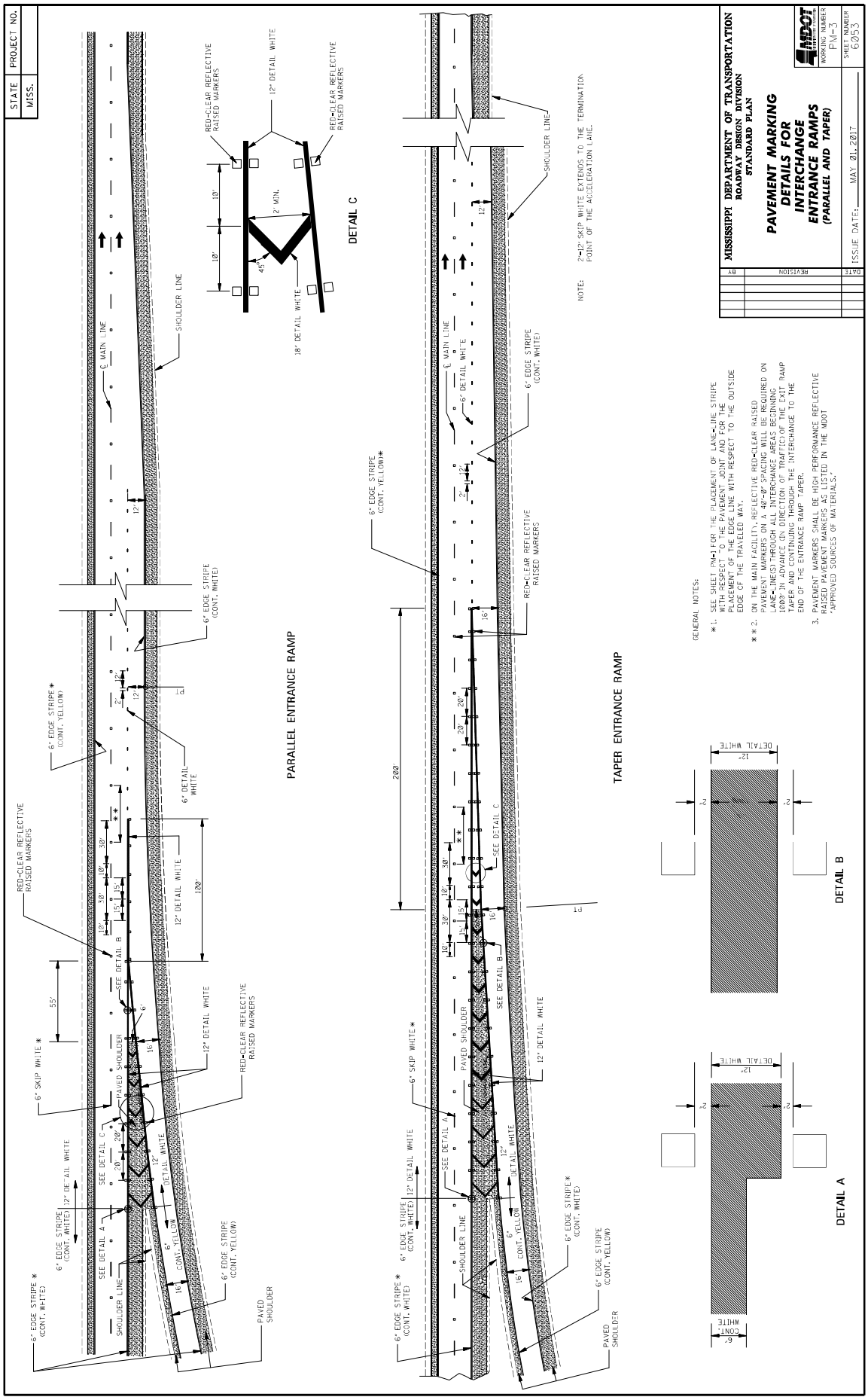
Standard Drawings attached hereto shall govern appropriate items of required work.

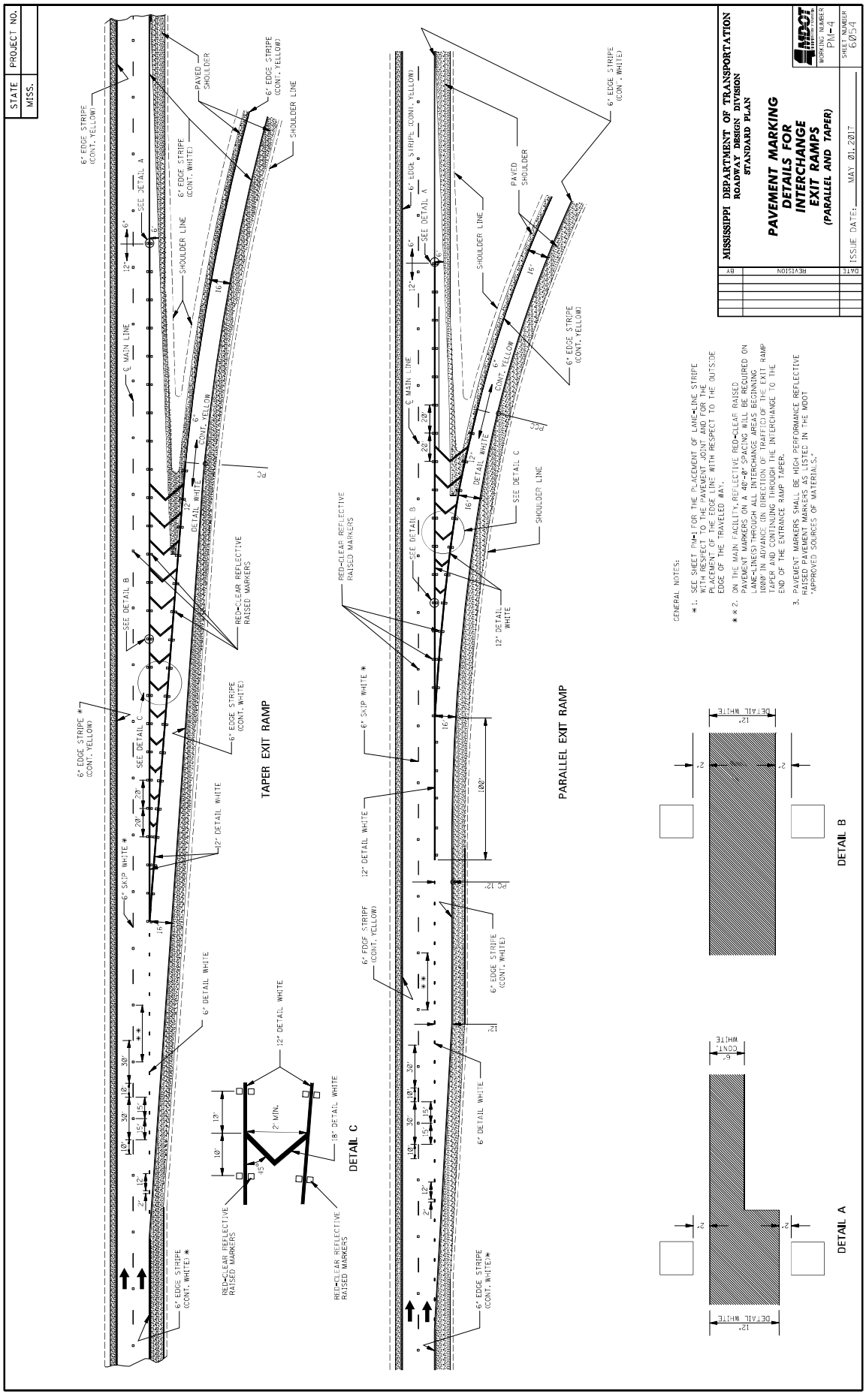
Larger copies of Standard Drawings may be purchased from:

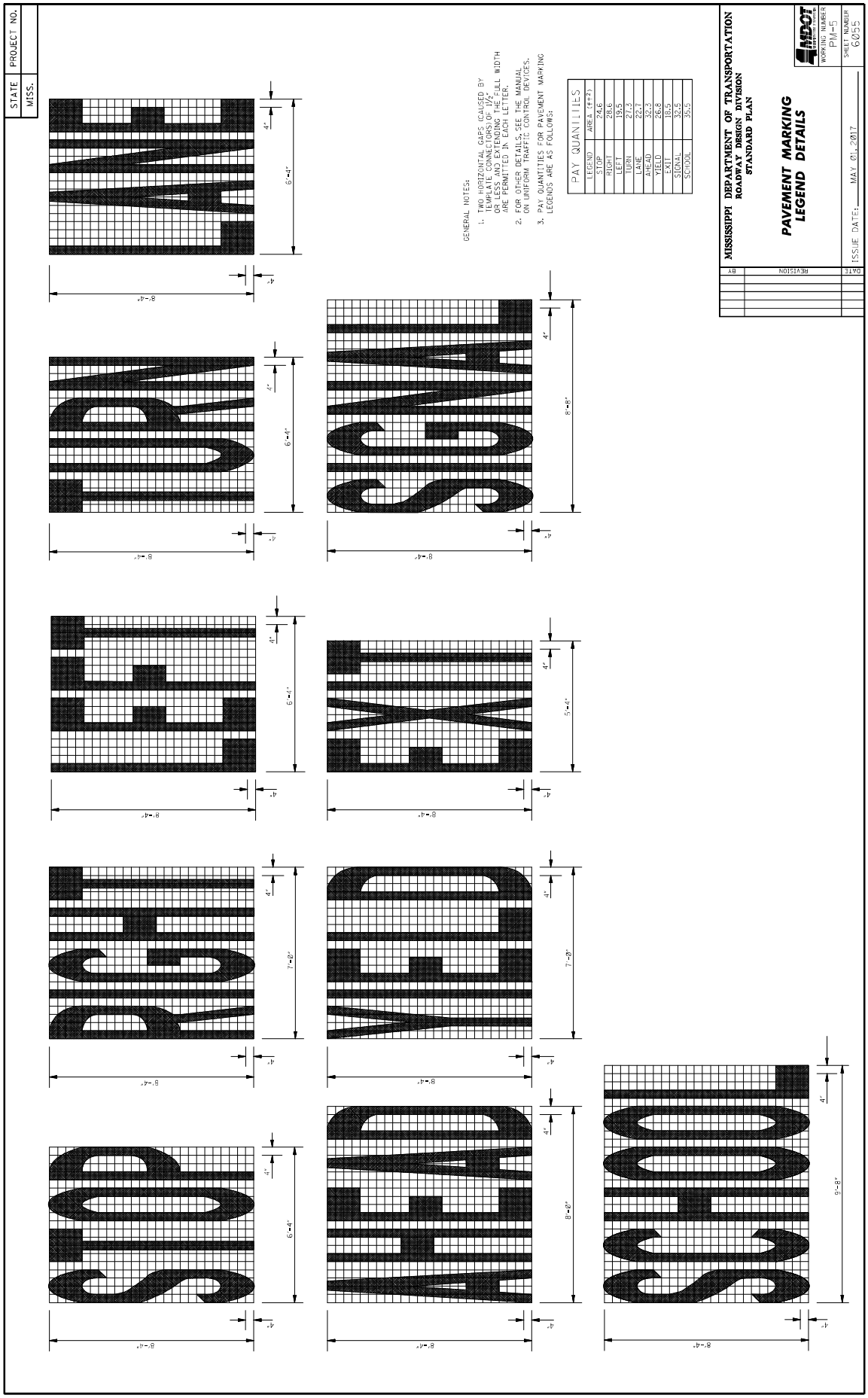
MDOT Plans Print Shop
MDOT Shop Complex, Building C, Room 114
2567 North West Street
P.O. Box 1850
Jackson, MS 39215-1850
Telephone: (601) 359-7460
or FAX: (601) 359-7461
or e-mail: plans@mdot.state.ms.us

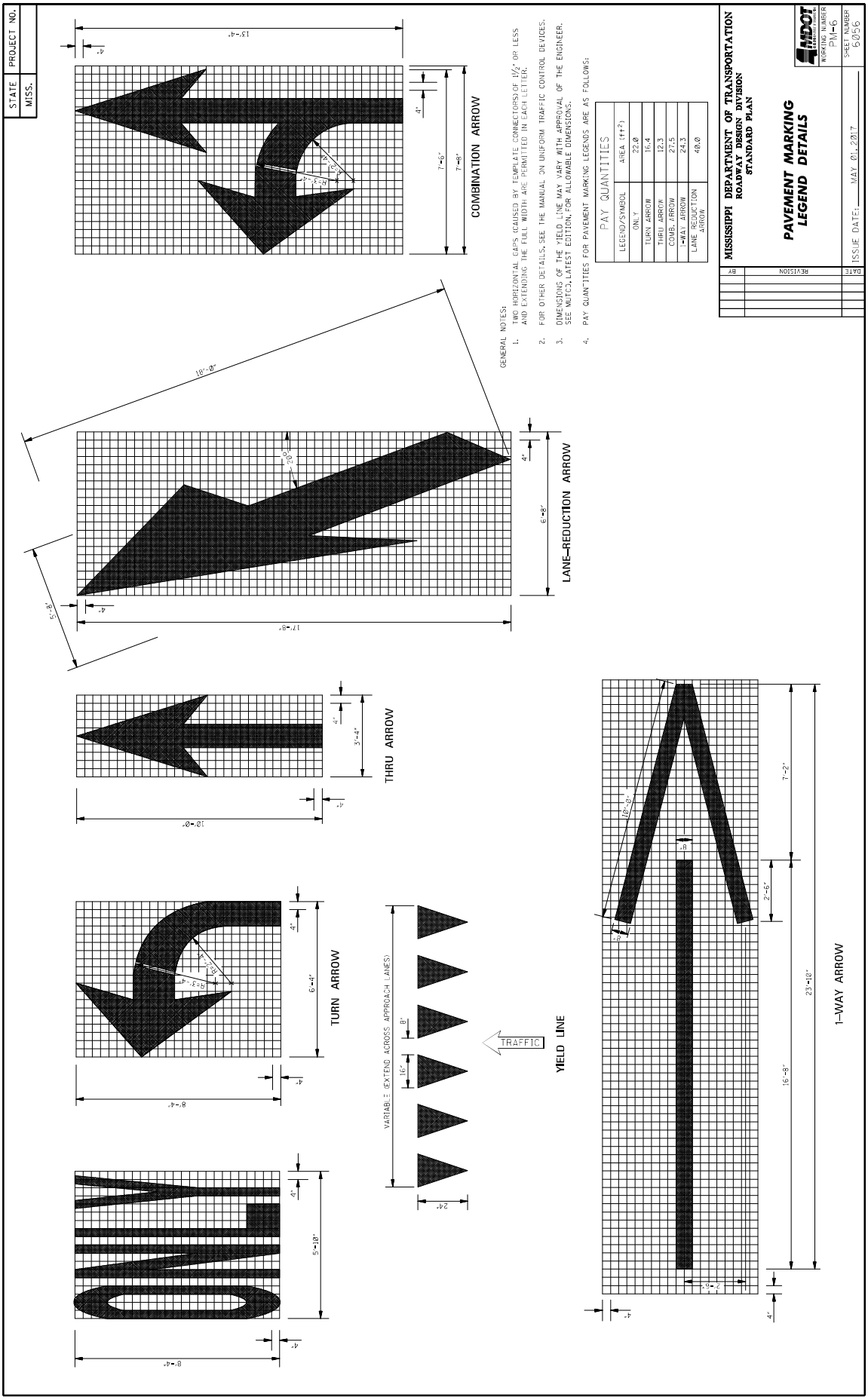

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING DETAILS FOR 2-LANE AND 4-LANE DIVIDED ROADWAYS
WORKING NUMBER PM-_
SHEET NUMBER 6051
ISSUE DATE: MAY 01, 2017
BY REVISION DATE
TWO-WAY REFLECTIVE YELLOW RAISED PAVEMENT MARKERS
6" CONTINUOUS WHITE EDGE STRIPE (* *)
6" CONTINUOUS YELLOW (* *)
6" CONTINUOUS WHITE EDGE STRIPE (* *)
℄ JOINT
DETAIL "A"
TRAFFIC
10'
6" CONTINUOUS YELLOW
6" SKIP YELLOW (* *)
OUTSIDE EDGE OF TRAVEL LANE
DWIT BROKEN LINE STRIPING
PAY LENGTH
TWO-WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)
DIRECTION OF TRAFFIC
GENERAL NOTES:
* 1. 2" UNLESS SHOWN ELSEWHERE ON THE PLANS, FOR STRIPING ON RUMBLE STRIP SECTIONS REFER TO MK. SHEETS RS-1, RS-2, AND RS-3.
** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR PLASTIC AS INDICATED IN PAY ITEMS).
*** 3. SPACING OF REFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:
URBAN AREA (ft-in) | RURAL AREA (ft-in)
TANGENT SECTIONS 40'-0" 80'-0"
HORIZONTAL CURVES 40'-0" 40'-0"
INTERCHANGE LIMITS 40'-0" † 40'-0"
† NOTE: ON THE MAIN FACILITY, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE LINES THROUGHOUT ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE OF 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 MDOT "APPROVED SOURCES OF MATERIALS."
TRAFFIC
DETAIL "A"
NOTE: THE CRITERIA FOR NO-PASSING ZONES CAN BE FOUND IN THE MDOT ROADWAY DESIGN MANUAL, SECTION 1-1.01.
REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS
6" CONTINUOUS WHITE EDGE STRIPE
6" SKIP WHITE
6" CONTINUOUS YELLOW EDGE STRIPE
OUTSIDE EDGE OF TRAVEL LANE
MEDIAN EDGE OF TRAVEL LANE
4-LANE WITH ONE-WAY TRAFFIC

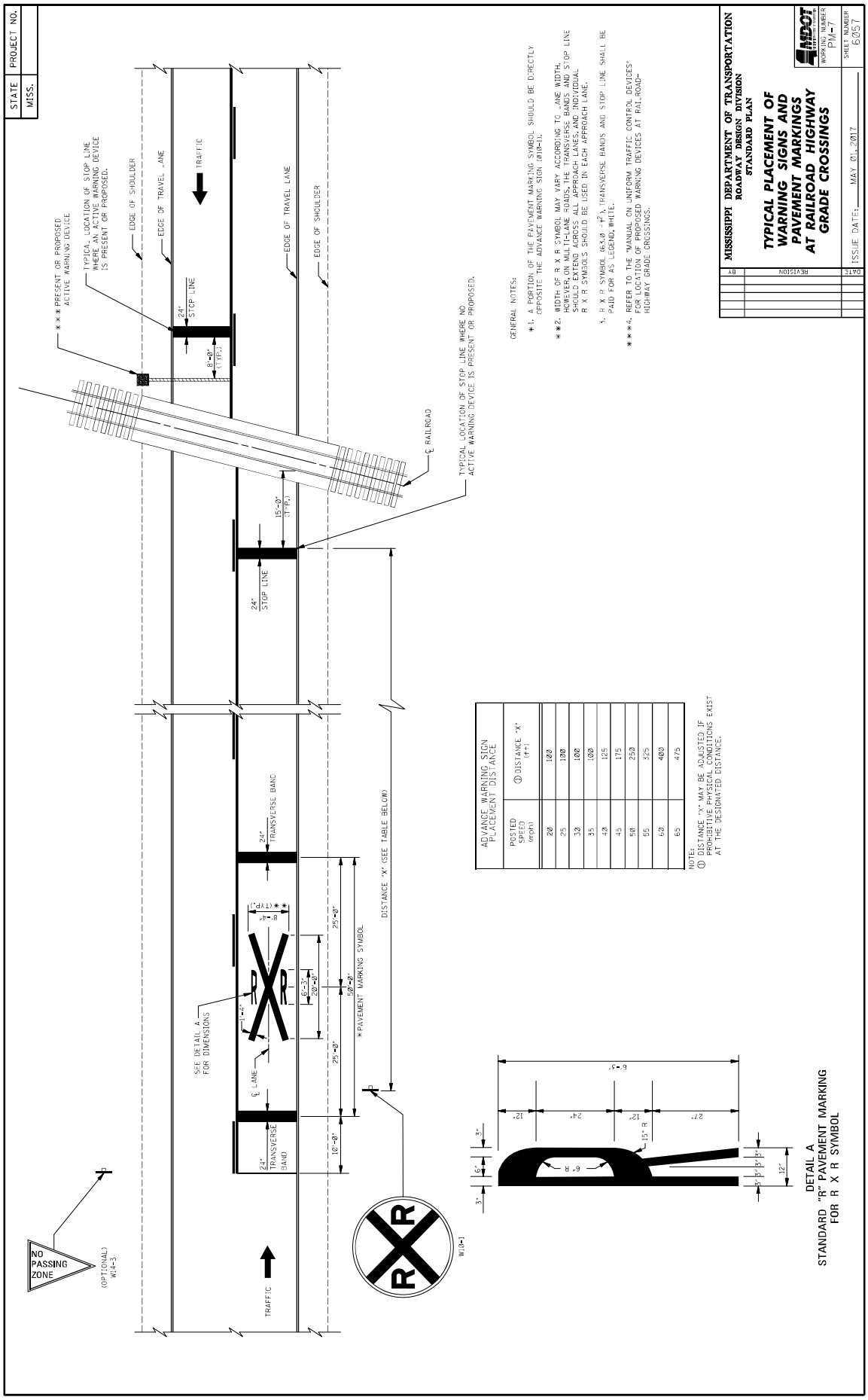

STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING
DETAILS FOR 3-LANE
4-LANE AND 5-LANE
UNDIVIDED ROADWAYS
WORKING NUMBER
PM-2
SHEET NUMBER
6052
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
GENERAL NOTE:
1. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED SOURCES OF MATERIALS".
TYPICAL STRIPING AND RAISED
PAVEMENT MARKERS FOR 3-LANE SECTION
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 < 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 FIRST SET OF ARROWS AT MIDPOINT 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

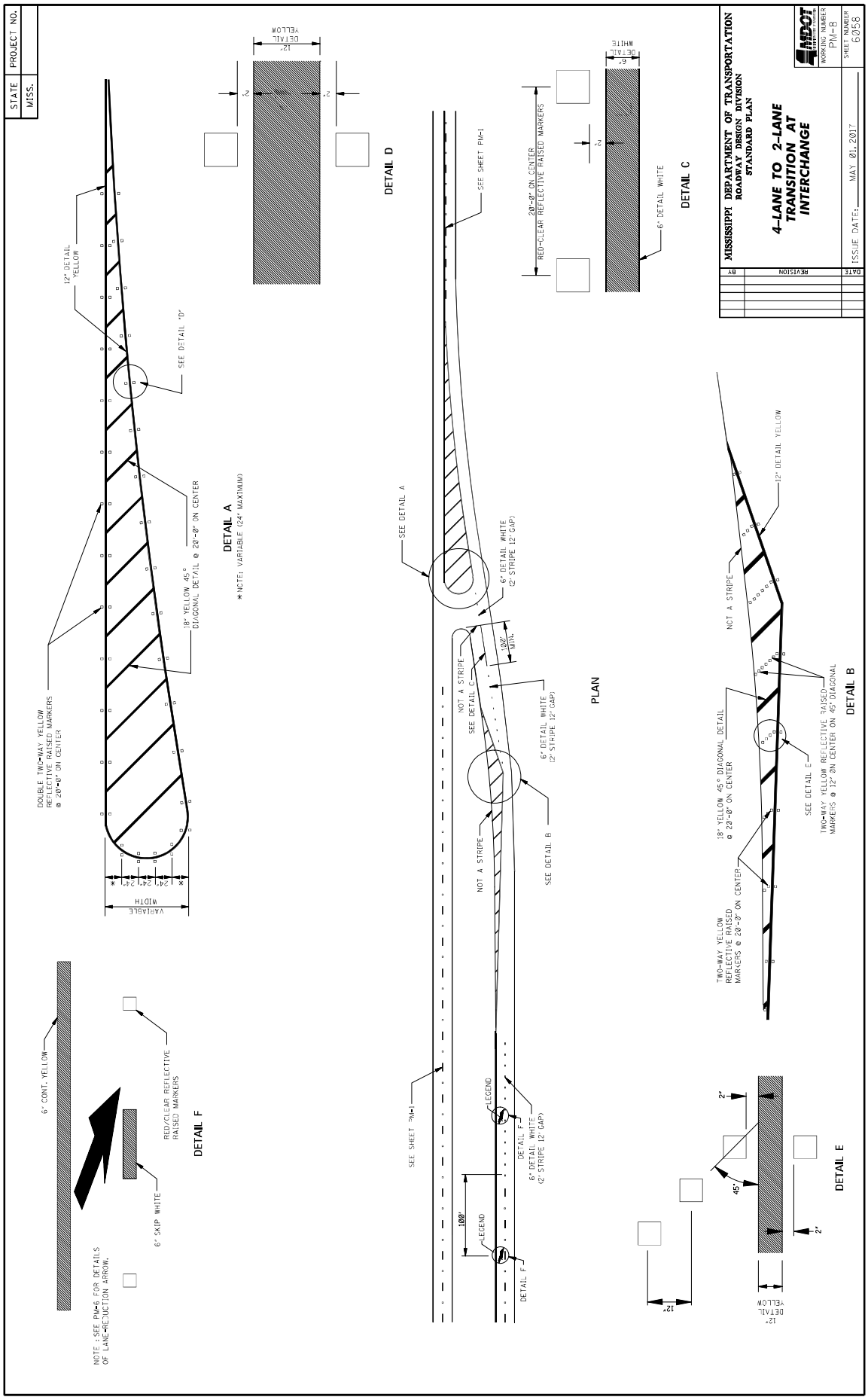

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING DETAILS FOR INTERCHANGE ENTRANCE RAMPS (PARALLEL AND TAPER)
WORKING NUMBER FM-3
SHEET NUMBER 6055
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
PARALLEL ENTRANCE RAMP
TAPER ENTRANCE RAMP
DETAIL A
DETAIL B
DETAIL C
GENERAL NOTES:
*1. SEE SHEET FM-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, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS 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 MDOT "APPROVED SOURCES OF MATERIALS."
NOTE: 2-12" SKIP WHITE EXTENDS TO THE TERMINATION POINT OF THE ACCELERATION LANE.

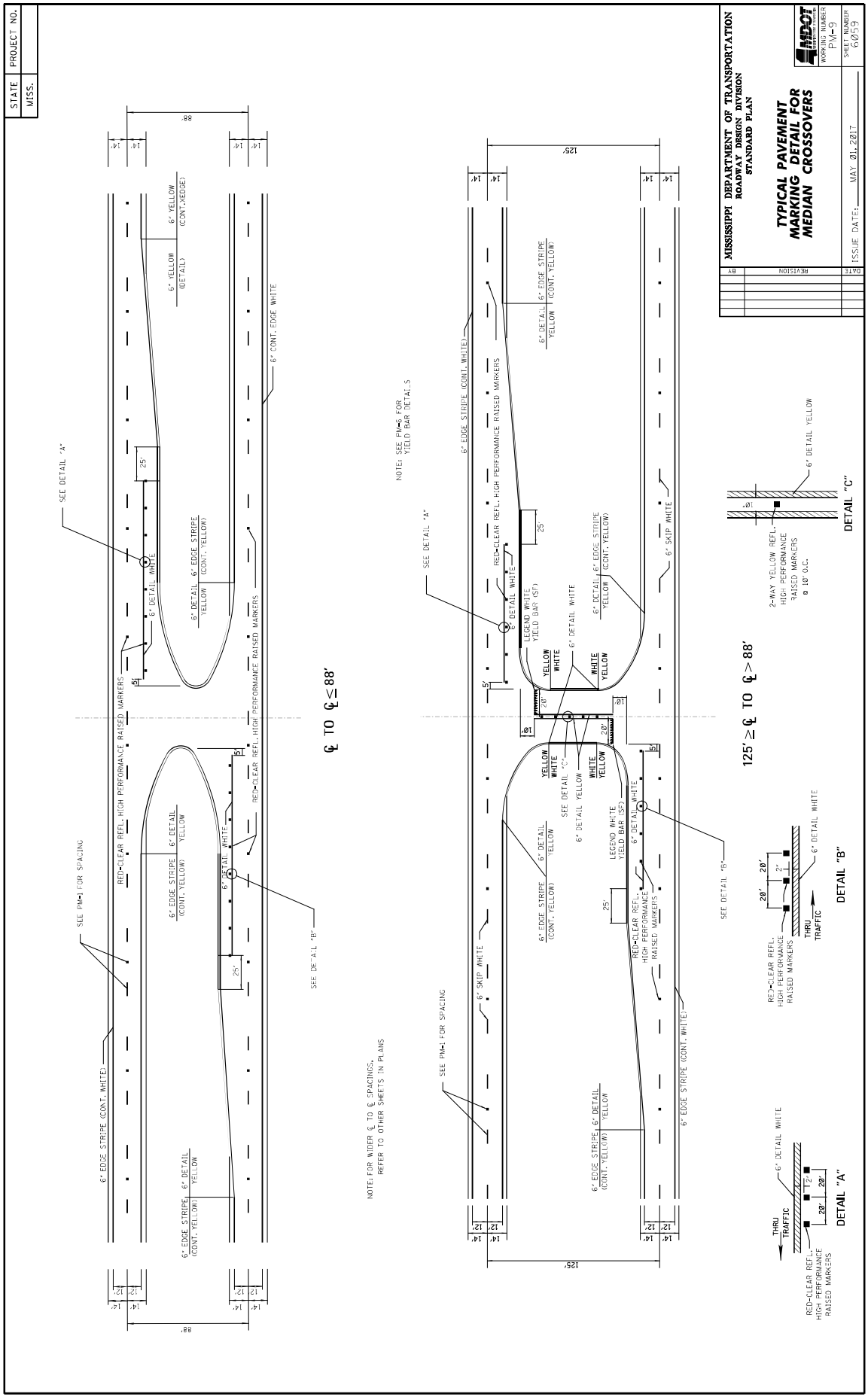

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING DETAILS FOR INTERCHANGE EXIT RAMPS
(PARALLEL AND TAPER)
WORKING NUMBER PIN-4
SHEET NUMBER 6054
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
TAPER EXIT RAMP
PARALLEL EXIT RAMP
DETAIL A
DETAIL B
DETAIL C
GENERAL NOTES:
*1. SEE SHEET 2 OF 4 FOR THE PLACEMENT OF LANE-LINE STRIPE WITH RESPECT TO THE PAVEMENT JOINT AND/OR THE PLACEMENT OF THE EDGE LINE WITH RESPECT TO THE OUTSIDE EDGE OF THE TRAVELED WAY.
**2. ON THE MAIN FACILITY, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINES THROUGH ALL INTERCHANGE AREAS 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 MDOT "APPROVED SOURCES OF MATERIALS."

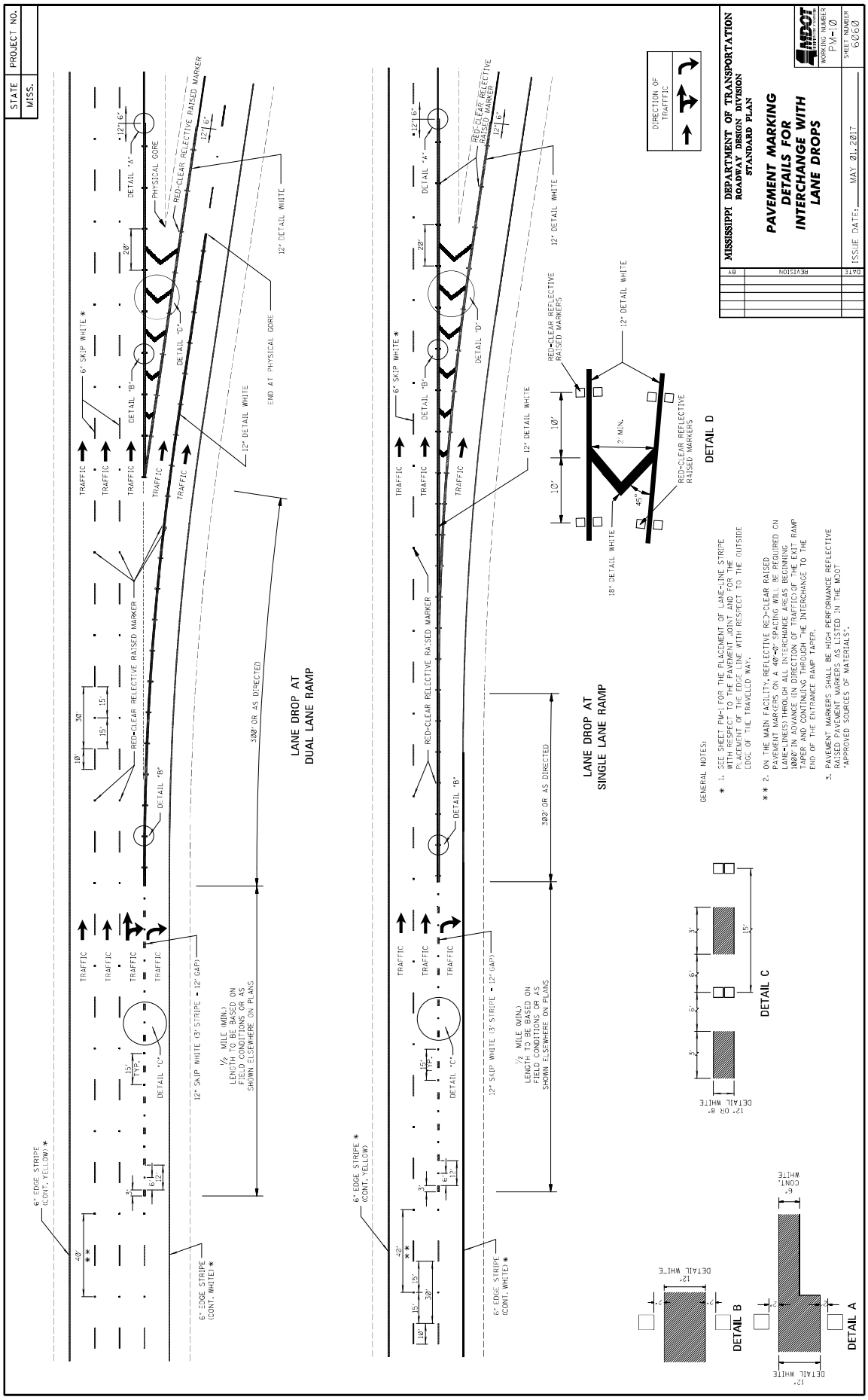

STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING
LEGEND DETAILS
WORKING NUMBER
PM-5
SHEET NUMBER
6055
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
GENERAL NOTES:
1. TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTORS) OF 1½" OR LESS AND EXTENDING THE FULL WIDTH ARE PERMITTED IN EACH LETTER.
2. FOR OTHER DETAILS, SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:
PAY QUANTITIES
LEGEND
AREA (SF)
STOP
24.6
RIGHT
28.6
LEFT
19.5
TURN
27.3
LANE
22.7
AHEAD
32.3
YIELD
26.8
EXIT
18.5
SIGNAL
32.5
SCHOOL
35.5

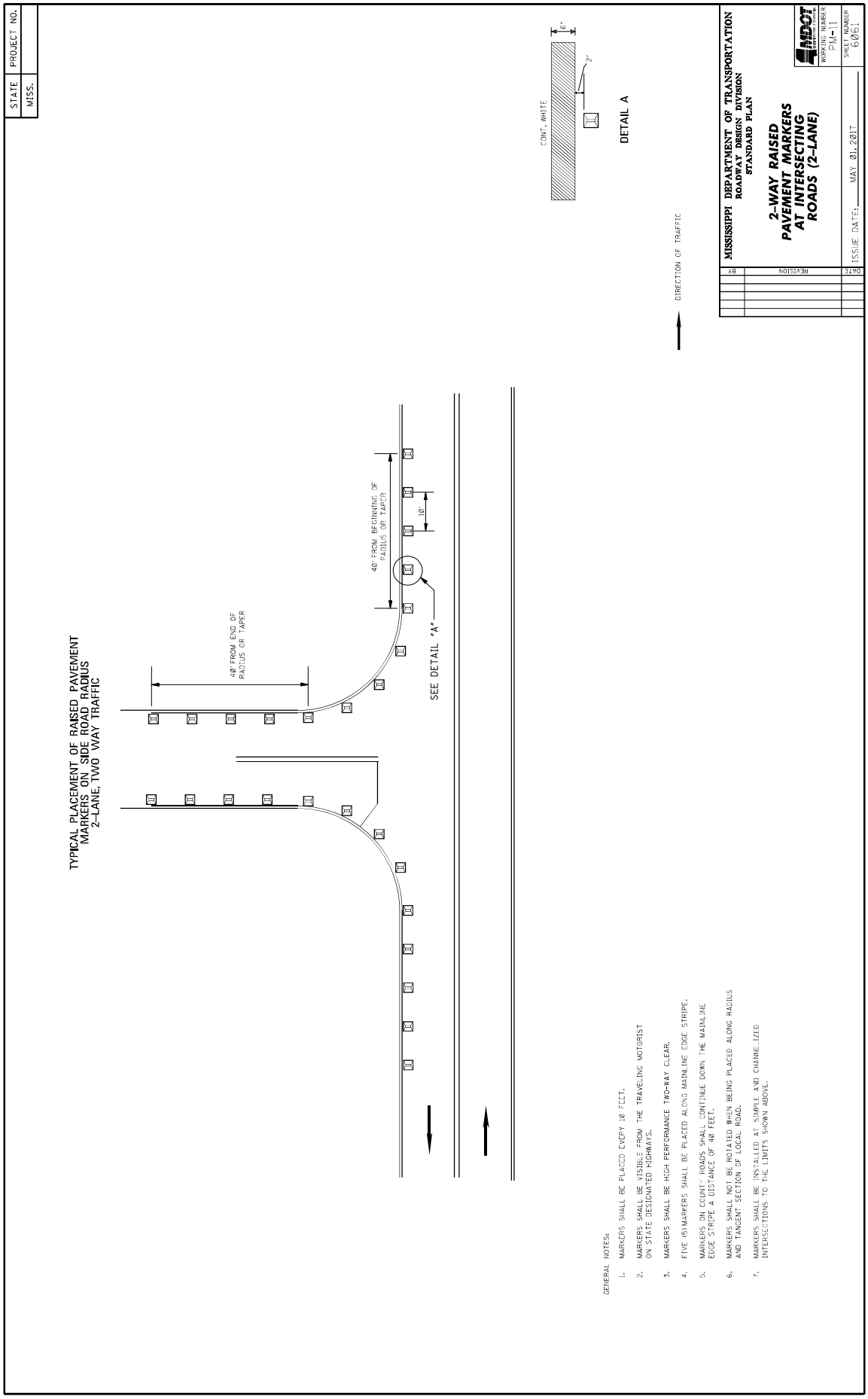

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING LEGEND DETAILS
WORKING NUMBER PM-6
SHEET NUMBER 6056
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
GENERAL NOTES:
1. TWO HORIZONTAL CAPS (CAUSED BY TEMPLATE CONNECTORS) OF 1/2" OR LESS AND EXTENDING THE FULL WIDTH ARE PERMITTED IN EACH LETTER.
2. FOR OTHER DETAILS, SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. DIMENSIONS OF THE YIELD LINE MAY VARY WITH APPROVAL OF THE ENGINEER. SEE MUTCD, LATEST EDITION, FOR ALLOWABLE DIMENSIONS.
4. PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:
PAY QUANTITIES
LEGEND/SYMBOL | AREA (ft²)
ONLY 22.0
TURN ARROW 16.4
THRU ARROW 12.3
COMB. ARROW 27.5
1-WAY ARROW 24.3
LANE REDUCTION ARROW 40.0
COMBINATION ARROW
LANE-REDUCTION ARROW
THRU ARROW
TURN ARROW
YIELD LINE
TRAFFIC
VARIABLE (EXTEND ACROSS APPROACH LANES)
1-WAY ARROW

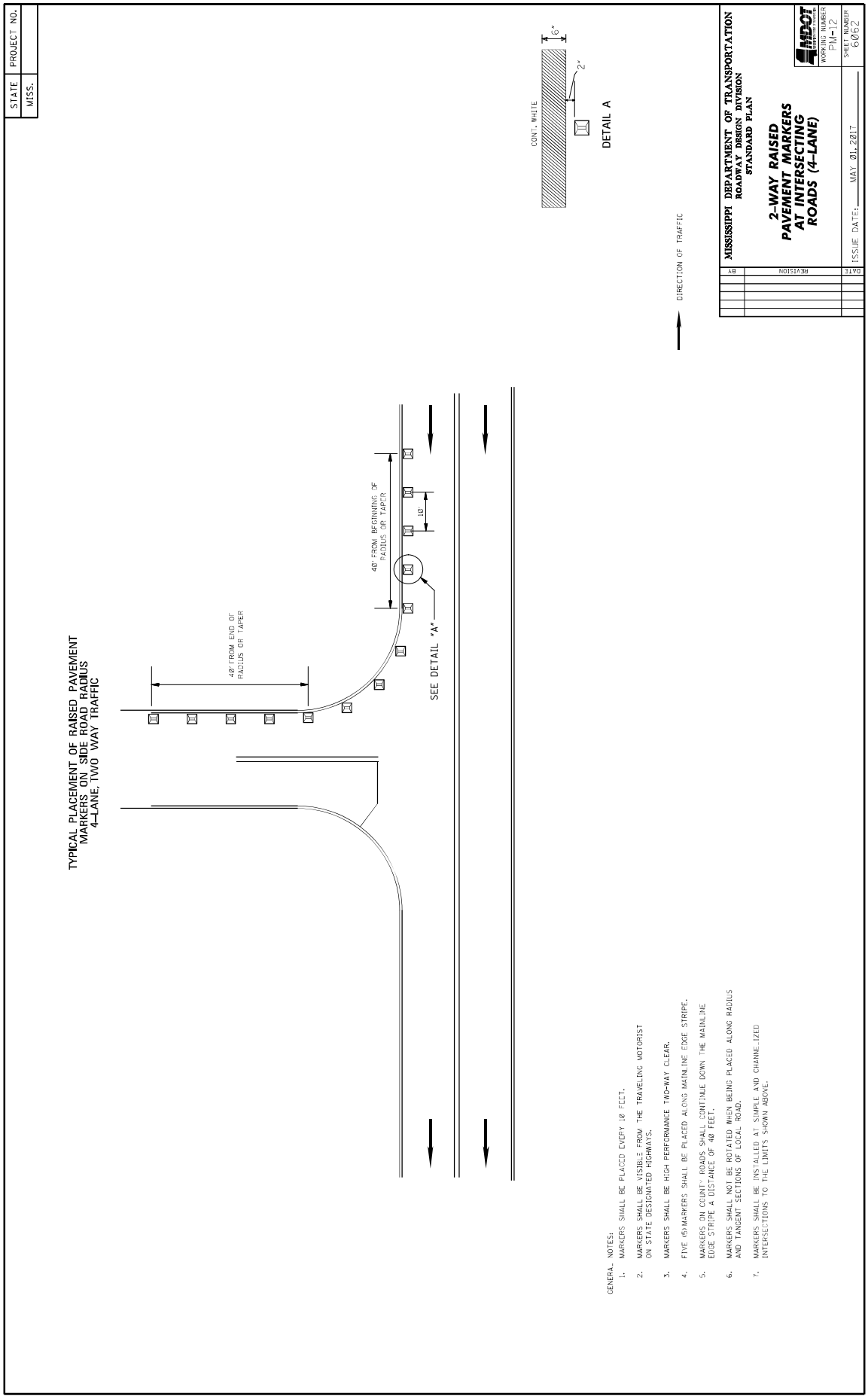

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TYPICAL PLACEMENT OF WARNING SIGNS AND PAVEMENT MARKINGS AT RAILROAD HIGHWAY GRADE CROSSINGS
WORKING NUMBER PM-7
SHEET NUMBER 6057
ISSUE DATE: MAY 01, 2017
BY REVISION DATE
GENERAL NOTES:
*1. A PORTION 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 ft²), TRANSVERSE BANDS AND STOP LINE SHALL BE PAID FOR AS LEGEND, WHITE.
***4. REFER TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR LOCATION OF PROPOSED WARNING DEVICES AT RAIL-ROAD-HIGHWAY GRADE CROSSINGS.
***PRESENT OR PROPOSED ACTIVE WARNING DEVICE
TYPICAL LOCATION OF STOP LINE WHERE AN ACTIVE WARNING DEVICE IS PRESENT OR PROPOSED.
EDGE OF SHOULDER
EDGE OF TRAVEL LANE
TRAFFIC
24" STOP LINE
8'-0" (TYP.)
℄ RAILROAD
TYPICAL LOCATION OF STOP LINE WHERE NO ACTIVE WARNING DEVICE IS PRESENT OR PROPOSED.
15'-0" (TYP.)
24" TRANSVERSE BAND
SEE DETAIL A FOR DIMENSIONS
℄ LANE
6'-3" 20'-0"
25'-0"
50'-0" *PAVEMENT MARKING SYMBOL
DISTANCE "X" (SEE TABLE BELOW)
10'-0"
W10-1
NO PASSING ZONE
(OPTIONAL) W14-3
ADVANCE WARNING SIGN PLACEMENT DISTANCE
POSTED SPEED (mph) | ① DISTANCE "X" (FT)
20 100
25 100
30 100
35 100
40 125
45 175
50 250
55 325
60 400
65 475
NOTE:
① DISTANCE "X" MAY BE ADJUSTED IF PROHIBITIVE PHYSICAL CONDITIONS EXIST AT THE DESIGNATED DISTANCE.
DETAIL A
STANDARD "R" PAVEMENT MARKING FOR R X R SYMBOL

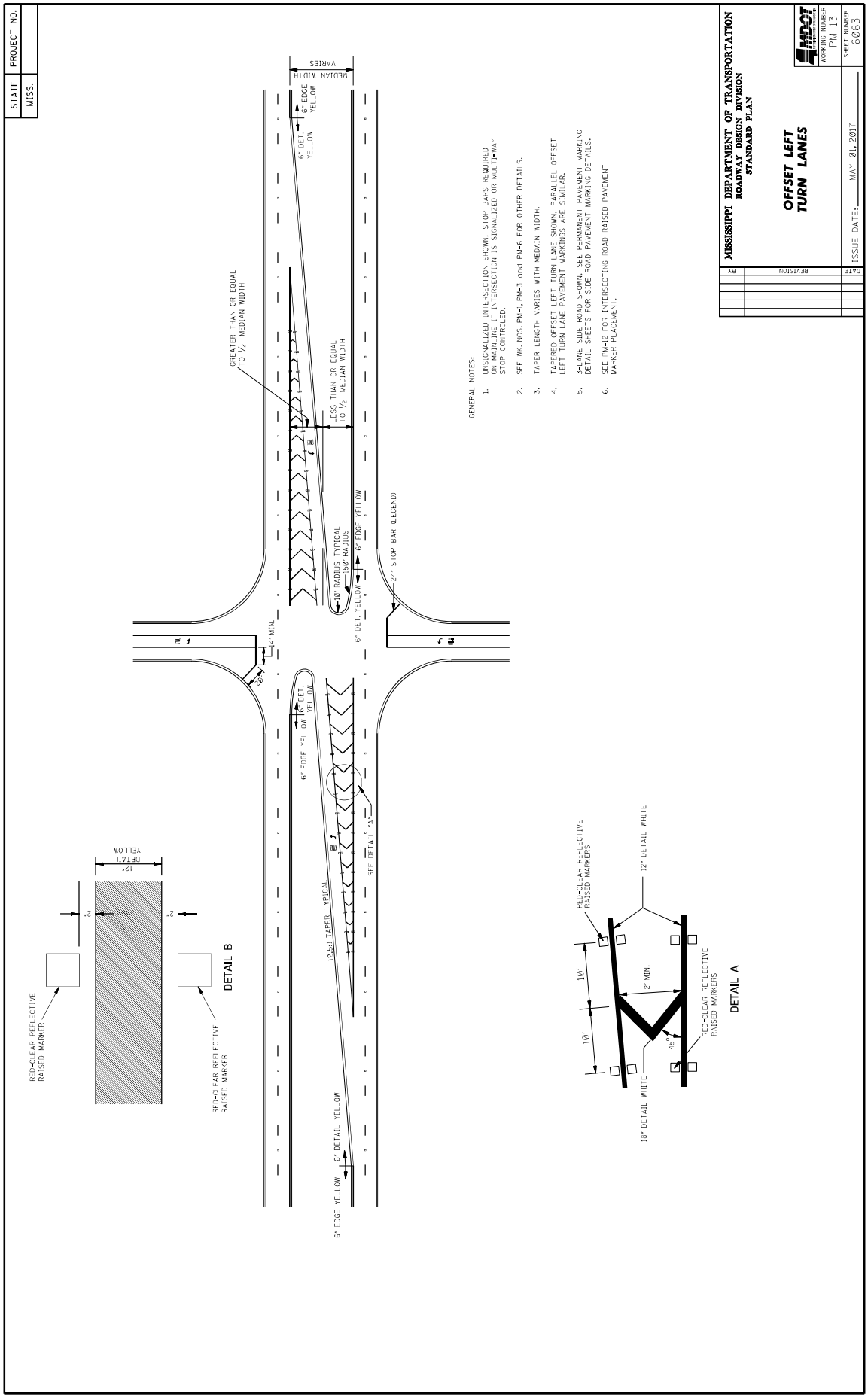

STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
4-LANE TO 2-LANE TRANSITION AT INTERCHANGE
WORKING NUMBER PM-8
SHEET NUMBER 6058
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
DETAIL A
* NOTE: VARIABLE (24" MAXIMUM)
DETAIL B
DETAIL C
DETAIL D
DETAIL E
DETAIL F
PLAN
SEE SHEET PM-1
SEE DETAIL A
SEE DETAIL B
SEE DETAIL C
SEE DETAIL D
SEE DETAIL E
SEE DETAIL F
NOT A STRIPE
LEGEND
100'
12" DETAIL YELLOW
6" DETAIL WHITE
6" DETAIL YELLOW
6" CONT. YELLOW
6" SKIP WHITE
RED/CLEAR REFLECTIVE RAISED MARKERS
DOUBLE TWO-WAY YELLOW REFLECTIVE RAISED MARKERS @ 20'-0" ON CENTER
18" YELLOW 45° DIAGONAL DETAIL @ 20'-0" ON CENTER
TWO-WAY YELLOW REFLECTIVE RAISED MARKERS @ 20'-0" ON CENTER
NOTE 1: SEE PM-6 FOR DETAILS OF LANE-REDUCTION ARROW.

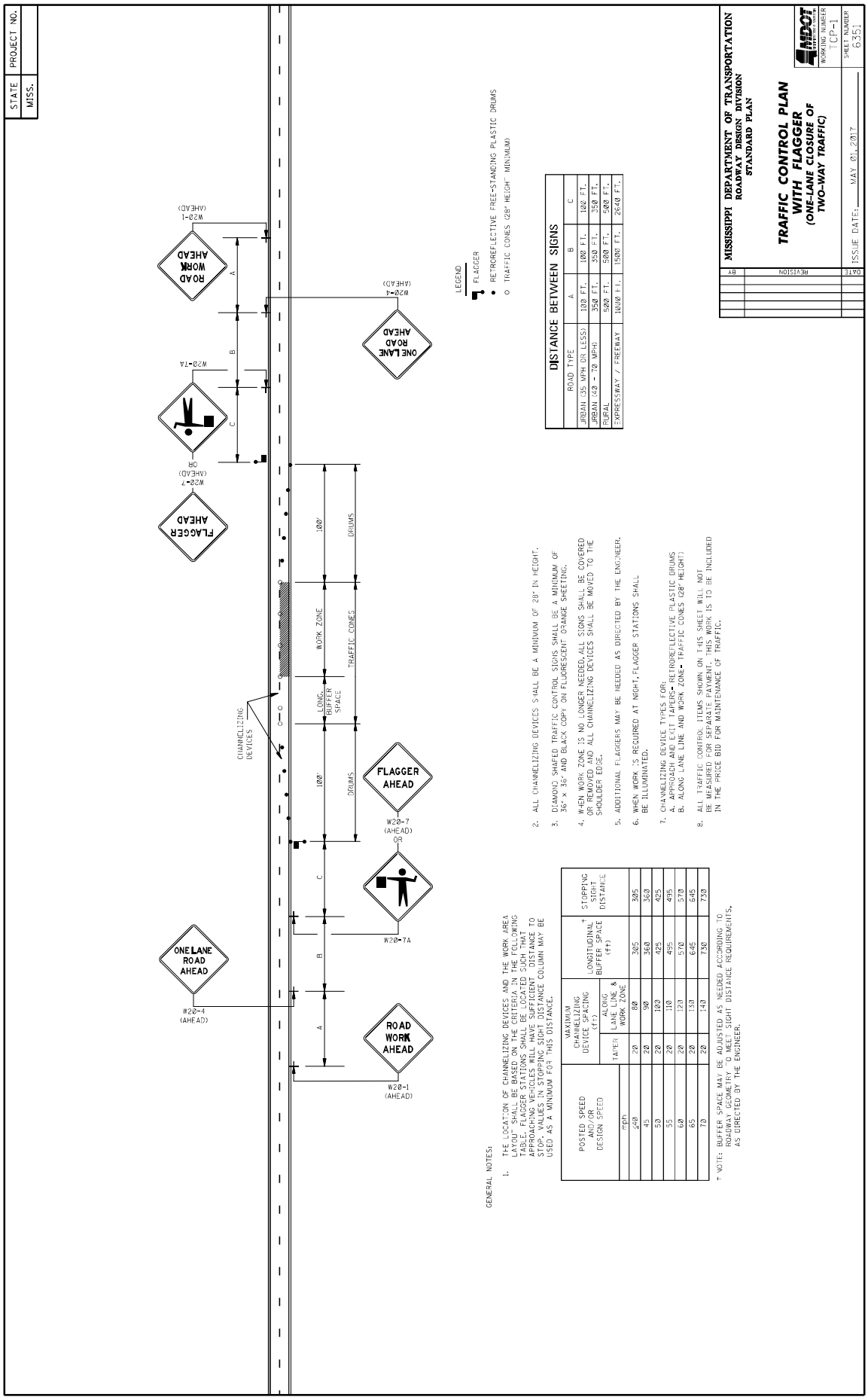

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TYPICAL PAVEMENT MARKING DETAIL FOR MEDIAN CROSSOVERS
WORKING NUMBER FM-49
SHEET NUMBER 60759
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
℄ TO ℄ ≤ 88'
125' ≥ ℄ TO ℄ > 88'
SEE DETAIL "A"
SEE DETAIL "B"
SEE DETAIL "C"
SEE PM-1 FOR SPACING
RED-CLEAR REFL. HIGH PERFORMANCE RAISED MARKERS
6" EDGE STRIPE (CONT. WHITE)
6" CONT. EDGE WHITE
6" YELLOW (DETAIL)
6" YELLOW (CONT.-EDGE)
6" DETAIL WHITE
6" DETAIL YELLOW
6" EDGE STRIPE (CONT. YELLOW)
6" DETAIL 6" EDGE STRIPE YELLOW (CONT. YELLOW)
6" SKIP WHITE
LEGEND WHITE YIELD BAR (SS7)
2-WAY YELLOW REFL. HIGH PERFORMANCE RAISED MARKERS @ 10' O.C.
THRU TRAFFIC
NOTE: FOR WIDER ℄ TO ℄ SPACINGS, REFER TO OTHER SHEETS IN PLANS
NOTE: SEE PM-5 FOR YIELD BAR DETAILS


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING DETAILS FOR INTERCHANGE WITH LANE DROPS
WORKING NUMBER PM-10
SHEET NUMBER 6060
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
LANE DROP AT DUAL LANE RAMP
LANE DROP AT SINGLE LANE RAMP
DETAIL A
DETAIL B
DETAIL C
DETAIL D
DIRECTION OF TRAFFIC
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, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-40' SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS 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 MDOT *APPROVED SOURCES OF MATERIALS*.


STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
2-WAY RAISED PAVEMENT MARKERS AT INTERSECTING ROADS (2-LANE)
WORKING NUMBER
PM-11
SHEET NUMBER
6061
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS ON SIDE ROAD RADIUS 2-LANE, TWO WAY TRAFFIC
40' FROM END OF RADIUS OR TAPER
40' FROM BEGINNING OF RADIUS OR TAPER
10'
SEE DETAIL "A"
DIRECTION OF TRAFFIC
DETAIL A
CONT. WHITE
6"
2"
GENERAL NOTES:
1. MARKERS SHALL BE PLACED EVERY 10 FEET.
2. MARKERS SHALL BE VISIBLE FROM THE TRAVELING MOTORIST ON STATE DESIGNATED HIGHWAYS.
3. MARKERS SHALL BE HIGH PERFORMANCE TWO-WAY CLEAR.
4. FIVE (5) MARKERS SHALL BE PLACED ALONG MAINLINE EDGE STRIPE.
5. MARKERS ON COUNTY ROADS SHALL CONTINUE DOWN THE MAINLINE EDGE STRIPE A DISTANCE OF 40 FEET.
6. MARKERS SHALL NOT BE ROTATED WHEN BEING PLACED ALONG RADIUS AND TANGENT SECTION OF LOCAL ROAD.
7. MARKERS SHALL BE INSTALLED AT SIMPLE AND CHANNELIZED INTERSECTIONS TO THE LIMITS SHOWN ABOVE.


STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
2-WAY RAISED PAVEMENT MARKERS AT INTERSECTING ROADS (4-LANE)
WORKING NUMBER
PM-12
SHEET NUMBER
6062
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS ON SIDE ROAD RADIUS 4-LANE, TWO WAY TRAFFIC
40' FROM END OF RADIUS OR TAPER
40' FROM BEGINNING OF RADIUS OR TAPER
10'
SEE DETAIL "A"
DIRECTION OF TRAFFIC
DETAIL A
CONT. WHITE
6"
2"
GENERAL NOTES:
1. MARKERS SHALL BE PLACED EVERY 10 FEET.
2. MARKERS SHALL BE VISIBLE FROM THE TRAVELING MOTORIST ON STATE DESIGNATED HIGHWAYS.
3. MARKERS SHALL BE HIGH PERFORMANCE TWO-WAY CLEAR.
4. FIVE (5) MARKERS SHALL BE PLACED ALONG MAINLINE EDGE STRIPE.
5. MARKERS ON COUNTY ROADS SHALL CONTINUE DOWN THE MAINLINE EDGE STRIPE A DISTANCE OF 40 FEET.
6. MARKERS SHALL NOT BE ROTATED WHEN BEING PLACED ALONG RADIUS AND TANGENT SECTIONS OF LOCAL ROAD.
7. MARKERS SHALL BE INSTALLED AT SIMPLE AND CHANNELIZED INTERSECTIONS TO THE LIMITS SHOWN ABOVE.


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
OFFSET LEFT TURN LANES
WORKING NUMBER PM-13
SHEET NUMBER 6063
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
GENERAL NOTES:
1. UNSIGNALIZED INTERSECTION SHOWN. STOP BARS REQUIRED ONLY WHEN THE INTERSECTION IS SIGNALIZED OR MULTI-WAY STOP CONTROLED.
2. SEE MX. NOS. PM-1, PM-3 and PM-6 FOR OTHER DETAILS.
3. TAPER LENGTH VARIES WITH MEDAIN WIDTH.
4. TAPERED OFFSET LEFT TURN LANE SHOWN. PARALLEL OFFSET LEFT TURN LANE PAVEMENT MARKINGS ARE SIMILAR.
5. 3-LANE SIDE ROAD SHOWN. SEE PERMANENT PAVEMENT MARKING DETAIL SHEETS FOR SIDE ROAD PAVEMENT MARKING DETAILS.
6. SEE PM-12 FOR INTERSECTING ROAD RAISED PAVEMENT MARKER PLACEMENT.
GREATER THAN OR EQUAL TO ½ MEDIAN WIDTH
LESS THAN OR EQUAL TO ½ MEDIAN WIDTH
MEDIAN WIDTH VARIES
6" DET. YELLOW
6" EDGE YELLOW
10' RADIUS TYPICAL
24" STOP BAR (LEGEND)
4' MIN.
SEE DETAIL "A"
12:6:1 TAPER TYPICAL
6" EDGE YELLOW
6" DETAIL YELLOW
DETAIL B
RED-CLEAR REFLECTIVE RAISED MARKER
DETAIL A
12" DETAIL WHITE
18" DETAIL WHITE
2' MIN.
10'
45°



DISTANCE BETWEEN SIGNS			
ROAD TYPE	A	B	C
URBAN (35 MPH OR LESS)	100 FT.	100 FT.	100 FT.
URBAN (40 - 70 MPH)	350 FT.	350 FT.	350 FT.
RURAL	500 FT.	500 FT.	500 FT.
*EXPRESSWAY / FREEWAY	1000 FT.	1500 FT.	2640 FT.

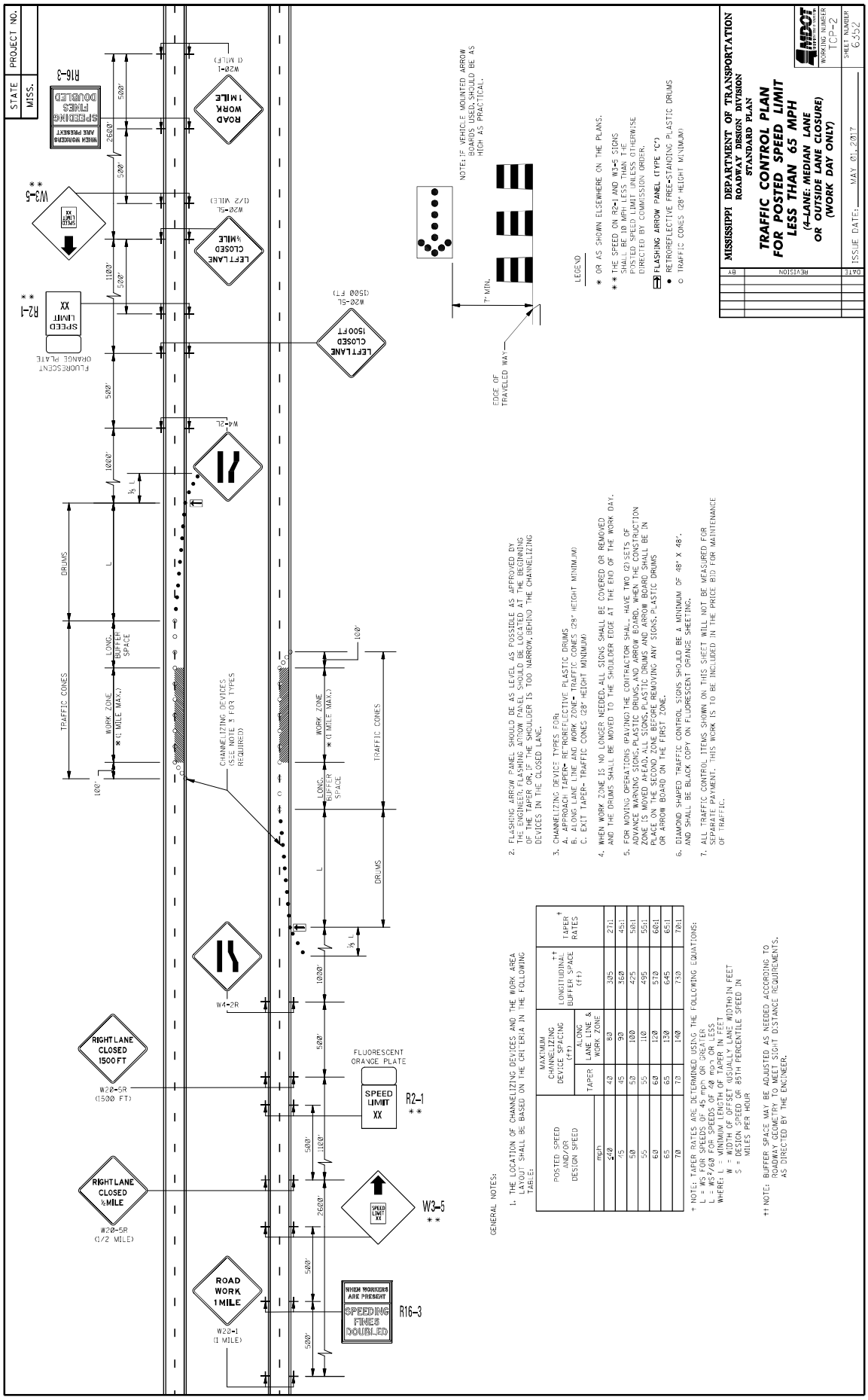
GENERAL NOTES:

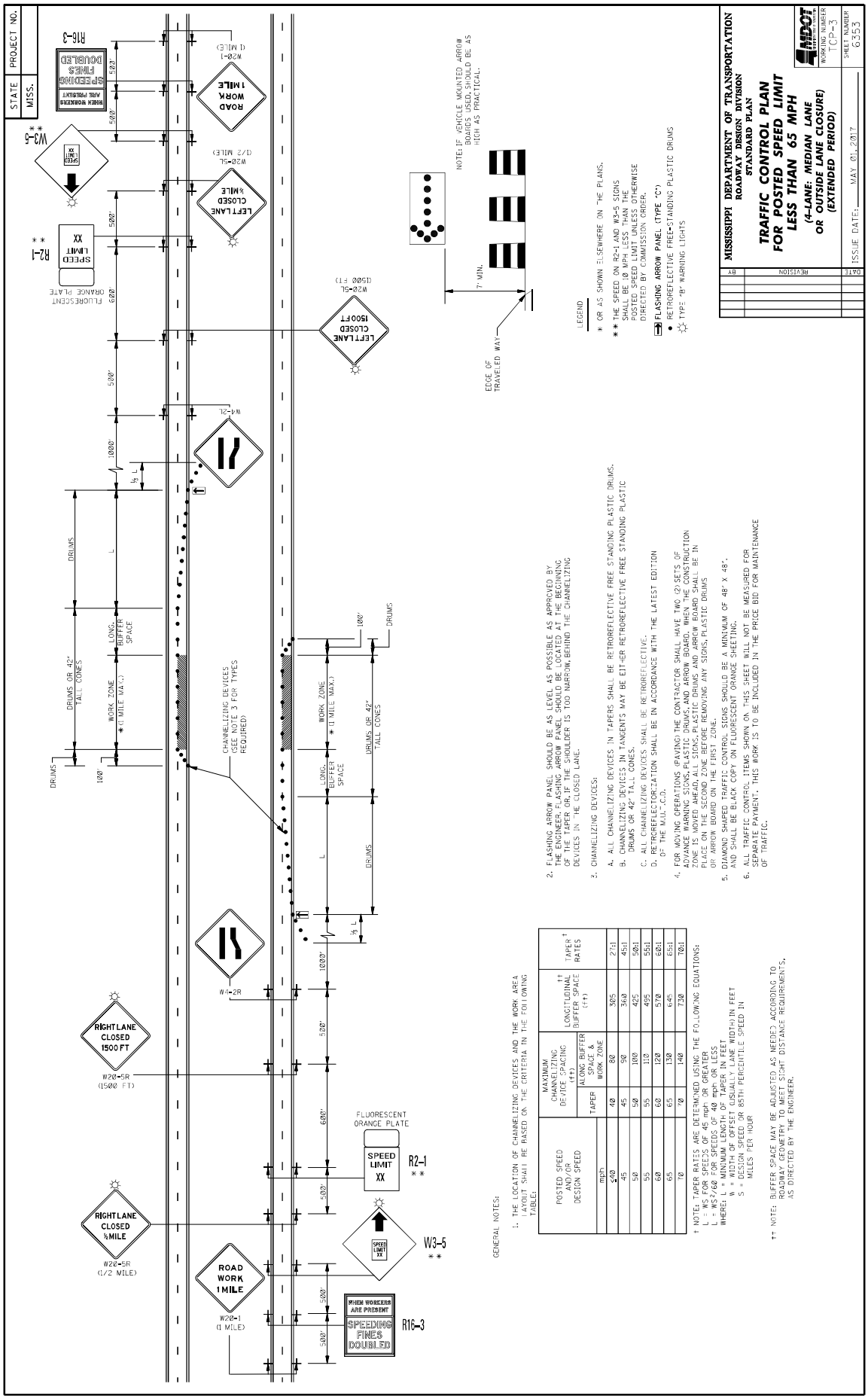
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE. FLAGGER STATIONS SHALL BE LOCATED SUCH THAT APPROACHING VEHICLES WILL HAVE SUFFICIENT DISTANCE TO STOP. VALUES IN STOPPING SIGHT DISTANCE COLUMN MAY BE USED AS A MINIMUM FOR THIS DISTANCE.

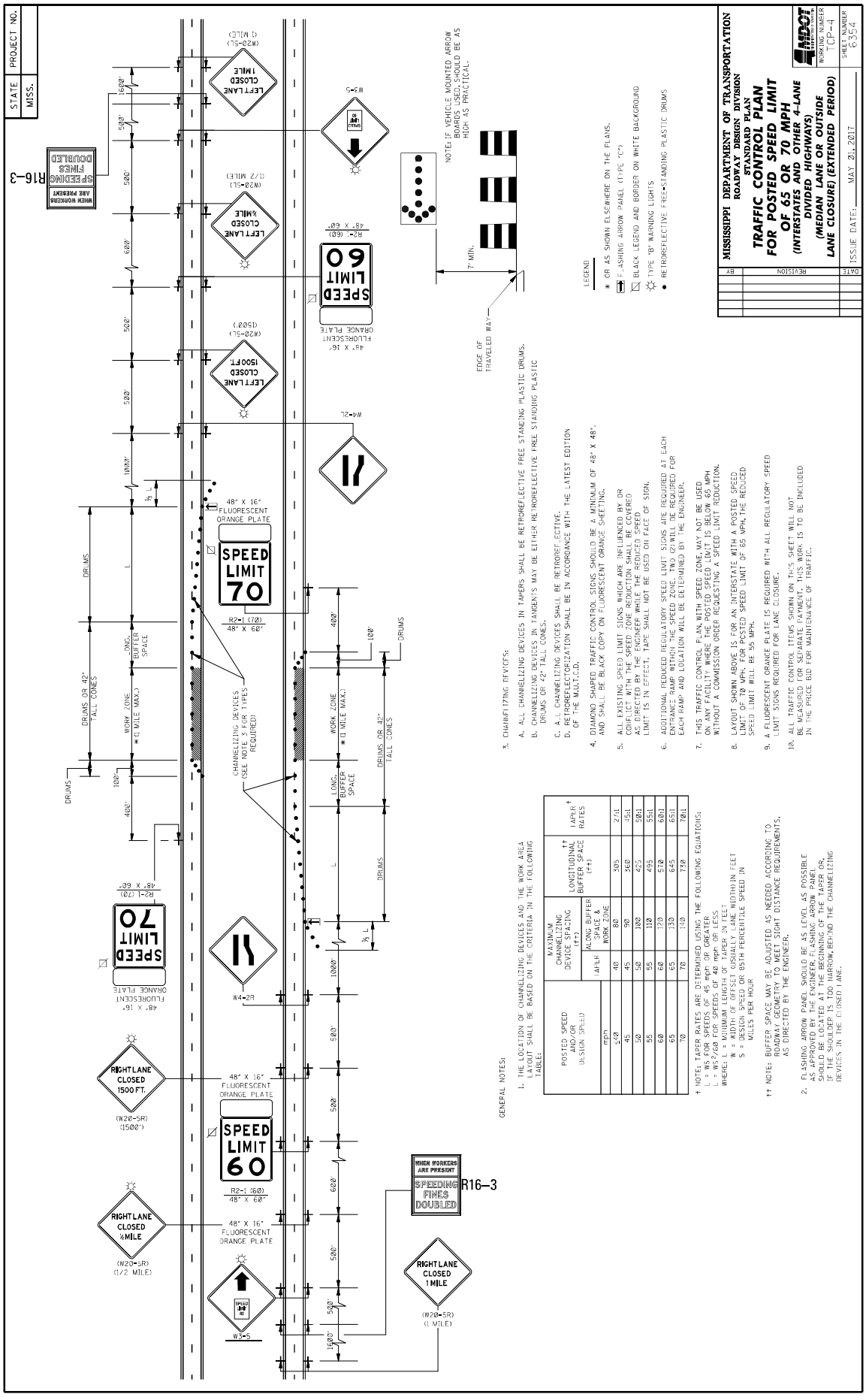
POSTED SPEED AND/OR DESIGN SPEED		MAXIMUM CHANNELIZING DEVICE SPACING (ft)	LONGITUDINAL† BUFFER SPACE (ft)	STOPPING SIGHT DISTANCE
	TAPER	ALONG LANE LINE & WORK ZONE		
mph				
≤40	20	80	305	305
45	20	90	360	360
50	20	100	425	425
55	20	110	495	495
60	20	120	570	570
65	20	130	645	645
70	20	140	730	730

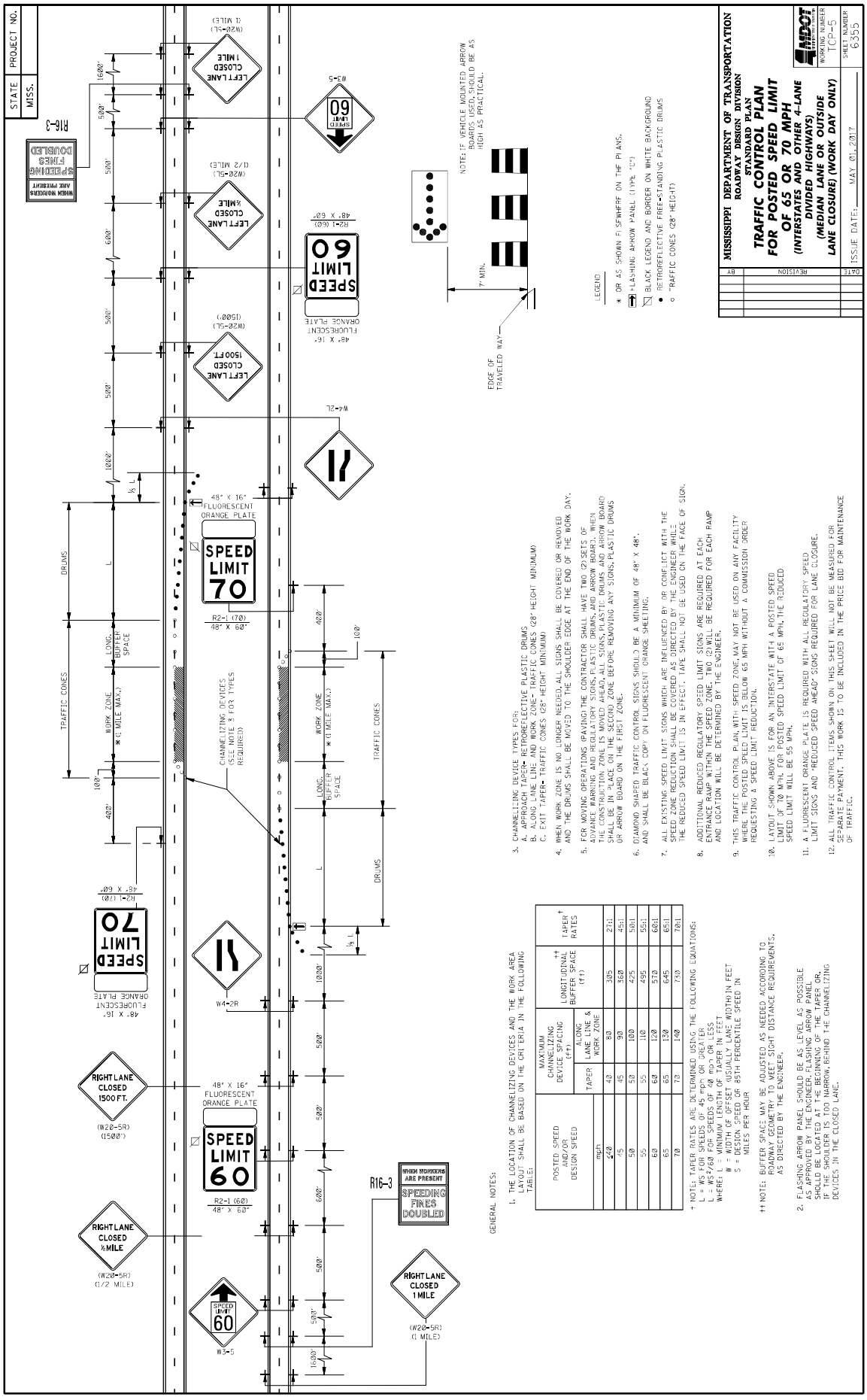
† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

2. ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 28" IN HEIGHT.
3. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 36" x 36" AND BLACK COPY ON FLUORESCENT ORANGE SHEETING.
4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
5. ADDITIONAL FLAGGERS MAY BE NEEDED AS DIRECTED BY THE ENGINEER.
6. WHEN WORK IS REQUIRED AT NIGHT, FLAGGER STATIONS SHALL BE ILLUMINATED.
7. CHANNELIZING DEVICE TYPES FOR:
   A. APPROACH AND EXIT TAPERS- RETROREFLECTIVE PLASTIC DRUMS
   B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT)
8. 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.

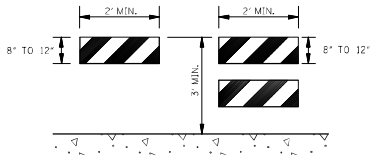

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLAN
FOR POSTED SPEED LIMIT
LESS THAN 65 MPH
(4-LANE: MEDIAN LANE OR OUTSIDE LANE CLOSURE)
(WORK DAY ONLY)
WORKING NUMBER TCP-2
SHEET NUMBER 6352
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
LEGEND
* OR AS SHOWN ELSEWHERE ON THE PLANS.
** THE SPEED ON R2-1 AND W3-5 SIGNS SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT UNLESS OTHERWISE DIRECTED BY COMMISSION ORDER.
FLASHING ARROW PANEL (TYPE "C")
RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
TRAFFIC CONES (28" HEIGHT MINIMUM)
NOTE: IF VEHICLE MOUNTED ARROW BOARDS USED, SHOULD BE AS HIGH AS PRACTICAL.
7' MIN.
EDGE OF TRAVELED WAY
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)
TAPER
ALONG LANE LINE & WORK ZONE
LONGITUDINAL BUFFER SPACE (ft)
TAPER RATES
mph
40 80 305 2.5:1
45 90 360 4.5:1
50 100 425 5.0:1
55 110 495 5.5:1
60 120 570 6.0:1
65 130 645 6.5:1
70 140 730 7.0:1
† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = WS²/60 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
†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.
2. FLASHING ARROW PANEL SHOULD 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 DEVICE TYPES FOR:
A. APPROACH TAPER- RETROREFLECTIVE PLASTIC DRUMS
B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT MINIMUM)
C. EXIT TAPER- TRAFFIC CONES (28" HEIGHT MINIMUM)
4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND THE DRUMS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.
5. 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.
6. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHOULD BE A MINIMUM OF 48" X 48", AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
7. 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.
ROAD WORK 1 MILE
W20-1 (1 MILE)
R16-3
WHEN WORKERS ARE PRESENT
SPEEDING FINES DOUBLED
W3-5 **
SPEED LIMIT XX
RIGHT LANE CLOSED ½ MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1500 FT
W20-5R (1500 FT)
R2-1 **
SPEED LIMIT XX
FLUORESCENT ORANGE PLATE
W4-2R
W4-2L
LEFT LANE CLOSED ½ MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1500FT
W20-5L (1500 FT)
CHANNELIZING DEVICES (SEE NOTE 3 FOR TYPES REQUIRED)
TRAFFIC CONES
DRUMS
LONG. BUFFER SPACE
WORK ZONE * (1 MILE MAX.)
100'
500'
1000'
1100'
2600'
⅓ L
L

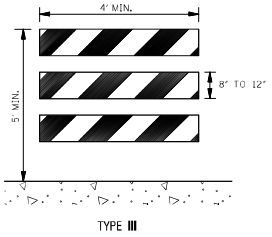

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLAN
FOR POSTED SPEED LIMIT
LESS THAN 65 MPH
(4-LANE: MEDIAN LANE
OR OUTSIDE LANE CLOSURE)
(EXTENDED PERIOD)
WORKING NUMBER TCP-3
SHEET NUMBER 6353
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
LEGEND
* OR AS SHOWN ELSEWHERE ON THE PLANS.
** THE SPEED ON R2-1 AND W3-5 SIGNS SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT UNLESS OTHERWISE DIRECTED BY COMMISSION ORDER.
FLASHING ARROW PANEL (TYPE "C")
RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
TYPE "B" WARNING LIGHTS
NOTE: IF VEHICLE MOUNTED ARROW BOARDS USED, SHOULD BE AS HIGH AS PRACTICAL.
7' MIN.
EDGE OF TRAVELED WAY
ROAD WORK 1 MILE
W20-1 (1 MILE)
LEFT LANE CLOSED ½MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1500FT
W20-5L (1500 FT)
W3-5 **
R2-1 **
SPEED LIMIT XX
FLUORESCENT ORANGE PLATE
W4-2L
W4-2R
RIGHT LANE CLOSED 1500 FT
W20-5R (1500 FT)
RIGHT LANE CLOSED ½MILE
W20-5R (1/2 MILE)
WHEN WORKERS ARE PRESENT
SPEEDING FINES DOUBLED
R16-3
DRUMS
DRUMS OR 42" TALL CONES
WORK ZONE * (1 MILE MAX.)
LONG. BUFFER SPACE
CHANNELIZING DEVICES (SEE NOTE 3 FOR TYPES REQUIRED)
100'
500'
600'
1000'
½ L
L
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 (++) TAPER
ALONG BUFFER SPACE & WORK ZONE
LONGITUDINAL † BUFFER SPACE (++)
TAPER † RATES
mph
≤40 40 80 305 2:1
45 45 90 360 45:1
50 50 100 425 50:1
55 55 110 495 55:1
60 60 120 570 60:1
65 65 130 645 65:1
70 70 140 730 70:1
† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 MPH OR LESS
L = WS2/60 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
++ NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.
2. FLASHING ARROW PANEL SHOULD BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. THE FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR AT THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
3. CHANNELIZING DEVICES:
A. ALL CHANNELIZING DEVICES IN TAPERS SHALL BE RETROREFLECTIVE FREE STANDING PLASTIC DRUMS.
B. CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER RETROREFLECTIVE FREE STANDING PLASTIC DRUMS OR 42" TALL CONES.
C. ALL CHANNELIZING DEVICES SHALL BE RETROREFLECTIVE.
D. RETROREFLECTORIZATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MAS.C.O.
4. FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING SIGNS, PLASTIC DRUMS, AND ARROW BOARD, WHEN THE CONSTRUCTION ZONES MOVES 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.
5. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHOULD BE A MINIMUM OF 48" X 48", AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
6. 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 MISS.
PROJECT NO.
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) (EXTENDED PERIOD)
WORKING NUMBER TCP-4
SHEET NUMBER 6354
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
LEFT LANE CLOSED 1 MILE
LEFT LANE CLOSED ½ MILE
LEFT LANE CLOSED 1500FT
SPEED LIMIT 60
SPEED LIMIT 70
RIGHT LANE CLOSED 1500 FT.
RIGHT LANE CLOSED ½MILE
RIGHT LANE CLOSED 1 MILE
SPEEDING FINES DOUBLED WHEN WORKERS ARE PRESENT
HIGH WORKERS ARE PRESENT
48" X 16" FLUORESCENT ORANGE PLATE
48" X 16" FLUORESCENT ORANGE PLATE
CHANNELIZING DEVICES (SEE NOTE 3 FOR TYPES REQUIRED)
DRUMS OR 42" TALL CONES
WORK ZONE (1 MILE MAX.)
LONG. BUFFER SPACE
DRUMS
EDGE OF TRAVELED WAY
7' MIN.
NOTE: IF VEHICLE MOUNTED ARROW BOARDS USED, SHOULD BE AS HIGH AS PRACTICAL.
LEGEND
* OR AS SHOWN ELSEWHERE ON THE PLANS.
FLASHING ARROW PANEL (TYPE "C")
BLACK LEGEND AND BORDER ON WHITE BACKGROUND
TYPE "B" WARNING LIGHTS
RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
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
LONGITUDINAL BUFFER SPACE (++)
TAPER† RATES
mph
TAPER ALONG BUFFER SPACE & WORK ZONE
≤40 40 80 305 2:1
45 45 90 360 45:1
50 50 100 425 50:1
55 55 110 495 55:1
60 60 120 570 60:1
65 65 130 645 65:1
70 70 140 730 70:1
† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = WS²/60 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
†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.
2. FLASHING ARROW PANEL SHOULD 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 RETROREFLECTIVE FREE STANDING PLASTIC DRUMS.
B. CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER RETROREFLECTIVE FREE STANDING PLASTIC DRUMS OR 42" TALL CONES.
C. ALL CHANNELIZING DEVICES SHALL BE RETROREFLECTIVE.
D. RETROREFLECTORIZATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD.
4. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHOULD BE A MINIMUM OF 48" X 48". AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
5. 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.
6. ADDITIONAL REDUCED REGULATORY SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP WITHIN THE SPEED ZONE. THE QUANTITY REQUIRED FOR EACH RAMP AND LOCATION WILL BE DETERMINED BY THE ENGINEER.
7. 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.
8. 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.
9. A FLUORESCENT ORANGE PLATE IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS REQUIRED FOR LANE CLOSURE.
10. 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 MISS.
PROJECT NO.
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 6355
ISSUE DATE: MAY 01, 2017
BY REVISION DATE
LEGEND
* OR AS SHOWN FSFWHFRF ON THF PLANS.
FLASHING ARROW PANEL (TYPE "C")
BLACK LEGEND AND BORDER ON WHITE BACKGROUND
RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
TRAFFIC CONES (28" HEIGHT)
NOTE: IF VEHICLE MOUNTED ARROW BOARDS USED, SHOULD BE AS HIGH AS PRACTICAL.
7' MIN.
EDGE OF TRAVELED WAY
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)
TAPER
ALONG LANE LINE & WORK ZONE
LONGITUDINAL BUFFER SPACE (ft)
TAPER† RATES
mph
40 40 80 305 2:1
45 45 90 360 4.5:1
50 50 100 425 5.0:1
55 55 110 495 5.5:1
60 60 120 570 6.0:1
65 65 130 645 6.5:1
70 70 140 730 7.0:1
† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = WS²/60 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
†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.
2. FLASHING ARROW PANEL SHOULD 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 DEVICE TYPES FOR:
A. APPROACH TAPER= RETROREFLECTIVE PLASTIC DRUMS
B. ALONG LANE LINE AND WORK ZONE= TRAFFIC CONES (28" HEIGHT MINIMUM)
C. EXIT TAPER= TRAFFIC CONES (28" HEIGHT MINIMUM)
4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND THE DRUMS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.
5. 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.
6. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHOULD BE A MINIMUM OF 48" X 48", AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
7. ALL EXISTING SPEED LIMIT SIGNS WHICH ARE INFLUENCED BY OR CONFLICT WITH THE SPECIAL CONSTRUCTION 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.
8. ADDITIONAL REDUCED REGULATORY SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP WITHIN THE SPEED ZONE. TWO (2) WILL BE REQUIRED FOR EACH RAMP AND LOCATION WILL BE DETERMINED BY THE ENGINEER.
9. 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.
10. 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.
11. A FLUORESCENT ORANGE PLATE IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS AND "REDUCED SPEED AHEAD" SIGNS REQUIRED FOR LANE CLOSURE.
12. 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.
W4-2L
W4-2R
W3-5
R16-3
SPEEDING FINES DOUBLED
WHEN WORKERS ARE PRESENT
R2-1 (70) 48" X 60"
R2-1 (60) 48" X 60"
SPEED LIMIT 70
SPEED LIMIT 60
48" X 16" FLUORESCENT ORANGE PLATE
LEFT LANE CLOSED 1 MILE (W20-5L) (1 MILE)
LEFT LANE CLOSED ½ MILE (W20-5L) (1/2 MILE)
LEFT LANE CLOSED 1500 FT (W20-5L) (1500')
RIGHT LANE CLOSED 1500 FT. (W20-5R) (1500')
RIGHT LANE CLOSED ½ MILE (W20-5R) (1/2 MILE)
RIGHT LANE CLOSED 1 MILE (W20-5R) (1 MILE)
TRAFFIC CONES
DRUMS
WORK ZONE * (1 MILE MAX.)
LONG. BUFFER SPACE
CHANNELIZING DEVICES (SEE NOTE 3 FOR TYPES REQUIRED)
100'
400'
500'
600'
1000'
1600'
½ L
L
W

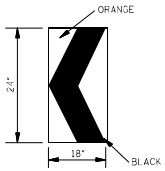
STATE	PROJECT NO.
MISS.	





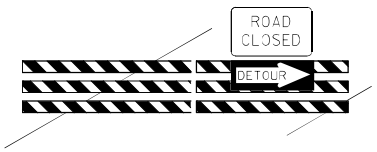
STANDARD BARRICADES

1. THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
2. RAIL STRIPE SHALL BE 6 INCHES, EXCEPT THAT 4-INCH WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36 INCHES.
3. DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
4. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.
5. 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 CATAGORY II DEVICES CAN BE FOUND ON FHWA'S WEBSITE: http://safety.fhwa.dot.gov/roadway_dept/policy.guide/road_hardware/cat2.cfm



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 CRASHWORTHY SUPPORT.
3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHOULD BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.



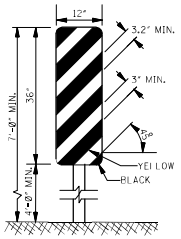
BARRICADE CLOSING A ROAD

BARRICADE CHARACTERISTICS

	I	II	III
WIDTH OF RAIL **	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.
LENGTH OF RAIL **	24" MIN.	24" MIN.	48" MIN.
WIDTH OF STRIPE *	6"	6"	6"
HEIGHT	36" MIN.	36" MIN.	60" MIN.
NUMBER OF RETROREFLECTORIZED RAIL FACES	2 (ONE EACH DIRECTION)	4 (TWO EACH DIRECTION)	3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTIONS

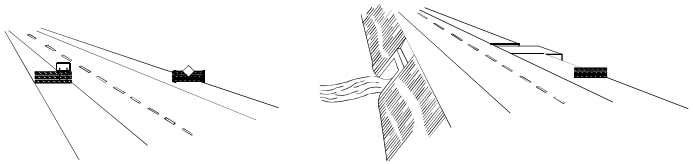
* 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.

** 2. BARRICADES INTENDED FOR USE ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH SPEED ROADWAYS, SHALL HAVE A MINIMUM OF 270 in² OF REFLECTIVE AREA FACING TRAFFIC.



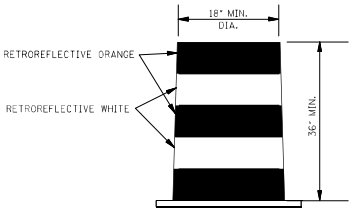
TYPE 3 OBJECT MARKER (OM-3R)

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 III 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) RETROREFLECTIVE, 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 SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

BY | REVISION | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS

MDOT

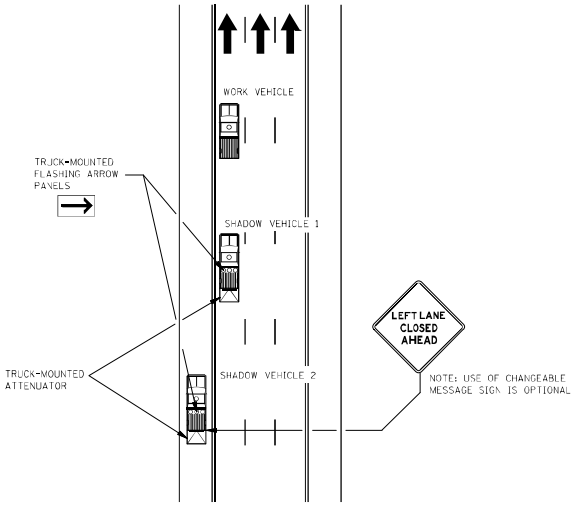
WORKING NUMBER: TCP-8

ISSUE DATE: MAY 31, 2017

SHEET NUMBER: 6358

STATE	PROJECT NO.
MISS.	

MOBILE OPERATIONS ON MULTILANE ROAD

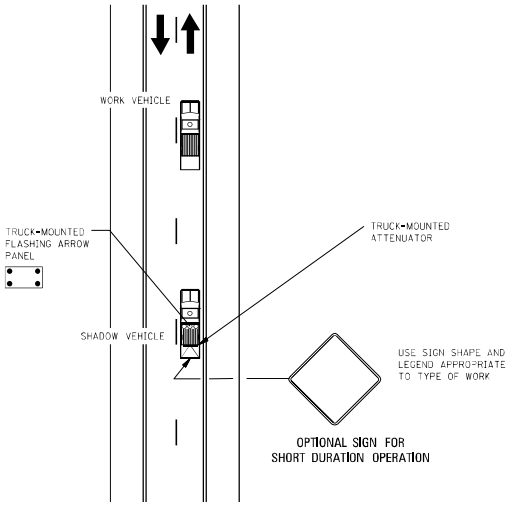


MOBILE OPERATIONS ON MULTILANE ROAD

NOTES FOR MULTILANE LANE OPERATION:

1. VEHICLES USED FOR THESE OPERATIONS SHOULD BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT, SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, OR ARROW PANELS.
2. SHADOW VEHICLE 2 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK MOUNTED ATTENUATOR (TMA). AN APPROPRIATE LANE CLOSURE SIGN SHOULD BE PLACED ON SHADOW VEHICLE 2 SO AS NOT TO OBSCURE THE ARROW PANEL.
3. SHADOW VEHICLE 1 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK-MOUNTED ATTENUATOR (TMA).
4. SHADOW VEHICLE 2 SHOULD TRAVEL AT A VARYING DISTANCE FROM THE WORK OPERATION SO AS TO PROVIDE ADEQUATE SIGHT DISTANCE FOR TRAFFIC APPROACHING FROM THE REAR.
5. WHEN ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, SHADOW VEHICLE 2 SHOULD BE ELIMINATED.
6. ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE SHOULD BE USED (i.e., VEHICLE 3 ON THE SHOULDER (IF PRACTICAL), VEHICLE 2 IN THE CLOSED LANE, AND VEHICLE 1 IN THE CLOSED LANE).
7. ARROW PANELS SHALL BE AS A MINIMUM TYPE B, 60" X 30" IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCD.
8. WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.
9. VEHICLE-MOUNTED SIGNS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT AND SHALL NOT BE OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
10. 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 FOR TWO-LANE OPERATION:

1. WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND SHADOW 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.
2. THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLES MAY VARY ACCORDING TO TERRAIN, PAINT DRYING TIME, AND OTHER FACTORS. SHADOW VEHICLES ARE USED TO WARN TRAFFIC OF THE OPERATION AHEAD. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, THE SHADOW VEHICLE SHOULD MAINTAIN THE MINIMUM DISTANCE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. THE SHADOW VEHICLE SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
3. ADDITIONAL SHADOW VEHICLES TO WARN AND REDUCE THE SPEED OF ONCOMING OR OPPOSING TRAFFIC MAY BE USED. POLICE PATROL CARS MAY BE USED FOR THIS PURPOSE.
4. A TRUCK-MOUNTED ATTENUATOR (TMA) SHOULD BE USED ON THE SHADOW VEHICLE AND MAY BE USED ON THE WORK VEHICLE.
5. THE WORK VEHICLE SHALL BE EQUIPPED WITH BEACONS, AND THE SHADOW VEHICLES SHALL BE EQUIPPED WITH TWO HIGH-INTENSITY FLASHING LIGHTS MOUNTED ON THE REAR, ADJACENT TO THE SIGN. SHADOW AND WORK VEHICLES SHALL DISPLAY FLASHING OR ROTATING BEACONS BOTH FORWARD AND TO THE REAR.
6. VEHICLE-MOUNTED SIGNS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT AND SHALL NOT BE OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
7. ARROW BOARD TO BE USED IN CAUTION MODE.
8. 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.

DATE	REVISION	BY

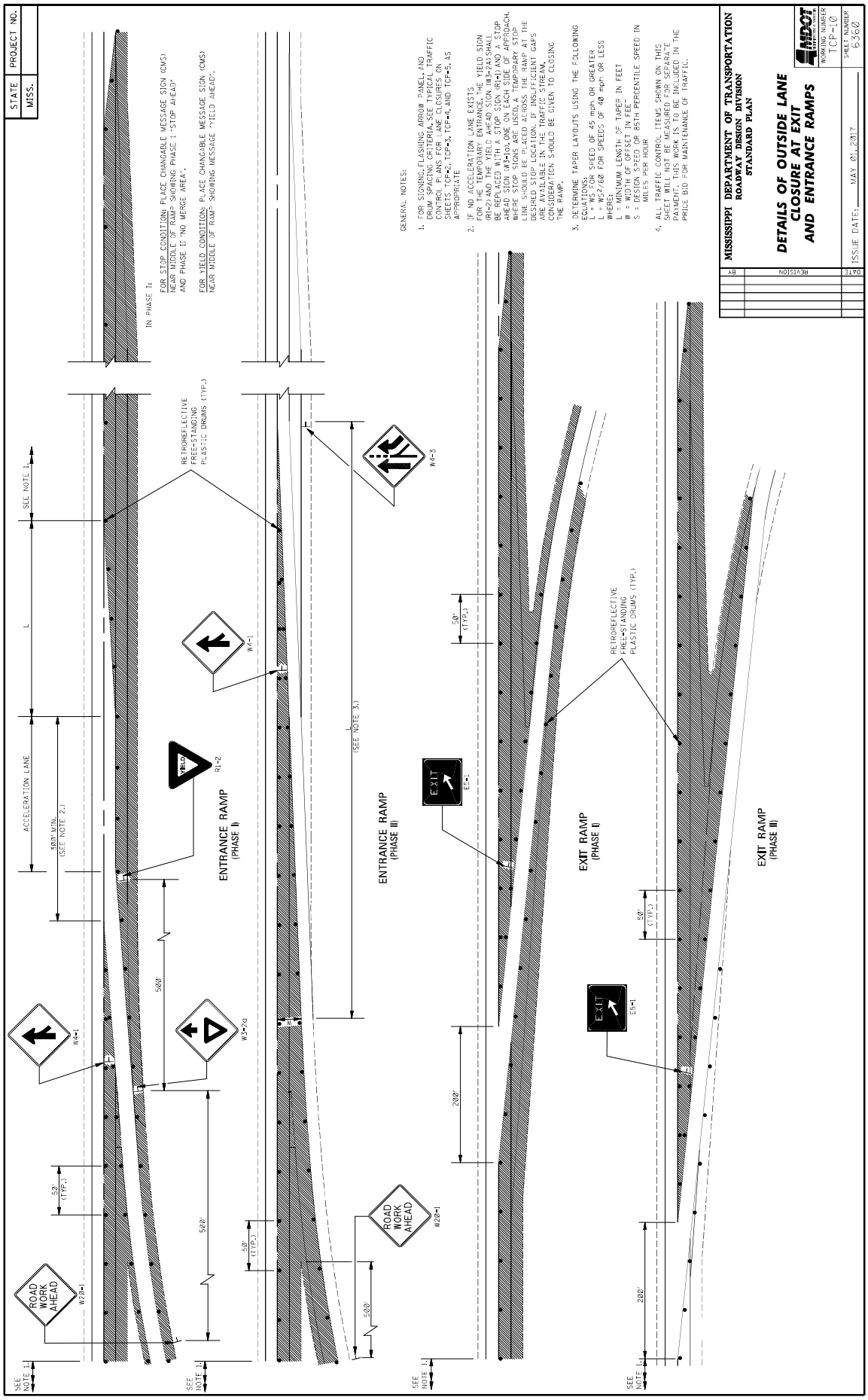
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL PLAN MOBILE OPERATIONS MULTILANE ROADS AND TWO–LANE ROADS

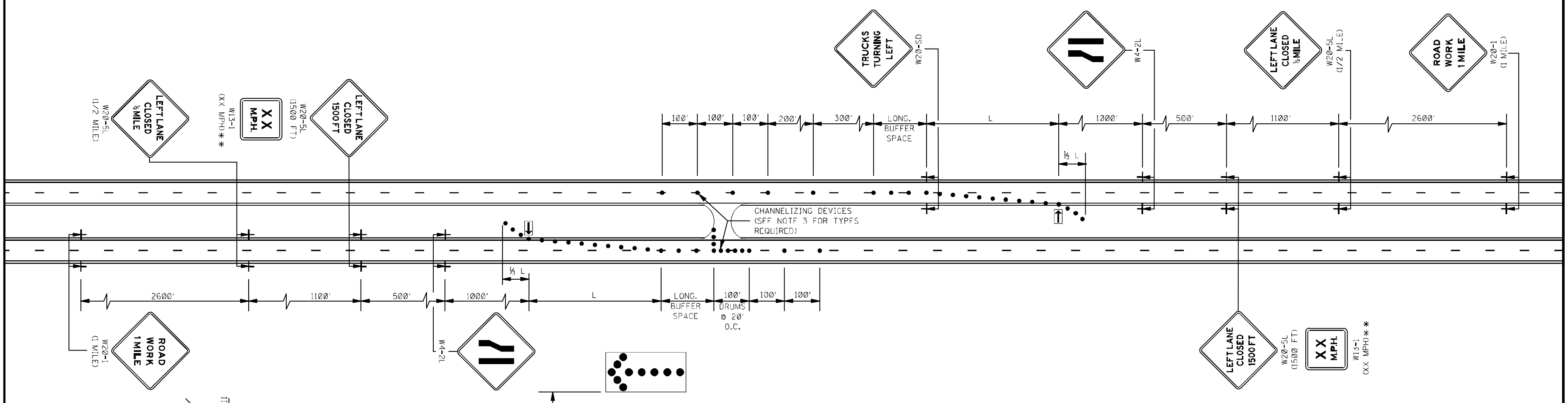
ISSUE DATE: MAY 01, 2017

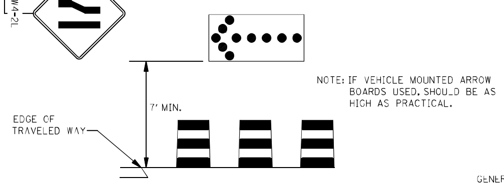
WORKING NUMBER: TCP-9

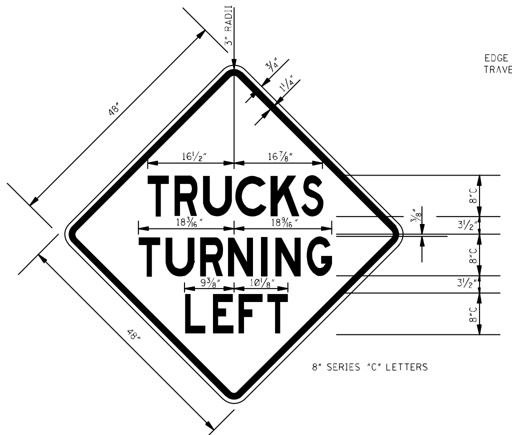
SHEET NUMBER: 6359


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
DETAILS OF OUTSIDE LANE CLOSURE AT EXIT AND ENTRANCE RAMPS
WORKING NUMBER TCP-10
SHEET NUMBER 6360
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
GENERAL NOTES:
1. FOR SIGNING, FLASHING ARROW PANEL AND DRUM SPACING CRITERIA, SEE TYPICAL TRAFFIC CONTROL PLANS FOR LANE CLOSURES ON SHEETS TCP-2, TCP-3, TCP-4, AND TCP-5, AS APPROPRIATE
2. IF NO ACCELERATION LANE EXISTS FOR THE TEMPORARY ENTRANCE, THE YIELD SIGN (R1-2) AND THE YIELD AHEAD SIGN (W3-2A) SHALL BE REPLACED WITH A STOP SIGN (R1-1) AND A STOP AHEAD SIGN (W3-1), ONE ON EACH SIDE OF APPROACH. WHERE STOPPING IS REQUIRED, 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 = WS²/60 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.
IN PHASE I:
FOR STOP CONDITION: PLACE CHANGABLE MESSAGE SIGN (CMS) NEAR MIDDLE OF RAMP SHOWING PHASE 1 "STOP AHEAD" AND PHASE II "NO MERGE AREA".
FOR YIELD CONDITION: PLACE CHANGABLE MESSAGE SIGN (CMS) NEAR MIDDLE OF RAMP SHOWING MESSAGE "YIELD AHEAD".
ENTRANCE RAMP (PHASE I)
ENTRANCE RAMP (PHASE II)
EXIT RAMP (PHASE I)
EXIT RAMP (PHASE II)
ACCELERATION LANE
L
300' MIN. (SEE NOTE 2.)
SEE NOTE 1.
RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS (TYP.)
ROAD WORK AHEAD
W20-1
W4-1
W3-2a
R1-2
W4-3
E5-1
EXIT
500'
50' (TYP.)
200'
(SEE NOTE 3.)

STATE	PROJECT NO.
MISS.	

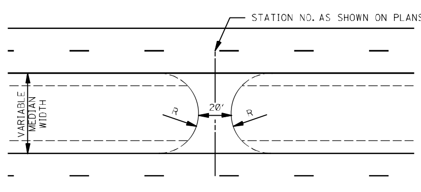






DETAIL OF W20–SD

LEGEND
✱✱ THE SPEED ON W13-1 SIGN SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT UNLESS OTHERWISE DIRECTED BY COMMISSION ORDER.
⟹ FLASHING ARROW PANEL (TYPE "C")
● RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
☼ TYPE "B" WARNING LIGHTS



DETAIL OF TEMPORARY CROSSOVER
NOTE: R = 0.5 (MEDIAN WIDTH)

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)		LONGITUDINAL BUFFER SPACE (ft) ††	TAPER RATES †
	TAPER	ALONG LANE LINE & WORK ZONE		
mph				
≤40	40	80	305	27:1
45	45	90	360	45:1
50	50	100	425	50:1
55	55	110	495	55:1
60	60	120	570	60:1
65	65	130	645	65:1
70	70	140	730	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

†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

2. FLASHING ARROW PANEL SHOULD 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. ALL CHANNELIZING DEVICES SHALL BE RETROREFLECTIVE FREE STANDING PLASTIC DRUMS.
4. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHOULD BE A MINIMUM OF 48" X 48" AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
5. LOCATION OF CROSSOVERS WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
6. USE OF CROSSOVER SHALL BE LIMITED TO TRUCKS APPROACHING FROM ONE DIRECTION ONLY.
7. REVERSE LAYOUT OF TAPERS, DRUMS AND SIGNS TO ACCOMMODATE TRUCKS APPROACHING FROM OPPOSITE DIRECTION.
8. EACH CONSTRUCTION CROSSOVER SHOULD BE CLOSED AS DIRECTED BY THE ENGINEER OR WHEN THE CONSTRUCTION OPERATION, ZONE OR SIGNS ENCROACH ON OR INTERFERES WITH THE OPERATION OF THE CONSTRUCTION CROSSOVER. THE CROSSOVER SHOULD BE CLOSED USING 24' OF TYPE III BARRICADE (DOUBLE FACED).
9. 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.

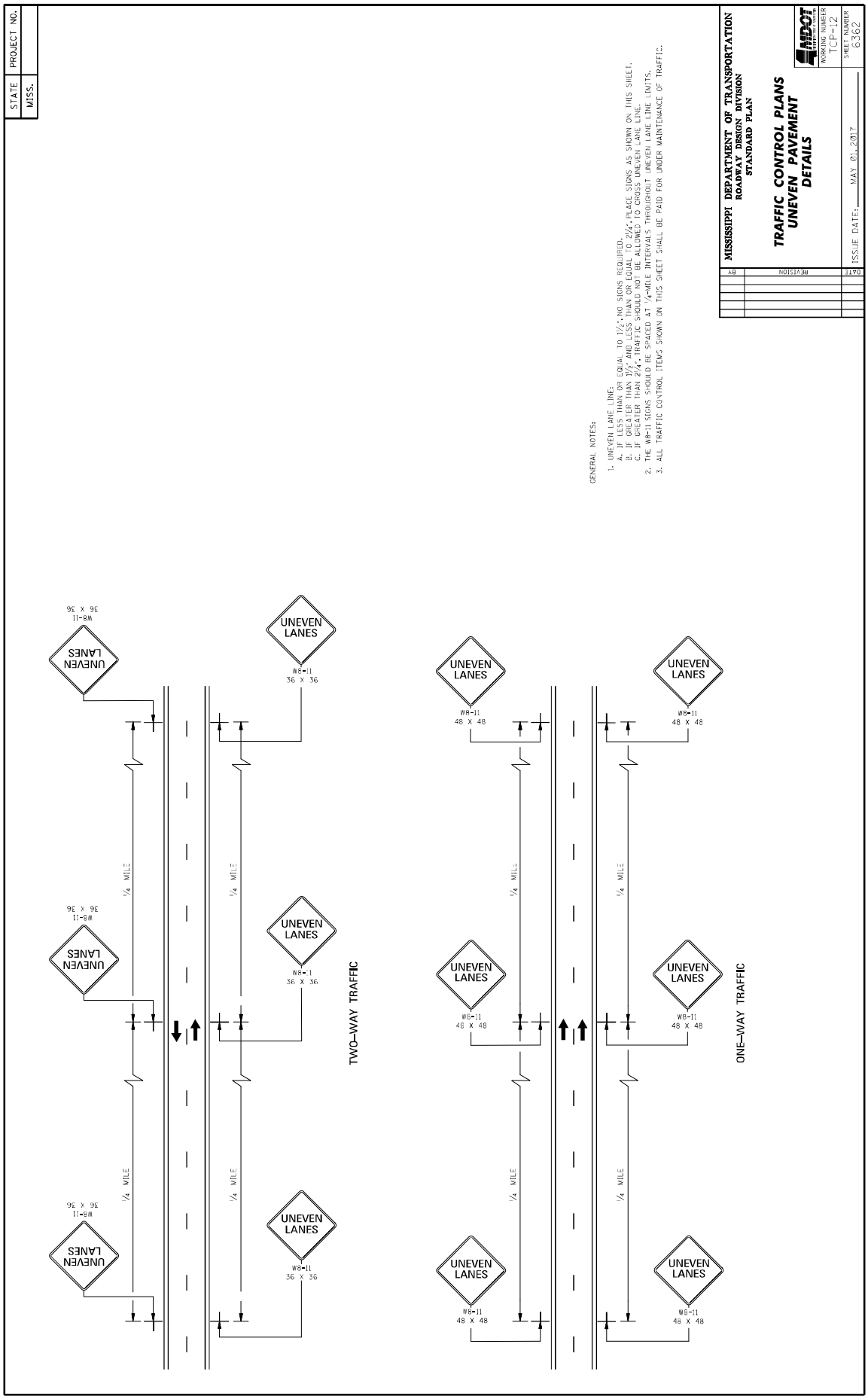
DATE | REVISION | BY

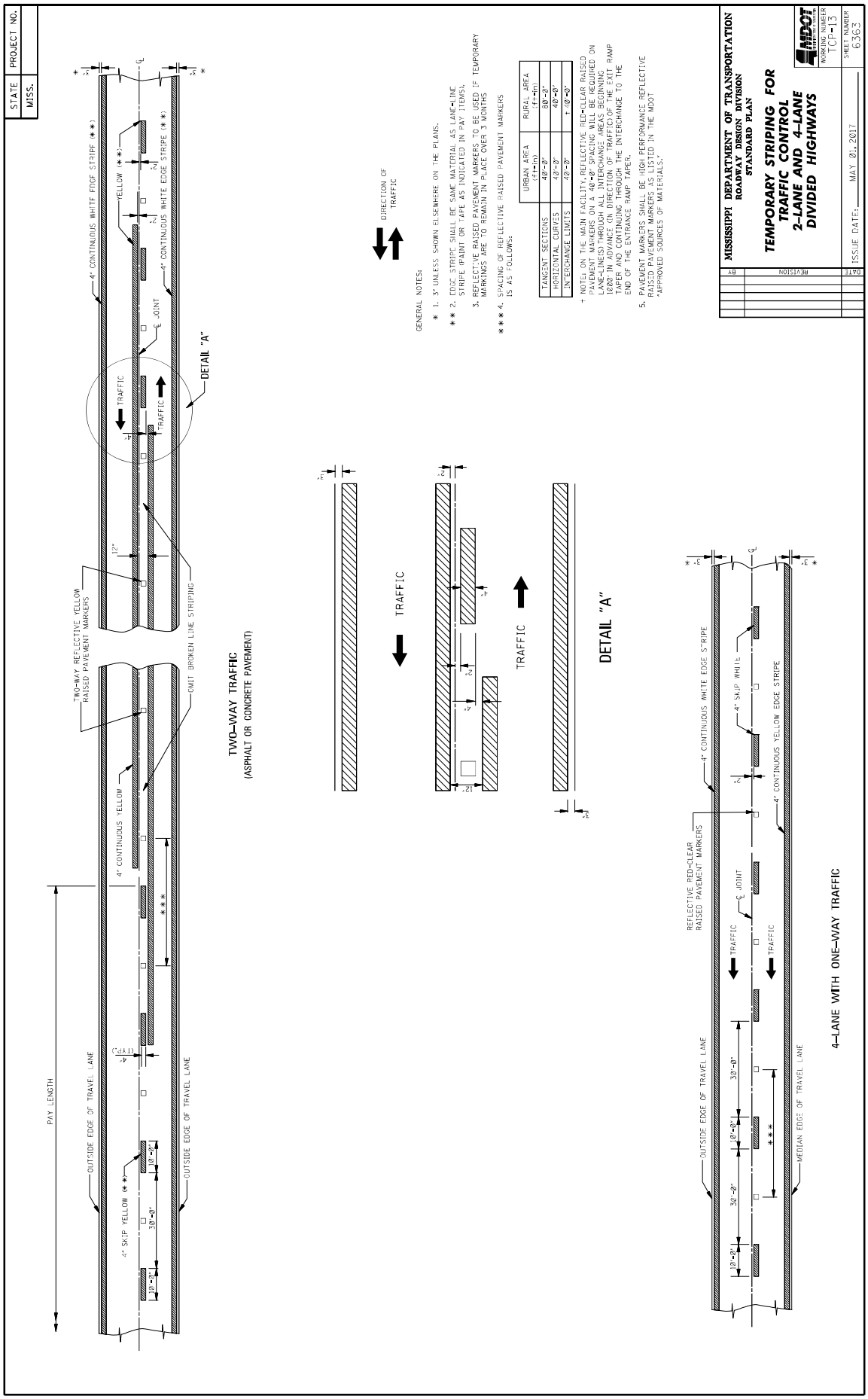
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

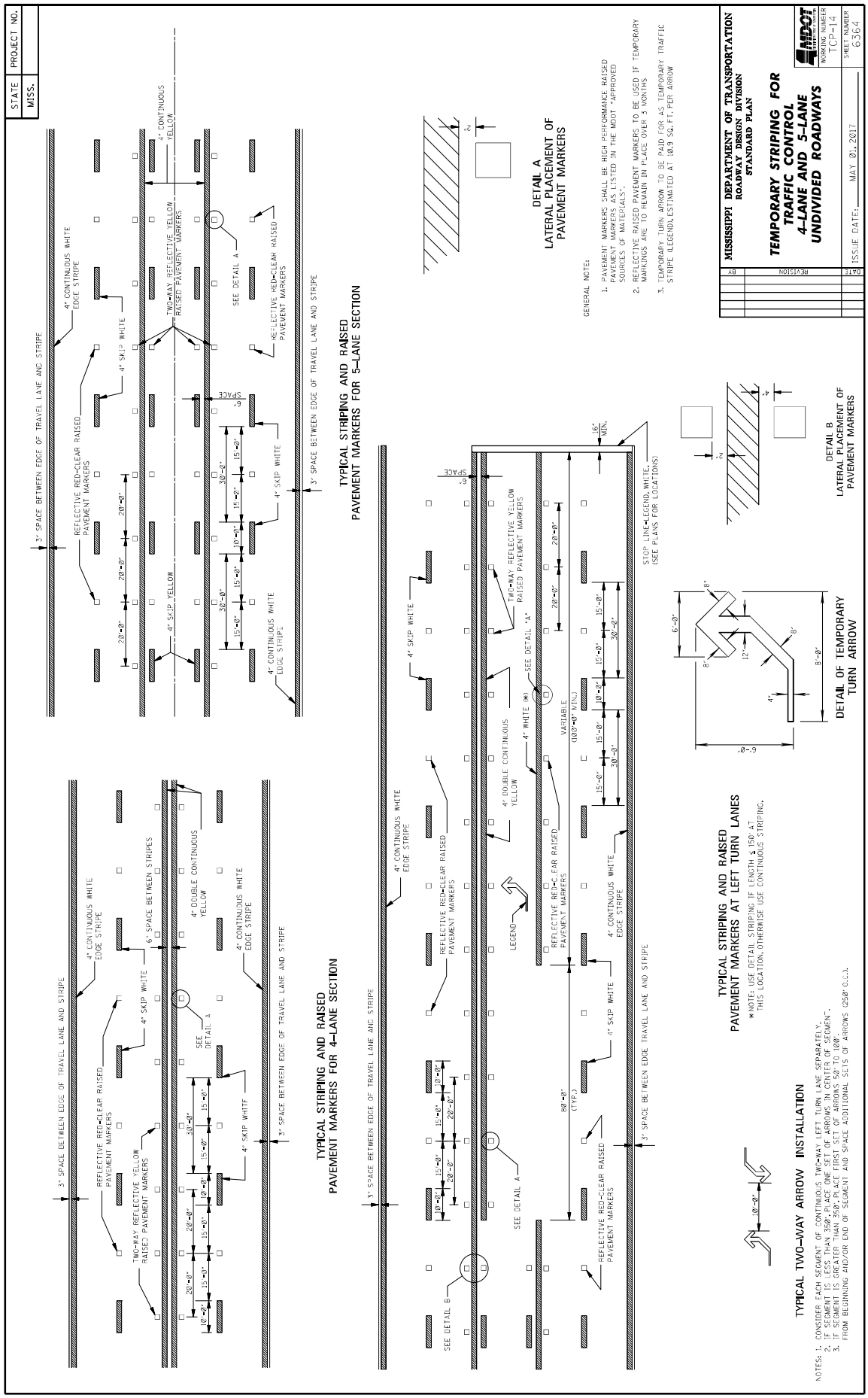
TRAFFIC CONTROL PLAN FOR TEMPORARY CONSTRUCTION CROSSOVER
(WORK DAY ONLY)

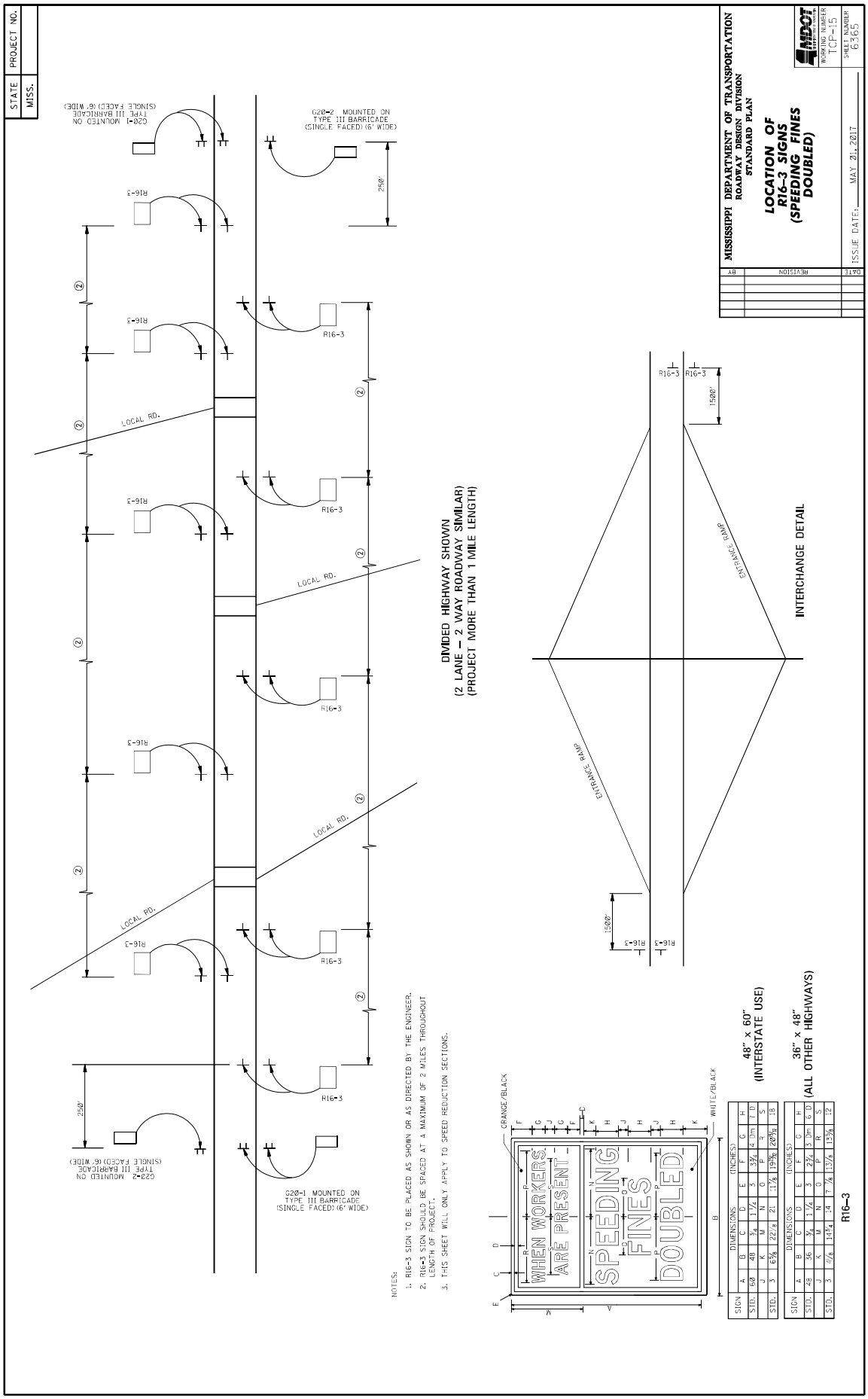
MDOT

WORKING NUMBER TCP-11
SHEET NUMBER 6361
ISSUE DATE: MAY 01, 2017


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLANS
UNEVEN PAVEMENT
DETAILS
WORKING NUMBER TCP-12
SHEET NUMBER 6362
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
GENERAL NOTES:
1. UNEVEN LANE LINE:
A. IF LESS THAN OR EQUAL TO 1½", NO SIGNS REQUIRED.
B. IF GREATER THAN 1½" AND LESS THAN OR EQUAL TO 2¼", PLACE SIGNS AS SHOWN ON THIS SHEET.
C. IF GREATER THAN 2¼", TRAFFIC SHOULD NOT BE ALLOWED TO CROSS UNEVEN LANE LINE.
2. THE W8-11 SIGNS SHOULD BE SPACED AT ¼-MILE INTERVALS THROUGHOUT UNEVEN LANE LINE LIMITS.
3. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.
TWO-WAY TRAFFIC
ONE-WAY TRAFFIC
UNEVEN LANES
W8-11
36 X 36
48 X 48
¼ MILE

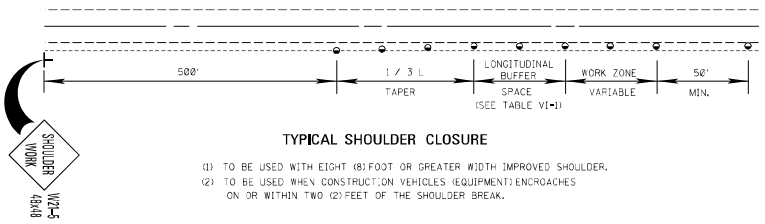

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TEMPORARY STRIPING FOR TRAFFIC CONTROL 2-LANE AND 4-LANE DIVIDED HIGHWAYS
WORKING NUMBER TCP-13
SHEET NUMBER 6363
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
GENERAL NOTES:
* 1. 3" UNLESS SHOWN ELSEWHERE ON THE PLANS.
** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR TAPE AS INDICATED IN "PAY" ITEMS).
3. REFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS
*** 4. SPACING OF REFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:
URBAN AREA (FT-IN) | RURAL AREA (FT-IN)
TANGENT SECTIONS 40'-0" 80'-0"
HORIZONTAL CURVES 40'-0" 40'-0"
INTERCHANGE LIMITS 40'-0" † 40'-0"
† 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'-0" IN ADVANCE OF THE BEGINNING OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
5. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED SOURCES OF MATERIALS."
DIRECTION OF TRAFFIC
TRAFFIC
TRAFFIC
DETAIL "A"
TWO-WAY REFLECTIVE YELLOW RAISED PAVEMENT MARKERS
4" CONTINUOUS YELLOW
4" SKIP YELLOW (**)
4" CONTINUOUS WHITE EDGE STRIPE (**)
YELLOW (**)
℄ JOINT
OMIT BROKEN LINE STRIPING
OUTSIDE EDGE OF TRAVEL LANE
PAY LENGTH
TWO-WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)
DETAIL "A"
4" SKIP WHITE
REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS
MEDIAN EDGE OF TRAVEL LANE
4-LANE WITH ONE-WAY TRAFFIC


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TEMPORARY STRIPING FOR TRAFFIC CONTROL 4-LANE AND 5-LANE UNDIVIDED ROADWAYS
WORKING NUMBER TCP-14
SHEET NUMBER 6364
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
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 ≤ 150' AT THIS LOCATION, OTHERWISE USE CONTINUOUS STRIPING.
TYPICAL TWO-WAY ARROW INSTALLATION
DETAIL A LATERAL PLACEMENT OF PAVEMENT MARKERS
DETAIL B LATERAL PLACEMENT OF PAVEMENT MARKERS
DETAIL OF TEMPORARY TURN ARROW
GENERAL NOTE:
1. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "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 SQ. FT. PER ARROW
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.


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
LOCATION OF R16-3 SIGNS (SPEEDING FINES DOUBLED)
WORKING NUMBER TCP-15
SHEET NUMBER 6365
ISSUE DATE: MAY 01, 2017
DATE REVISION BY
G20-1 MOUNTED ON TYPE III BARRICADE (SINGLE FACED) (6' WIDE)
G20-2 MOUNTED ON TYPE III BARRICADE (SINGLE FACED) (6' WIDE)
R16-3
LOCAL RD.
250'
G20-2 MOUNTED ON TYPE III BARRICADE (SINGLE FACED) (6' WIDE)
G20-1 MOUNTED ON TYPE III BARRICADE (SINGLE FACED) (6' WIDE)
DIVIDED HIGHWAY SHOWN
(2 LANE – 2 WAY ROADWAY SIMILAR)
(PROJECT MORE THAN 1 MILE LENGTH)
NOTES:
1. R16-3 SIGN TO BE PLACED AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. R16-3 SIGN SHOULD BE SPACED AT A MAXIMUM OF 2 MILES THROUGHOUT LENGTH OF PROJECT.
3. THIS SHEET WILL ONLY APPLY TO SPEED REDUCTION SECTIONS.
ENTRANCE RAMP
EXIT RAMP
1500'
INTERCHANGE DETAIL
ORANGE/BLACK
WHITE/BLACK
WHEN WORKERS ARE PRESENT
SPEEDING FINES DOUBLED
48" x 60" (INTERSTATE USE)
36" x 48" (ALL OTHER HIGHWAYS)
R16-3
DIMENSIONS (INCHES)
SIGN A B C D E F G H
STD. 3 6⅝ 22⅛ 21 11⅛ 19⅝ 20⅝ 13
STD. 3 9⅛ 14¾ 14 7⅛ 13⅛ 13⅛ 12
STD. J K M N O P R S
STD. 48 36 ¾ 1¼ 3 2½ 3 3m 6.10
STD. 60 48 ¾ 1¼ 3 3¾ 4 3m 7.10
STD. J K M N O P R S
STD. 3 9⅛ 14¾ 14 7⅛ 13⅛ 13⅛ 12

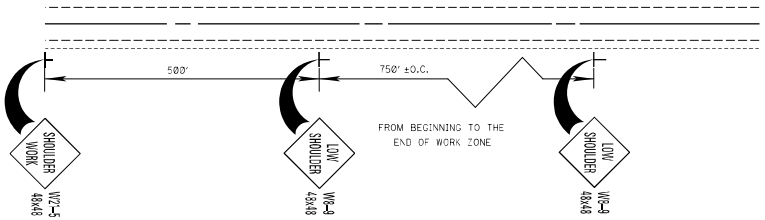
STATE	PROJECT NO.
MISS.	

PLASTIC DRUMS
(SEE NOTE FOR SPACING)



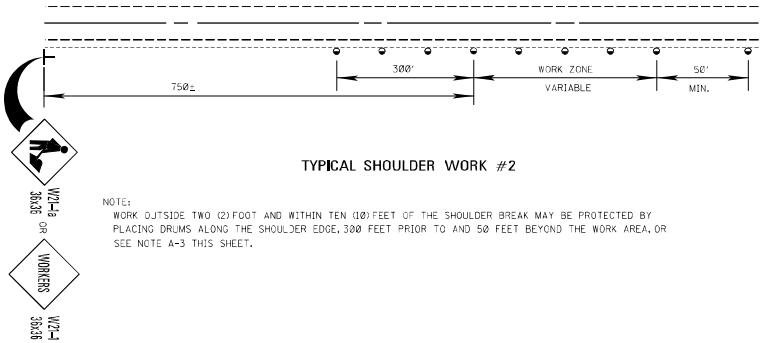
TYPICAL SHOULDER CLOSURE

(1) TO BE USED WITH EIGHT (8) FOOT OR GREATER WIDTH IMPROVED SHOULDER.
(2) TO BE USED WHEN CONSTRUCTION VEHICLES (EQUIPMENT) ENCROACHES ON OR WITHIN TWO (2) FEET OF THE SHOULDER BREAK.



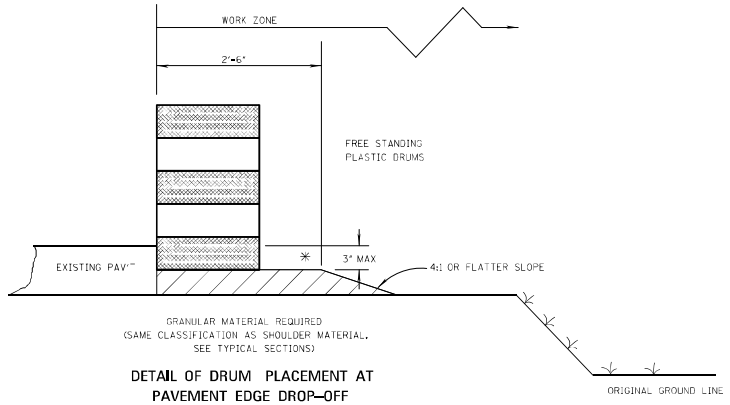
TYPICAL SHOULDER WORK #1
(SEE NOTE A-1 THIS SHEET)

PLASTIC DRUMS
(SEE NOTE FOR SPACING)



TYPICAL SHOULDER WORK #2

NOTE:
WORK OUTSIDE TWO (2) FOOT AND WITHIN TEN (10) FEET OF THE SHOULDER BREAK MAY BE PROTECTED BY PLACING DRUMS ALONG THE SHOULDER EDGE, 300 FEET PRIOR TO AND 50 FEET BEYOND THE WORK AREA, OR SEE NOTE A-3 THIS SHEET.



DETAIL OF DRUM PLACEMENT AT
PAVEMENT EDGE DROP-OFF

NOTES:

✳ A. PAVEMENT EDGE DROP-OFF

1. IF LESS THAN TWO AND ONE QUARTER (2.25) INCHES-NO PROTECTION REQUIRED. PLACE A SHOULDER WORK SIGN (W21-5) 500 FEET IN ADVANCE OF WORK ZONE SHOULDER AND A LOW SHOULDER SIGN (W8-9) AT THE BEGINNING AND THROUGHOUT THE WORK ZONE @ (750'+C.C.).

2. TWO AND ONE QUARTER TO THREE INCHES-PLACE DRUMS, VERTICAL PANELS OR BARRICADES EVERY 100 FEET ON TANGENT SECTIONS FOR SPEEDS OF 50 MILES PER HOUR OR GREATER. CONES MAY BE USED IN PLACE OF DRUMS, PANELS, AND BARRICADES DURING DAYLIGHT HOURS. FOR TANGENT SECTIONS WITH SPEEDS LESS THAN 50 MILES PER HOUR AND FOR CURVES, DEVICES SHOULD BE PLACED EVERY 50 FEET. SPACING FOR TAPERS SHOULD BE IN ACCORDANCE WITH THE M.U.T.C.D. (1 / 3 L, WHERE L IS THE TAPER LENGTH IN FEET.)

3. GREATER THAN THREE (3) INCHES-POSITIVE SEPARATION OR WEDGE WITH 4:1 OR FLATTER SLOPE NEEDED. IF THERE IS EIGHT (8) FEET OR MORE DISTANCE BETWEEN THE EDGE OF TRAVEL LANE AND DROP-OFF, THEN DRUMS, PANELS OR BARRICADES MAY BE USED.

4. FOR TEMPORARY CONDITIONS, DROP-OFFS GREATER THAN THREE (3) INCHES MAY BE PROTECTED WITH DRUMS, VERTICAL PANELS OR BARRICADES FOR SHORT DISTANCES DURING DAYLIGHT HOURS WHILE WORK IS BEING DONE IN THE DROP-OFF AREA.

5. LESSER TREATMENTS THAN THOSE DESCRIBED ABOVE MAY BE CONSIDERED FOR LOW-VOLUME LOCAL STREETS.

B. DRUM SPACING

1. TANGENTS = 2 X S
2. TAPERS = L / 3
WHERE L = S X W
L = TAPER LENGTH IN FEET
S = SPEED IN MPH (POSTED OR 85 PERCENTILE)
W = WIDTH OF OFFSET IN FEET

C. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.

TABLE VI-1. GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE

✳✳ SPEED (MPH)	LENGTH (FEET)
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

✳✳ POSTED SPEED, OFF-PEAK 85 PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL DETAILS
DRUM PLACEMENT
AND
SHOULDER CLOSURE

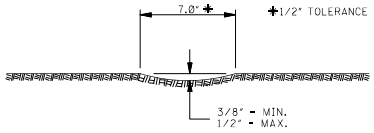
MDOT

WORKING NUMBER
TCP-16

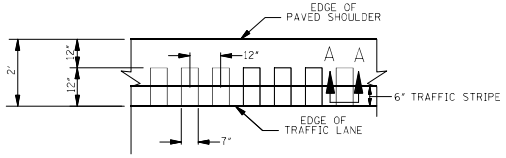
ISSUE DATE: MAY 31, 2017

SHEET NUMBER
6366

STATE	PROJECT NO.
MISS.	



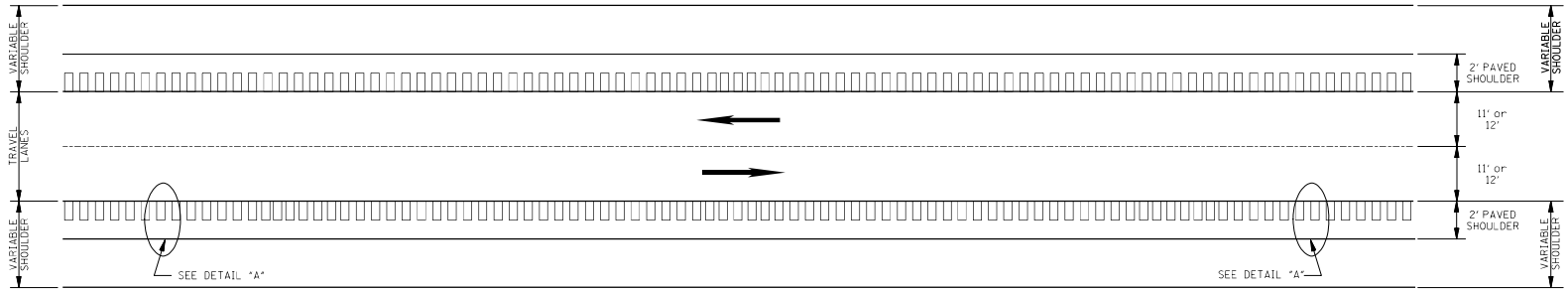
SECTION "A–A"



DETAIL "A"

GENERAL NOTES

1. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED ON LEFT AND RIGHT SHOULDERS OF ALL PAVED SHOULDERS ON THIS PROJECT
2. GROUND-IN RUMBLE STRIPES SHALL BE OMITTED ACROSS PUBLIC INTERSECTING ROADWAYS OR OTHER INTERRUPTIONS IN NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER
3. COST TO BE PAID FOR USING APPROPRIATE PAY ITEMS
4. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO:
   - A. MAINLINE
   - B. INTERSECTING ROADWAY IF OVERLAID OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.W.
   - C. ANY ROADWAY WITH EXISTING RUMBLE STRIPES PRIOR TO CONSTRUCTION.
5. DO NOT USE WHERE TRAVEL LANE IS LESS THAN 11' WIDE.



PLAN

NOT TO SCALE

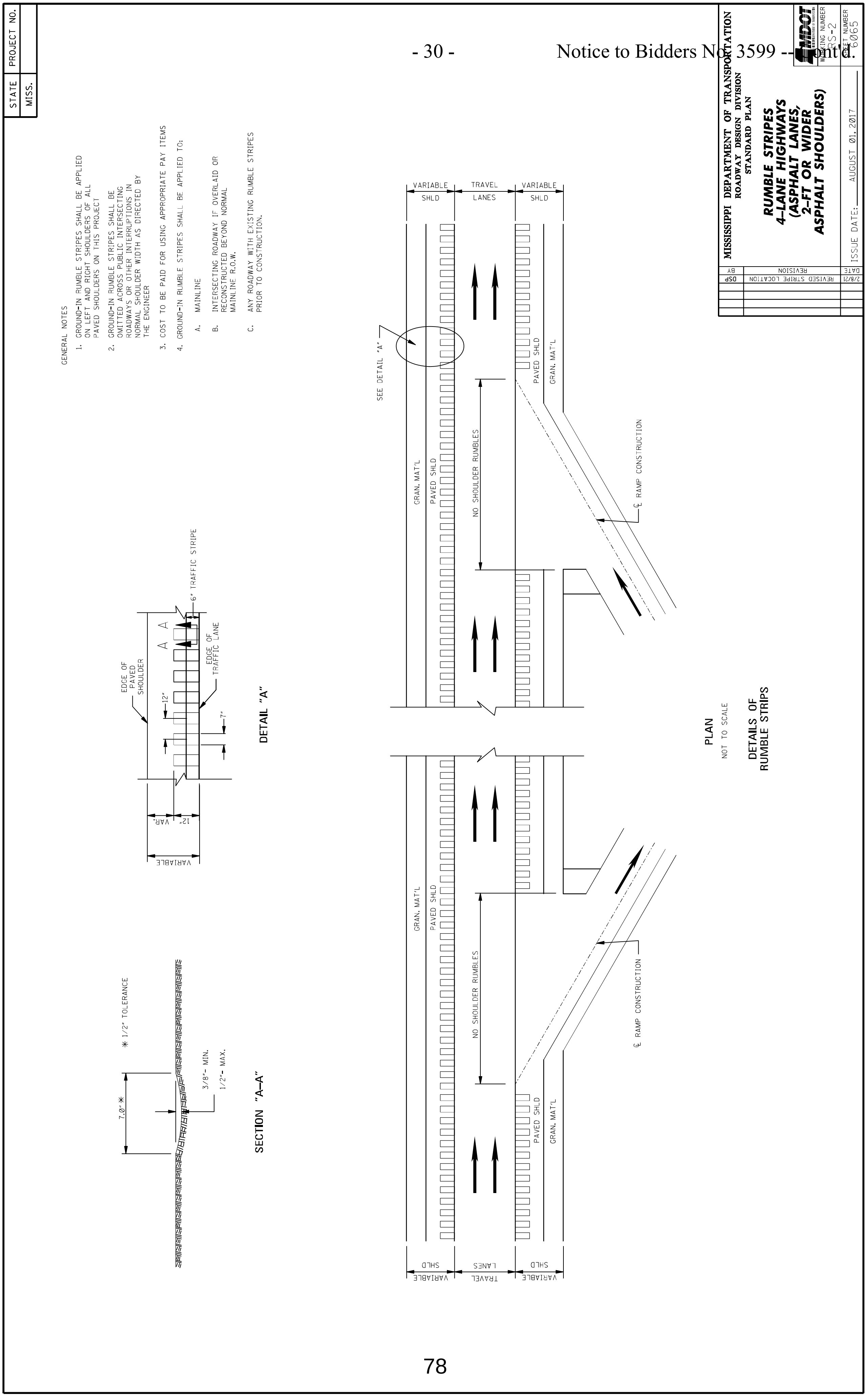
DATE	REVISION	BY
2/8/21	REVISED STRIPE LOCATION	DSP

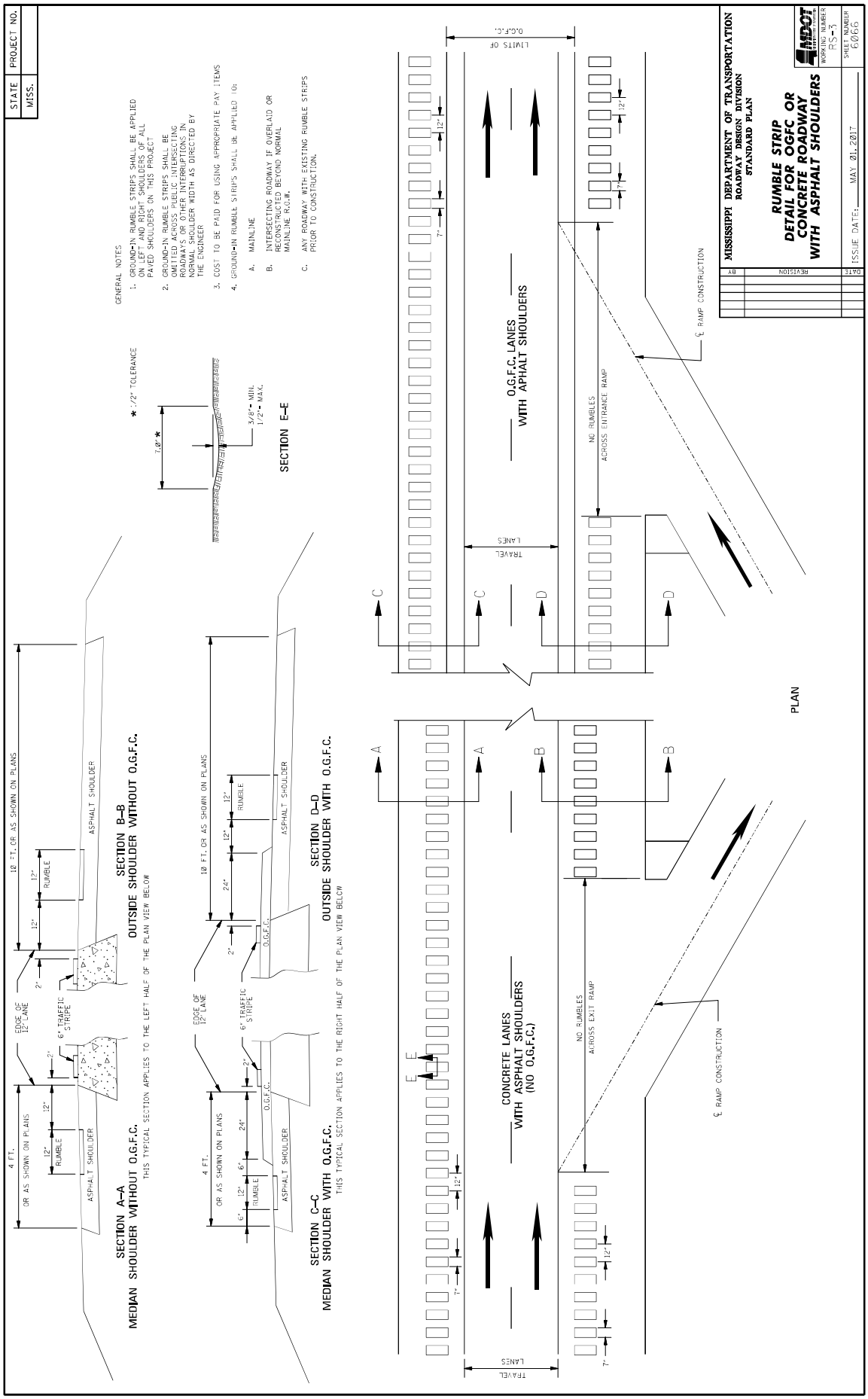
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

RUMBLE STRIPES 2-LANE HIGHWAYS (ASPHALT LANES, 2-FT ASPHALT SHOULDERS)

ISSUE DATE: AUGUST 01, 2017

MDOT
DRAWING NUMBER
RS-1
SHEET NUMBER
6064


STATE
MISS.
PROJECT NO.
GENERAL NOTES
1. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED ON LEFT AND RIGHT SHOULDERS OF ALL PAVED SHOULDERS ON THIS PROJECT
2. GROUND-IN RUMBLE STRIPES SHALL BE OMITTED ACROSS PUBLIC INTERSECTING ROADWAYS OR OTHER INTERRUPTIONS IN NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER
3. COST TO BE PAID FOR USING APPROPRIATE PAY ITEMS
4. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO:
A. MAINLINE
B. INTERSECTING ROADWAY IF OVERLAID OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.W.
C. ANY ROADWAY WITH EXISTING RUMBLE STRIPES PRIOR TO CONSTRUCTION.
VARIABLE SHLD
TRAVEL LANES
VARIABLE SHLD
SEE DETAIL "A"
GRAN. MAT'L
PAVED SHLD
NO SHOULDER RUMBLES
℄ RAMP CONSTRUCTION
6" TRAFFIC STRIPE
EDGE OF PAVED SHOULDER
EDGE OF TRAFFIC LANE
12"
7"
VAR.
VARIABLE
DETAIL "A"
PLAN
NOT TO SCALE
DETAILS OF RUMBLE STRIPS
* 1/2" TOLERANCE
7.0" *
3/8"- MIN.
1/2"- MAX.
SECTION "A-A"
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
RUMBLE STRIPES
4-LANE HIGHWAYS
(ASPHALT LANES,
2-FT OR WIDER
ASPHALT SHOULDERS)
ISSUE DATE: AUGUST 01, 2017
DATE
REVISION
BY
2/8/21
REVISED STRIPE LOCATION
DSP
MDOT
WORKING NUMBER
RS-2
SHEET NUMBER
6065


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
RUMBLE STRIP
DETAIL FOR OGFC OR
CONCRETE ROADWAY
WITH ASPHALT SHOULDERS
WORKING NUMBER RS-1
SHEET NUMBER 6066
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
GENERAL NOTES
1. GROUND-IN RUMBLE STRIPS SHALL BE APPLIED ON LEFT AND RIGHT SHOULDERS OF ALL PAVED SHOULDERS ON THIS PROJECT
2. GROUND-IN RUMBLE STRIPS SHALL BE OMITTED ACROSS PUBLIC INTERSECTING ROADWAYS OR OTHER INTERRUPTIONS IN NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER
3. COST TO BE PAID FOR USING APPROPRIATE PAY ITEMS
4. GROUND-IN RUMBLE STRIPS SHALL BE APPLIED TO:
A. MAINLINE
B. INTERSECTING ROADWAY IF OVERLAID OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.W.
C. ANY ROADWAY WITH EXISTING RUMBLE STRIPS PRIOR TO CONSTRUCTION.
* 1/2" TOLERANCE
7.0"*
3/16" - MIN.
1/2" - MAX.
SECTION E-E
SECTION A-A
MEDIAN SHOULDER WITHOUT O.G.F.C.
THIS TYPICAL SECTION APPLIES TO THE LEFT HALF OF THE PLAN VIEW BELOW
SECTION B-B
OUTSIDE SHOULDER WITHOUT O.G.F.C.
SECTION C-C
MEDIAN SHOULDER WITH O.G.F.C.
THIS TYPICAL SECTION APPLIES TO THE RIGHT HALF OF THE PLAN VIEW BELOW
SECTION D-D
OUTSIDE SHOULDER WITH O.G.F.C.
4 FT. OR AS SHOWN ON PLANS
10 FT. OR AS SHOWN ON PLANS
EDGE OF 12" LANE
6" TRAFFIC STRIPE
12" RUMBLE
ASPHALT SHOULDER
24"
6"
O.G.F.C.
PLAN
CONCRETE LANES
WITH ASPHALT SHOULDERS
(NO O,G,F,C,)
O.G.F.C. LANES
WITH APHALT SHOULDERS
NO RUMBLES
ACROSS EXIT RAMP
NO RUMBLES
ACROSS ENTRANCE RAMP
℄ RAMP CONSTRUCTION
TRAVEL LANES
LIMITS OF O.G.F.C.
7"
12"

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 4702 **CODE: (SP)**

DATE: 11/22/2022

SUBJECT: App for Traffic Control Reports

Bidders are advised that the Department has created a smart phone App for completing and submitting traffic control reports (Form CSD-762) required on this project. The Contractor who monitors traffic control activities and completes traffic control reports will be required to download and use this App when completing and submitting traffic control reports. The reports will then be readily available to all persons who need access to the forms. The App is free and is available for downloading at the following location.

https://extacctmgmt.mdot.state.ms.us/

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 5412 **CODE: (SP)**

DATE: 10/17/2023

SUBJECT: Contract Time

PROJECT: SP-0059-03(103) / 109488301 – Lauderdale County

The calendar date for completion of work to be performed by the Contractor for this project shall be **December 18, 2023** 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 the day bids are received and the effective date of the Notice to Proceed / Beginning of Contract Time will be simultaneous with the execution of the contract.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 -NOTICE TO BIDDERS NO. 5413 **CODE: (SP)**

DATE: 10/02/2023

SUBJECT: Scope of Work

PROJECT: SP-0059-03(103) / 109488301 -- Lauderdale 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".

Minor changes in detail of design or construction procedure may be authorized by the Director of Structures, State Bridge Engineer provided such changes will not be cause for contract price adjustment. Work for which no pay item is provided will not be paid for directly and shall therefore be considered an absorbed item of work.

It shall be the responsibility of the Contractor to protect the existing structure 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.

All details are based on the dimensions shown on the original plans for the existing structure. The Contractor shall be responsible for adjusting the elements of the new construction to ensure a proper fit with the existing structure. The Contractor shall verify all dimensions of the existing structure prior to beginning work.

During construction, care shall be exercised to ensure that no debris falls into 22nd Avenue Roadway crossings below the structure. All debris, including any material that has accumulated on the bridge deck or caps, shall become the property of the Contractor and shall be removed from the construction site and disposed of properly.

Work on the project shall consist of the following bridge repairs on Bridge 153.0B (12324) on I-59 over SR 145/22nd Avenue.

Scope of Work Bridge 153.0B (12324)

- Remove and replace portions of the bridge deck at locations specified in the Standard Drawings.
- Remove and replace preformed joint seals at End Bent No. 1.

Bridge Deck Removal & Replacement

Full depth removal of the bridge deck shall be performed in the locations detailed in the Drawings. All new concrete shall be high early strength concrete, Class “AA”. The mixture design shall be furnished by the Contractor for approval by the Materials Division. Mixture design parameter are

as follows:

a. Required Strength: 4,000 psi in 24 hours
b. Total Air Content: 3-6%
c. Maximum Slump: 6 inches

Non-chloride based accelerator may be used if the ambient temperature is 50 ºF or less, but shall not be used if the ambient temperature is greater than 50 ºF.

Synthetic structural fibers shall be used. The Contractor shall select a Manufacturer from MDOT's Approved Products List, and the Manufacturer's recommendations shall be followed for the dosage rate.

Curing is to be continuous until 2,500 psi is attained. Traffic shall be diverted from the repair area until this value is reached. The Contractor may use the maturity method per Section 907-804 to estimate the concrete compressive strength for the purposes of the in-place concrete shall be determined using eight concrete test cylinders, which shall be tested at 8, 16, and 24 hour intervals. The two remaining cylinders shall be used to determine the 28-day compressive strength of the concrete.

Prior to removing the section of bridge deck, all slab reinforcement within the limits of the removal section shall be located by the Contractor. A 1-inch saw cut shall be made around the perimeter of the removal area prior to the concrete removal. Care shall be exercised to protect the existing reinforcement from damage. Any reinforcement damaged during the concrete removal shall be repaired by the Contractor by a method approved by the Director of Structures, State Bridge Engineer at no additional cost to the State. All reinforcement to remain in place shall be blasted clean prior to pouring new concrete. Removal of concrete shall be performed with a handheld chipping hammer no larger than 30 lbs. All existing concrete surfaces that will be in contact with new concrete shall be painted with epoxy binder specifically designed to bond new concrete to old. The epoxy binder shall be applied per the manufacturer's specifications. New concrete shall be placed in one lift.

The surface finish of the repair location shall be broom finished in accordance with Subsection 501.03.18.2 of the Standard Specifications.

The cost of saw cutting around the removal area, removing concrete, cleaning existing reinforcement that is to remain, replacing concrete, labor and any other items of work necessary to complete the full depth slab removal and replacement that is detailed in the standard drawings shall be paid for under pay item no. 907-824-PP: Bridge Repair, Removal and Replacement of Bridge Deck.

Joint Sealing

Only the joints at End Bent No. 1 shall be repaired and resealed. The joint repair shall include removal of all existing joint material and installation of the performed joint seal and other necessary work per the included standard drawings or as instructed by the Engineer.

This item of work is to be paid for under pay item no. 907-808-A: Joint Repair.

After the existing joint material has been removed, the joints shall then be sealed by one of the three approved Manufacturers listed in Special Provisions 907-823 and installed according to the Manufacturer's specifications.

This item of work is to be paid for under pay item no. 907-823-A: Preformed Joint Seal, Type I.

Traffic Control Plan

The Contractor shall erect and maintain construction signing and provide all signs and traffic handling devices necessary to safely maintain traffic around or through the work areas in accordance with the Traffic Control Plan. Payment shall be included in the price bid for Pay item no. 618-A: Maintenance of Traffic.

STATE OF MISSISSIPPI
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY FEDERAL AID PROJECT NO. SP-0059-03(103)

I-20/59 over SR 145/22nd Ave (Bridge # 153.0B)
LAUDERDALE COUNTY

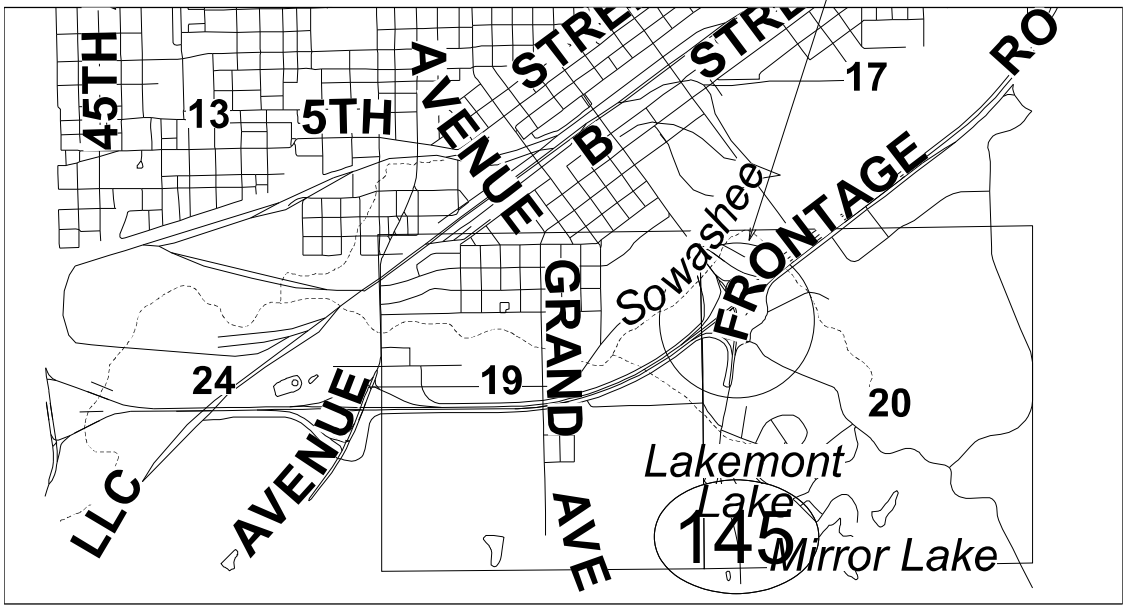
GENERAL INDEX

BRIDGE STRUCTURES REQ'D.

NONE

BOX BRIDGES REQ'D.

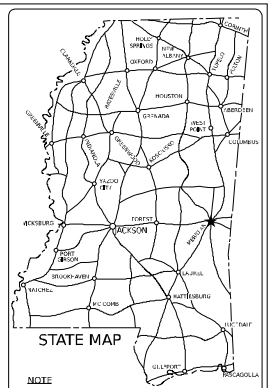
NONE



EQUATIONS

EXCEPTIONS

SCALES
PLAN 1 IN.= 100 FT.
PROFILE HOR. 1 IN.= 100 FT. VERT. 1 IN.= 10 FT.
LAYOUT 1 IN.= FT.



NOTE
★ INDICATES APPROXIMATE LOCATION OF PROJECT.

LAT. LONG.
(APPROX. MIDDLE OF PROJECT)

DESIGN CONTROL
MPH = V (SPEED DESIGN)

ADT ( ) = : ADT ( ) =
DHV = : D = % T = %

PERMITS ACQUIRED BY MDOT

WETLANDS AND WATERS PERMITS

	WATERS	WETLANDS
NATIONWIDE #14	N	N
NATIONWIDE (OTHER)*	N	N
GENERAL*	N	N
INDIVIDUAL (404)*	N	N

STORMWATER PERMIT N

Y REQUIRED, CNOI SUBMITTED BY MDOT (DISTURBED AREA=5 ACRES)

S REQUIRED, SCNOI TO BE SUBMITTED BY CONTRACTOR (1 TO 4.99 ACRES)

N NO STORMWATER PERMIT REQUIRED (<1 ACRE)

APPROVED BY: _____

CONVENTIONAL SYMBOLS

COUNTY LINE
TOWN CORP LINE
SECTION LINE
DEED LINE
EXISTING ROADWAY
PROPOSED ROADWAY
RAILROAD
BRIDGES

LENGTH DATA

LENGTH OF ROADWAY	FT.	MI.
LENGTH OF BRIDGES	FT.	MI.
LENGTH OF PROJECT (NET)	FT.	MI.
LENGTH OF EXCEPTIONS	FT.	MI.
LENGTH OF PROJECT (GROSS)	FT.	MI.

DESIGNED BY: WALDON

CONSTRUCTION PROJECT DATA

EXTERNAL PROJECT NUMBER	SP-0059-03(103)
FMS & DETAIL	109488/301088

P S & E DATE: 9/26/2023

APPROVED:

DEPUTY EXECUTIVE DIRECTOR / CHIEF ENGINEER

EXECUTIVE DIRECTOR

Notice to Bidders No. 5413 -- Cont'd.

PLAN SHEET

10/3/2023 10:22:47 AM TITLE-I20.dgn

SIGNS REQUIRED

	SIGN NO.	SIZE	UNIT AREA FT²	QUAN. REQ'D.	TOTAL SIGN AREA FT²	REMARKS
	G20 - 1	60" X 24"	10.00 ♦			ROAD WORK NEXT XX MILES
	G20 - 2	48" X 24"	8.00	6	48	END ROAD WORK
	G20 - 4	36" X 18"	4.50			PILOT CAR FOLLOW ME
1	M1 - 1	24" X 24"	4.00			1 OR 2 DIGIT
1	M1 - 1	30" X 24"	5.00			3 DIGIT
2	M1 - 4	24" X 24"	4.00			1 OR 2 DIGIT
2	M1 - 4	30" X 24"	5.00			3 DIGIT
3	M1 - 5	24" X 24"	4.00			1 OR 2 DIGIT
3	M1 - 5	30" X 24"	5.00			3 DIGIT
4	M3 - 1	24" X 12"	2.00			NORTH- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 1	30" X 15"	3.13			NORTH- 3 DIGIT RTE. MARKER
4	M3 - 2	24" X 12"	2.00			EAST- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 2	30" X 15"	3.13			EAST- 3 DIGIT RTE. MARKER
4	M3 - 3	24" X 12"	2.00			SOUTH- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 3	30" X 15"	3.13			SOUTH- 3 DIGIT RTE. MARKER
4	M3 - 4	24" X 12"	2.00			WEST- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 4	30" X 15"	3.13			WEST- 3 DIGIT RTE. MARKER
	M4 - 8	24" X 12"	2.00			DETOUR- 1 OR 2 DIGIT RTE. MARKER
	M4 - 8	30" X 15"	3.13			DETOUR- 3 DIGIT RTE. MARKER
	M4 - 9	48" X 36"	12.00 ♦			DETOUR ↑
	M4 - 9L	48" X 36"	12.00 ♦			DETOUR ←
	M4 - 9BL	48" X 36"	12.00 ♦			DETOUR ↰
	M4 - 9SL	48" X 36"	12.00 ♦			DETOUR ↖
	M4 - 9BSL	48" X 36"	12.00 ♦			DETOUR
	M4 - 9R	48" X 36"	12.00 ♦			DETOUR →
	M4 - 9BR	48" X 36"	12.00 ♦			DETOUR ↱
	M4 - 9SR	48" X 36"	12.00 ♦			DETOUR ↗
	M4 - 9BSR	48" X 36"	12.00 ♦			DETOUR
	M4 - 10L	48" X 18"	6.00			DETOUR
	M4 - 10R	48" X 18"	6.00			DETOUR
4	M4 - 5	24" X 12"	2.00			TO
4	M5 - 1L	21" X 15"	2.19			
4	M5 - 1R	21" X 15"	2.19			
4	M5 - 2L	21" X 15"	2.19			
4	M5 - 2R	21" X 15"	2.19			
4	M6 - 1L	21" X 15"	2.19			←
4	M6 - 1R	21" X 15"	2.19			→
4	M6 - 2L	21" X 15"	2.19			↖
4	M6 - 2R	21" X 15"	2.19			↗
4	M6 - 3	21" X 15"	2.19			↑

SIGNS REQUIRED (CONT'D)

	SIGN NO.	SIZE	UNIT AREA FT²	QUAN. REQ'D.	TOTAL SIGN AREA FT²	REMARKS
(1)	R1 - 1	36" OCTAGON	7.46			STOP
(2)	R1 - 1	48" OCTAGON	13.25 ♦	1	13.25	
(2)	R1 - 2	36" X 36" X 36"	3.90			YIELD
(1)	R1 - 2	48" X 48" X 48"	6.93			
(2)	R1 - 2	60" X 60" X 60"	10.83 ♦			
(1)	R1 - 3	18" X 9"	1.13			3-WAY, 4-WAY, ETC.
(2)	R1 - 3	24" X 12"	2.00			
(1)	R2-1	24" X 30"	5.00			SPEED LIMIT
(2)	R2-1	36" X 48"	12.00 ♦			
6	R2-1	48" X 60"	20.00 ♦			
(1)	R3-1	36" X 36"	9.00			
(2)	R3-1	48" X 48"	16.00 ♦			
(1)	R3-2	36" X 36"	9.00			
(2)	R3-2	48" X 48"	16.00 ♦			
(1)	R3-4	36" X 36"	9.00			
(2)	R3-4	48" X 48"	16.00 ♦			
	R3-5L	30" X 36"	7.50			ONLY
	R3-5R	30" X 36"	7.50			ONLY
	R3-6L	30" X 36"	7.50			
	R3-6R	30" X 36"	7.50			
	R3-7L	30" X 30"	6.25			LEFT LANE MUST TURN LEFT
	R3-7R	30" X 30"	6.25			RIGHT LANE MUST TURN RIGHT
(1)	R4-1	24" X 30"	5.00			DO NOT PASS
(2)	R4-1	48" X 60"	20.00 ♦			
(1)	R4-2	24" X 30"	5.00			PASS WITH CARE
(2)	R4-2	48" X 60"	20.00 ♦			
	R4-7	48" X 60"	20.00 ♦			
	R4-8	48" X 60"	20.00 ♦			
	R5-1	48" X 48"	16.00 ♦			DO NOT ENTER
	R5-1a	42" X 30"	8.75			WRONG WAY
	R6-1L	36" X 12"	3.00			ONE WAY
	R6-1R	36" X 12"	3.00			ONE WAY
	R6-2L	24" X 30"	5.00			ONE WAY
	R6-2R	24" X 30"	5.00			ONE WAY
	R11-2	48" X 30"	10.00 ♦	1	10	ROAD CLOSED
	R11-3a	60" X 30"	12.50 ♦			ROAD CLOSED XX MILES AHEAD
	R11-3b	60" X 30"	12.50 ♦			BRIDGE OUT XX MILES AHEAD
	R11-4	60" X 30"	12.50 ♦			ROAD CLOSED TO THRU TRAFFIC
	R12-1	36" X 48"	12.00 ♦			WEIGHT LIMIT XX TONS
7	R16-3	36" X 48"	12.00 ♦			WHEN WORKERS ARE PRESENT
6 7	R16-3	48" X 60"	20.00 ♦			SPEEDING FINES DOUBLED

SIGNS REQUIRED (CONT'D)

	SIGN NO.	SIZE	UNIT AREA FT²	QUAN. REQ'D.	TOTAL SIGN AREA FT²	REMARKS
	W1 - 1L	48" X 48"	16.00 ♦			
	W1 - 1R	48" X 48"	16.00 ♦			
	W1 - 2L	48" X 48"	16.00 ♦			
	W1 - 2R	48" X 48"	16.00 ♦			
	W1 - 3L	48" X 48"	16.00 ♦			
	W1 - 3R	48" X 48"	16.00 ♦			
	W1 - 4aL	48" X 48"	16.00 ♦			
	W1 - 4aR	48" X 48"	16.00 ♦			
	W1 - 5L	48" X 48"	16.00 ♦			
	W1 - 5R	48" X 48"	16.00 ♦			
(1)	W1 - 6L	48" X 24"	8.00			←
(2)	W1 - 6L	60" X 30"	12.50 ♦			
(1)	W1 - 6R	48" X 24"	8.00			→
(2)	W1 - 6R	60" X 30"	12.50 ♦			
(1)	W1 - 7	48" X 24"	8.00			↔
(2)	W1 - 7	60" X 30"	12.50 ♦			↔
(1)	W1 - 8L	18" X 24"	3.00			
(2)	W1 - 8L	36" X 48"	12.00 ♦			
(1)	W1 - 8R	18" X 24"	3.00			
(2)	W1 - 8R	36" X 48"	12.00 ♦			
	W1-9L	48" X 48"	16.00 ♦			
	W1-9L	48" X 48"	16.00 ♦			
	W2-6	36" X 36"	9.00			
	W3-1a	48" X 48"	16.00 ♦			
	W3-2a	48" X 48"	16.00 ♦			
	W3-3	48" X 48"	16.00 ♦			
	W3-5	48" X 48"	16.00 ♦			SPEED REDUCTION
	W4-1L	48" X 48"	16.00 ♦			
	W4-1R	48" X 48"	16.00 ♦			
	W4-2L	48" X 48"	16.00 ♦			
	W4-2R	48" X 48"	16.00 ♦			
	W4-3L	48" X 48"	16.00 ♦			
	W4-3R	48" X 48"	16.00 ♦			
	W4-6	48" X 48"	16.00 ♦			
	W5-1a	48" X 48"	16.00 ♦			PAVEMENT NARROWS
	W6-1	48" X 48"	16.00 ♦			
	W6-2	48" X 48"	16.00 ♦			
	W6-3	48" X 48"	16.00 ♦			
	W8-1	48" X 48"	16.00 ♦			BUMP
	W8-4	48" X 48"	16.00 ♦			SOFT SHOULDER
	W8-6	48" X 48"	16.00 ♦			TRUCK CROSSING

SIGNS REQUIRED (CONT'D)

	SIGN NO.	SIZE	UNIT AREA FT²	QUAN. REQ'D.	TOTAL SIGN AREA FT²	REMARKS
	W8-7	48" X 48"	16.00 ♦			LOOSE GRAVEL
	W8-9	48" X 48"	16.00 ♦			LOW SHOULDER
	W8-11	36" X 36"	9.00			UNEVEN LANES
	W8-12	48" X 48"	16.00 ♦			NO CENTER STRIPE
(1)	W10-1	36" DIA.	7.07			R X R
(2)	W10-1	48" DIA.	12.56 ♦			
	W13-1	24" X 24"	4.00			XX MPH
(1)	W14-3	36" X 48" X 48"	5.56			NO PASSING ZONE
(2)	W14-3	48" X 64" X 64"	9.89			
	W16-2	24" X 18"	3.00			XXX FEET
	W19-2	48" X 48"	16.00 ♦			BRIDGE MAY ICE IN COLD WEATHER
(1)	W20 - 1	48" X 48"	16.00 ♦	8	96	ADVANCE ROAD WORK
(2)	W20 - 1	36" X 36"	9.00			
	W20 - 2	48" X 48"	16.00 ♦			ADVANCE DETOUR
	W20 - 3	48" X 48"	16.00 ♦			ADVANCE ROAD CLOSED
	W20 - 4	48" X 48"	16.00 ♦			ADVANCE ONE-LN. RD.
	W20 - 4b	48" X 48"	16.00 ♦			ADVANCE ONE-LN. BR.
	W20 - 5L	48" X 48"	16.00 ♦			ADVANCE LT. LN. CLOSED
	W20 - 5R	48" X 48"	16.00 ♦			ADVANCE RT. LN. CLOSED
	W20 - 7a	48" X 48"	16.00 ♦			
	W21 - 1	36" X 36"	9.00			WORKERS
	W21 - 1a	36" X 36"	9.00			
	W21-2	36" X 36"	9.00			FRESH OIL (TAR)
	W21-3	48" X 48"	16.00 ♦			ADVANCE ROAD MACHINERY
	W21-5	48" X 48"	9.00			SHOULDER WORK
	W21-6	36" X 36"	16.00 ♦			SURVEY CREW
	W24-1L	48" X 48"	16.00 ♦			
	W24-1R	48" X 48"	16.00 ♦			
	W24-1aL	48" X 48"	16.00 ♦			
	W24-1aR	48" X 48"	16.00 ♦			
	W24-1bL	48" X 48"	16.00 ♦			
	W24-1bR	48" X 48"	16.00 ♦			
	VP-1L	12" X 36"	3.00			
	VP-1R	12" X 36"	3.00			
5	OM-3L	12" X 36"	3.00			
5	OM-3R	12" X 36"	3.00			
	TOTAL SIGN AREA LESS THAN 10 SQ. FT.					48 SQ. FT.
	TOTAL SIGN AREA GREATER THAN 10 SQ. FT. ♦					119.25 SQ. FT.

NOTES

(1) STANDARD

(2) SPECIAL (USE WHERE WARRANTED)

1 INTERSTATE ROUTE MARKER

2 UNITED STATES ROUTE MARKER

3 STATE ROUTE MARKER

4 COLORS OF CARDINAL DIRECTION MARKERS AND DIRECTIONAL ARROWS SHALL BE APPROPRIATE TO MATCH ACCOMPANYING ROUTE MARKERS.

5 BLACK STRIPES ON YELLOW BACKGROUND

6 INTERSTATE USE ONLY

7 TOP OF SIGN - BLACK LETTERING ON ORANGE BACKGROUND, BOTTOM OF SIGN - BLACK LETTERING ON WHITE BACKGROUND

THE BACKGROUND OF ALL WARNING SIGNS ("W" SERIES) EXCEPT W10-1 SHALL BE ORANGE. THE W10-1 BACKGROUND SHALL BE YELLOW IN ALL CASES.

MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DESIGNED BY: WALDON
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 109488/301000
PROJECT NO.: SP-0059-03(103)
COUNTY: LAUDERDALE

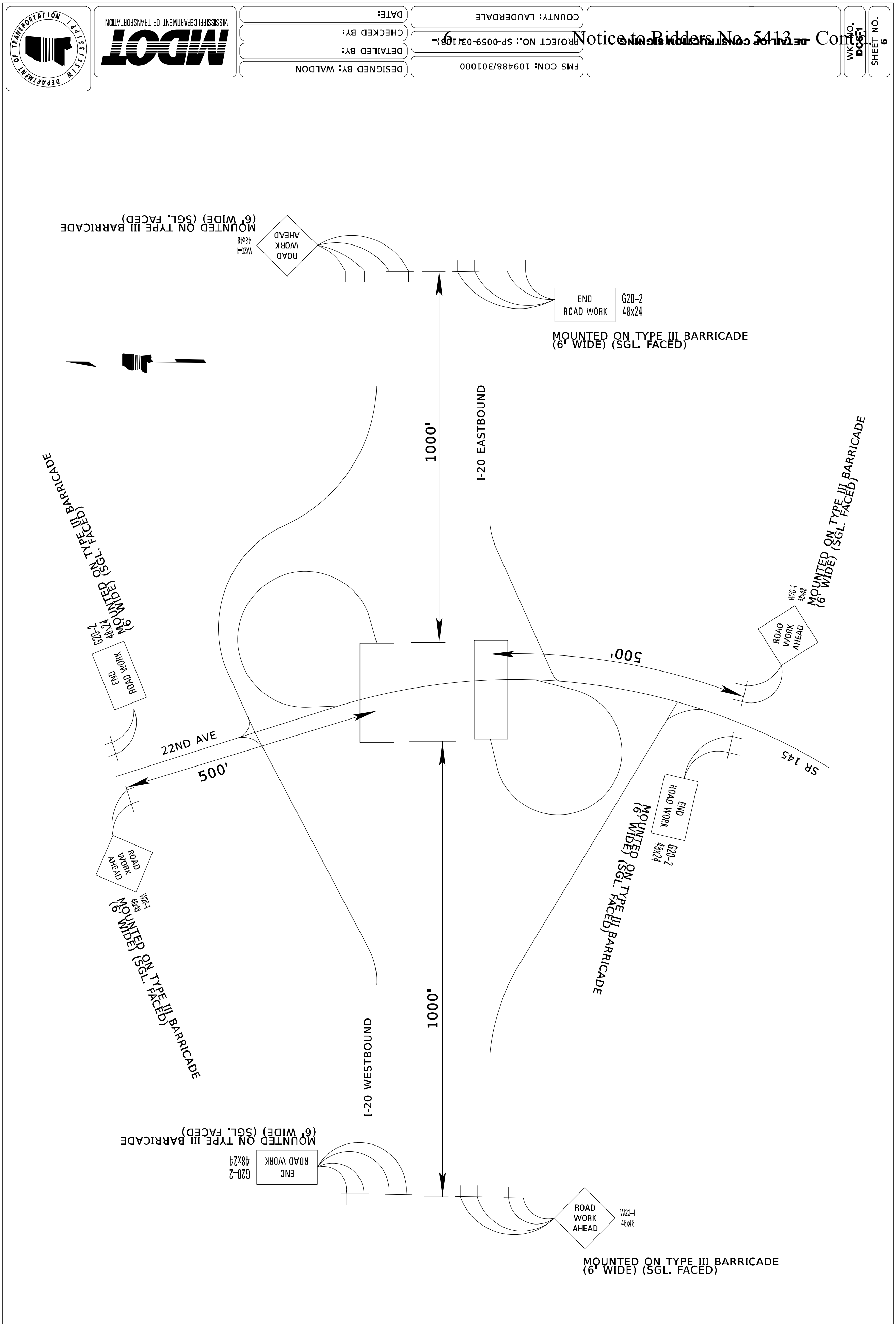
TRAFFIC CONTROL SIGNS ESTIMATED QUANTITIES

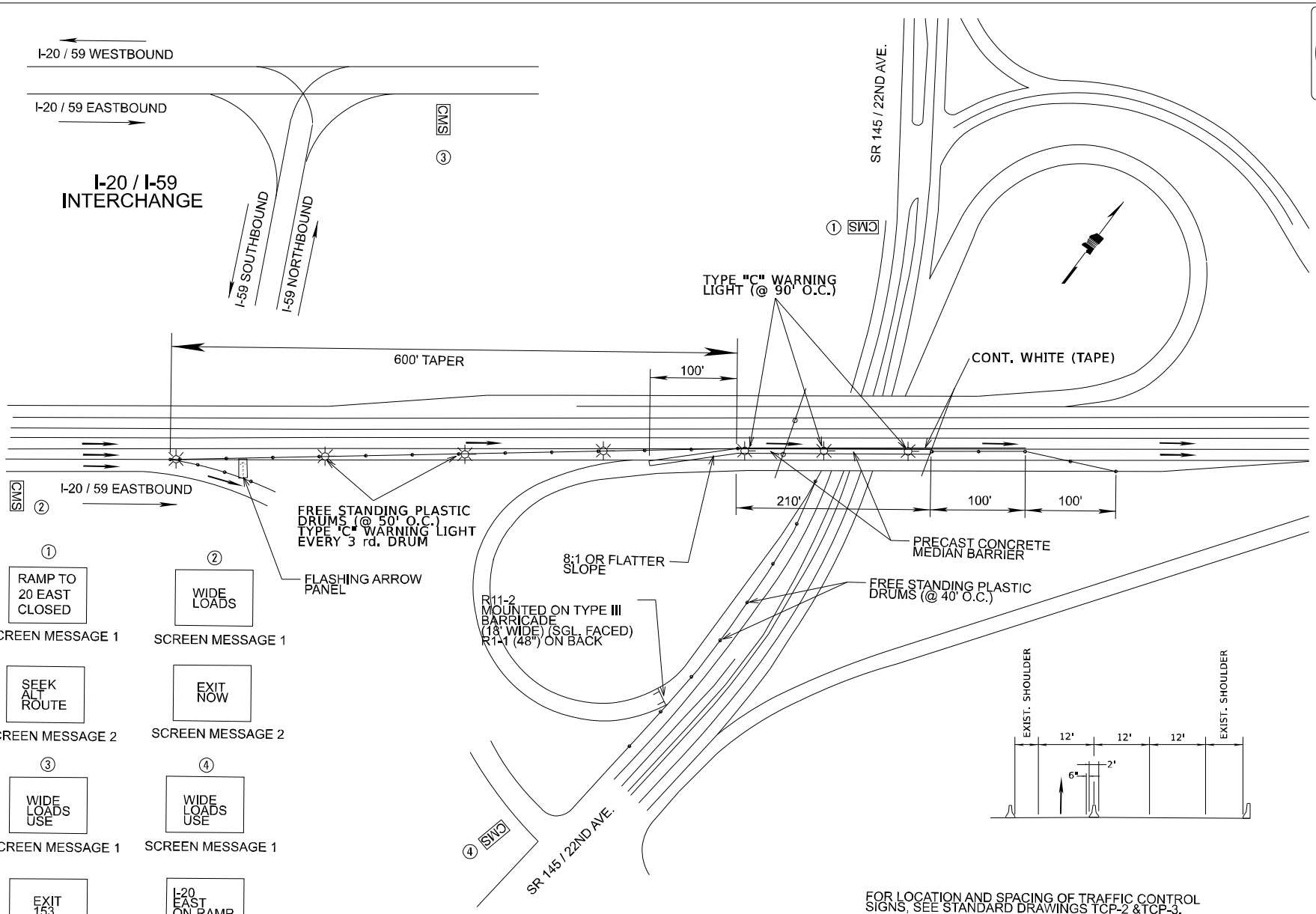
WK. NO. TCPQ-1

SHEET NO. 5

PLAN SHEET

10/3/2023 10:23:20 AM tcp-q.dgn


MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
DESIGNED BY: WALDON
DETAILED BY:
CHECKED BY:
DATE:
COUNTY: LAUDERDALE
PROJECT NO.: SP-0059-03(108)
FMS CON: 109488/301000
DETAIL OF CONSTRUCTION SIGNING
WK. NO. DCS-1
SHEET NO. 6
ROAD WORK AHEAD
W20-1
48x48
MOUNTED ON TYPE III BARRICADE
(6' WIDE) (SGL. FACED)
END ROAD WORK
G20-2
48x24
1000'
500'
I-20 EASTBOUND
I-20 WESTBOUND
22ND AVE
SR 145
PLAN SHEET
10/3/2023 10:23:28 AM DCS-1.dgn



FOR LOCATION AND SPACING OF TRAFFIC CONTROL SIGNS, SEE STANDARD DRAWINGS TCP-2 &TCP-3.

DESIGNED BY: WALDON
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 109488/301000
PROJECT NO.: SP-0059-03(103)-
COUNTY: LAUDERDALE

WK. NO. TBD
SHEET NO. 7

Notice to Bidders No. 5413 -- Contract

88

PLAN SHEET

10/3/2023 10:23:58 AM TC - PH-1 - eastbound.dgn

DESIGNED BY: WALDON	FMS CON: 109488/301000	TRAFFIC CONTROL PLAN - PH-2	WK. NO. TC-2
DETAILED BY:	PROJECT NO.: SP-0059-03(108)-		SHEET NO. 8
CHECKED BY:	COUNTY: LAUDERDALE		
DATE:			

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

MDOT

DEPARTMENT OF TRANSPORTATION

I-20 / I-59 - US 45 INTERCHANGE

US 45 NORTHBOUND

US 45 SOUTHBOUND

I-20 / 59 WESTBOUND

I-20 / 59 EASTBOUND

FLASHING ARROW PANEL

FREE STANDING PLASTIC DRUMS W/ TYPE "C" WARNING LIGHT EVERY 3 rd. DRUM

① RAMP TO 20 WEST CLOSED

SCREEN MESSAGE 1

SEEK ALT ROUTE

SCREEN MESSAGE 2

FOR LOCATION AND SPACING OF TRAFFIC CONTROL SIGNS, SEE STANDARD DRAWINGS TCP-2 &TCP-3.

600' TAPER

I-20 / 59 WESTBOUND

FREE STANDING PLASTIC DRUMS (@ 40' O.C.)

100'

8:1 OR FLATTER SLOPE

PRECAST CONCRETE MEDIAN BARRIER

TYPE "C" WARNING LIGHT (@ 90' O.C.)

SR 145 / 22ND AVE.

R11-2 MOUNTED ON TYPE III BARRICADE (18" WIDE) (SGL. FACED) R1-1 (48") ON BACK

CONT. YELLOW (TAPE)

100' 100'

100' TAPER

210'

FREE STANDING PLASTIC DRUMS (@ 50' O.C.)

CMS ①

SR 145 / 22ND AVE.

EXIST. SHOULDER

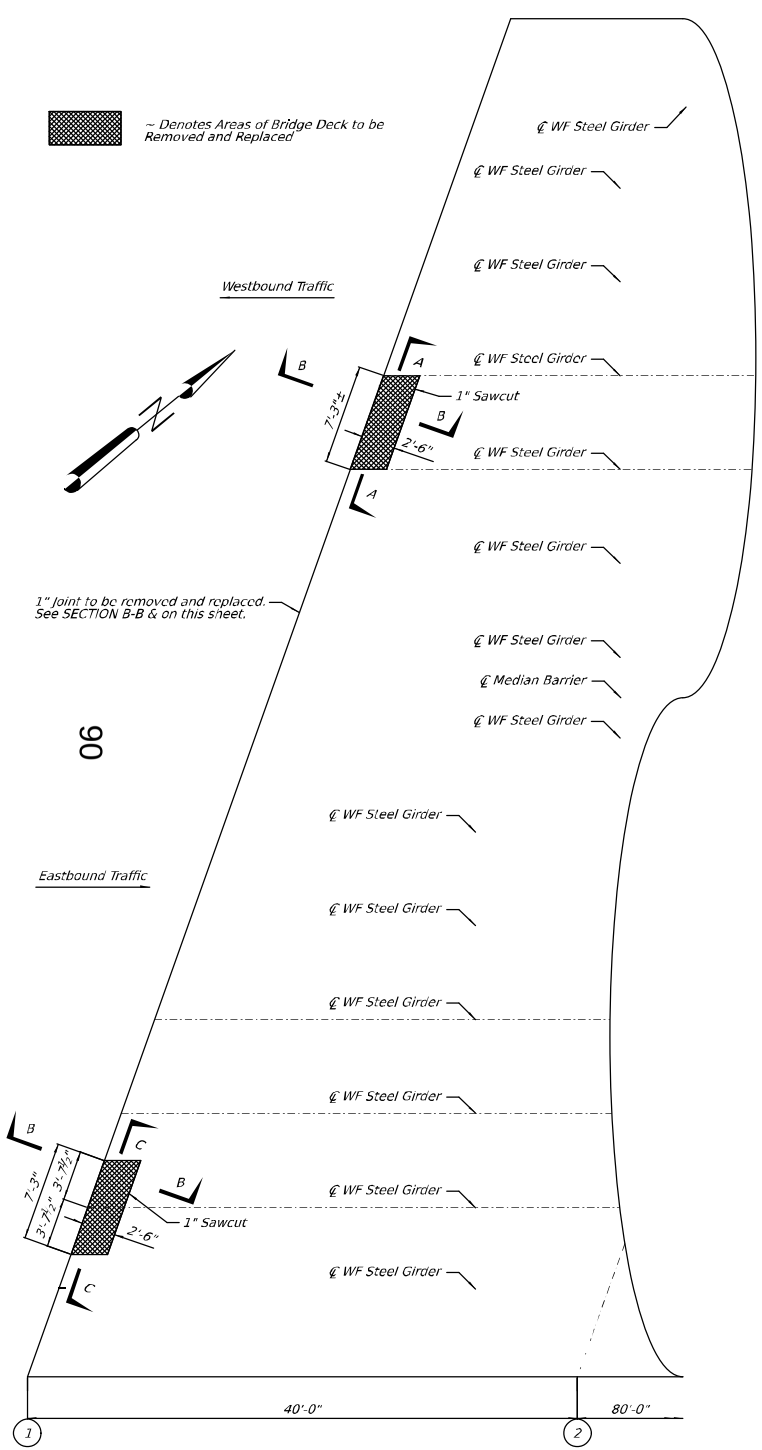
12' 12' 12'

2' 6"

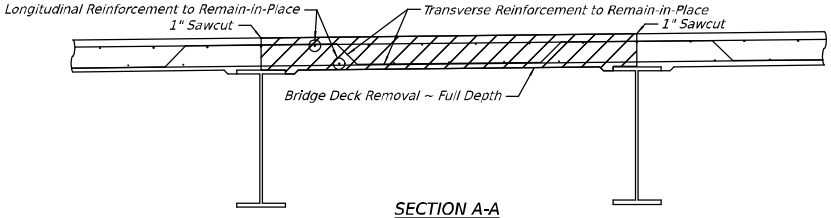
EXIST. SHOULDER

PLAN SHEET

10/3/2023 10:24:06 AM TC - PH-2 westbound.dgn

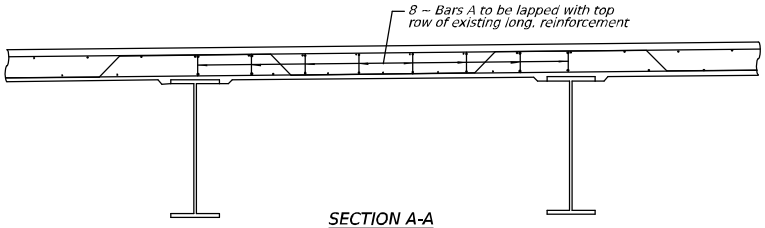


PLAN OF BRIDGE DECK REMOVAL



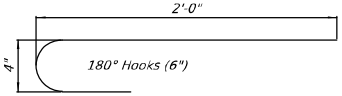
SECTION A-A

Showing Bridge Deck Removal Area and Reinforcement to Remain



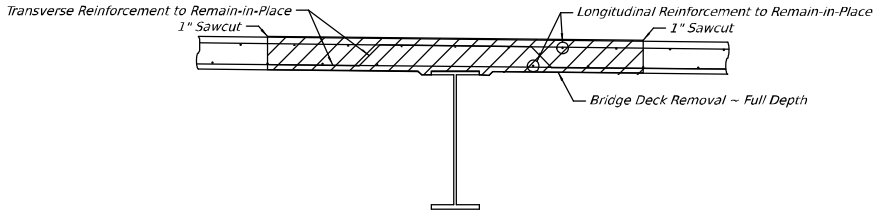
SECTION A-A

Showing New Bridge Deck Concrete and Additional Reinforcement



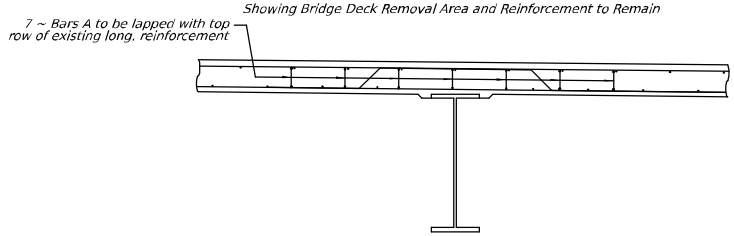
Bars An ~ #4

BAR BENDING DETAILS



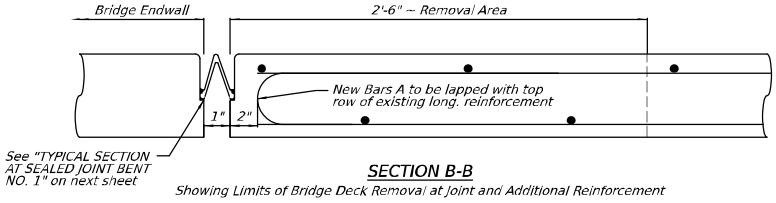
SECTION C-C

Showing Bridge Deck Removal Area and Reinforcement to Remain



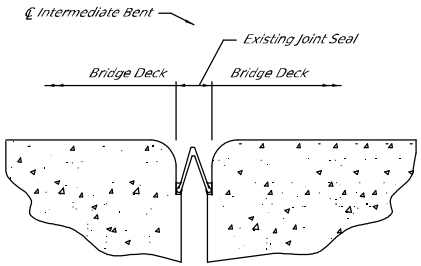
SECTION C-C

Showing Bridge Deck Removal Area and Reinforcement to Remain



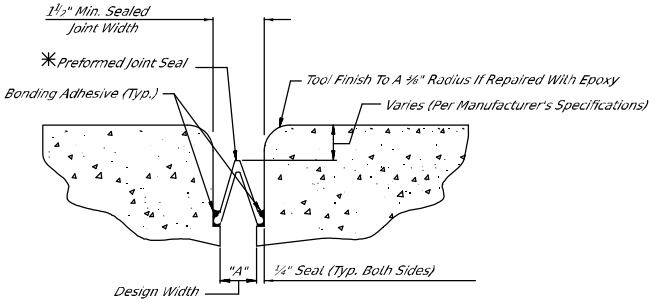
SECTION B-B

Showing Limits of Bridge Deck Removal at Joint and Additional Reinforcement

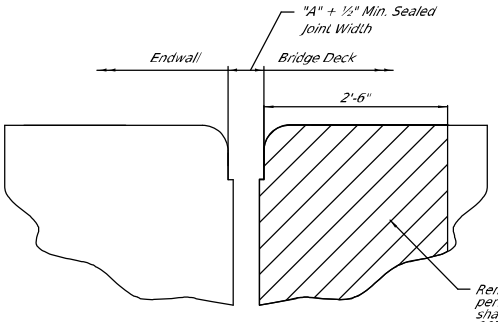


TYPICAL SECTION END BENT NO. 1

Showing Existing Preformed Joint Seal

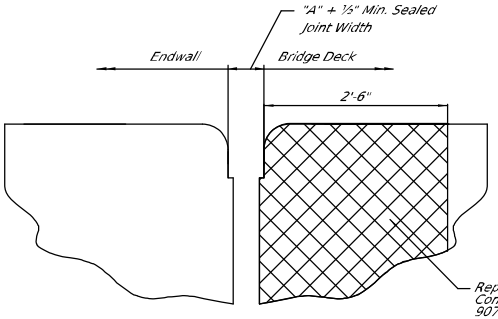


TYPICAL SECTION AT SEALED JOINT BENT NO. 1



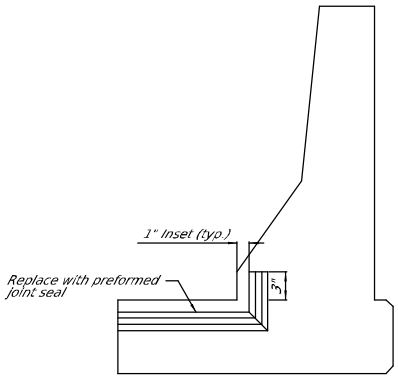
TYPICAL SECTION AT EXISTING JOINT

Showing areas of deck concrete to be removed



TYPICAL SECTION AT EXISTING JOINT

Showing areas of deck concrete to be removed



ELEVATION AT END OF SPAN

✳NOTES:

For Jersey Shape Barriers, The minimum required Vertical Joint Seal Dimension Within The Barrier is 3".
For Post and Beam Barriers, The minimum required Vertical Joint Seal Dimension Within The Barrier is 6".

NOTES ON ASSOCIATED ITEMS OF WORK:

907-808:A002 JOINT REPAIR

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Removal Of Existing Silicone Sealed, Compression, And AC Sealed Joint Materials Shall Be Included Under This Item Of Work. Removal of joint materials and any trash and debris (including but not limited to compacted dirt, vegetation and trash) Located at any depth within the joint shall be included under this item of work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-823-A001 PREFORMED JOINT SEAL, TYPE I

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

✳NOTES:

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec SSS Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The RJ Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturers. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The ¼" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2½". In Cases Where Design Widths Are Greater Than 2½", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.

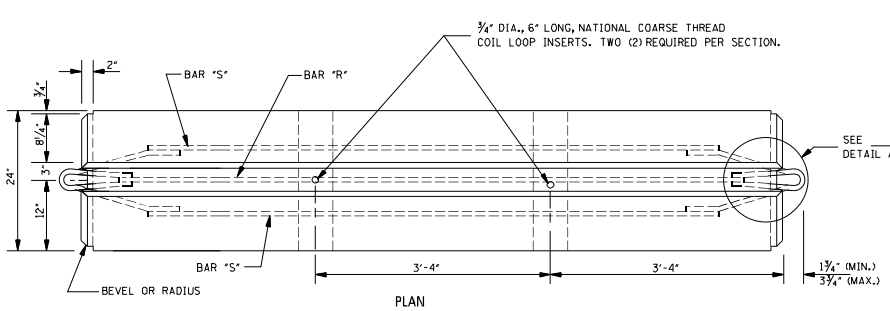
GENERAL NOTES:

1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.

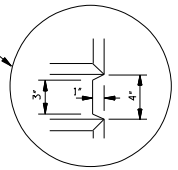
APPROACH ROADWAY NOTES:

Existing approach roadway to remain in place. Any damage that occurs to the existing approach roadway or existing endwall shall be repaired by the Contractor to the satisfaction of the Engineer at no additional cost to the state.

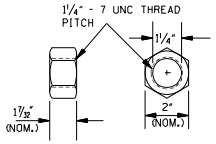
STATE	PROJECT NO.
MISS.	



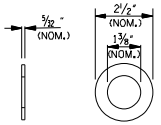
PLAN



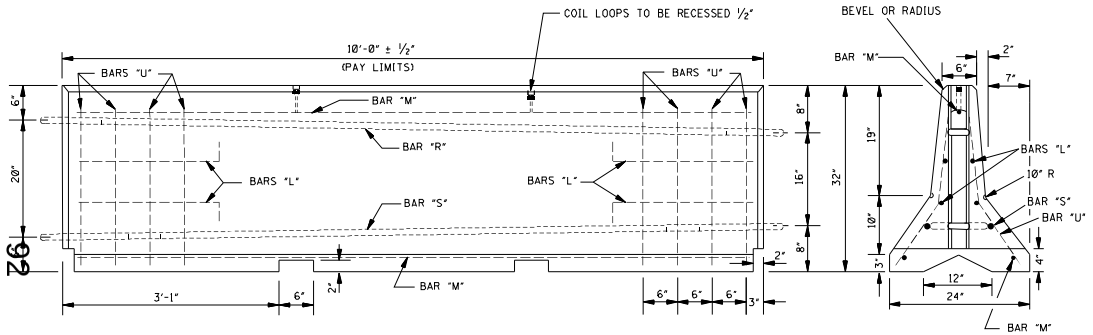
DETAIL A



HIGH-STRENGTH STRUCTURAL HEX NUT "F"

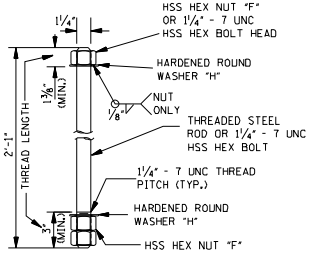


HARDENED ROUND WASHER "H"



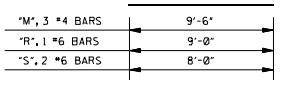
ELEVATION END

PRECAST CONCRETE MEDIAN BARRIER

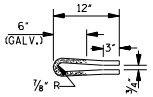


ANCHOR STUD CONNECTOR DETAILS

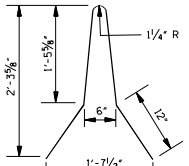
NOTE: ALTERNATE METHODS OF CONNECTING PRECAST BARRIERS, SUCH AS J-HOOKS, MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



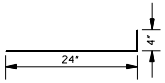
BARS "M", "R" & "S"



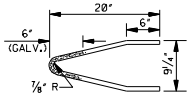
2 ¾"-STEEL RODS, 25" LONG
TOP CONNECTOR



8 #4 BARS, 5'-1" LONG
BARS "U"



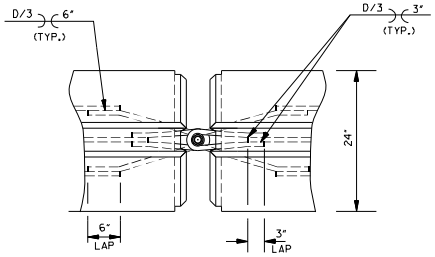
8 #4 BARS, 2'-4" LONG
BARS "L"



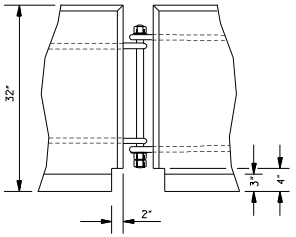
2 ¾"-STEEL RODS, 3'-6" LONG
BOTTOM CONNECTOR

BAR AND ROD DETAILS

NOTE: WHERE STEEL ROD GALVANIZATION IS SHOWN ABOVE, GALVANIZE AFTER BENDING.

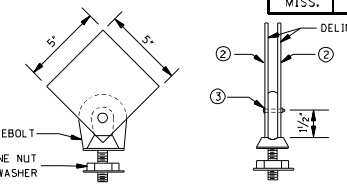


PLAN



ELEVATION

BARRIER CONNECTION DETAIL



DELINEATOR, CONCRETE PRECAST MEDIAN BARRIER, TYPE 1

① DELINEATORS SHALL BE REQUIRED UNLESS INDICATED OTHERWISE ON THE PLANS. THIS ITEM WILL NOT BE MEASURED SEPARATELY, BUT WILL BE INCLUDED UNDER PAYMENT FOR PRECAST CONCRETE BARRIER.

② DELINEATORS SHALL BE ENCAPSULATED LENS REFLECTIVE SHEETING ON ALUMINUM SHEET, 0.080" THICK, OR SHEET STEEL, 14 GAGE, WHICH IS GALVANIZED.

③ ALUMINUM OR STAINLESS STEEL SLOTTED ROUND HEAD MACHINE SCREW, NO. 10, 1½" LONG, 2-WASHERS AND 1-HEX HEAD NUT (COMMERCIAL QUALITY)

④ THE DELINEATORS SHALL BE INSTALLED FACING TRAFFIC WITH YELLOW ON THE LEFT AND WHITE ON THE RIGHT, UNLESS OTHERWISE SPECIFIED.

⑤ SPACINGS OF DELINEATORS:
TANGENT SECTION - 20'-0".
CURVED SECTION - 10'-0".

⑥ OPTIONAL DELINEATORS, WHICH ARE ON THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION "LIST OF APPROVED MATERIALS", WILL BE ACCEPTED.

GENERAL NOTES:

1. LIFTING DEVICES AND ATTACHMENTS TO BARRIER SECTIONS SHALL BE AS APPROVED BY THE ENGINEER.
2. PLACE ALL STEEL REINFORCEMENT 2" MINIMUM FROM OUTSIDE FACE OF WALL, EXCEPT AS OTHERWISE SHOWN.
3. THE ANCHOR STUD CONNECTOR SHALL CONFORM TO AASHTO M 314, GRADE 55. THE HSS HEX NUTS AND THE HARDENED ROUND WASHERS SHALL MEET THE REQUIREMENTS OF ASTM A 325.
4. CONCRETE SHALL BE CLASS "B" (CLASS 1 FINISH). REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF AASHTO M 31.
5. STEEL RODS SHALL MEET THE REQUIREMENTS OF ASTM A 36.
6. CONNECTOR RODS, CONNECTOR PINS, NUTS AND WASHERS SHALL BE GALVANIZED MEETING THE REQUIREMENTS OF AASHTO M 111.

APPROXIMATE QUANTITIES FOR 10' BARRIER			
WEIGHT (lbs.)	REINF. STEEL (lbs.)	STEEL RODS (lbs.)	CONCRETE (yd^3)
3875	104	18	0.931

BY	REVISION	DATE

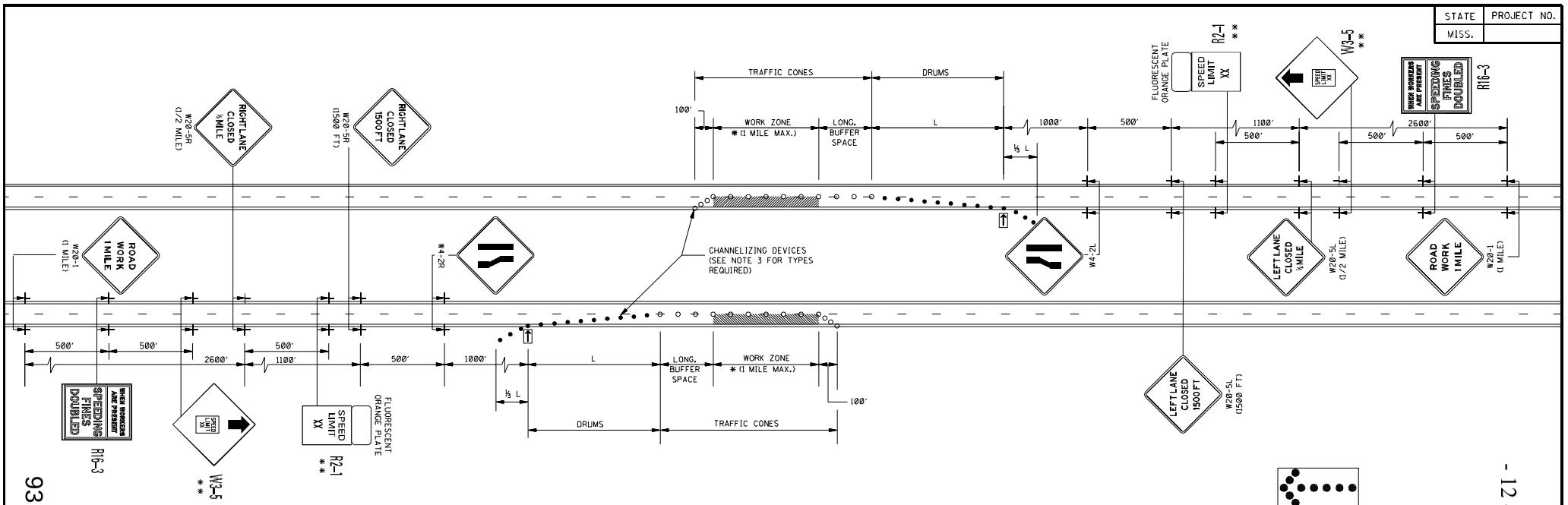
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

CONCRETE MEDIAN BARRIER
(PRECAST) (32")

ISSUE DATE: AUGUST 01, 2017

WORKING NUMBER: CMB-3
SHEET NUMBER: 6226

STATE	PROJECT NO.
MISS.	



93

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)		†† LONGITUDINAL BUFFER SPACE (ft)	TAPER † RATES
	TAPER	ALONG LANE LINE & WORK ZONE		
mph				
≤40	40	80	305	27:1
45	45	90	360	45:1
50	50	100	425	50:1
55	55	110	495	55:1
60	60	120	570	60:1
65	65	130	645	65:1
70	70	140	730	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

†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

2. FLASHING ARROW PANEL SHOULD 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.

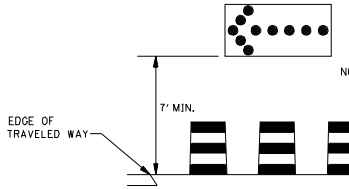
3. CHANNELIZING DEVICE TYPES FOR:
A. APPROACH TAPER- RETROREFLECTIVE PLASTIC DRUMS
B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT MINIMUM)
C. EXIT TAPER- TRAFFIC CONES (28" HEIGHT MINIMUM)

4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND THE DRUMS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.

5. 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.

6. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHOULD BE A MINIMUM OF 48" X 48", AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.

7. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.



NOTE: IF VEHICLE MOUNTED ARROW BOARDS USED, SHOULD BE AS HIGH AS PRACTICAL.

LEGEND

* OR AS SHOWN ELSEWHERE ON THE PLANS.

* * THE SPEED ON R2-1 AND W3-5 SIGNS SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT UNLESS OTHERWISE DIRECTED BY COMMISSION ORDER.

FLASHING ARROW PANEL (TYPE "C")

● RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS

○ TRAFFIC CONES (28" HEIGHT MINIMUM)

DATE	REVISION	BY

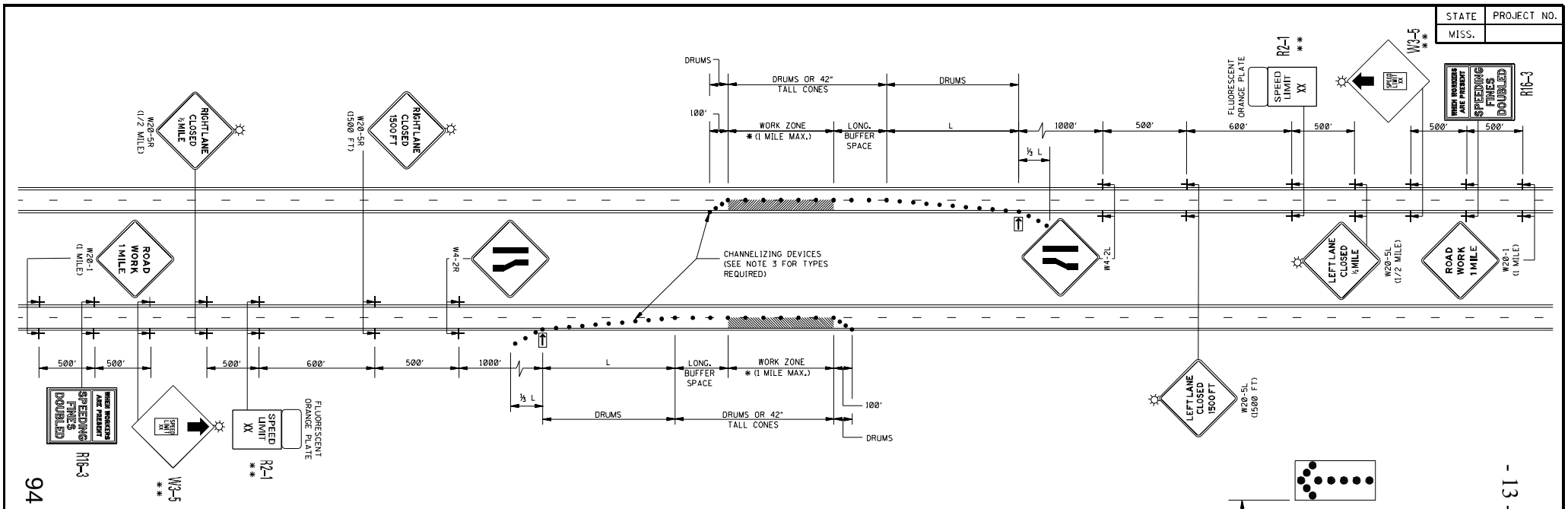
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

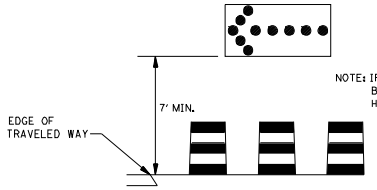
TRAFFIC CONTROL PLAN FOR POSTED SPEED LIMIT LESS THAN 65 MPH

(4-LANE: MEDIAN LANE OR OUTSIDE LANE CLOSURE) (WORK DAY ONLY)

ISSUE DATE: AUGUST 01, 2017

MDOT
WORKING NUMBER
TCP-2
SHEET NUMBER
6352





NOTE: IF VEHICLE MOUNTED ARROW BOARDS USED, SHOULD BE AS HIGH AS PRACTICAL.

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)		††LONGITUDINAL BUFFER SPACE (ft)	TAPER† RATES
	TAPER	ALONG BUFFER SPACE & WORK ZONE		
mph				
≤40	40	80	305	27:1
45	45	90	360	45:1
50	50	100	425	50:1
55	55	110	495	55:1
60	60	120	570	60:1
65	65	130	645	65:1
70	70	140	730	70:1

† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = WS²/60 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

†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

2. FLASHING ARROW PANEL SHOULD 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 RETROREFLECTIVE FREE STANDING PLASTIC DRUMS.
   B. CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER RETROREFLECTIVE FREE STANDING PLASTIC DRUMS OR 42" TALL CONES.
   C. ALL CHANNELIZING DEVICES SHALL BE RETROREFLECTIVE.
   D. RETROREFLECTORIZATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE M.U.T.C.D.
4. 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.
5. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHOULD BE A MINIMUM OF 48" X 48", AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
6. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

LEGEND

* OR AS SHOWN ELSEWHERE ON THE PLANS.

** THE SPEED ON R2-1 AND W3-5 SIGNS SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT UNLESS OTHERWISE DIRECTED BY COMMISSION ORDER.

FLASHING ARROW PANEL (TYPE "C")

RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS

TYPE "B" WARNING LIGHTS

STATE	PROJECT NO.
MISS.	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL PLAN FOR POSTED SPEED LIMIT LESS THAN 65 MPH

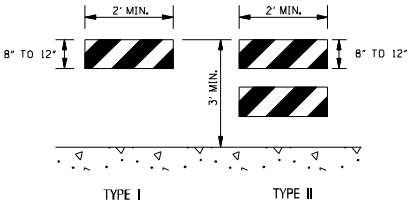
(4-LANE: MEDIAN LANE OR OUTSIDE LANE CLOSURE) (EXTENDED PERIOD)

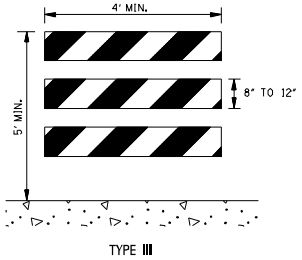
DATE	REVISION	BY

ISSUE DATE: AUGUST 01, 2017

MSHTD
WORKING NUMBER TCP-3
SHEET NUMBER 6353

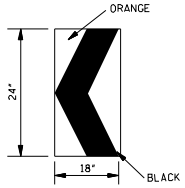
STATE	PROJECT NO.
MISS.	





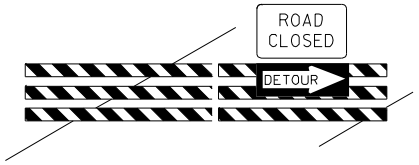
STANDARD BARRICADES

1. THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
2. RAIL STRIPE SHOULD BE 6 INCHES, EXCEPT THAT 4-INCH WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36 INCHES.
3. DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
4. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.
5. 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 CATAGORY II DEVICES CAN BE FOUND ON FHWA'S WEBSITE: http://safety.fhwa.dot.gov/roadway_dept/policy.guide/road_hardware/cat2.cfm



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 CRASHWORTHY SUPPORT.
3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHOULD BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.



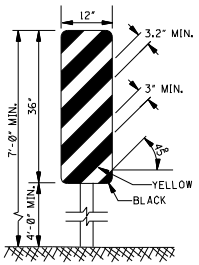
BARRICADE CLOSING A ROAD

BARRICADE CHARACTERISTICS

	I	II	III
WIDTH OF RAIL **	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.
LENGTH OF RAIL**	24" MIN.	24" MIN.	48" MIN.
WIDTH OF STRIPE *	6"	6"	6"
HEIGHT	36" MIN.	36" MIN.	60" MIN.
NUMBER OF RETROREFLECTORIZED RAIL FACES	2 (ONE EACH DIRECTION)	4 (TWO EACH DIRECTION)	3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTIONS

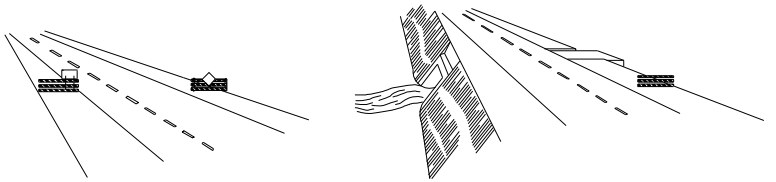
* 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.

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



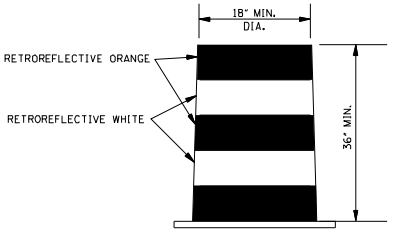
TYPE 3 OBJECT MARKER (OM-3R)

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 III 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) RETROREFLECTIVE, 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 SHOULD BE PLACED NO CLOSER THAN 2'-0" FROM THE EDGE OF TRAVELED LANE.

REVISION	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

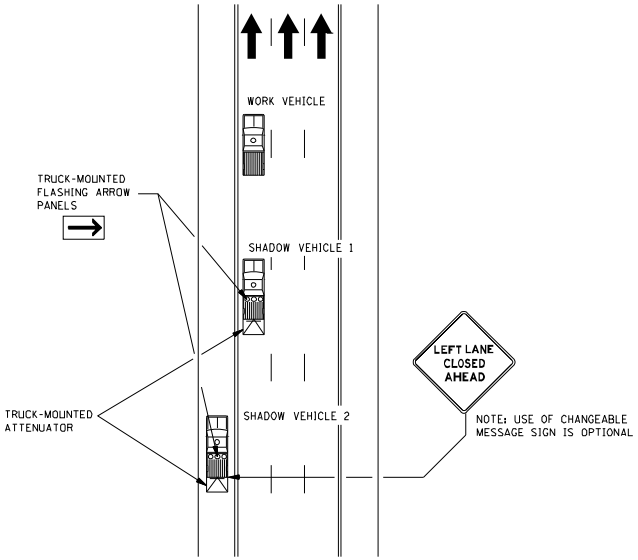
HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS

ISSUE DATE: AUGUST 01, 2017

MDOT
WORKING NUMBER
TCP-8
SHEET NUMBER
95

STATE	PROJECT NO.
MISS.	

MOBILE OPERATIONS ON MULTILANE ROAD

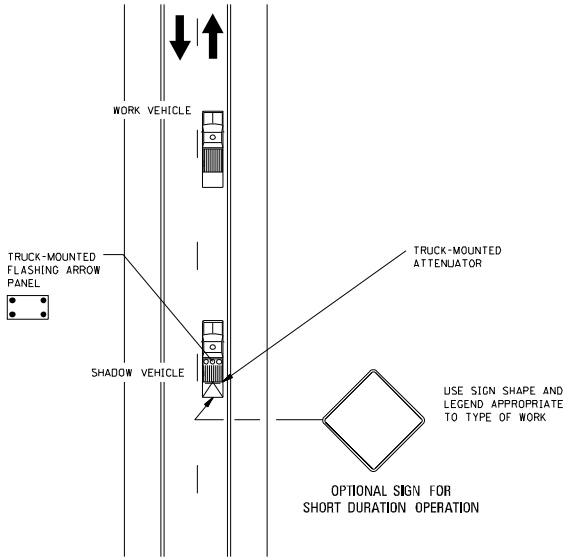


MOBILE OPERATIONS ON MULTILANE ROAD

NOTES FOR MULTILANE LANE OPERATION:

1. VEHICLES USED FOR THESE OPERATIONS SHOULD BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT, SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, OR ARROW PANELS.
2. SHADOW VEHICLE 2 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK MOUNTED ATTENUATOR (TMA). AN APPROPRIATE LANE CLOSURE SIGN SHOULD BE PLACED ON SHADOW VEHICLE 2 SO AS NOT TO OBSCURE THE ARROW PANEL.
3. SHADOW VEHICLE 1 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK-MOUNTED ATTENUATOR (TMA).
4. SHADOW VEHICLE 2 SHOULD TRAVEL AT A VARYING DISTANCE FROM THE WORK OPERATION SO AS TO PROVIDE ADEQUATE SIGHT DISTANCE FOR TRAFFIC APPROACHING FROM THE REAR.
5. WHEN ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, SHADOW VEHICLE 2 SHOULD BE ELIMINATED.
6. ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE SHOULD BE USED (i.e., VEHICLE 3 ON THE SHOULDER (IF PRACTICAL), VEHICLE 2 IN THE CLOSED LANE, AND VEHICLE 1 IN THE CLOSED LANE).
7. ARROW PANELS SHALL BE AS A MINIMUM TYPE B, 60" X 30" IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCD.
8. WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.
9. VEHICLE-MOUNTED SIGNS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT AND SHALL NOT BE OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
10. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

MOBILE OPERATIONS ON TWO–LANE ROAD



MOBILE OPERATIONS ON TWO–LANE ROAD

NOTES FOR TWO-LANE OPERATION:

1. WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND SHADOW 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.
2. THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLES MAY VARY ACCORDING TO TERRAIN, PAINT DRYING TIME, AND OTHER FACTORS. SHADOW VEHICLES ARE USED TO WARN TRAFFIC OF THE OPERATION AHEAD. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, THE SHADOW VEHICLE SHOULD MAINTAIN THE MINIMUM DISTANCE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. THE SHADOW VEHICLE SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
3. ADDITIONAL SHADOW VEHICLES TO WARN AND REDUCE THE SPEED OF ONCOMING OR OPPOSING TRAFFIC MAY BE USED. POLICE PATROL CARS MAY BE USED FOR THIS PURPOSE.
4. A TRUCK-MOUNTED ATTENUATOR (TMA) SHOULD BE USED ON THE SHADOW VEHICLE AND MAY BE USED ON THE WORK VEHICLE.
5. THE WORK VEHICLE SHALL BE EQUIPPED WITH BEACONS, AND THE SHADOW VEHICLES SHALL BE EQUIPPED WITH TWO HIGH-INTENSITY FLASHING LIGHTS MOUNTED ON THE REAR, ADJACENT TO THE SIGN. SHADOW AND WORK VEHICLES SHALL DISPLAY FLASHING OR ROTATING BEACONS BOTH FORWARD AND TO THE REAR.
6. VEHICLE-MOUNTED SIGNS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT AND SHALL NOT BE OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
7. ARROW BOARD TO BE USED IN CAUTION MODE.
8. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL PLAN
MOBILE OPERATIONS
MULTILANE ROADS
AND
TWO–LANE ROADS

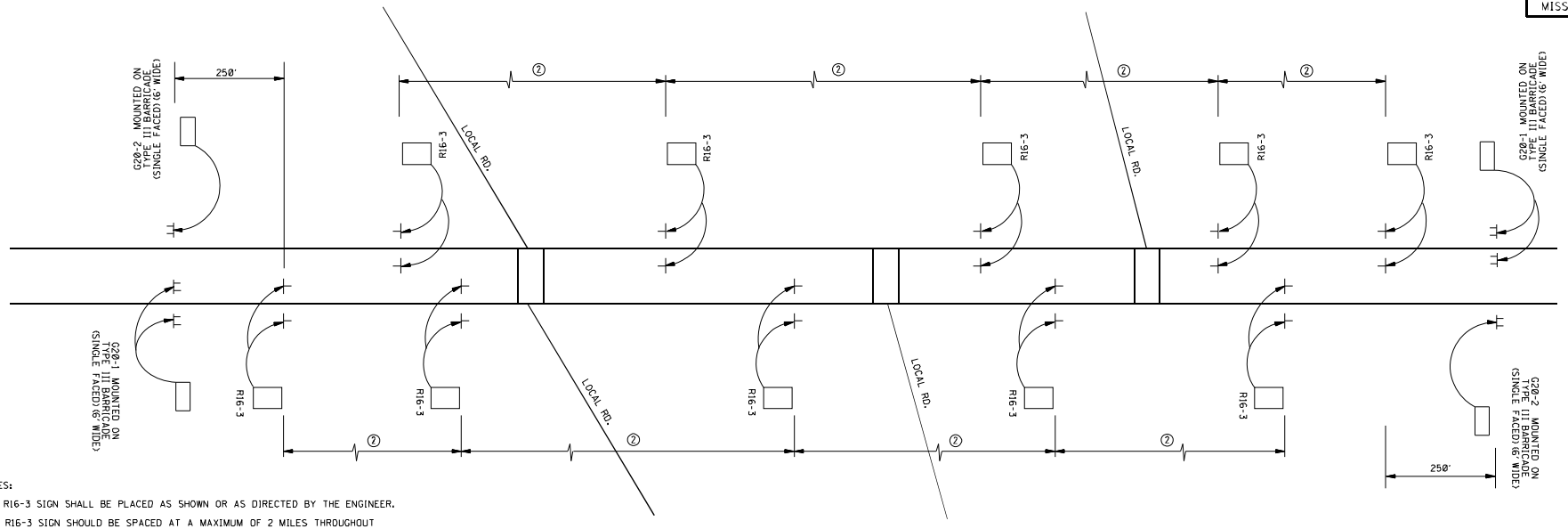
ISSUE DATE: AUGUST 01, 2017

MDOT

WORKING NUMBER
TCP-9

SHEET NUMBER
6359

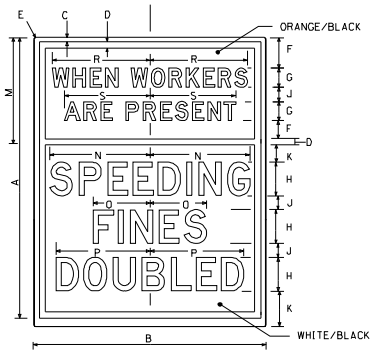
STATE	PROJECT NO.
MISS.	



NOTES:

1. R16-3 SIGN SHALL BE PLACED AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. R16-3 SIGN SHOULD BE SPACED AT A MAXIMUM OF 2 MILES THROUGHOUT LENGTH OF PROJECT.
3. THIS SHEET WILL ONLY APPLY TO SPEED REDUCTION SECTIONS.

DIVIDED HIGHWAY SHOWN
(2 LANE – 2 WAY ROADWAY SIMILAR)
(PROJECT MORE THAN 1 MILE LENGTH)



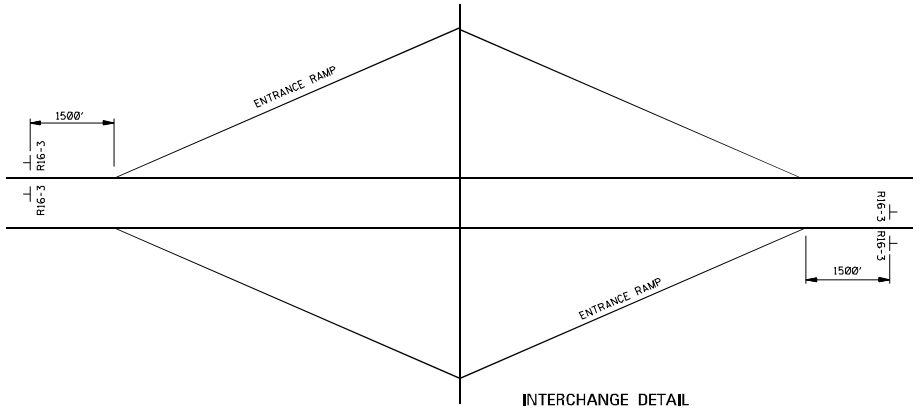
SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD.	60	48	3/4	1 1/4	3	3 3/4	4 Dm	7 D
	J	K	M	N	O	P	R	S
STD.	3	6 5/8	22 1/8	21	11 7/8	19 21/32	20 5/32	18

48" x 60"
(INTERSTATE USE)

SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD.	48	36	3/4	1 1/4	3	2 3/4	3 Dm	6 D
	J	K	M	N	O	P	R	S
STD.	3	4 1/8	14 3/4	14	7 7/8	13 1/8	13 5/8	12

36" x 48"
(ALL OTHER HIGHWAYS)

R16-3



INTERCHANGE DETAIL

DATE	REVISION	BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

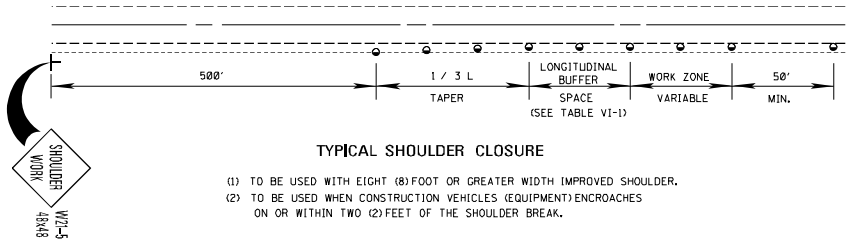
LOCATION OF R16-3 SIGNS (SPEEDING FINES DOUBLED)

ISSUE DATE: AUGUST 01, 2017

MDOT
WORKING NUMBER
TCP-15
SHEET NUMBER
6365

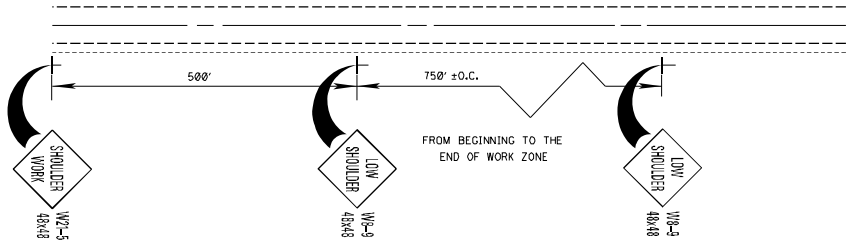
STATE	PROJECT NO.
MISS.	

PLASTIC DRUMS
(SEE NOTE FOR SPACING)



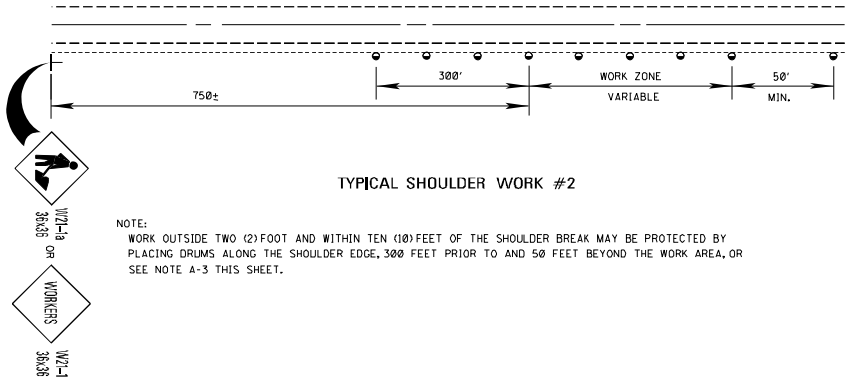
TYPICAL SHOULDER CLOSURE

(1) TO BE USED WITH EIGHT (8) FOOT OR GREATER WIDTH IMPROVED SHOULDER.
(2) TO BE USED WHEN CONSTRUCTION VEHICLES (EQUIPMENT) ENCROACHES ON OR WITHIN TWO (2) FEET OF THE SHOULDER BREAK.



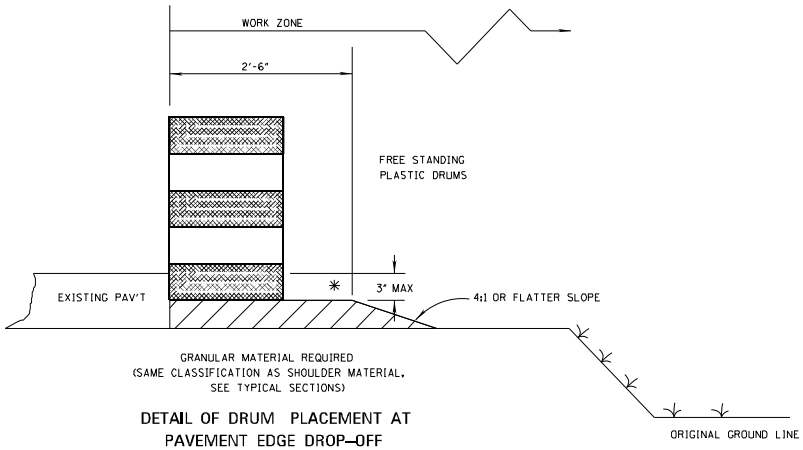
TYPICAL SHOULDER WORK #1
(SEE NOTE A-1 THIS SHEET)

PLASTIC DRUMS
(SEE NOTE FOR SPACING)



TYPICAL SHOULDER WORK #2

NOTE:
WORK OUTSIDE TWO (2) FOOT AND WITHIN TEN (10) FEET OF THE SHOULDER BREAK MAY BE PROTECTED BY PLACING DRUMS ALONG THE SHOULDER EDGE, 300 FEET PRIOR TO AND 50 FEET BEYOND THE WORK AREA, OR SEE NOTE A-3 THIS SHEET.



DETAIL OF DRUM PLACEMENT AT PAVEMENT EDGE DROP-OFF

NOTES:

✳ A. PAVEMENT EDGE DROP-OFF

1. IF LESS THAN TWO AND ONE QUARTER (2.25) INCHES-NO PROTECTION REQUIRED. PLACE A SHOULDER WORK SIGN (W21-5) 500 FEET IN ADVANCE OF WORK ZONE SHOULDER AND A LOW SHOULDER SIGN (W8-9) AT THE BEGINNING AND THROUGHOUT THE WORK ZONE @ (750'+O.C.).
2. TWO AND ONE QUARTER TO THREE INCHES-PLACE DRUMS, VERTICAL PANELS OR BARRICADES EVERY 100 FEET ON TANGENT SECTIONS FOR SPEEDS OF 50 MILES PER HOUR OR GREATER. CONES MAY BE USED IN PLACE OF DRUMS, PANELS, AND BARRICADES DURING DAYLIGHT HOURS. FOR TANGENT SECTIONS WITH SPEEDS LESS THAN 50 MILES PER HOUR AND FOR CURVES, DEVICES SHOULD BE PLACED EVERY 50 FEET. SPACING FOR TAPERS SHOULD BE IN ACCORDANCE WITH THE M.U.T.C.D. (1 / 3 L, WHERE L IS THE TAPER LENGTH IN FEET.)
3. GREATER THAN THREE (3) INCHES-POSITIVE SEPARATION OR WEDGE WITH 4:1 OR FLATTER SLOPE NEEDED. IF THERE IS EIGHT (8) FEET OR MORE DISTANCE BETWEEN THE EDGE OF TRAVEL LANE AND DROP-OFF, THEN DRUMS, PANELS OR BARRICADES MAY BE USED.
4. FOR TEMPORARY CONDITIONS, DROP-OFFS GREATER THAN THREE (3) INCHES MAY BE PROTECTED WITH DRUMS, VERTICAL PANELS OR BARRICADES FOR SHORT DISTANCES DURING DAYLIGHT HOURS WHILE WORK IS BEING DONE IN THE DROP-OFF AREA.
5. LESSER TREATMENTS THAN THOSE DESCRIBED ABOVE MAY BE CONSIDERED FOR LOW-VOLUME LOCAL STREETS.

B. DRUM SPACING

1. TANGENTS = 2 X S
2. TAPERS = L / 3
   WHERE L = S X W
   L = TAPER LENGTH IN FEET
   S = SPEED IN MPH (POSTED OR 85 PERCENTILE)
   W = WIDTH OF OFFSET IN FEET

C. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.

TABLE VI-1. GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE

✳✳ SPEED (MPH)	LENGTH (FEET)
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

✳✳ POSTED SPEED, OFF-PEAK 85 PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL DETAILS DRUM PLACEMENT AND SHOULDER CLOSURE

ISSUE DATE: AUGUST 01, 2017

MDOT
WORKING NUMBER
TCP-16
SHEET NUMBER
6366

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 5414 **CODE: (SP)**

DATE: 10/4/2023

SUBJECT: Lane Closure Restrictions

PROJECT: SP-0059-03(103) / 109488301 – Lauderdale County

Bidders are hereby advised of the following Lane Closure Restrictions on the above captioned project.

Removal and Replacement of the Bridge Deck

Lane closures for this work shall be allowed on weekends from 7:00 PM Friday to 7:00 AM Monday.

The Contractor must give the Engineer a 7-day notice prior to beginning said weekend work.

All Operations

Lane closures shall not be allowed during the following hours:

Monday – Saturday: 7:00 AM to 7:00 PM

No lane closures will be permitted on Sunday. Sunday is defined as 7 PM Saturday to 7 PM Sunday

The Contractor will be charged a fee of **$500.00** for each full or partial 5-minute period until the roadway is back in compliance with the requirements stated above.

Official time can be obtained by calling the following Jackson area phone number: 601-355-9311.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 5415 **CODE: (SP)**

DATE: 9/25/2023

SUBJECT: Additional Construction Requirements

PROJECT: SP-0059-03(103) / 109488301 – Lauderdale County

Bidders are hereby advised of the following additional construction requirements:

- 3M Stamark Wet Retroreflective Removable Tape Series 710IR shall be required for all temporary traffic stripe pay items and shall be applied as per the manufacturer's recommendations.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 5416 **CODE: (SP)**

DATE: 10/10/2023

SUBJECT: General Notes

PROJECT: PROJECT: SP-0059-03(103) / 109488301 -- Lauderdale County

Bidders are advised that the Contractor shall adhere to the following general notes.

BRIDGES AND WALLS
Storage of flammable materials will not be allowed under any bridge structures without written approval from the Project Engineer. See Notice To Bidders entitled "Material Storage Under Bridges" for more information.

DRAINAGE STRUCTURES
The Contractor shall be responsible for protecting existing structures such as, but not limited to, pipes, inlets, aprons, and bridges 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.

PAVEMENT, BASE, AND SHOULDERS
The Contractor shall repair any damage to the paved or unpaved shoulder that might occur during construction. Any repair to shoulder will be in accordance with the applicable sections of the Mississippi Standard Specifications for Road and Bridge Construction. No payment will be made for repair of damaged shoulder.

PLANS
All addenda to these plans will be posted to www.mdot.ms.gov under the proposal addenda column. Bidders are advised that hard copies of any addenda for this project will not be mailed. It is the bidders responsibility to check and see if any addenda have been posted for this project.

See bridge plans for detailed index sheet(s), estimated and summary of quantity sheets, and erosion control sheets.

TRAFFIC CONTROL - TEMPORARY
The location and spacing of signs, shown on the traffic control plans, are approximate and may be adjusted as necessary to fit field conditions.

All traffic control devices on this project shall comply with Part VI of the MUTCD (latest edition).

All plastic drums shall have a ballasting collar made from recycled truck tires or other suitable material.

Fluorescent orange sheeting shall be used on all construction and traffic control signs except for those designated on the plans to be black legend and border on white background.

The Contractor shall coordinate with the Contractor from adjacent project(s) in implementing the traffic -control plan as directed by the Engineer. All conflicting signs shall be covered or removed as directed by the Engineer.

The Contractor shall cover or remove any temporary traffic control signs shown in the traffic control plan that do not apply to the current phase.

The retroreflective sign sheeting on rigid, temporary traffic control (orange) signs shall be minimum Type IX.

MISCELLANEOUS

Some work is required outside the project limits. No additional compensation will be made for such work except as provided by specific pay items included in the plans.

The Contractor is responsible for field-verification of existing grades and making adjustments as necessary with the approval of the Project Engineer.

NOTICE:

THE NOTES CONTAINED HEREON ARE SPECIFIC TO THE SUBJECT PROJECT AND SHOULD BE REVIEWED IN DETAIL BY THE CONTRACTOR PER SUBSECTION 205.05 OF THE STANDARD SPECIFICATIONS. "THE BIDDER IS REQUIRED TO EXAMINE CAREFULLY THE SITE OF THE PROPOSED WORK, THE PROPOSAL, PLANS, STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, NOTICES TO BIDDERS, AND CONTRACT FORMS BEFORE SUBMITTING A PROPOSAL.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 5417 **CODE: (SP)**

DATE: 10/12/2023

SUBJECT: Temporary Construction Signs

PROJECT: SP-0059-03(103) / 109488301 -- Lauderdale County

Bidders are hereby advised of the following regarding the Temporary Construction Signs required:

Should the Bidders elect to install Temporary Construction Signs by first driving short u-channel sections and then bolting the longer, correct height u-channel sections to them, the Bidders are advised that these short sections shall be a minimum of five (5) feet from the ground level when driven and the splice must consist of a minimum of eighteen (18) inches of overlap with a total of four (4) bolts. Bidders are also advised that it is mandatory that these short sections be removed at the completion of the project.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 5418 **CODE: (SP)**

DATE: 10/17/2022

SUBJECT: Underground Utilities

PROJECT: SP-0059-03(103) / 109488301 - Lauderdale County

Bidders are hereby advised that utility lines owned and maintained by MDOT may be present within the project limits. These utilities are not located by Mississippi 811. It shall be the Contractor's responsibility to coordinate with MDOT to have the utility lines located and marked prior to beginning work. The Contractor shall give a minimum of three (3) working days of advance notice for locate requests. Also, the Contractor shall be responsible for contacting local public agencies that are not members of Mississippi 811.

Additionally, it shall be the Contractor's responsibility to maintain the utility markings and have the ability to survey the marked utilities and re-establish said utility markings as needed. The Department shall only be responsible for locating and marking the utilities once per Contract.

The contacts for MDOT utility lines are as follows:

Underground Power Lines:
Michael Lee – 601-683-3341 – mlee@mdot.ms.gov
Billy Coward – 601-683-3341 – bcoward@mdot.ms.gov

Underground Communication Lines:
Kerby McFarland – 601-359-7450 – kmcfarland@mdot.ms.gov
Steven Newell – 601-359-7450 – snewell@mdot.ms.gov
Henry Lewis – 601-359-1454 – hlewis@mdot.ms.gov

Underground Signal Lines:
Amrik Singh – 601-359-1454 – asingh@mdot.ms.gov
Kenneth Welch – 601-359-1454 – kwelch@mdot.ms.gov

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-101-1 **CODE: (IS)**

DATE: 07/20/2023

SUBJECT: Definitions and Terms

Section 101, Definitions and Terms, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-101.01--Abbreviations. After the abbreviation API on page 1, add the following.

APL Approved Products List

Replace the abbreviation for AWPA on page 1 with the following.

AWPA American Wood Protection Association

907-101.02--Definitions. Delete the sentence after the list of holidays in Subsection 101.02 on page 6 under **holidays, legal**, and substitute the following.

When a legal holiday falls on a Saturday or Sunday, the succeeding Monday, or as proclaimed by the Governor, will be observed as a legal holiday.

Delete the definition for Notice to Proceed in Subsection 101.02 on page 8, and substitute the following.

Notice to Proceed - Written notice to the Contractor to proceed with the contract work.

Delete the definition for "Plans" in Subsection 101.02 on page 8, and substitute the following.

plans - The approved plans, profiles, typical cross-sections, working drawings and supplemental drawings, or exact reproduction thereof, that show the location, character, dimensions, and details of the work to be done. The plans may also include electronic files, referred to on the plans as Electronic Files Identified as Plans, which may include engineering models, spreadsheets, CADD files or other electronic files used to convey design intent. When the contract does not have an official set of plans, reference to the plans shall mean the contract documents.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-102-2 **CODE: (IS)**

DATE: 11/22/2017

SUBJECT: Bidding Requirements and Conditions

Section 102, Bidding Requirements and Conditions, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-102.01--Prequalification of Bidders. Delete the last sentence of the third paragraph of Subsection 102.01 on page 13, and substitute the following.

The Bidder's Certificate of Responsibility number must be on file with the Department's Contract Administration Division prior to request for permission to bid.

907-102.02--Contents of Proposal Forms. Delete the fourth paragraph in Subsection 102.02 on page 13, and substitute the following.

Prospective bidders must complete an online request for permission to be eligible to bid a project. Upon approval, the bidder will be authorized to submit a bid electronically using Bid Express at http://bidx.com.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-103-2 **CODE: (SP)**

DATE: 06/22/2017

SUBJECT: Award and Execution of Contract

Section 103, Award and Execution of Contract, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-103.01--Consideration of Proposal. Delete the second and third paragraphs of Subsection 103.01 on page 19, and substitute the following.

907-103.01.1--For Projects Constructed Without Federal Funds. Resident Contractors actually domiciled in Mississippi are to be granted preference over nonresidents in awarding of Contracts financed 100% with State funds.

In consideration of proposals that are equal to or in excess of $50,000 and financed 100% with State funds, a nonresident bidder domiciled in a state having laws granting preference to local Contractors will be considered for such contracts on the same basis as the nonresident bidder's state awards contracts to Mississippi Contractors bidding under similar circumstances. When a nonresident Contractor submits a bid equal to or in excess of $50,000 on a contract financed 100% with State funds, a copy of the current laws from the state of domicile and an explanation thereof pertaining to treatment of nonresident Contractors shall be attached. If no preferential treatment is provided for Contractors in the state of domicile and contracts are awarded to the lowest responsible bidder, a statement to this effect shall be attached. Should the attachment not accompany the bid when submitted, the Contractor shall have 10 days following the opening of the bids to furnish the required information to the Contract Administration Director for attachment to the bid. Failure to provide the attachment within 10 days will result in the nonresident Contractor’s bid being rejected and not considered for award. As used herein, the term "resident Contractor" includes a nonresident person, firm or corporation that has been qualified to do business in this State and has maintained a permanent full-time office in the State of Mississippi for two years prior to the submission of the bid, and the subsidiaries and affiliates of such a person, firm or corporation.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-105-2 **CODE: (IS)**

DATE: 07/20/2023

SUBJECT: Control of Work

Section 105, Control of Work, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-105.01--Authority of the Engineer. Delete the first sentence of the second paragraph of Subsection 105.01 on page 31, and substitute the following.

The Engineer has the right to suspend the work wholly or in part and to withhold payments because of the Contractor's failure to correct conditions unsafe for workmen or the general public, for failure to carry out provisions of the Contract, or for failure to carry out orders.

907-105.02--Plans and Working Drawings. Delete the first paragraph of Subsection 105.02 on page 31, and substitute the following.

After the contract is executed by the Executive Director, the Contractor will receive, free of charge, two bound copies of the proposal and contract documents (one executed and one blank) two full scale copies of the plans, five half-scale copies of the Plans, and Electronic Files Identified as Plans. The Contractor shall have one copy of the proposal and contract documents and one half-scale copy of the plans available at all times during work activity on the project.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-108-4 **CODE: (SP)**

DATE: 10/07/2020

SUBJECT: Subletting of Contract

Section 108, Prosecution and Progress, of the 2017 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. Delete the third sentence of the tenth paragraph of Subsection 108.01.1 on the bottom of page 72.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-109-4 **CODE: (IS)**

DATE: **04/19/2021**

SUBJECT: **Measurement and Payment**

Section 109, Measurement and Payment, of the 2017 Edition of the Mississippi StandardSpecifications for Road and Bridge Construction is hereby amended as follows.

907-109.01--Measurement of Quantities. Delete the sixth full paragraph of Subsection 109.01on page 88, and substitute the following.

If appropriate based on the specific circumstances of the project, the Contractor may request that material specified to be measured by the cubic yard or ton be converted to the other measure. The Contractor must submit this request to the Engineer. The Engineer will provide an approval or denial in writing. The decision is in the sole discretion of the Engineer. If approved, 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 Work.

907-109.04.1--Supplemental Agreement. Delete the second paragraph of Subsection 109.04.1 on page 90.

907-109.06--Partial Payment.

907-109.06.2--Advancement on Materials.
Delete the next to last paragraph of Subsection 109.06.2 on page 95, and substitute the following.

Materials for which an advanced payment has been allowed must be paid for by the Contractor within 30 days of the estimate on which the advanced payment was first allowed and proof of said payment must be verified by the supplier. If proof of payment is not furnished within the allowable 30 days, the advanced payment will be deducted on subsequent current estimates until such time that proof of payment is furnished.

907-109.07--Changes in Material Costs. After the fifth paragraph of Subsection 109.07 on page 96, change the web address to the following.

https://mdot.ms.gov/portal/current_letting

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-619-5 **CODE: (IS)**

DATE: 01/17/2018

SUBJECT: Traffic Control for Construction Zones

Section 619, Traffic Control for Construction Zones, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-619.02--Materials.

907-619.02.8--Traffic Signals and Flashers. Delete Subsection 619.02.8.1 on pages 452 thru 455, and substitute the following.

907-619.02.8.1-Portable Traffic Signals. Portable traffic signals shall be trailer or pedestal mounted units that provide for easy, legal transportation and quick setup and deployment. Each unit shall be self-contained. The types of portable traffic signals are as follows.

- Type 1 portable traffic signal shall include two signal heads per trailer with one signal head mounted on an overhead mast arm that can be extended over the travel lane, and the other signal head shall be mounted on the vertical upright of the trailer.

- Type 2 portable traffic signal shall include one signal head that is mounted on the vertical upright of the pedestal/cart or trailer. Pedestal/Cart mounted shall be designated as Type 2A and Trailer mounted shall be designated as Type 2B. Type 2 portable traffic signals shall be tested to MASH Standards or NCHRP Test Level 3 crash testing requirements by an accredited independent test facility, with supporting documentation available upon request.

- Type 3 portable traffic signal shall be the same as Type 1 mentioned above but with enhanced capabilities as mentioned in each applicable section below.

The portable traffic signals shall be MUTCD Compliant and utilize standard ITE signal heads, and adhere to the ITE Specifications and Standards for Vehicle Traffic Control Signal Heads, Light Emitting Diode (LED) Circular Signal Supplement. The units shall be battery powered with a solar charging system, and be equipped with an onboard battery charger capable of being used with a 120V AC power source. Portable traffic signals shall be able to communicate with other portable signals via 900 MHz or other accepted wireless communications. If wireless connectivity is not feasible, hardwired connectivity shall be an acceptable alternative, as approved by the Engineer. Portable Traffic Signals shall include all the major components listed below or be able to perform the functions of these components. The major components of the unit shall include, but are not limited to, the trailer or pedestal/cart, telescoping mast arm (on Type 1 and 3), signal head(s) and back plates, traffic signal controller with operating software, solar charging system with batteries, input and output devices, vehicle detection, flasher units, conflict monitor, relays,

communications system and other equipment required for the safe operation and installation of the unit.

907-619.02.8.1.1--Signal Heads. The signal heads and all applicable components of the portable traffic signal shall meet the physical display and operational requirements of conventional traffic signals as specific in the Manual on Uniform Traffic Control Devices (MUTCD). The signal heads shall be cast aluminum or polycarbonate and shall meet the requirements laid out in the Mississippi Standard Specification for traffic signal heads and associated MDOT material specifications for traffic signal heads. The signal heads shall accommodate standard 12-inch LED indications meeting the ITE Specification "Vehicle Traffic Control Signal Heads" and ITE Specifications and Standards for Vehicle Traffic Control Signal Heads, Light Emitting Diode (LED) Circular Signal Supplement.

For Type 1, Type 2 and Type 3 portable traffic signals, the signal heads shall have the ability to be rotated 180 degrees to face in the opposite direction and shall have the ability to rotate and lock in approximately 10 degree increments to position the signal head for the optimum visibility to motorists.

For Type 1 portable traffic signals, each unit shall contain two signal heads with one signal head mounted on an overhead mast arm that can be extended over the travel lane with a minimum clearance of 17 feet measured from the bottom of the signal head unit to the road surface. The lower signal head shall be mounted to the vertical upright of the trailer at a minimum height of eight feet (8') from the bottom of the signal head unit to the road surface.

For Type 2 portable traffic signals, the signal head shall be mounted to the vertical upright of the trailer at a minimum height of eight feet (8') from the bottom of the signal head unit to the road surface.

For Type 3 portable traffic signals, each unit shall be the same as Type 1 mentioned above but with enhanced capabilities as mentioned below.

907-619.02.8.1.2--Controller and Operating Requirements. The portable traffic signal (Types 1, 2, and 3) shall include a solid state Controller Unit (CU) that is in compliance with NEMA TS 5 Performance Standard. The CU shall have an easy to read front panel backlit display for viewing and programming the configuration settings and CU status. The CU shall be capable of operating the portable traffic signal system in a fixed time, traffic actuated or manual control mode. Multiple portable traffic signals shall have the capability to be interconnected to form a portable traffic signal system. Each portable traffic signal within a connected system shall have the capability to serve as either the master or remote signal. Each portable traffic signal shall include a Conflict Monitor Unit (CMU), or Malfunction Management Unit (MMU) to ensure phase conflicts do not exist during operation.

For Type 1 and Type 2 portable traffic signals, a minimum of five (5) automatic time-of-day timing plans within a 24-hour period should be available in fixed time mode. The CU should have the ability to control a minimum of four (4) traffic phases with programmable cycle time adjustments and user adjustable red, amber, minimum green and maximum green times. The CU shall have

the capability of programming green and red times from 1 to 999 seconds and yellow times up to 15 seconds in one-second increments. The CU shall also have the capability of facilitating standby modes of red, red flash and yellow flash.

For Type 3 portable traffic signals, a minimum of ten (10) automatic time-of-day timing plans within a 24-hour period should be available in fixed time mode. The CU should have the ability to control a minimum of 16 traffic phases with programmable cycle time adjustments and user adjustable red, amber, minimum green and maximum green times. The CU shall have the capability of programming green and red times from 1 to 999 seconds and yellow times up to 15 seconds in one-second increments. The CU shall also have the capability of facilitating standby modes of red, red flash and yellow flash.

The system shall also have the ability to operate in vehicle actuation mode when vehicle detection components are used. The operating system shall have the capability to allow the Portable Traffic Signal to be connected to and controlled by a standard NEMA controller.

The system shall have the capability to be controlled remotely using a hardwired or wireless remote. The wireless radio remote shall be capable of communicating at a clear line of site distance up to ¼ mile from the master.

The CU shall have the capability of interfacing with a Remote Monitoring System (RMS) capable of reporting signal location, battery voltage, and system faults. The RMS shall include a password-protected web site, viewable via an internet connection. In the event of a system fault, the RMS shall provide specific information concerning the cause of the system fault (example: "red lamp on signal number 1 out"). The RMS shall immediately contact previously designated individuals via SMS text messaging or email, upon a fault event.

The active timing program operating the PTS system shall be available and viewable through the RMS website at all times. The RMS shall maintain a history of the operating system in each signal including total operating hours, alerts, and the location of the PTS trailer.

907-619.02.8.1.3--Wireless Communications. The portable traffic signals shall communicate with other portable traffic signals within the signal system via license-free wireless 900 MHZ radio link communications as specified in Subsection 662.02.2 of the radio Interconnect System specification. The radio units shall maintain communications at a minimum distance of one (1) mile. The radio system shall conform to the applicable Federal Communications Commission requirements and all applicable state and local requirements.

The portable traffic signals shall be in direct communication at all times either by wireless or hardwire connection to provide for the required conflict monitoring / malfunction management system.

907-619.02.8.1.4--Power Requirements. Each Portable Traffic Signal shall be equipped with a power source consisting of a solar collection array, solar controller and/or charging unit and batteries sufficient to operate the signal system. The number and size of batteries shall be sufficient to operate the Type 1 and Type 3 signals for a minimum of 30 days and Type 2A signals for

minimum of five (5) days, and Type 2B signals for minimum of 15 days without additional charging or assist from the solar array. An on-board battery charger shall be compatible with both the solar array and with a 120V AC power source.

For Type 1 signals, the solar panel array shall provide for a minimum of 440 watts of solar collection capability.

For Type 2A signals, the solar panel array shall provide for a minimum of 90 watts of solar collection capability.

For Type 2B signals, the solar panel array shall provide for a minimum of 110 watts of solar collection capability.

For Type 3 signals, the solar panel array shall provide for a minimum of 480 watts of solar collection capability and shall include a tilt and rotate system to optimally position the panels.

All instrumentation for the electrical system and battery compartment shall be contained in a lockable weatherproof enclosure. Solar panels shall be secured to the mounting brackets for theft prevention.

907-619.02.8.1.5--Trailer and Lift System. The trailer or pedestal/cart and all mounted components shall conform to the wind loading requirements as follows: 100 mph minimum for Type 1 portable traffic signals, 55 mph minimum for Type 2A portable traffic signals, 75 mph minimum for Type 2B portable traffic signals, and 90 mph minimum for Type 3 portable traffic signals as described in the AASHTO *Standard Specifications for Highway Signs, Luminaries and Traffic Signals*, as specified in the plans including all interims and updates. At the request of the Engineer, proof of conformance to these wind load ratings shall be verified by a third-party. No additional loose ballast shall be used to meet these wind load requirements. The trailer shall be made of structural steel and shall include four (4) leveling/stabilizer jacks capable of lifting the trailer a minimum of six inches (6").

The trailer or pedestal shall be equipped with a mechanical, hydraulic or electric lift system sufficient for one person to be able to raise and lower the vertical upright and/or horizontal mast arm to and from the operating position.

For Type 1, 2B, and Type 3 signals, the trailer shall be equipped to provide legal and safe transport on the public highway system at speeds up to 55 mph.

All exterior metal surfaces, except signal heads and back plates, shall be powder-coat painted highway safety orange.

907-619.02.9--Impact Attenuators. Delete the sentence in the first paragraph of Subsection 619.02.9 on page 455, and substitute the following.

Impact attenuators must be listed on the Department's APL.

907-619.02.11--Snap-Back Delineators. Delete the sentence in the paragraph of Subsection 619.02.11 on page 456, and substitute the following.

Snap-back delineators shall be selected from the list of surface mounted flexible delineator posts as shown on the Department's APL.

907-619.02.14--Changeable Message Sign.

907-619.02.14.5--PCMS Controller and Storage Cabinets. Delete the fifth sentence in the first paragraph of Subsection 619.02.14.5 on pages 462 and 463, and substitute the following.

The controller cabinet shall be illuminated.

907-619.05--Basis of Payment. Add the following to the list of pay items ending on page 480.

907-619-E3: Changeable Message Sign ***** - per each

907-619-H2: Traffic Signal, Portable, Type ___ - per each

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-701-3 **CODE: (IS)**

DATE: 05/04/2021

SUBJECT: Hydraulic Cement

Section 701, Hydraulic Cement, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-701.01--General. In the first sentence of the second paragraph of Subsection 701.01 on page 718, change "mills" to "plants."

In the second sentence of the sixth paragraph of Subsection 701.01 on pages 718 and 719, change "shall" to "will."

907-701.02--Portland Cement.

907-701.02.1-General.

907-701.02.1.2--Alkali Content. Delete the sentence in Subsection 701.02.1.2 on page 719, and substitute the following.

When used in portland cement concrete, the total alkali contribution from all cement types in this Subsection shall not exceed 4.0 lb. per cubic yard of concrete calculated as follows:

$$\text{lb alkali per cu Yd} = \frac{(\text{lb cement per cu Yd}) \text{x} (\%\text{Na}_2\text{O equivalent in cement})}{100}$$

In the above calculation, the maximum cement alkali content reported on the cement mill certificate shall be used. An example calculation can be found in the Department's *Concrete Field Manual*.

907-701.02.2--Replacement by Other Cementitious Materials. Delete the paragraph in Subsection 701.02.2 on page 719, and substitute the following.

The maximum replacement of cement by weight is 25% for fly ash or 50% for ground granulated blast furnace slag (GGBFS). Replacement contents below 20% for fly ash or 45% for GGBFS may be used, but will not be given any special considerations, such as the maximum acceptance temperature for portland cement concrete containing pozzolans in Subsection 804.02.13.1.5. Special considerations shall only apply for replacement of cement by fly ash or GGBFS.

Delete Subsection 701.02.2.1 on pages 719 and 720, and substitute the following.

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 or GGBFS shall be as follows in Table 1. Class C fly ash shall not be used as a replacement for cement in any of the sulfate exposure conditions listed in Table 1.

Table 1- Cementitious Materials for Soluble Sulfate Conditions or Seawater

Sulfate Exposure	Water-soluble sulfate (SO_4) in soil, % by mass	Sulfate (SO_4) in water, ppm	Cementitious material required
Moderate and Seawater	0.10 - 0.20	150 - 1,500	Type I cement with one of the following replacements of cement by weight: 24.5 - 25.0% Class F fly ash, or 49.5 - 50.0% GGBFS or Type II*,** cement
Severe	0.20 - 2.00	1,500 - 10,000	Type I cement with a replacement by weight of 49.5 - 50.0% GGBFS, or Type II* cement with one of the following replacements of cement by weight: 24.5 - 25.0% Class F fly ash, or 49.5 - 50.0% GGBFS

* Type III cement conforming to AASHTO M85 with a maximum 8% tricalcium aluminate (C_3A) may be used in lieu of Type II cement as allowed in Subsection 701.02.1; this cement is given the designation "Type III(MS)."

** Class F fly ash or GGBFS may be added as a replacement for cement as allowed in Subsection 907-701.02.2.

Delete Subsection 701.02.2.2 on page 720, and substitute the following.

907-701.02.2.2--Portland 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 701.02.2.1.

907-701.04--Blended Hydraulic Cement.

907-701.04.1--General. Delete Subsection 701.04.1.1 on page 720, and substitute the following.

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

Type IL – Portland-limestone cement
Type IP – Portland-pozzolan cement
Type IS – Portland blast-furnace slag cement

Blended cement Types IL, IP, and IS meeting the "MS" sulfate resistance requirement listed in AASHTO M 240, Table 3 shall have the "(MS)" suffix added to the type designation.

907-701.04.1.2--Alkali Content. Delete the sentence in Subsection 701.04.1.2 on page 720, and substitute the following.

All blended cement types shall be made with clinker that would result in cement meeting the requirements of Subsection 701.02.1.2 when used in the production of AASHTO M 85, Type I or Type II cement.

The blended cement manufacturer shall include the percent equivalent alkalis as Na_2O on their cement mill reports.

When calculating the total alkali contribution with blended cements, use the equivalent alkali content of the base portland cement. An example calculation for cases where blended cements are used can be found in the Department's *Concrete Field Manual*.

907-701.04.2--Replacement by Other Cementitious Materials. Delete the paragraph in Subsection 701.04.2 on page 720, and substitute the following.

The maximum replacement of blended cement Type IL by weight is 35% for fly ash or 50% for GGBFS. Replacement contents below 20% for fly ash or 45% for GGBFS may be used, but will not be given any special considerations, such as the maximum acceptance temperature for blended cement concrete containing pozzolans in Subsection 804.02.13.1.5. Special considerations shall only apply for replacement of blended cement by fly ash or GGBFS.

No additional cementitious materials, such as portland cement, blended cement, fly ash, GGBFS, or others, shall be added to or as a replacement for blended cement Types IP and IS.

Delete Subsection 701.04.2.1 on pages 720 and 721, and substitute the following.

907-701.04.2.1--Blended Cement Concrete Exposed to Soluble Sulfate Conditions or Seawater. When blended 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 or GGBFS shall be as follows in Table 2. Class C fly ash shall not be used as a replacement for cement in any of the sulfate exposure conditions listed in Table 2.

Table 2- Cementitious Materials for Soluble Sulfate Conditions or Seawater

Sulfate Exposure	Water-soluble sulfate (SO_4) in soil, % by mass	Sulfate (SO_4) in water, ppm	Cementitious material required
Moderate and Seawater	0.10 - 0.20	150 - 1,500	Type IL (MS)* cement, Type IL cement with one of the following replacements of cement by weight: 24.5 - 35.0% Class F fly ash, or 49.5 - 50.0% GGBFS, Type IP (MS) cement, or Type IS (MS) cement
Severe	0.20 - 2.00	1,500 - 10,000	Type IL cement with a replacement of cement by weight of 49.5 - 50.0% GGBFS, or Type IL (MS) cement with one of following replacements of cement by weight: 24.5 - 35.0% Class F fly ash, or 49.5 - 50.0% GGBFS

* Class F fly ash or GGBFS may be added as a replacement for cement as allowed in Subsection 907-701.04.2.

Delete Subsection 701.04.2.2 on page 721, and substitute the following.

907-701.04.2.2--Blended Cement for Soil Stabilization Exposed to Soluble Sulfate Conditions or Seawater. When blended 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 701.04.2.1.

Delete Subsection 701.04.3 on page 721.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-702-4 **CODE: (IS)**

DATE: 09/11/2018

SUBJECT: Bituminous Materials

Section 702, Bituminous Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-702.04--Sampling. Delete the sentence in Subsection 702.04 on page 722, and substitute the following.

Sampling of bituminous materials shall be as set out in AASHTO R 66.

907-702.07--Emulsified Asphalt. Delete the last sentence in Subsection 702.07 on page 724, and substitute the following.

Asphalt for fog seal shall conform to the requirements of Subsection 907-702.12, Table V.

907-702.12--Tables. Delete Table V in Subsection 702.12 on page 729, and substitute the following.

TABLE V
SPECIFICATION FOR FOG SEAL

	LD-7		CHPF-1		
Test Requirements	**Min.**	**Max.**	**Min.**	**Max.**	**Test Method**
Viscosity, Saybolt Furol, @ 25°C, Sec.	10	100	-	100	AASHTO T 72
Storage Stability Test, 24 hr, %	-	1	-	1	AASHTO T 59
Settlement, 5 day, %	-	5	-	-	AASHTO T 59
Oil Distillate, %	-	1	-	-	AASHTO T 59
Sieve Test, % *	-	0.3	-	0.1	AASHTO T 59
Residue by Distillation, %	40	-	40	-	AASHTO T 59
Test on Residue from Distillation					
Penetration @ 25°C, 100g, 5 sec	-	20	40	90	AASHTO T 49
Softening Point, °C	65	-	-	-	ASTM D 36
Solubility in trichloroethylene, %	97.5	-	-	-	AASHTO T 44
Elastic Recovery @ 25°C, %	-	-	40	-	AASHTO T 301
Original DSR @ 82° (G*/Sinδ, 10 rad/sec)	1	-	-	-	AASHTO T 111

* The Sieve Test result is tested for reporting purposes only and may be waived if no application problems are present in the field.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-703-2 **CODE: (SP)**

DATE: 11/29/2022

SUBJECT: Gradation

Section 703, Aggregates, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-703.03--Coarse Aggregates for Hydraulic Cement Concrete.

907-703.03.2--Detail Requirements.

907-703.03.2.4--Gradation. In the table in Subsection 703.03.2.4 on page 734, add 100 for the percent passing by weight on the 1½-inch sieve for Size No. 67 aggregates.

Delete Note 2 under the table in Subsection 703.03.2.4 on page 734, and substitute the following.

Note [2] – 100 percent shall pass the 1-inch sieve for Size 67 used in Class F and Class FX concrete.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-705-1 **CODE: (IS)**

DATE: 06/13/2018

SUBJECT: Stone Riprap

Section 705, Stone Blanket Protection and Filter Blanket Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-705.04--Stone Riprap. Delete the last sentence of the first paragraph of Subsection 705.04 on page 750, and substitute the following.

Quality requirements for rock to be furnished under these specifications will come from a pre-approved source and be visually approved prior to use.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-707-3 **CODE: (IS)**

DATE: **10/27/2021**

SUBJECT: **Joint Materials**

Section 707, Joint Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-707.02--Joint Filler.

907-707.02.2--Preformed Sponge, Rubber, Cork and Closed-Cell Polypropylene Foam Joint Fillers for concrete Paving and Structural Constructions. Delete the two paragraphs of Subsection 707.02.2 on page 755, and substitute the following.

Preformed joint filler shall conform to AASHTO M 153 for sponge, rubber, and cork and tested according to ASTM D545. The type required will be indicated on the plans.

Closed-cell polypropylene foam shall conform to the requirements in ASTM D8139 and tested in accordance with ASTM D545.

907-707.02.3--Wood. Delete paragraph (b) of Subsection 707.02.3 on page 755, and substitute the following:

(b) Dimensions shall be as shown on the plans Dimensions shown on the plans are "dressed" sizes in accordance with Table 3 of the American Softwood Lumber Standard, SP-20. At the discretion of the Engineer, a 3/4-inch dressed board may be used in lieu of a 1-inch dressed board. A tolerance of plus or minus 1/16 inch thickness and plus or minus 1/8 inch width will be permitted. For slip-form paving a tolerance of minus 1/4 inch on each end in length will be permitted.

907-707.06--Flexible Plastic Gasket for Joining Conduit. Delete the third paragraph of Subsection 707.06 on page 756, and substitute the following.

The Department may require the performance test described in ASTM C 990.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-711-2 **CODE: (IS)**

DATE: 09/11/2018

SUBJECT: Plain Steel Wire

Section 711, Reinforcement and Wire Rope, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-711.02--Deformed and Plain Carbon-Steel Bars for Concrete Reinforcing.

907-711.02.3--Steel Welded and Non-Welded Wire Reinforcement, Plain and Deformed, for Concrete.

907-711.02.3.1--Plain Steel Wire. Delete the sentence in Subsection 711.02.3.1 on pages 780 and 781, and substitute the following.

Plain steel wire and plain steel welded wire shall conform to the requirements of AASHTO M 336.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-712-1 **CODE: (SP)**

DATE: 12/07/2021

SUBJECT: Fence and Guardrail

Section 712, Fence and Guardrail, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-712.01--General. After the sentence in Subsection 712.01 on page 785, add the following.

All materials' inspection, testing, and certification will be performed in accordance with the requirements of the current version of the Department's *Materials Division Inspection, Testing, and Certification Manual*.

Delete Subsections 712.02 and 712.03 on page 785, and substitute the following.

907-712.02--Barbed Wire. Barbed wire shall conform to the requirements of AASHTO M 280. In the coastal counties of Hancock, Harrison, and Jackson, either Coating Type Z Class 3 or Coating Type A shall be furnished. In all other areas of the State, either Coating Type Z Class 1, Coating Type Z Class 3, Coating Type ZA Class 60, or Coating Type A shall be furnished.

907-712.03--Metallic-Coated, Steel Woven Wire Fence Fabric. Woven wire fencing (i.e., "hog wire") shall conform to the requirements of AASHTO M 279. In the coastal counties of Hancock, Harrison, and Jackson, either Coating Type Z Class 3 or Coating Type A shall be furnished. In all other areas of the State, either Coating Type Z Class 1, Coating Type Z Class 3, Coating Type ZA Class 60, or Coating Type A shall be furnished.

907-712.04--Chain Link Fence. Delete Subsections 712.04.1 thru 712.04.7 on pages 785 & 786, and substitute the following.

907-712.04.1--Fabric. In the coastal counties of Hancock, Harrison, and Jackson, either Type I Class D, Type II, Type III, or Type IV fabrics shall be furnished. In all other areas of the State, either Type I Class C, Type I Class D, Type II, Type III, or Type IV fabrics shall be furnished.

907-712.04.2--Tie Wire. Tie wire shall be of the same material as the fencing wire being used, shall be of good commercial quality, and shall meet the requirements of AASHTO M 181. Either Type I, Type II, Type III, or Type IV tie wire shall be furnished.

907-712.04.3--Tension Wire. Tension wire shall be of the same material as the fencing wire being used, shall be of good commercial quality, and shall meet the requirements of AASHTO M 181. In the coastal counties of Hancock, Harrison, and Jackson, either Type I Class 3, Type II, Type III, or Type IV tension shall be furnished. In all other areas of the State, either Type II, Type III, Type IV, or Type I Classes 1, 2, or 3 tension wires shall be furnished.

907-712.04.4--Posts Rails, Gate Frames, and Expansion Sleeves. Posts, rails, gate frames, and expansion sleeves shall conform to the requirements for posts in Subsection 712.05.2, unless otherwise designated in the contract.

907-712.04.5--Miscellaneous Fittings and Hardware. Miscellaneous fittings and hardware shall conform to the requirements of Subsection 712.16.

907-712.05--Fence Posts and Braces.

907-712.05.1--Treated Timber Posts and Braces.

907-712.05.1.1--General. Delete the third, fourth, fifth, and sixth paragraphs of Subsection 712.05.1.1 on page 787, and substitute the following.

All wood posts and braces shall be treated in accordance with Subsections 718.03 and 718.04.

907-712.05.1.2--Round Posts. Delete the last sentence of the last paragraph of Subsection 712.05.1.2 on page 788.

907-712.05.1.3--Sawed Posts. Delete the last sentence of the paragraph of Subsection 712.05.1.3 on page 788.

907-712.05.1.4--Sawed Braces. Delete the last sentence of the paragraph of Subsection 712.05.1.4 on page 788.

Delete Subsection 712.05.2 on page 788, and substitute the following.

907-712.05.2--Metal Posts.

907-712.05.2.1--Round Steel Pipe. Round steel pipe shall meet the requirements of AASHTO M 181, either Grade 1 (i.e., meeting the requirements in ASTM F 1083) or Grade 2 (i.e., meeting the requirements of ASTM F 1043).

Round steel pipe shall be sized in accordance with NPS (nominal pipe size) designations as shown on Plans, and not according to the outer or inner pipe diameter.

907-712.05.2.2--Steel Fence Post and Assemblies, Hot-Wrought. Steel posts with the following section shapes, Tee, channel or U, and Y-Bar shall meet the requirements of AASHTO M 281, galvanized in accordance with the requirements of AASHTO M 111, unless otherwise specified in the contract. Acceptance of these steel posts shall be by certification from the manufacturer, producer, supplier, or fabricator, as applicable.

907-712.05.2.3--Blank.

907-712.05.2.4--Steel H-Beam Posts. Steel H-Beam posts shall be produced from structural quality weldable steel having a minimum yield strength of 45,000 psi and shall be galvanized in accordance with ASTM A 123. Steel H-Beam line posts shall be 2.250 inches by 1.625 inches and shall weigh 3.43 pounds per foot. A tolerance of plus or minus 5.0 percent is allowed for

weight per foot. A tolerance of plus or minus 1.0 percent is allowed for dimensions.

907-712.05.2.5--Aluminum-Alloy Posts and Assemblies. Round aluminum-alloy posts shall meet the requirements of ASTM B 241, Alloy 6061, T6. Aluminum-Alloy H-Beam posts shall meet the requirements of ASTM B 221, Alloy 6061, T6.

907-712.05.2.6--Formed Steel Section Posts. Formed steel section posts, "C" sections, shall be formed from sheet steel conforming to ASTM A 1011, Grade 45, and shall be galvanized in accordance with ASTM A 123.

907-712.06--Guard and Guardrail Posts.

907-712.06.2--Treated Wood Posts.

907-712.06.2.1--Square Posts. Delete the paragraph in Subsection 712.06.2.1 on page 789, and substitute the following.

All square posts shall be inspected for conformance with Section 712.05, except that the posts may be rough and shall be within ±3/8" of the dimensions shown on the plans.

907-712.06.2.2--Round Posts. Delete the paragraph in Subsection 712.06.2.2 on page 789, and substitute the following.

All round posts shall be inspected for conformance with Section 712.05, except that the posts shall be of the shape and dimensions shown on the plans.

907-712.06.5--Treated Wood Blocks for Use with Metal Guardrail Posts. Delete the paragraphs of Subsection 712.06.5 on pages 789 & 790, and substitute the following.

Treated wood blocks for use with metal guardrail posts shall be within ±3/8" of the size and dimensions shown on the plans, except that a minus tolerance shall not be allowed for the slotted width in which the metal post must fit.

Delete Subsection 712.16 on page 791, and substitute the following.

907-712.16--Hardware. All ferrous metal hardware for fencing such as bolts, nuts, washers, and metal straps shall be as specified on the plans and galvanizing shall not be less than 1.0 ounce per square foot of uncoated area. Aluminum coated hardware shall be coated with aluminum meeting the requirements of AASHTO M 181 for aluminum coating and at the rate of not less than 0.4 ounces per square foot of uncoated area.

Aluminum alloy hardware shall conform to the requirements of ASTM B 221 for extruded aluminum alloy 6063, T6. The finished members shall be of uniform quality.

Aluminum-zinc coated hardware shall be coated with an aluminum-zinc alloy meeting the chemical requirements and weight of coating specified for aluminum-zinc alloy coated metal gates.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-714-3 **CODE: (SP)**

DATE: **08/31/2021**

SUBJECT: **Miscellaneous Materials**

Section 714, Miscellaneous Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-714.01--Water.

907-714.01.1--General. Delete the last sentence of the second paragraph in Subsection 714.01.1 on page 794.

907-714.01.2--Water for Use in Concrete. Delete Subsection 714.01.2 on page 794, and substitute the following:

Water from municipal sources is permitted be used as mixing water in concrete, mortar, and grout without Department testing. Water from non-municipal water sources used in mixing of concrete, mortar, and grout which does not meet the requirements in Subsection 714.01.1 shall be tested for conformance as required in AASHTO M157, Table 1 and Table 2.

907-714.01.3--Water for Use in Chemically Stabilized Based. Delete the first sentence of first paragraph in Subsection 714.01.3 on page 794, and substitute the following:

Water used in the construction of bases that contain cement, lime, or other chemical additive shall be as set out in Subsection 714.01.1. Water from municipal sources is permitted to be used without testing for conformance to the requirements below. If water is not from a municipal source, it shall not contain impurities in excess of the following limits:

Delete Subsection 714.01.6 on page 795, and substitute the following.

907-714.01.6--Blank.

907-714.05--Fly Ash.

907-714.05.1--General. Delete the first sentence of the fifth paragraph in Subsection 714.05.1 on page 797.

907-714.13--Geotextiles.

907-714.13.11--Tables. Delete Table 1 in Subsection 714.13.11 on page 813, and substitute the following.

Table 1 - Geotextiles

Type Designation	I[1]	II[1]	III	IV	V	VI		VII		VIII	IX	
	Sediment Control		Drainage	Paving	Separation & Drainage	Separation, Stabilization & Reinforcement				High Strength		
Physical Property[2]						Woven	Non-Woven	Woven	Non-Woven			**Test Method**
Grab Strength (lb)	50	90	110	90	200	280	180	450	280	----	----	ASTM D 4632
Elongation (%)	----	50% max @ 45 lb	20% min	50% min @ break	50% min	50% max	50% Min	50% max	50% Min	----	----	ASTM D 4632
Seam Strength (lb)	----	----	70	----	180	240	160	400	240	----	----	ASTM D 4632
Puncture Strength (lb)	----	----	40	----	80	110	75	180	115	----	----	ASTM D 6241
Trapezoidal Tear (lb)	----	----	40	----	80	100	70	150	100	----	----	ASTM D 4533
Asphalt Retention (gal/yd^2)	----	----	----	0.2	----	----	----	----	----	----	----	ASTM D 6140
Permittivity (sec^{-1}) min	0.05	0.05	0.5	----	0.2	0.2	0.2	0.2	0.2	----	----	ASTM D 4491
AOS Woven (mm) max	0.60	0.60	0.6	----	0.6	0.43	----	0.43	----	----	----	ASTM D 4751
AOS Non-Woven (mm) max	0.84	0.84	0.43	----	0.43	----	0.43	----	0.43	----	----	
Tensile Strength after UV (% Retained)	70% @ 500 hr	70% @ 500 hr	50% @ 500 hr	----	50% @ 500 hr	50% @ 500 hr	50% @ 500 hr	50% @ 500 hr	50% @ 500 hr	----	----	ASTM D 4355
Melting Point °(F) Minimum Ultimate	----	----	----	325	----	----	----	----	----	----	----	ASTM D 276
Tensile Strength[3] (lb/in)	----	----	----	----	----	----	----	----	----	660	2000	ASTM D 4595

Notes: 1 - All property values, with the exception of apparent opening size (AOS), represent minimum average roll values in the weakest principal direction. Values for AOS represent the maximum average roll values, 2 - Values not identified in this table should meet manufacturer certification for the use and application, 3- Machine direction

Delete Subsection 714.15 on pages 816 and 817 and substitute the following.

907-714.15--Geogrids.

907-714.15.1–General. A geogrid is defined as a geosynthetic formed by a regular network of connected elements with apertures greater than 0.25 inch to allow interlocking with surrounding soil, rock, and other surrounding materials to function primarily as reinforcement.

Geogrid shall be manufactured from an expanded strain hardened monolithic polymer sheet composed of one or more synthetic polymers and shall be mildew resistant and inert to biological degradation and naturally encountered chemicals, alkalis and acids. The geogrid shall contain stabilizers and/or inhibitors, or a resistance finish or covering to make it resistant to deterioration from direct sunlight, ultraviolet rays, and heat.

Geogrid manufacturers shall participate in and be in compliance with the American Association of State Highway Transportation Officials (AASHTO) National Transportation Product Evaluation Program's (NTPEP) Geosynthetics audit program. Geogrid shall meet the requirements of Table II for the application and type shown on the plans and shall be selected from the Department's Approved Lists.

907-714.15.1.1--Geogrid for Retaining Walls and Reinforced Soil Slopes. Geogrid for retaining walls and reinforced soil slopes shall be creep tested in accordance with AASHTO R69 and meet Long Term Design Load, Minimum Ultimate Tensile Strength, and open area criteria listed in Table II. Manufacturers shall perform at least one long-term creep test for no less than 10,000 hours in accordance to ASTM D 5262 for each polymer or composition of polymers from which the geogrid is produced. The long-term design load that shall be reported for design use, shall be that load at which no more than 10% strain occurs over a 100-year design life of the geogrid, as calculated in accordance with AASHTO R69. Long-term design loads shall be reported unfactored, and the AASHTO strength reduction factors (Durability and Installation, and safety factors) will be considered by the Department's Geotechnical Branch on a site specific design basis.

907-714.15.1.2--Geogrid for Subgrade Stabilization. Geogrid for subgrade stabilization shall meet Minimum Ultimate Tensile Strength and open area criteria listed in Table II.

907-714.15.2--Marking, Shipment, and Storage. Each roll or container of geogrid shall be visibly labeled with the name of the manufacturer, trade name of the product, lot number, and quantity of material. In addition, each roll or container shall be clearly tagged to show the type designation that corresponds to that required by the plans. During shipment and storage the geogrid shall be protected from direct sunlight, and temperatures above 120°F or below 0°F. The geogrid shall either be wrapped and maintained in a heavy duty protective covering or stored in a safe enclosed area to protect from damage during prolonged storage.

907-714.15.3--Manufacturer Certification. The Contractor shall furnish the Engineer three copies of the manufacturer's certified test reports indicating that the geogrid furnished conforms to the requirements of the specifications and is of the same composition as the originally approved

by the Department.

907-714.15.4--Acceptance Sampling and Testing. Final acceptance of each shipment will be based upon results of tests performed by the Department on verification samples submitted from the project, as compared to the manufacturer's certified test reports. The Engineer will select one roll or container at random from each shipment for sampling. As sample extending full width of the randomly selected roll or container and being at least five (5) square yards in area will be obtained and submitted by the Engineer. All material samples shall be provided at no cost to the State.

TABLE II
GEOGRIDS

Physical Properties	Type Designation						Test Method
	I	II	III	IV	V	VI	
Long Term Design Load[1], pounds per foot, Machine Direction	250	500	750	1500	2500	3500	AASHTO R69, ASTM D5262
Minimum Ultimate Tensile Strength[2], pounds per foot, Machine Direction	500	1000	1500	3000	5000	7000	ASTM D6637
Open Area, percent	70	70	50	50	50	50	Direct Measurement

[1] Minimum design criteria requirement.
[2] Minimum Average Roll Value (MARV).

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-718-1 **CODE: (SP)**

DATE: 12/07/2021

SUBJECT: Timber and Dimension Lumber

Section 718, Timber and Dimension Lumber, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

Delete the Subsections in Section 718 on pages 836 thru 838, and substitute the following.

907-718.01--General. All timber and dimension lumber shall be Southern pine and shall conform in all respects to applicable requirements of AASHTO M 168. The Department reserves the right to sample and to test all materials at any time; all inspection, testing, and certification of materials will be performed in accordance with the requirements of the current version of the Department's *Materials Division Inspection, Testing, and Certification Manual*.

Timber and dimension lumber shall be furnished in the sizes shown on the plans or as specified. Unless otherwise specified, timber and dimension lumber shall be No. 1, or better, graded according to the latest American Lumber Standards.

Only one type of preservative shall be used for the treatment of materials for any one class of construction on a project, unless otherwise specified.

Where treated timber and dimensional lumber is to be used in non-highway construction or use, such as decking, handrails in walking trails, or in any manner where general public exposure by touch is possible, the treatment requirements will be as per project plans and/or approved by the State Materials Engineer.

907-718.02--Untreated Timber and Dimension Lumber. Untreated timber and dimension lumber shall conform to the requirements of AASHTO M 168.

907-718.03--Treated Timber and Dimension Lumber. Timber and dimension lumber to be treated shall meet the requirements herein specified and shall be treated as specified. Treated timber or dimensional lumber will not be accepted for use unless it has been inspected by an authorized representative of the Department and found to be satisfactory after treatment.

907-718.03.1--Blank.

907-718.03.2--Treatment.

907-718.03.2.1--General. All materials shall be treated in accordance with AASHTO M 133 unless otherwise directed by the Environmental Protection Agency (EPA).

907-718.03.2.2--Blank.

907-718.03.2.3--Inspection. Treated timber and dimension lumber shall be inspected by an authorized representative of the Department before being incorporated into the work. Treatment reports shall be provided to the Department for each lot of material supplied.

907-718.03.3--Blank.

907-718.03.4--Storage of Treated Material. All material treated for stock shall be stacked as compactly as possible on a well-drained surface. Material shall be supported on sills spaced as necessary, not to exceed 10 foot intervals and shall have at least one foot of air space beneath the stacks.

All materials treated with preservatives for use in buildings and applications where painting is required shall be dried after treatment. The treated wood shall be dried in accordance with American Lumber Standards.

907-718.04--Preservative. Preservatives shall be as specified in AASHTO M 133 unless otherwise directed by the Environmental Protection Agency (EPA).

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-720-2 **CODE: (IS)**

DATE: 09/11/2018

SUBJECT: Acceptance Procedure for Glass Beads

Section 720, Pavement Marking Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-720.01--Glass Beads.

907-720.01.4--Acceptance Procedures. Delete the last sentence of the paragraph in Subsection 720.01.4 on page 841, and substitute the following.

Acceptance sampling and testing of glass beads will be in accordance with the Department's Materials Division Inspection, Testing, and Certification Manual, Section 2.9.2 -- Glass Beads.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-721-4 **CODE: (IS)**

DATE: **04/19/2022**

SUBJECT: **Materials for Signing**

Section 721, Materials for Signing, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-721.06--Reflective Sheeting.

907-721.06.2--Performance Requirements. Delete Table 4 and Table 5 in Subsection 721.06.2 on pages 860 & 861, and substitute the following.

MINIMUM COEFFICIENTS OF RETROREFLECTION
Candela per foot candle per square foot (cd/fc/ft^2)
Per ASTM Designation D4956

TABLE 4
Type IX Sheeting

Observation Angle	Entrance Angle	White	Yellow	Green	Red	Blue	Fluorescent Yellow/Green	Fluorescent Yellow	Fluorescent Orange
0.2°	-4.0°	380	285	38	76	17	300	230	115
0.2°	+30.0°	215	162	22	43	10	170	130	65
0.5°	-4.0°	240	180	24	48	11	190	145	72
0.5°	+30.0°	135	100	14	27	6.0	110	81	41
1.0°	-4.0°	80	60	8.0	16	3.6	64	48	24
1.0°	+30.0°	45	34	4.5	9.0	2.0	36	27	14

TABLE 5
Type XI Sheeting

Observation Angle	Entrance Angle	White	Yellow	Green	Red	Blue	Brown	Fluorescent Yellow/Green	Fluorescent Yellow	Fluorescent Orange
0.2°	-4.0°	580	435	58	87	26	17	460	350	175
0.2°	+30.0°	220	165	22	33	10	7.0	180	130	66
0.5°	-4.0°	420	315	42	63	19	13	340	250	125
0.5°	+30.0°	150	110	15	23	7.0	5.0	120	90	45
1.0°	-4.0°	120	90	12	18	5.0	4.0	96	72	36
1.0°	+30.0°	45	34	5.0	7.0	2.0	1.0	36	27	14

After Subsection 721.10 on page 864, add the following.

907-721.11--Digital Applied Printing. The following addresses the requirements for digitally printed finished retroreflective traffic control signs on flat sheet aluminum and digitally printed traffic sign faces intended to be applied to a sign substrate.

907-721.11.1--Digitally Printed Ink Systems. Traffic signs must be produced using components, and processes that comply with the retroreflective sheeting manufacturer's recommendations.

Digital printed ink systems used to print traffic signs must meet and comply with daytime and nighttime chromaticity (color standards) as recognized in ASTM D4956 "Standard Specification for Retroreflective Sheeting for Traffic Control."

Digital printed ink systems must meet 70% of the initial retroreflectivity specifications of each respective reflective film color as found in ASTM D4956 "Standard Specification for Retroreflective Sheeting for Traffic Control."

Prior to fabrication and preferably at the preconstruction meeting, the Contractor shall advise the Project Engineer in writing as to which signs on the project will be digitally printed and which ones will be screen printed. The Contractor shall submit to the Project Engineer certifications for all digitally printed signs, which will be forwarded to the State Traffic Engineer for review.

907-721.11.2--Protective Overlay Film. Permanent traffic signs printed with digital ink systems will be fabricated with a full sign protective overlay film designed to provide a smooth surface needed for retroreflectivity, and to protect the sign from fading and UV degradation. The overlaminate shall comply with the retroreflective sheeting manufacturer's recommendations to ensure proper adhesion and transparency and will also meet the reflective film durability as identified in Table 1.

Table 1
Retroreflective Film Minimum Durability Requirements

ASTM D4956 Type	Full Sign Replacement Term (years)	Sheeting Replacement Term (years)
IV	7	10
VIII	7	10
IX	7	12
XI	7	12

Temporary signs used in work zones printed with black ink only will not require a protective overlay film as long as the finished sign is warranted for a minimum outdoor durability of three years by the sheeting manufacturer.

907-721.11.3--Inspection. During fabrication, the Contractor shall provide sufficient testing and quality control throughout fabrication to insure good workmanship. Once the material has been received, it may be subject to random testing to ensure compliance with all requirements. If any test samples do not conform to the requirements, the entire order may be returned at the vendor's expense.

907-721.11.4--Traffic Sign Performance Warranty Provisions. Based on the ASTM Type of sheeting specified, traffic control signs shall be warranted for the duration shown in Table 1. The Contractor shall supply a copy of the warranty document with complete details of terms and conditions upon request of the Department.

907-721.11.5--Certified Digital Sign Fabricator. Sign fabricators using digital imaging methods to produce regulated traffic signs must be certified by the reflective sheeting manufacturer whose materials are used to produce the delivered signs.

Certified sign fabricators must undergo an audit process by the sheeting manufacturer to ensure they have the proper equipment, manufacturing capabilities, manufacturing application processes and the materials required to fulfill the sheeting manufacturer's warranty obligations. Sign fabricators must recertify annually with reflective sheeting manufacturers or utilize a 3rd party certifier approved by the reflective sheeting manufacturer.

The Contractor shall submit proof of Sign Fabricator Certification as issued by the retroreflective sign sheeting manufacturer to the Project Engineer upon delivery of the signs, or with the Shop Drawings.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-808-1 **CODE: (IS)**

DATE: 11/01/2018

SUBJECT: Joint Repair

Section 808, Joint Repair, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-808.04--Method of Measurement. Delete the paragraph in Subsection 808.04 on page 1009, and substitute the following.

When a pay item is included in the plans, joint repair will be measured by the linear foot and mortar mix will be measured by the gallon. The volume of measurement for the epoxy/sand mortar mix will be determined from the summation of the volumes of the epoxy components and the volume of sand will not be measured for payment.

907-808.05--Basis of Payment. Delete the paragraph in Subsection 808.05 on page 1009, and substitute the following.

When a pay item is included in the plans, joint repair, measured as prescribed above, will be paid for at the contract unit price per linear foot, which price shall be full compensation for furnishing and placing all materials, labor, tools, equipment, and all incidentals necessary to complete the work.

When a pay item is included in the plans, mortar mix, measured as prescribed above, will be paid for at the contract unit price per gallon, which price shall be full compensation for furnishing all materials including sand and forming materials, and all incidentals necessary to complete the work. No payment will be made for the sand used in the epoxy mortar mix.

The price bid for each item of work shall include the cost of continuous maintenance of traffic and protective services as required by the Department's Traffic Control Plan. This shall include all required individual traffic control devices.

Payment will be made under:

907-808-A: Joint Repair - per linear foot

907-808-B: Mortar Mix - per gallon

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISIONS NO. 907-823-7 **CODE: (SP)**

DATE: 10/13/2020

SUBJECT: Preformed Joint Seal

Section 907-823, Preformed Joint Seal, is hereby added to and becomes a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

SECTION 907-823--PREFORMED JOINT SEAL

907-823.01--Description. This work consists of furnishing and installing preformed joint seals in accordance with these specifications and the details shown in the Plans or drawings provided.

907-823.02--Materials. The Contractor shall furnish a manufacturer's certification stating that the material used meets the requirements of this specification.

The preformed joint seal shall be one of the following, or an approved equal. The size of the seal, Type I or Type II, shall be determined based on the size of the joint opening, as detailed in the Plans or drawings provided. It is the Contractor's responsibility to ensure that the size selected is appropriate for the width of the joint. Type I shall be used for joint openings less than two inches (2"). Type II shall be used for joint openings greater than two inches (2"), with the maximum joint opening being two and one-half inches (2½"). In cases where the joint opening is greater than two and one-half inches (2½"), another type of expansion material shall be required as directed by the Director of Structures, State Bridge Engineer.

1. Silicoflex Joint Sealing System
   Manufactured by R.J. Watson, Inc. in Alden, NY
   www.rjwatson.com

2. Wabo®SPS Joint System
   Manufactured by Watson Bowman Acme Corporation in Amherst, NY
   www.wbacorp.com

3. Silspec SSS Silicone Strip Seal
   Manufactured by SSI Commercial & Highway Construction Materials in Tulsa, OK
   www.ssicm.com

907-823.03--Construction Methods. Preformed joint seals shall be installed in accordance with the manufacturer's recommendations. The material shall seal the deck surface, gutters, and curbs to prevent moisture or other contaminants from leaking through the joints. The joint seal shall be installed in such a manner that the top surface of the material is within the minimum and maximum depths below the roadway or bridge surface recommended by the manufacturer.

Saw cutting for the joint repair shall be accomplished by sawing at the locations and depth shown

on the joint repair detail sheets in the plans or in the contract documents. Saw cuts shall be as near vertical as possible at the saw line of the repair area. The saw cut depth shall be equivalent to the installation depth required by the manufacturer's specifications, and the type specified shall be the same as the type specified for preformed joint seal.

907-823.04--Method of Measurement. Preformed joint seal of the type specified will be measured in linear feet along the length of the centerline joint.

Saw cuts of the type specified will be measured by the linear foot along the length of the bridge deck on each side of the centerline joint.

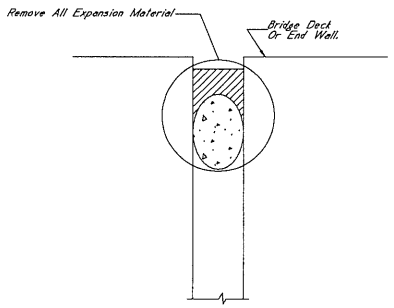
907-823.05--Basis of Payment. Preformed joint seal, measured as prescribed above, will be paid for at the contract unit price per linear foot, which shall be full compensation for furnishing all labor, equipment, tools, materials, and incidentals necessary to complete the work.

Saw cuts, measured as prescribed above, will be paid for at the contract unit price per linear foot, which shall be full compensation for furnishing all labor, equipment, tools, materials, and incidentals necessary to complete the work.

Payment will be made under:

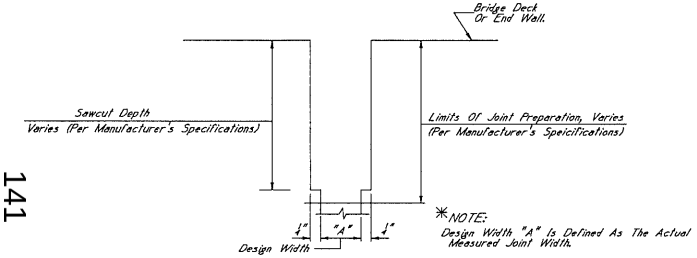
907-823-A: Preformed Joint Seal, Type ___ - per linear foot

907-823-B: Saw Cut, Type _____ - per linear foot



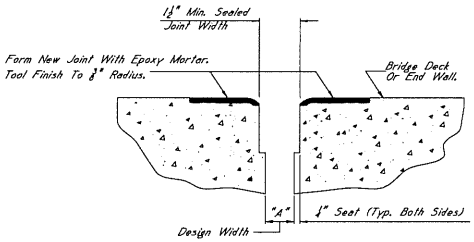
TYPICAL SECTION AT EXISTING JOINT

Showing Existing Expansion Materials To Be Removed And Replaced With Preformed Joint Seal



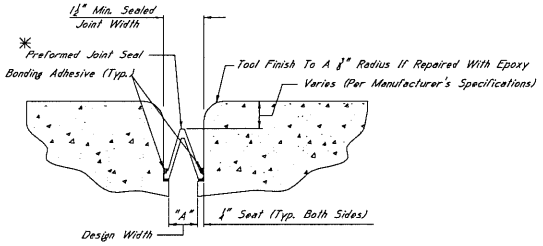
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials And Sawcut



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut, With Epoxy Mortar Or Approved Equivalent



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut

*NOTES:

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

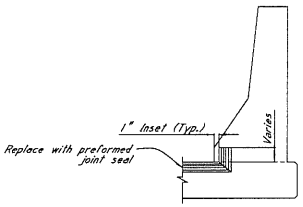
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The RJ Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturers. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1/4" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2". In Cases Where Design Widths Are Greater Than 2", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



*NOTES:

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3". For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 6".

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

907-808-A002 JOINT REPAIR

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Epoxy Mortar Shall Also Be Included Under This Item Of Work. Removal Of Existing Silicone Sealed, Compression, And AC Sealed Joint Materials Will Not Be Paid For Directly And Shall Be Considered As Absorbed Under This Item Of Work. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation and Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-808-A003 JOINT REPAIR WITHOUT EPOXY

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Removal Of Existing Silicone Sealed, Compression, And AC Sealed Joint Materials Shall Be Included Under This Item Of Work. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited to Compacted Dirt, Vegetation and Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-823-B001 SAW CUT, TYPE I & 907-823-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint. It Is The Contractor's Responsibility To Ensure That The Proper Depth Is Selected Based On The Manufacturer's Recomendations.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

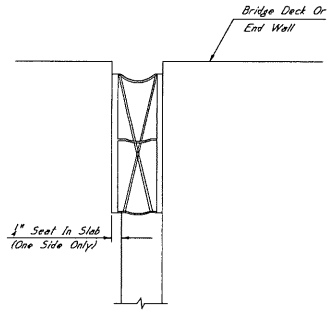
Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

EPOXY MORTAR AND POLYMER CONCRETE NOTES:

Either Epoxy Mortar Or Polymer Concrete May Be Used. Guidelines For Selection Of Materials Can Be Found In Section 808 of the Specifications.

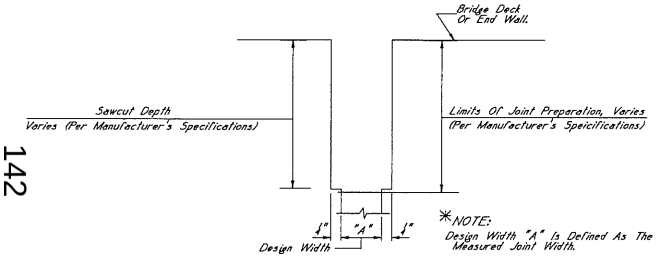
GENERAL NOTES:

1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.



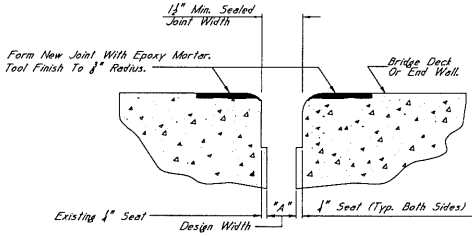
TYPICAL SECTION AT EXISTING JOINT

Showing Existing Expansion Device To Be Removed And Replaced With Preformed Joint Seal



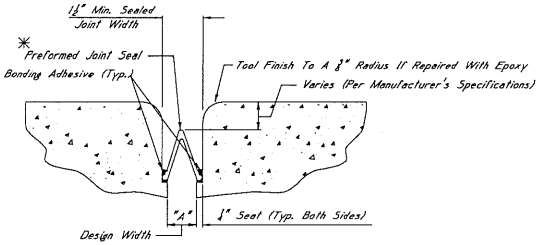
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials And Sawcut



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut, With Epoxy Mortar Or Approved Equivalent



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Epoxy Mortar

*NOTES:

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

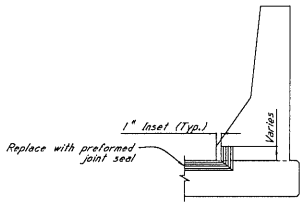
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By 551 Commercial & Highway Construction Materials
   www.sscm.com

2. For Estimating Purposes, The RJ Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturers. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2½". In Cases Where Design Widths Are Greater Than 2½, Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

907-808-A002 JOINT REPAIR

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation and Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work. Epoxy Mortar Shall Also Be Included Under This Item Of Work. Removal of Existing Silicone Sealed, Compression, And AC Sealed Joint Materials Will Not Be Paid For Directly And Shall Be Considered As Absorbed Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-808-A003 JOINT REPAIR WITHOUT EPOXY

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Removal Of Existing Silicone Sealed, Compression, And AC Sealed Joint Materials Shall Be Included Under This Item Of Work. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation and Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-823-B001 SAW CUT, TYPE I & 907-823-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint. It Is The Contractor's Responsibility To Ensure That The Proper Depth Is Selected Based On The Manufacturer's Recomendations.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

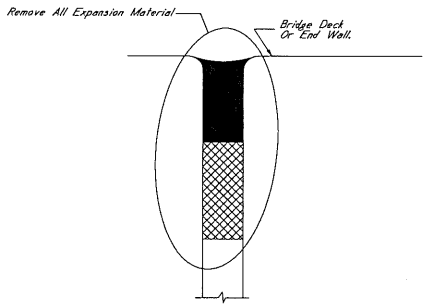
Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

EPOXY MORTAR AND POLYMER CONCRETE NOTES:

Either Epoxy Mortar Or Polymer Concrete May Be Used. Guidelines For Selection Of Materials Can Be Found In Section 808 of the Specifications.

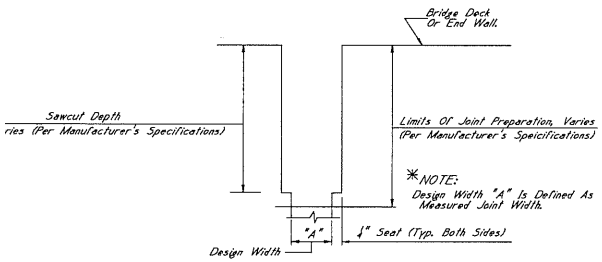
GENERAL NOTES:

1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.



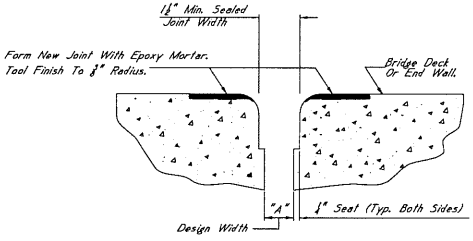
TYPICAL SECTION AT EXISTING JOINT

Showing Existing Expansion Material To Be Removed And Replaced With Preformed Joint Seal



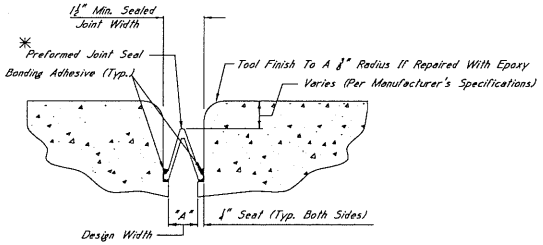
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials And Sawcut



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut, With Epoxy Morter Or Approved Equivalent



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Epoxy Mortar

*NOTES:

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

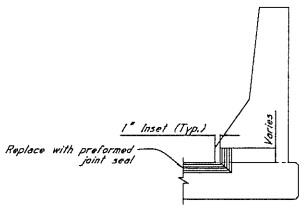
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbecorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The RJ Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturers. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The ½" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2½". In Cases Where Design Widths Are Greater Than 2½", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



*NOTES:

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3".
For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier is 6".

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

907-808-A002 JOINT REPAIR

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Epoxy Mortar Shall Also Be Included Under This Item Of Work. Removal Of Existing Silicone Sealed, Compression, And AC Sealed Joint Materials Will Not Be Paid For Directly And Shall Be Considered As Absorbed Under This Item Of Work. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation and Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-808-A003 JOINT REPAIR WITHOUT EPOXY

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Removal Of Existing Silicone Sealed, Compression, And AC Sealed Joint Materials Will Not Be Paid For Directly And Shall Be Considered As Absorbed Under This Item Of Work. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-823-B001 SAW CUT, TYPE I & 907-823-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint. It Is The Contractor's Responsibility To Ensure That The Proper Depth Is Selected Based On The Manufacturer's Recomendations.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

EPOXY MORTAR AND POLYMER CONCRETE NOTES:

Either Epoxy Mortar Or Polymer Concrete May Be Used. Guidelines For Selection Of Materials Can Be Found In Section 808 of the Specifications.

GENERAL NOTES:

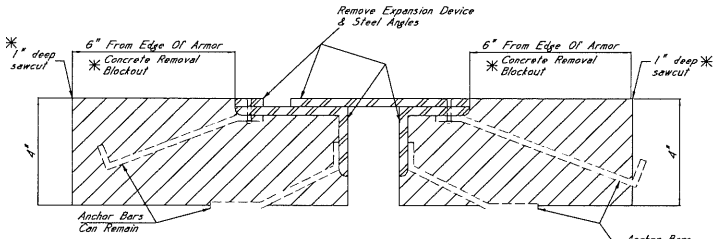
1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.

✳1" SAWCUT NOTES:

All 1" Sawcuts Shall Be Considered An Absorbed Item of Work. The Contractor Shall Verify Depth Of Reinforcing Steel Before Making Any Sawcuts. The Depth Of The Sawcut Shall Be No More Than The Depth Of The Reinforcing Steel. Any Damage To Reinforcing Steel Shall Be Repaired To The Satisfaction Of The Engineer At No Cost To The State.

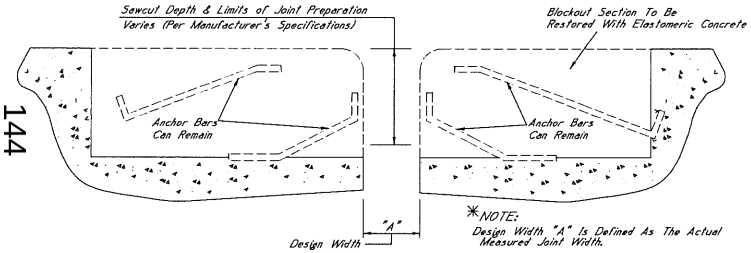
✳CONCRETE REMOVAL BLOCKOUT NOTES

Removal Of The Concrete Blockout Area Shall Be Considered An Absorbed Item Of Work Under Pay Item 202-B169. The Contractor Shall Use A Hammer No Larger Than 30 LBs To Complete This Work.



TYPICAL SECTION AT EXISTING JOINT

Showing Existing Expansion Device To Be Removed And Replaced With Preformed Joint Seal

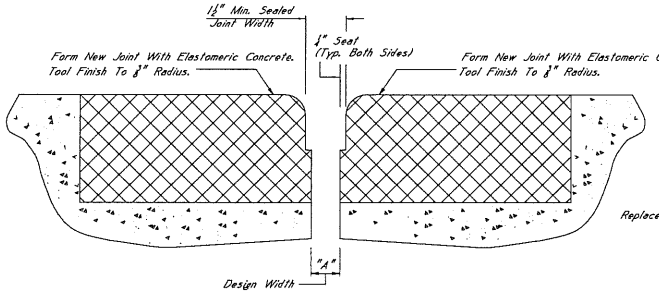


✳NOTE:

Design Width "A" Is Defined As The Actual Measured Joint Width.

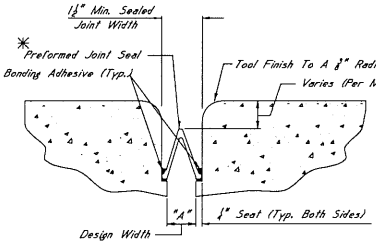
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut With Elastomeric Concrete



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

✳NOTES:

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

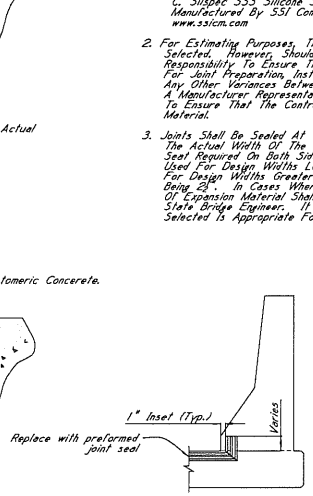
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By 551 Commercial & Highway Construction Materials
   www.sscm.com

2. For Estimating Purposes, The RJ Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturers. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 8". In Cases Where Design Widths Are Greater Than 8", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



✳NOTES:

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3". For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier is 6".

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

202-B169 REMOVAL OF EXISTING JOINT MATERIAL

Description: Shall Include The Removal Of Material Associated With Armor, Sliding Plate, And Neoprene Expansion Joints, As Designated In The Detail Drawings Provided. Removal of The Concrete Blockout Area Shall Be Absorbed Under This Item Of Work. Other Joint Types Shall Not Be Included Under This Item Of Work Unless Otherwise Directed By The Engineer. Removal of Joint Material And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work.

Basis Of Payment: Removal of Armor And Sliding Plate Joint Material Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint, While Removal Of Neoprene Joint Material Will Only Be Paid For As The Length Along The Centerline Of The Joint.

907-823-B001 SAW CUT, TYPE I & 907-823-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

ELASTOMERIC CONCRETE NOTES

907-824-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

Description: Elastomeric Concrete Shall Be One Of The Following Products, Installed According To The Manufacturer's Specifications:

A. Poly-Tron Elastomeric Concrete
Manufactured By R.J. Watson, Inc. In Alden, NY
www.rjwatson.com

B. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete Elastomeric Concrete
Manufactured By The D.S. Brown Company In North Baltimore, OH
www.dsbrown.com

Basis of Payment: The Accepted Quantities Will Be Paid For In Cubic Yards At The Contract Unit Price.

GENERAL NOTES:

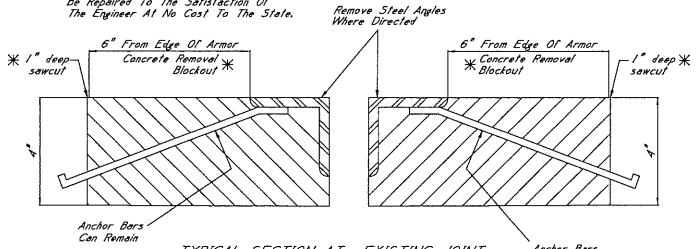
1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.

✳1" SAWCUT NOTES:

All 1" Sawcuts Shall Be Considered An Absorbed Item of Work. The Contractor Shall Verify Depth Of Reinforcing Steel Before Making Any Sawcuts. The Depth Of The Sawcut Shall Be No More Than The Depth Of The Reinforcing Steel. Any Damage To Reinforcing Steel Shall Be Repaired To The Satisfaction Of The Engineer At No Cost To The State.

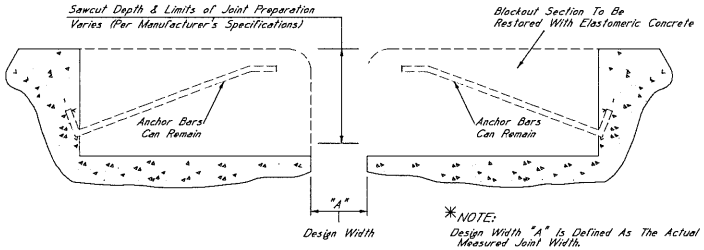
✳CONCRETE REMOVAL BLOCKOUT NOTES

Removal Of The Concrete Blockout Area Shall Be Considered An Absorbed Item Of Work Under Pay Item 202-B169. The Contractor Shall Use A Hammer No Larger Than 30 LBs To Complete This Work.



TYPICAL SECTION AT EXISTING JOINT

Showing Existing Expansion Device To Be Removed And Replaced With Preformed Joint Seal

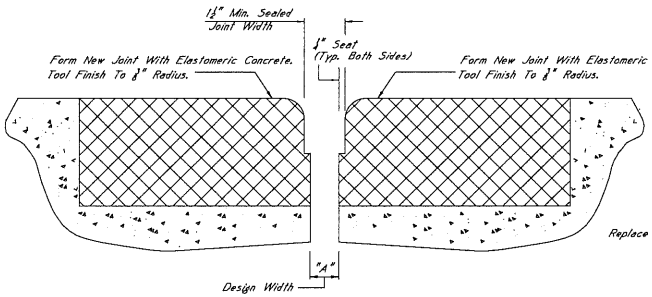


✳NOTE:

Design Width "A" Is Defined As The Actual Measured Joint Width.

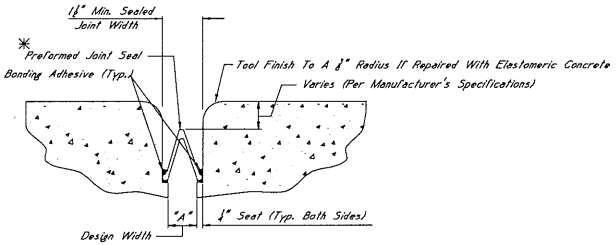
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut With Elastomeric Concrete



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

✳NOTES:

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

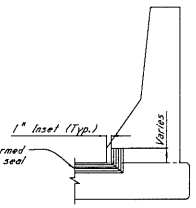
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The R.J. Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturers. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2½". In Cases Where Design Widths Are Greater Than 2½", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



✳NOTES:

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3". For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier is 6".

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

202-B169 REMOVAL OF EXISTING JOINT MATERIAL

Description: Shall Include The Removal Of Material Associated With Armor, Sliding Plate, And Neoprene Expansion Joints, As Designated In The Detail Drawings Provided. Removal of The Concrete Blockout Area Shall Be Absorbed Under This Item Of Work. Other Joint Types Shall Not Be Included Under This Item Of Work Unless Otherwise Directed By The Engineer. Removal of Joint Material And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work.

Basis Of Payment: Removal of Armor And Sliding Plate Joint Material Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint, While Removal Of Neoprene Joint Material Will Only Be Paid For As The Length Along The Centerline Of The Joint.

907-823-B001 SAW CUT, TYPE I & 907-823-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

ELASTOMERIC CONCRETE NOTES

907-824-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

Description: Elastomeric Concrete Shall Be One Of The Following Products, Installed According To The Manufacturer's Specifications:

A. Poly-Tren Elastomeric Concrete
Manufactured By R.J. Watson, Inc. In Alden, NY
www.rjwatson.com

B. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete Elastomeric Concrete
Manufactured By The D.S. Brown Company In North Baltimore, OH
www.dsbrown.com

Basis of Payment: The Accepted Quantities Will Be Paid For In Cubic Yards At The Contract Unit Price.

GENERAL NOTES:

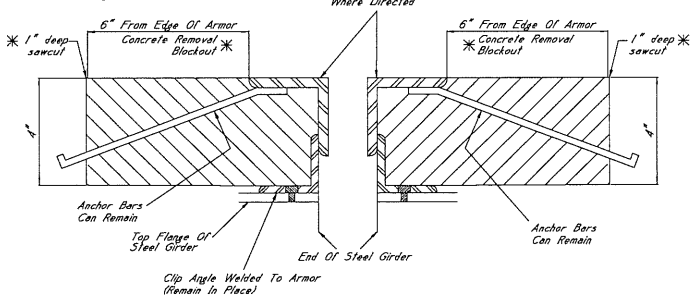
1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.

✳1" SAWCUT NOTES:

All 1" Sawcuts Shall Be Considered An Absorbed Item of Work. The Contractor Shall Verify Depth Of Reinforcing Steel Before Making Any Sawcuts. The Depth Of The Sawcut Shall Be No More Than The Depth Of The Reinforcing Steel. Any Damage To Reinforcing Steel Shall Be Repaired To The Satisfaction Of The Engineer At No Cost To The State.

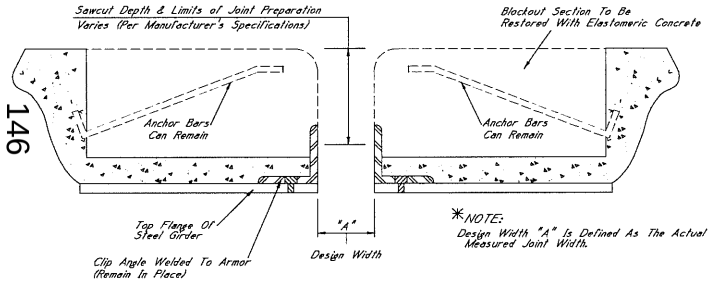
✳CONCRETE REMOVAL BLOCKOUT NOTES

Removal Of The Concrete Blockout Area Shall Be Considered An Absorbed Item Of Work Under Pay Item 202-B169. The Contractor Shall Use A Hammer No Larger Then 30 LBs To Complete This Work.



TYPICAL SECTION AT EXISTING JOINT

Showing Existing Expansion Device To Be Removed And Replaced With Preformed Joint Seal

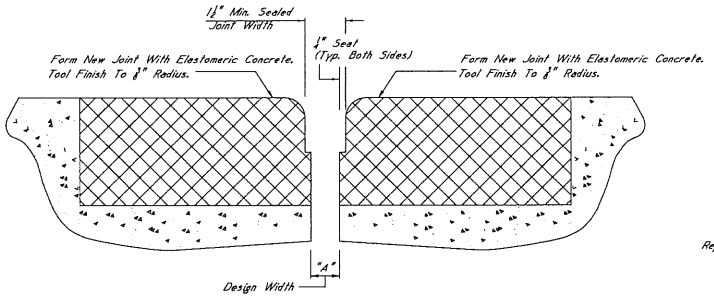


✳NOTE:

Design Width "A" Is Defined As The Actual Measured Joint Width.

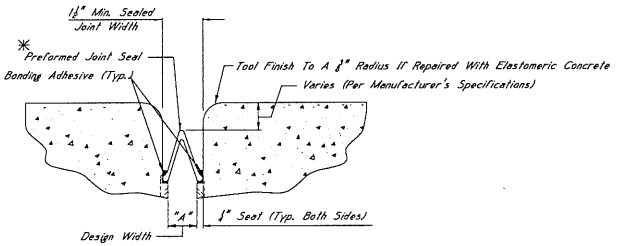
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut With Elastomeric Concrete



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

✳NOTES:

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

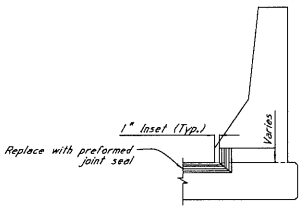
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SP5 Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By 551 Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The RJ Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturers. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2" With The Maximum Design Width Being 3". In Cases Where Design Widths Are Greater Than 3", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



✳NOTES:

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3". For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier is 6".

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

202-B169 REMOVAL OF EXISTING JOINT MATERIAL

Description: Shall Include The Removal Of Material Associated With Armor, Sliding Plate, And Neoprene Expansion Joints, As Designated In The Detail Drawings Provided. Removal of The Concrete Blockout Area Shall Be Absorbed Under This Item Of Work. Other Joint Types Shall Not Be Included Under This Item Of Work Unless Otherwise Directed By The Engineer. Removal of Joint Material And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work.

Basis Of Payment: Removal of Armor And Sliding Plate Joint Material Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint, While Removal Of Neoprene Joint Material Will Only Be Paid For As The Length Along The Centerline Of The Joint.

907-823-B001 SAW CUT, TYPE I & 907-823-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

ELASTOMERIC CONCRETE NOTES

907-824-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

Description: Elastomeric Concrete Shall Be One Of The Following Products, Installed According To The Manufacturer's Specifications:

A. Poly-Tron Elastomeric Concrete
Manufactured By R.J. Watson, Inc. In Alden, NY
www.rjwatson.com

B. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete Elastomeric Concrete
Manufactured By The D.S. Brown Company In North Baltimore, OH
www.dsbrown.com

Basis of Payment: The Accepted Quantities Will Be Paid For In Cubic Yards At The Contract Unit Price.

GENERAL NOTES:

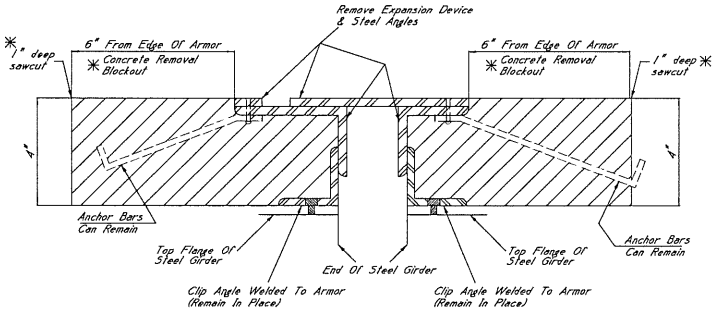
1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.

✳1" SAWCUT NOTES:

All 1" Sawcuts Shall Be Considered An Absorbed Item of Work. The Contractor Shall Verify Depth Of Reinforcing Steel Before Making Any Sawcuts. The Depth Of The Sawcut Shall Be No More Than The Depth Of The Reinforcing Steel. Any Damage To Reinforcing Steel Shall Be Repaired To The Satisfaction Of The Engineer At No Cost To The State.

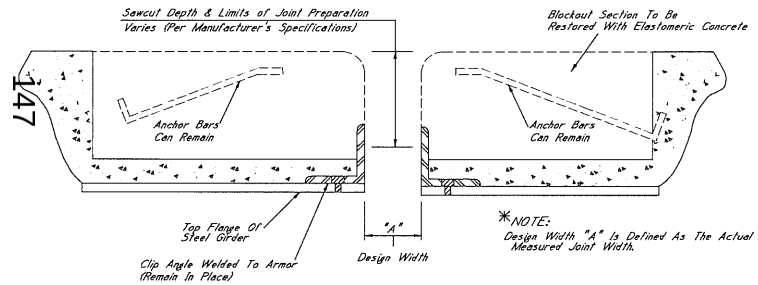
✳CONCRETE REMOVAL BLOCKOUT NOTES

Removal Of The Concrete Blockout Area Shall Be Considered An Absorbed Item Of Work Under Pay Item 202-B169. The Contractor Shall Use A Hammer No Larger Than 30 LBs To Complete This Work.



TYPICAL SECTION AT EXISTING JOINT

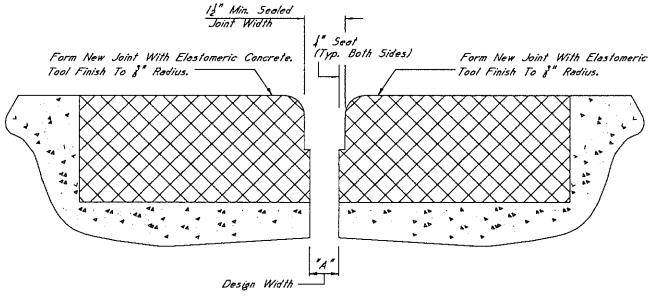
Showing Existing Expansion Device To Be Removed And Replaced With Preformed Joint Seal



✳NOTE:
Design Width "A" Is Defined As The Actual Measured Joint Width.

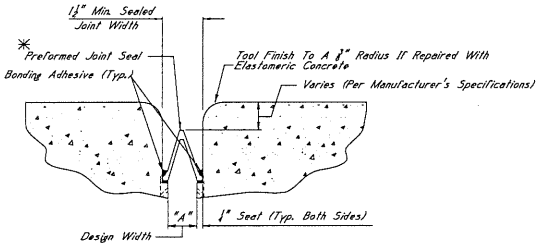
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut With Elastomeric Concrete



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

✳NOTES:

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

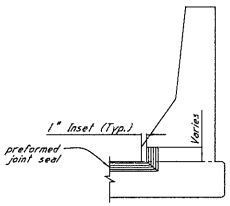
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SP5 Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec S.S.S Silicone Strip Seal
   Manufactured By S.S.I. Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The R.J. Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturers. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2". In Cases Where Design Widths Are Greater Than 2", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



✳NOTES:

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3". For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier is 6".

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

202-B169 REMOVAL OF EXISTING JOINT MATERIAL

Description: Shall Include The Removal Of Material Associated With Armor, Sliding Plate, And Neoprene Expansion Joints, As Designated In The Detail Drawings Provided. Removal of The Concrete Blockout Area Shall Be Absorbed Under This Item Of Work. Other Joint Types Shall Not Be Included Under This Item Of Work Unless Otherwise Directed By The Engineer. Removal of Joint Material And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work.

Basis Of Payment: Removal of Armor And Sliding Plate Joint Material Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint, While Removal Of Neoprene Joint Material Will Only Be Paid For As The Length Along The Centerline Of The Joint.

907-823-B001 SAW CUT, TYPE I & 907-823-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

ELASTOMERIC CONCRETE NOTES

907-824-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

Description: Elastomeric Concrete Shall Be One Of The Following Products, Installed According To The Manufacturer's Specifications:

A. Poly-Tron Elastomeric Concrete
Manufactured By R.J. Watson, Inc. In Alden, NY
www.rjwatson.com

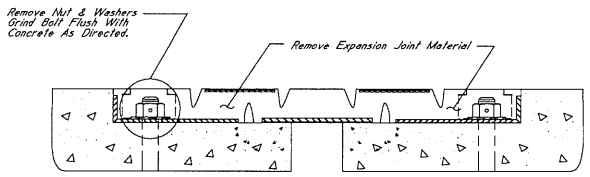
B. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete Elastomeric Concrete
Manufactured By The D.S. Brown Company In North Baltimore, OH
www.dsbrown.com

Basis of Payment: The Accepted Quantities Will Be Paid For In Cubic Yards At The Contract Unit Price.

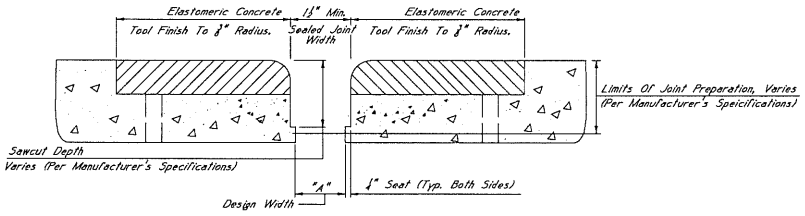
GENERAL NOTES:

1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.



TYPICAL SECTION AT EXISTING JOINT

Showing Existing Expansion Device To Be Removed And Replaced With Preformed Joint Seal

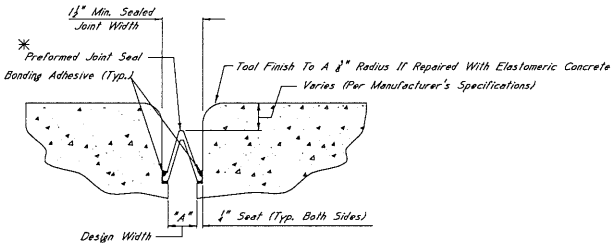


TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials

✳NOTE:

Design Width "A" Is Defined As The Actual Measured Joint Width.



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

✳NOTES:

1. *The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:*

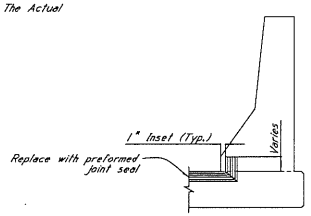
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By 551 Commercial & Highway Construction Materials
   www.sslcm.com

2. *For Estimating Purposes, The RJ Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturers. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.*

3. *Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The ½ Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2½". In Cases Where Design Widths Are Greater Than 2½", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.*



✳NOTES:

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3".
For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier is 6".

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

202-B169 REMOVAL OF EXISTING JOINT MATERIAL

Description: *Shall Include The Removal Of Material Associated With Armor, Sliding Plate, And Neoprene Expansion Joints, As Designated In The Detail Drawings Provided. Other Joint Types Shall Not Be Included Under This Item Of Work Unless Otherwise Directed By The Engineer. Removal of Joint Material And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work.*

Basis Of Payment: *Removal of Armor And Sliding Plate Joint Material Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint, While Removal Of Neoprene Joint Material Will Only Be Paid For As The Length Along The Centerline Of The Joint.*

907-823-B001 SAW CUT, TYPE I & 907-823-B002 SAW CUT, TYPE II

Description: *The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.*

Basis of Payment: *The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.*

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

Description: *Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal*

Basis Of Payment: *The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.*

ELASTOMERIC CONCRETE NOTES

907-824-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

Description: *Elastomeric Concrete Shall Be One Of The Following Products, Installed According To The Manufacturer's Specifications:*

A. Poly-Tron Elastomeric Concrete
Manufactured By R.J. Watson, Inc. In Alden, NY
www.rjwatson.com

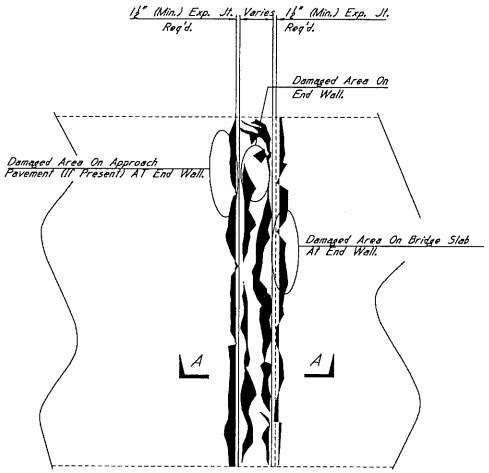
B. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete Elastomeric Concrete
Manufactured By The D.S. Brown Company In North Baltimore, OH
www.dsbrown.com

Basis of Payment: *The Accepted Quantities Will Be Paid For In Cubic Yards At The Contract Unit Price.*

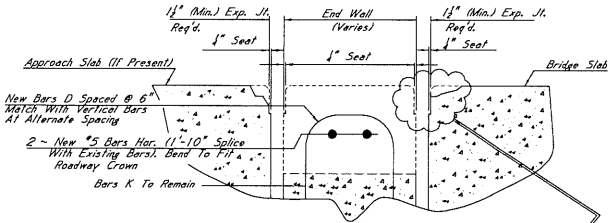
GENERAL NOTES:

1. *Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.*
2. *No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.*
3. *Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.*



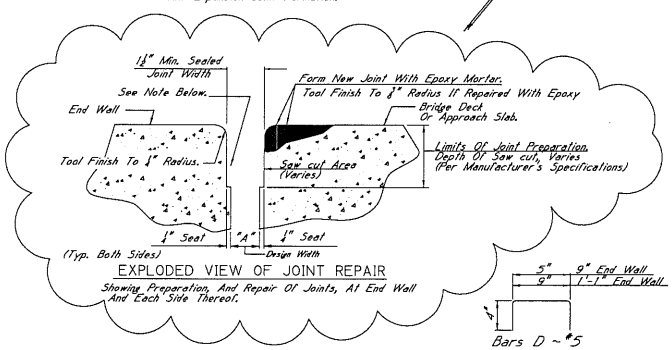
PLAN VIEW

Showing Existing Damaged Areas On And Around End Wall.



DETAIL "D"

Showing Repair Details Of End Wall, Reinforcing Steel, And Expansion Joint Formation.

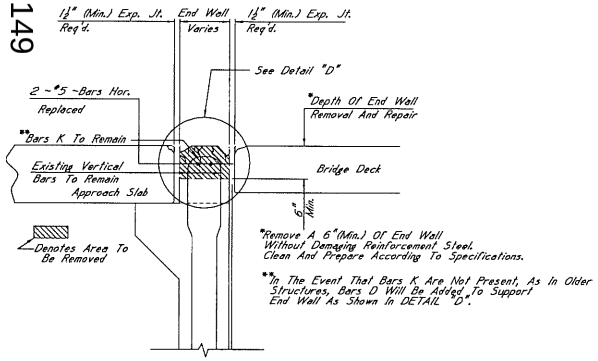


EXPLODED VIEW OF JOINT REPAIR

Showing Preparation, And Repair Of Joints, At End Wall And Each Side Thereof.

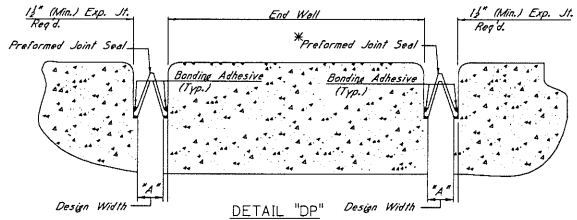
*NOTE:
Form Vertical Faces Of End Wall To Include ½" Seat Such That The Preformed Joint Seal May Be Applied Per Manufacturers's Specification. See Detail "DP" On This Sheet.

*NOTE:
Design Width "A" Is Defined As The Actual Measured Joint Width.



ELEVATION (SECTION A-A)

Showing Details Of Removal Of Damaged End Wall.



DETAIL "DP"

Showing Sealed Joint After Saw cut And Repair With Epoxy Mortar

*NOTES:

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc.
   www.rjwatson.com

   B. Wabo SP5 Joint System
   Manufactured By Watson Bowman Acme Corporation
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The R.J. Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturers. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The ½" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2½". In Cases Where Design Widths Are Greater Than 2½", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.

NOTES ON ASSOCIATED ITEMS OF WORK:

907-824-PP008 BRIDGE REPAIR, ENDWALL REPAIR

Description: Shall Include The Work Necessary To Remove And Replace The Damaged Endwall, As Designated In The Detail Drawings Provided. Instead Of Limiting The Repair To The Damaged Section, The Specified Depth Of Endwall Shall Be Removed Along The Entire Width Of The Bridge Deck.

Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Width Of The Bridge Deck.

Damage Caused To Other Elements Of The Structure Or Roadway While Completing This Item Of Work Shall Be Repaired By The Contractor At No Cost To The Department.

Prior To Placing New Concrete, All Concrete Surfaces That Will Be In Contact With The New Concrete Shall Be Painted With An Approved Epoxy Binder Designed To Bond New Concrete To Old.

New Concrete Shall Be High Early Strength Bridge Concrete, As Follows:

The concrete mixture design shall be furnished by the Contractor for approval by the Materials Division. Mixture design parameters are as follows:

Required Strength:	2500 psi prior to releasing to traffic
Total Air Content:	3-6 %
Maximum Slump:	6 inches

Non-chloride based accelerator may be used if the ambient temperature is 50°F or less, but shall not be used if the ambient temperature is greater than 50°F.

Synthetic structural fibers shall be used. The Contractor shall select a manufacturer from MDOT's Approved Products List, and the manufacturer's recommendations shall be followed for the dosage rate.

Curing is to be continuous until 2500 psi is attained. Traffic is to be diverted from the repair area until this value is reached. The Contractor may use the Maturity Method per Section 907-804 to estimate the concrete compressive strength for the purposes of releasing the repair area to traffic. However, final acceptance of the in-place concrete shall be determined using eight concrete test cylinders, which shall be cured in a container next to the concrete placement. Two cylinders are to be tested at 8, 16, and 24 hour intervals. The two remaining cylinders shall be used to determine the 28-day compressive strength of the concrete.

The Removal Of Existing Expansion Material May Require Any Number Of The Pay Items Listed Below. Once The Expansion Device Is Identified, Refer To The Corresponding Joint Repair Detail Sheet For Additional Details On The Associated Items Of Work.

202-B169	REMOVAL OF EXISTING JOINT MATERIAL
907-808-A002	JOINT REPAIR
907-808-A003	JOINT REPAIR WITHOUT EPOXY
907-823-B001	SAW CUT, TYPE I
907-823-B002	SAW CUT, TYPE II
907-823-A001	PREFORMED JOINT SEAL, TYPE I
907-823-A002	PREFORMED JOINT SEAL, TYPE II

GENERAL NOTES:

1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Or Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.

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.

I (We) acknowledge that this proposal will be found irregular and/or non-responsive unless a certified check, cashier's check, or Proposal Guaranty Bond in the amount as required in the Advertisement (or, by law) is submitted electronically with the proposal or is delivered to the Contract Administration Engineer prior to the bid opening time specified in the advertisement.

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.

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) shall submit electronically with our proposal or deliver prior to the bid opening time 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.

SECTION 905 -- PROPOSAL (CONTINUED)

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

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.

Bridge Repair on I-20/59 over SR 145/22nd Ave. (Bridge No. 153.0B), known as State Project No. SP-0059-03(103) / 109488301 in Lauderdale County.

Line no.	Item Code	Adj Code	Quantity	Units	Description[Fixed Unit Price]
				Roadway Items	
0010	618-A001		1	Lump Sum	Maintenance of Traffic
0020	619-A1007		210	Linear Feet	Temporary Traffic Stripe, Continuous White, Type 1 or 2 Tape
0030	619-A2008		210	Linear Feet	Temporary Traffic Stripe, Continuous Yellow, Type 1 or 2 Tape
0040	619-D1001		48	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet
0050	619-D2001		120	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More
0060	619-E1001		1	Each	Flashing Arrow Panel, Type C
0070	619-F1001		310	Linear Feet	Concrete Median Barrier, Precast
0080	619-F2001		310	Linear Feet	Remove and Reset Concrete Median Barrier, Precast
0090	619-G4005		90	Linear Feet	Barricades, Type III, Single Faced
0100	619-G5001		29	Each	Free Standing Plastic Drums
0110	619-G7001		4	Each	Warning Lights, Type "B"
0120	619-G8001		7	Each	Warning Lights, Type "C"
0130	620-A001		1	Lump Sum	Mobilization
0140	627-K001		6	Each	Red-Clear Reflective High Performance Raised Markers
0150	907-619-E3001		4	Each	Changeable Message Sign
				Bridge Items	
0160	907-808-A002	(S)	198	Linear Feet	Joint Repair
0170	907-823-A001		99	Linear Feet	Preformed Joint Seal, Type I
0180	907-824-PP003		56	Square Feet	Bridge Repair, Removal and Replacement of Bridge Deck

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.

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) agree to complete each contract on or before its specified completion date.

* *

COMBINATION BID PROPOSAL

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).

	Project No.	County		Project No.	County
1.	______________	______________	6.	______________	______________
2.	______________	______________	7.	______________	______________
3.	______________	______________	8.	______________	______________
4.	______________	______________	9.	______________	______________
5.	______________	______________	10.	______________	______________

(a) If Combination A has been selected, your Combination Bid is complete.

(b) If Combination B has been selected, then complete the following page.

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. _____	_____	_____	_____	_____	

Project Number	Pay Item Number	Unit	Unit Price Reduction	Total Item Reduction	Total Contract Reduction
9. _____	_____ _____	_____ _____	_____ _____	_____ _____	
10. _____	_____ _____	_____ _____	_____ _____	_____ _____	

(c) If Combination C has been selected, then initial and complete ONE of the following.

_____ 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.

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 September 8, 2011.

I (we) agree that this notification of intent DOES NOT constitute APPROVAL of the subcontracts.

(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 September 8, 2011.

Contractor _____

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

CERTIFICATION

I,_____,
(Name of person signing bid)

individually, and in my capacity as_____ of
(Title of person signing bid)

_____
(Name of Firm, partnership, or Corporation)

do hereby certify under 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. **SP-0059-03(103)/ 109488301000**

in **Lauderdale** 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.

Do exceptions exist and are made a part thereof? Yes / No

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 is true and correct.

(1/2016 S)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

CERTIFICATION

I,_____,
(Name of person signing bid)

individually, and in my capacity as_____ of
(Title of person signing bid)

_____
(Name of Firm, partnership, or Corporation)

do hereby certify under 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. **SP-0059-03(103)/ 109488301000**

in **Lauderdale** 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.

Do exceptions exist and are made a part thereof? Yes / No

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 is true and correct.

(1/2016 S)

SECTION 902

CONTRACT FOR _____
LOCATED IN THE COUNTY(IES) OF _____

STATE OF MISSISSIPPI
COUNTY OF HINDS

This Contract is entered into by and between the Mississippi Transportation Commission (the "Commission") and the undersigned contractor (the "Contractor"), as follows:

As consideration for this Contract, the Commission agrees to pay the Contractor the amount(s) set out in the Proposal attached hereto. Said payment will be made in the manner and at the time(s) specified in the Specifications and/or Special Provisions, if any. In exchange for said consideration, the Contractor hereby agrees to accept the prices stated in the Proposal as full compensation for the furnishing of all labor, materials and equipment, and the execution of the scope of work identified for this referenced Project as contemplated in this Contract, and as more fully outlined in the Contract Documents (the "Work"). The Contract Documents consist of the Advertisement, the Notice to Bidders, the Proposal, the Specifications, the Special Provisions, and the approved Plans, all of which are hereby made a part of this Contract and incorporated herein by reference.

The Contractor shall be responsible for all loss or damage arising out of, or in any way in connection with the Work, or from any unforeseen obstructions or difficulties that may be encountered in the prosecution of the Work, and for all risks of every description connected with the Work, with the exception of any items specifically excluded in the Contract Documents. The Contractor shall fully and faithfully complete the Work in a good and workmanlike manner, according to the Contract Documents and any Supplemental Agreements thereto.

The Contractor further agrees that the Work shall be done under the direct supervision of, and to the complete satisfaction of, the Executive Director of the Mississippi Department of Transportation, or his authorized representative(s), and, when federal funds are involved, subject to the inspection and approval of the Federal Highway Administration, or its agents, and/or the agents of any other state or federal agency whose funds are involved. Further, the Work shall be done in accordance with any applicable state and federal laws, and any such rules and regulations issued by the Commission and/or any relevant Federal Agency.

The Contractor agrees that all labor as outlined in the Contract Documents may be secured from a list furnished by the Manager of the Win Job Center nearest the project location, or any successor thereto.

It is agreed and understood that each and every provision of law and clause required by law to be inserted into this Contract shall be deemed to be inserted herein, and this Contract shall be read and enforced as though it were included herein. If through mere mistake or otherwise, any such provision is not inserted, then upon the application of either party hereto, the Contract shall be physically amended to make such insertion.

The Contractor agrees that he has read each and every clause of the Contract Documents, and fully understands the meaning of same, and hereby acknowledges that he will comply with all terms, covenants and agreements therein.

Witness our signatures, this the _____ day of _____, 20___.

_____
Contractor

By: _____
Title: _____

_____
Signed and sealed in the presence of: (name and address of witness)

_____
_____

MISSISSIPPI TRANSPORTATION COMMISSION

_____
Executive Director

_____
Secretary to the Commission

Award authorized by the Mississippi Transportation Commission in session on the ____ day of _____, _____, Minute Book No._____, Page No. _____.

SECTION 903
PERFORMANCE BOND

PERFORMANCE BOND FOR THE FOLLOWING CONTRACT:
Project No.: _____

For the construction of: _____

Contract date: _____ Contract amount: _____

FOR OWNER: MISSISSIPPI TRANSPORTATION COMMISSION, 401 N. WEST STREET, JACKSON, MISSISSIPPI 39201.

CONTRACTOR (full legal name, contact person, phone number and address):
_____
_____
_____
_____

SURETY (legal name, phone number, principal place of business and address ***for notice purposes***):
_____
_____
_____

Second Surety (if applicable):
_____
_____
_____

The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns, to the Owner for the performance of the Contract, which is incorporated herein by reference, and subject to the following terms:

1. If the Contractor fully and faithfully performs the Contract, the Surety and the Contractor shall have no obligation under this Bond.

2. The Surety's obligation under this Bond shall arise after:
   (a) the Owner first provides notice to the Contractor and the Surety that termination is imminent, pursuant to the current edition of the Mississippi Standard Specifications for Road and Bridge Construction, which is a part of the Contract; and
   (b) the Owner declares a Contractor Default, terminates the Contract, and notifies the Surety.

3. The Surety shall promptly and at the Surety's expense, take one of the following actions:
   (a) Arrange for the Contractor, with the consent of the Owner, to perform and complete the Contract; or
   (b) Undertake to perform and complete the Contract itself, through its agents or independent contractors.

4. If the Surety does not proceed as provided in Paragraph 3, within 20 calendar days as set forth in Section 108.08 of the current edition of the Mississippi Standard Specifications for Road and Bridge Construction, then the Surety shall be deemed to be in default on this Bond, and the Owner shall be entitled to enforce any remedy available to it under the Contract and applicable law.

5. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

(a) the responsibilities of the Contractor for correction of defective work and completion of the Contract;
(b) additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 3; and
(c) liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.

6. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.

7. The penal sum of the Bond shall be subject to increase or decrease based on any subsequent Supplemental Agreements and/or final contract quantities.

8. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address listed for notice purposes on the first page of this Bond.

CONTRACTOR AS PRINCIPAL
Company: _____

Signature: _____
Name: _____
Title: _____
Address: _____
_____

SURETY
Company: _____

Signature: _____ MS Insurance ID # _____
Name: _____
Title: _____
Address: _____
_____

SURETY (if applicable)
Company: _____

Signature: _____ MS Insurance ID # _____
Name: _____
Title: _____
Address: _____
_____

SECTION 903
PAYMENT BOND

PAYMENT BOND FOR THE FOLLOWING CONTRACT:
Project No.: _____

For the construction of: _____

Contract date: _____ Contract amount: _____

FOR OWNER: MISSISSIPPI TRANSPORTATION COMMISSION, 401 N. WEST STREET, JACKSON, MISSISSIPPI 39201.

CONTRACTOR (full legal name, contact person, phone number and address):
_____
_____
_____

SURETY (legal name, phone number, principal place of business and address ***for notice purposes***):
_____
_____
_____

Second Surety (if applicable):
_____
_____
_____

The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns, to the Owner for payment of labor, materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference, subject to the following terms:

1. If the Contractor promptly makes payment of all sums due to any and all subcontractors, suppliers and/or laborers, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Contract, then the Surety and the Contractor shall have no obligation under this Bond.

2. The Owner shall provide notice to the Surety of any claims, demands, liens or suits against the Owner or the Owner's property that it receives from any person or entity ("Claimants") seeking payment for labor, materials or equipment furnished for use in the performance of the Contract.

3. Upon notice of any claims, demands, liens or suits provided by the Owner or Contractor or given to the Surety by a Claimant, the Surety shall promptly and at the Surety's expense, defend, indemnify and hold harmless the Owner against said claim, demand, lien or suit and shall take the following additional actions:
   (a) Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
   (b) Pay or arrange for payment of any undisputed amounts.

4. The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have no obligation under this Bond to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

5. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.

6. The penal sum of the Bond shall be subject to increase or decrease based on any subsequent Supplemental Agreements and/or final contract quantities.

CONTRACTOR AS PRINCIPAL
Company: _____

Signature: _____
Name: _____
Title: _____
Address: _____
_____

SURETY
Company: _____

Signature:_____ MS Insurance ID # _____
Name: _____
Title: _____
Address: _____
_____

SURETY (if applicable)
Company: _____

Signature:_____ MS Insurance ID # _____
Name: _____
Title: _____
Address: _____
_____

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 **Bridge Repair on I-20/59 over SR 145/22nd Ave. (Bridge No. 153.0B), known as State Project No. SP-0059-03(103) / 109488301 in Lauderdale 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)

_____ By:_____
(Witness) (Name) (Title)

_____
(Surety) (Seal)

_____ By:_____
(Witness) (Attorney-in-Fact)

_____
(MS Agent)

_____
Mississippi Insurance ID Number