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21 -



SM No. CMP6000343011

PROPOSAL AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

21

Ultra Thin Overlay approximately 25 miles on SR 533 from SR 28 North to the Jasper County Line, SR 537 from Buck Temple Road North to Mayfield Drive, SR 588 from the Covington County Line East to SR 29, & SR 590 from 0.35 miles West of Leaf River Relief Bridge East to I-59, known as State Project No. MP-6000-34(301) / 306698301 in Jones County.

Project Completion: Flexible

(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
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OF SECTION 905 AS ADDENDA)

05/01/2019 10:57 AM

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 901 - ADVERTISEMENT

Electronic bids will be received by the Mississippi Transportation Commission at 10:00 o'clock A.M., Wednesday, May 29, 2019, from the Bid Express Service and shortly thereafter publicly read on the Sixth Floor for:

Ultra Thin Overlay approximately 25 miles on SR 533 from SR 28 North to the Jasper County Line, SR 537 from Buck Temple Road North to Mayfield Drive, SR 588 from the Covington County Line East to SR 29, & SR 590 from 0.35 miles West of Leaf River Relief Bridge East to I-59, known as State Project No. MP-6000-34(301) / 306698301 in Jones County.

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

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

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

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 <http://shopmdot.ms.gov> 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.

MELINDA L. MCGRATH
EXECUTIVE DIRECTOR

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_wgths/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

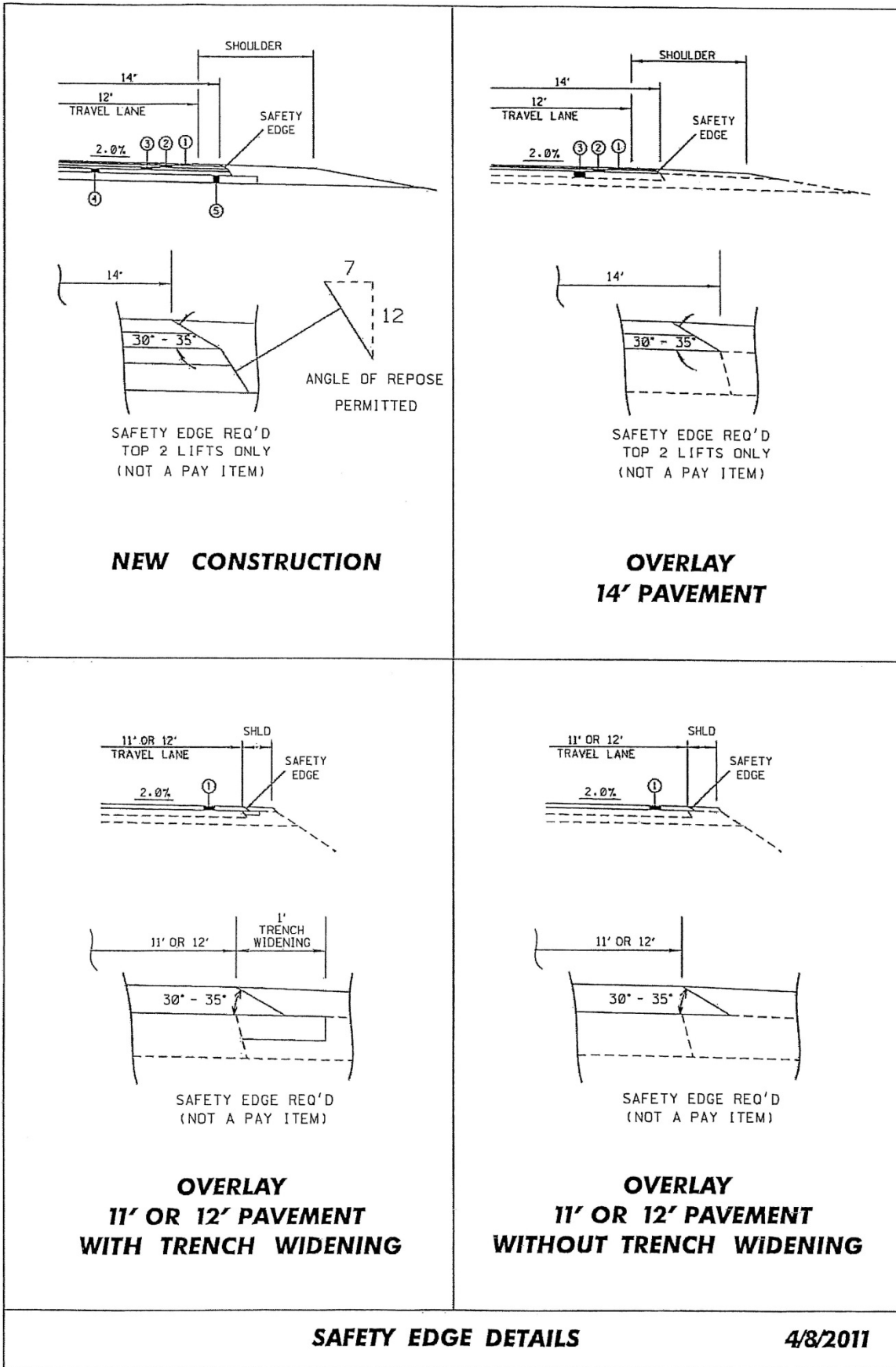
SECTION 904 - NOTICE TO BIDDERS NO. 13

CODE: (IS)

DATE: 03/01/2017

SUBJECT: Safety Edge

Bidders are hereby advised that the Shoulder Wedge (Safety Edge) specified in Section 401, Asphalt Pavements, shall only apply to the top two (2) lifts of asphalt. Open Graded Friction Courses (OGFC) are not to be considered a lift as it pertains to safety edge. Attached is a drawing showing the safety edge. Note that the shoulder dimensions in the bottom two drawings will be less than three feet (3').



MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 113

CODE: (SP)

DATE: 04/18/2017

SUBJECT: Tack Coat

Bidders are advised that in addition to the products listed on the Department's APL as referenced in Subsection 401.03.1.2 on page 256, the Contractor may use one of the following as a tack coat.

- CSS-1
- CSS-1h
- SS-1
- SS-1h

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. 401

CODE: (SP)

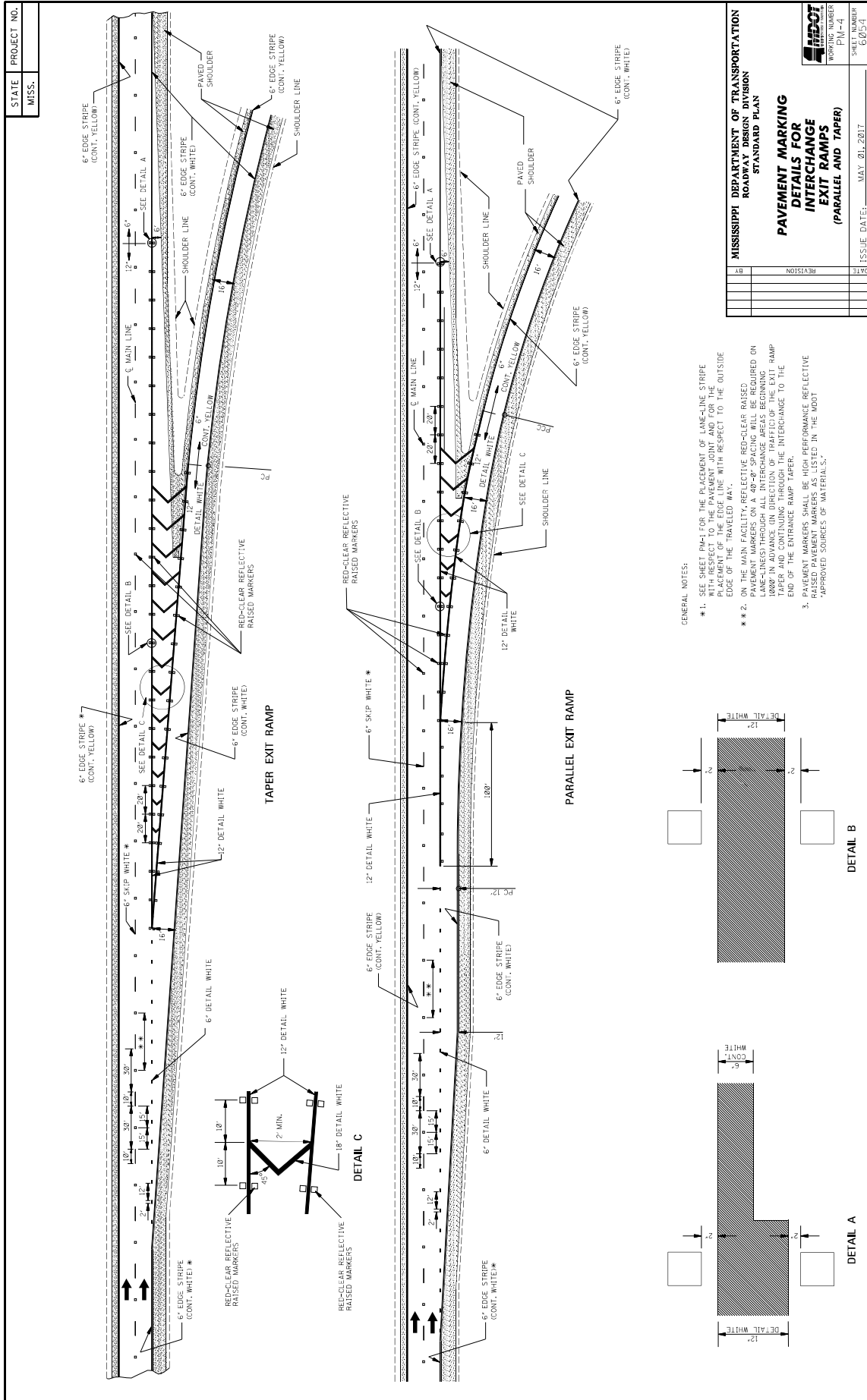
DATE: 09/12/2017

SUBJECT: Standard Drawings

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

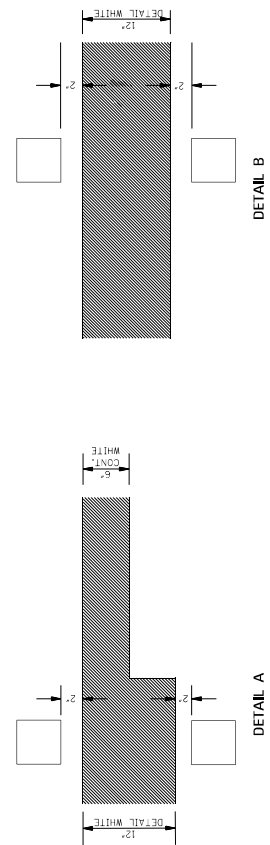
Larger copies of Standard Drawings may be purchased from:

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 PROJECT NO. MISS. | |
| MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN | |
| PAVEMENT MARKING DETAILS FOR INTERCHANGE EXIT RAMP (PARALLEL AND TAPER) | |
| WORKING NUMBER PM-4 | SHEET NUMBER 602/5-1 |
| ISSUE DATE: MAY 01, 2017 | |

- 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 STRIPE WITH RESPECT TO THE EDGE OF THE PAVED SHOULDER.
 - ** 2. EDGE OF MAIN EXISTING REFLECTIVE ROADWAYS RASSES PAVEMENT MARKERS ON A 40'-50' 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. RAISED PAVEMENT MARKERS BE HIGH PERFORMANCE REFLECTIVE 'APPROVED SOURCES OF MATERIALS.'



| | | | | | | | | | |
|----------------|-------------|--|--|--|--|--|--|--|--|
| STATE MISS. | PROJECT NO. | | | | | | | | |
|----------------|-------------|--|--|--|--|--|--|--|--|

GENERAL NOTES:

- TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTIONS) OF 1/2" LESS THAN THE STRETCHING LETTERS SHALL BE SHOWN IN THE LETTERS.
- FOR OTHER DETAILS, SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:

| LEGEND | AREA (FT ²) |
|--------|-------------------------|
| STOP | 24.6 |
| RIGHT | 28.6 |
| LEFT | 19.5 |
| TRUCK | 22.2 |
| HEAD | 32.3 |
| YIELD | 26.8 |
| EXIT | 18.5 |
| SIGNAL | 32.5 |
| SCHOOL | 35.5 |

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN**

**PAVEMENT MARKING
LEGEND DETAILS**

| | |
|------|----------|
| DATE | REVISION |
| | |
| | |
| | |
| | |

ISSUE DATE: MAY 01, 2017
SHEET NUMBER: PM-5
WORKING NUMBER: 60355

| | | |
|----------------|-------------|--|
| STATE MISS. | PROJECT NO. | |
|----------------|-------------|--|

TURN ARROW

THRU ARROW

LANE-REDUCTION ARROW

COMBINATION ARROW

ONLY

YIELD LINE

1-WAY ARROW

GENERAL NOTES:

- TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTORS OF 1/16" OR LESS AND EXTENDING THE FULL WIDTH) ARE PERMITTED IN EACH LETTER.
- FOR OTHER DETAILS, SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- DIMENSIONS OF THE YIELD LINE MAY VARY WITH APPROVAL OF THE ENGINEER. SEE MUTCD, LATEST EDITION, FOR ALLOWABLE DIMENSIONS.
- PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:

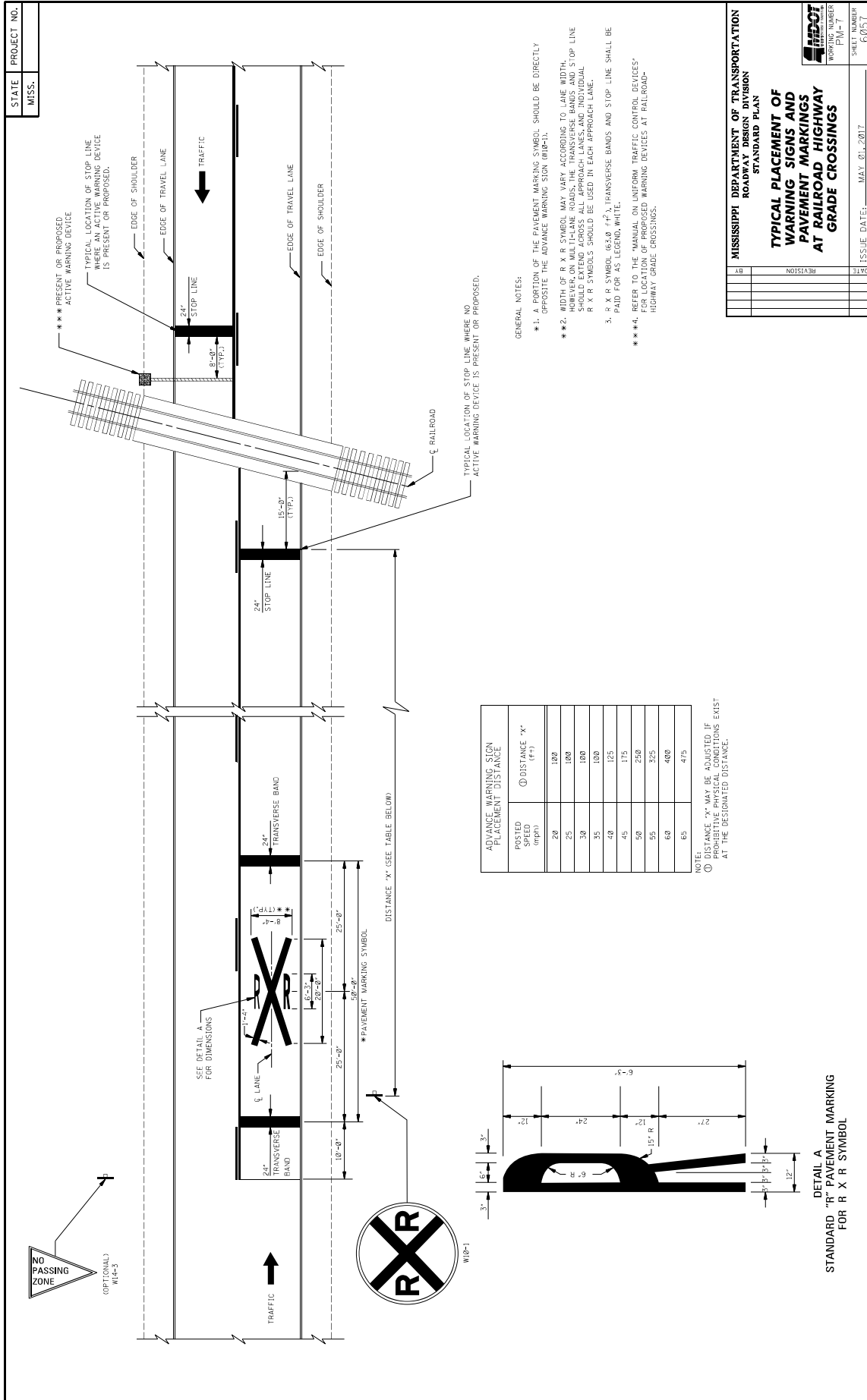
| PAY QUANTITIES | |
|----------------------|-------------------------|
| LEGEND/SYMBOL | AREA (FT ²) |
| ONLY | 22.0 |
| TURN ARROW | 16.4 |
| THRU ARROW | 12.3 |
| COMB. ARROW | 27.5 |
| 1-WAY ARROW | 24.3 |
| LANE REDUCTION ARROW | 40.0 |

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

PAVEMENT MARKING LEGEND DETAILS

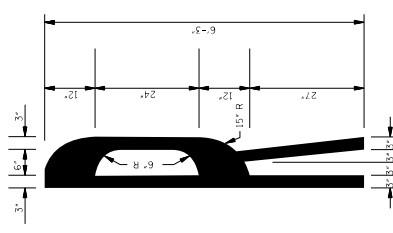
WORKING NUMBER: PM-6
SHEET NUMBER: 60/56

ISSUE DATE: MAY 01, 2017



| POSTED SPEED (mph) | ADVANCE WARNING SIGN PLACEMENT DISTANCE (ft) |
|--------------------|--|
| 20 | 100 |
| 25 | 100 |
| 30 | 100 |
| 35 | 100 |
| 40 | 125 |
| 45 | 175 |
| 50 | 250 |
| 55 | 325 |
| 60 | 400 |
| 65 | 475 |

NOTE: DISTANCE "X" MAY BE SHORTER IF PROTECTIVE PHYSICAL CONDITIONS EXIST AT THE DESIGNATED DISTANCE.



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

- 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. SYMBOL SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.
 - 3. R X R SYMBOL (63.8 #1) 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 RAILROAD-HIGHWAY GRADE CROSSINGS.

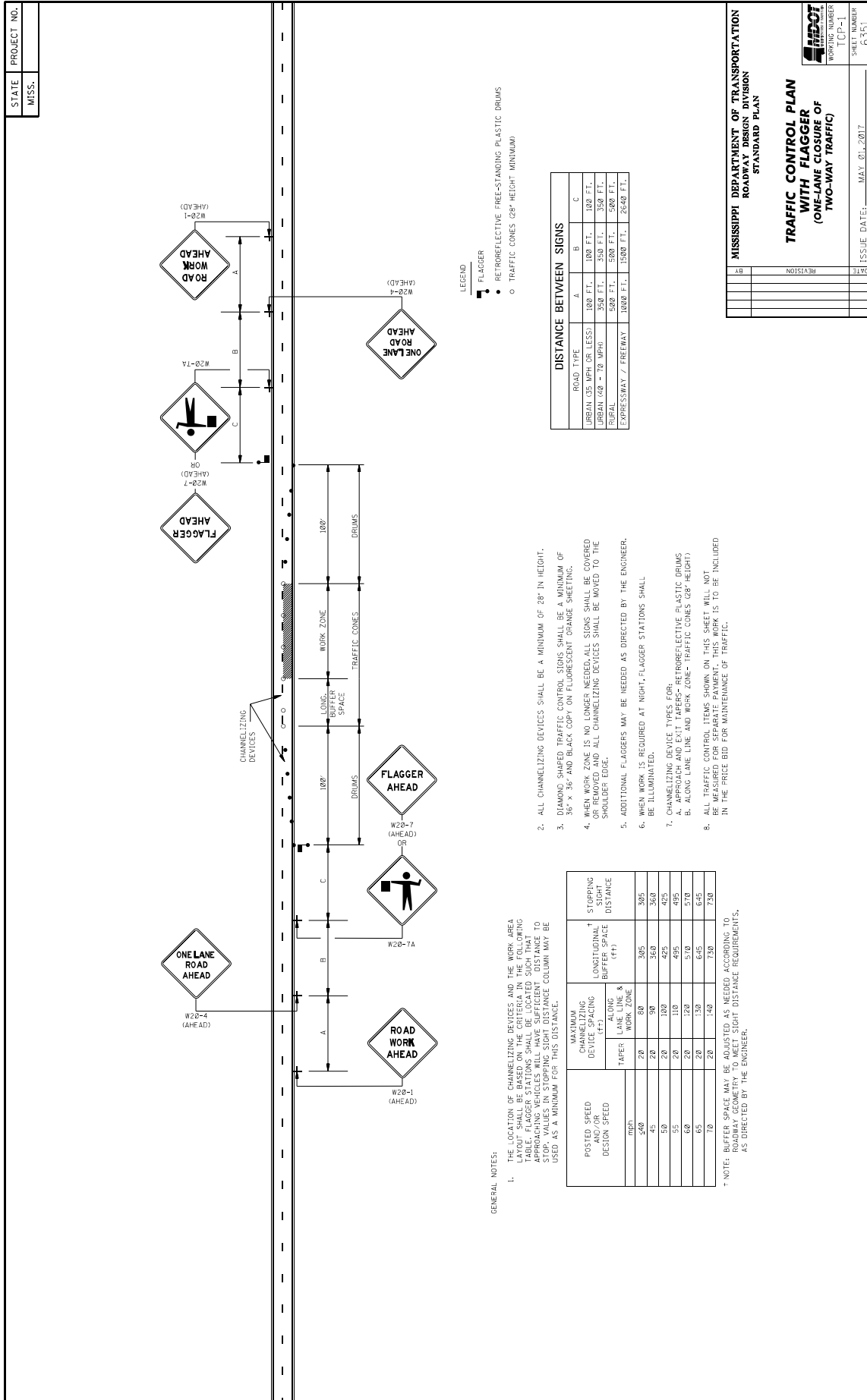
STATE PROJECT NO.
MISS.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

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

WORKING NUMBER: P10-1
SHEET NUMBER: 6031

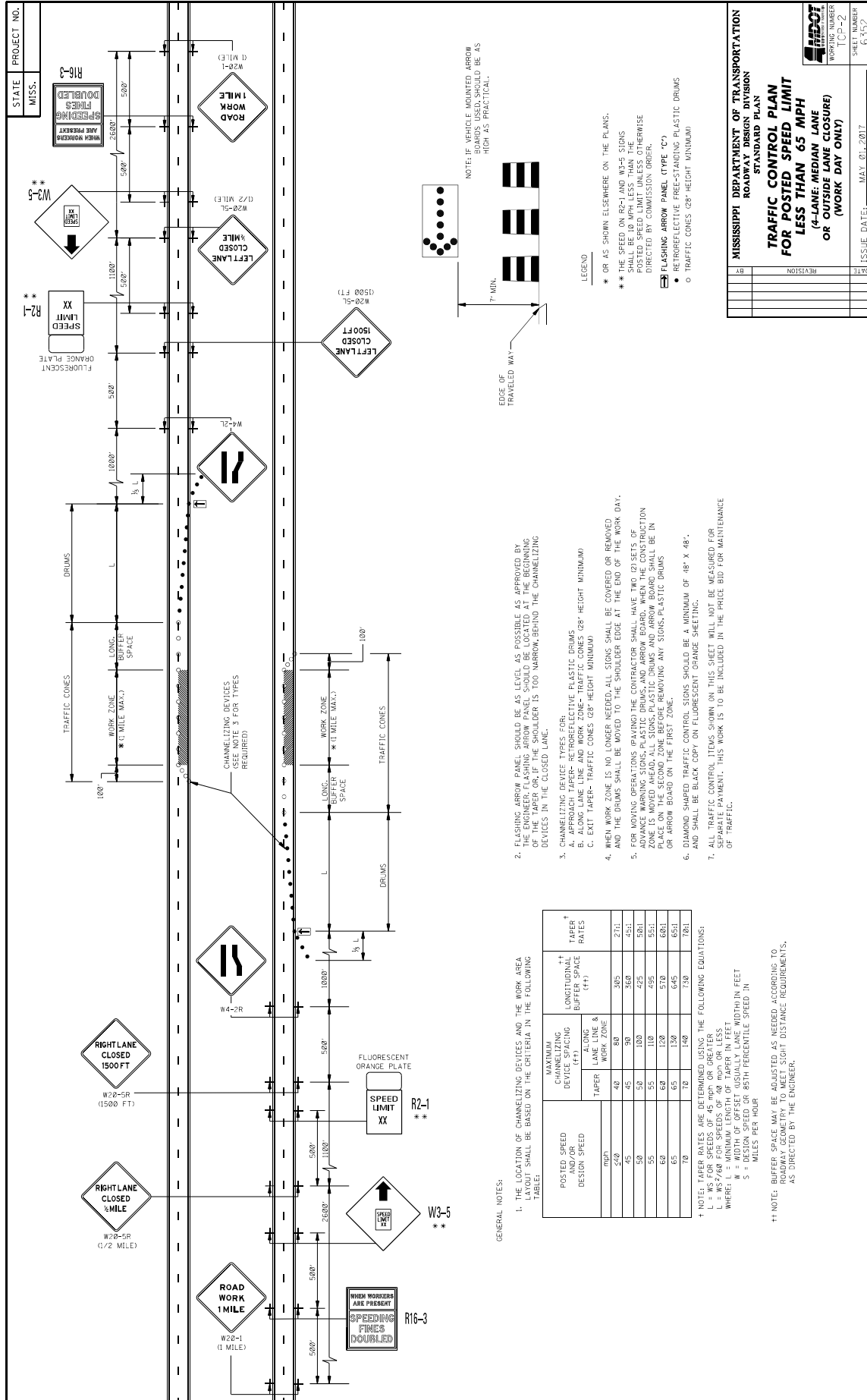
ISSUE DATE: MAY 01, 2017



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

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

WORKING NUMBER: [CP-1]
 SHEET NUMBER: 6351
 ISSUE DATE: MAY 01, 2017



STATE PROJECT NO.
MISS. R16-3

W20-1 (1 MILE)
ROAD WORK 1 MILE

W20-5L (1/2 MILE)
LEFT LANE CLOSED 1/2 MILE

W20-5R (1500 FT)
RIGHT LANE CLOSED 1500 FT

W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

W4-2L

W4-2R

W20-1R (1500 FT)
RIGHT LANE CLOSED 1500 FT

W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

W20-1 (1 MILE)
ROAD WORK 1 MILE

WHEN WORKERS ARE PRESENT
SPEEDING FINES DOUBLED

R16-3

W20-1 (1500 FT)
RIGHT LANE CLOSED 1500 FT

W20-5R (1500 FT)
RIGHT LANE CLOSED 1500 FT

R2-1
SPEED LIMIT XX
FLUORESCENT ORANGE PLATE

W3-5
SPEED LIMIT XX

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)
OR (WORK DAY ONLY)

ISSUE DATE: MAY 01, 2017

WORKING NUMBER
TCP-2

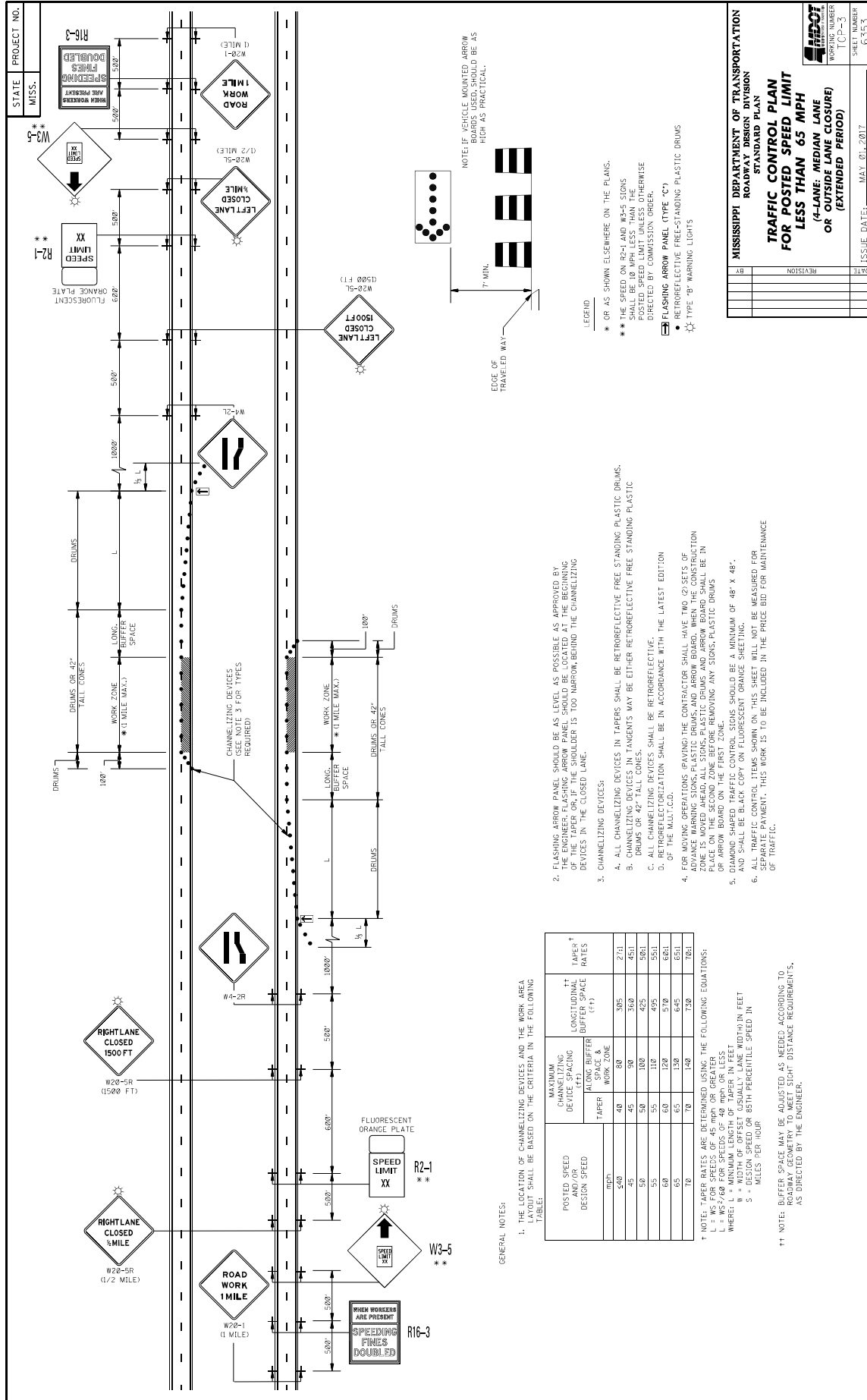
SHEET NUMBER
6352

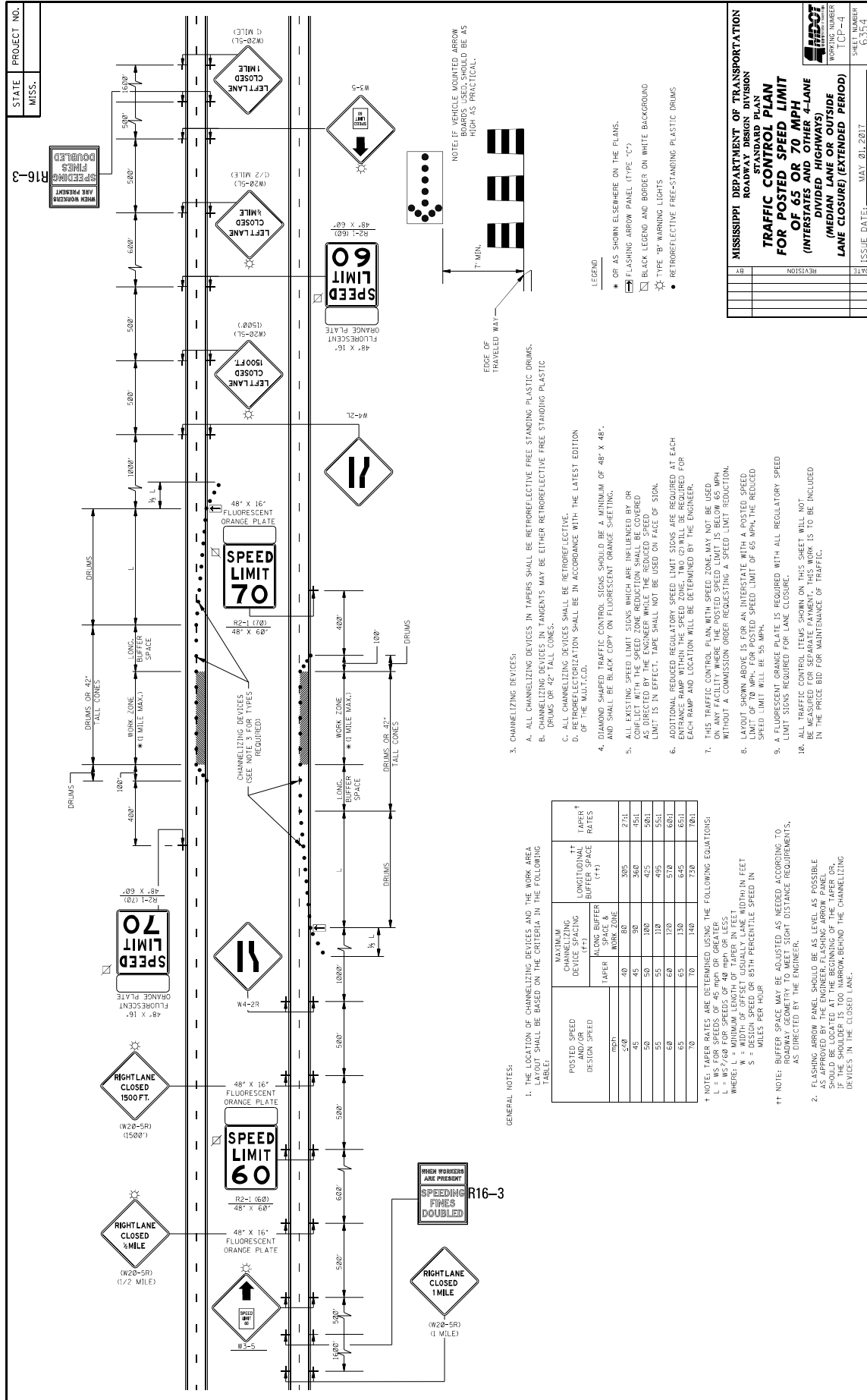
- GENERAL NOTES:
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:
 2. FLASHING ARROW PANEL SHOULD BE AS LEVEL AS POSSIBLE AS APPROVED BY THE DESIGN ENGINEER. THE PANEL SHOULD BE PLACED AT THE END OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
 3. CHANNELIZING DEVICES 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.
 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 PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

| POSTED SPEED AND/OR DESIGN SPEED | MAXIMUM CHANNELIZING DEVICE SPACING (FT) | | LONGITUDINAL BUFFER SPACE (FT) | TAPER RATES |
|----------------------------------|--|------------|--------------------------------|-------------|
| | LANE LINE & WORK ZONE | EXIT TAPER | | |
| 45 | 40 | 80 | 305 | 27:1 |
| 50 | 45 | 90 | 360 | 45:1 |
| 55 | 50 | 100 | 425 | 50:1 |
| 60 | 55 | 110 | 495 | 55:1 |
| 65 | 60 | 120 | 570 | 60:1 |
| 70 | 65 | 130 | 645 | 65:1 |
| 75 | 70 | 140 | 730 | 70:1 |

† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
 L = WS FOR SPEEDS OF 45 MPH OR GREATER
 L = 4.5WS FOR SPEEDS OF 30 MPH OR GREATER
 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.





STATE PROJECT NO.
MISS. R16-3

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
TRAFFIC CONTROL PLAN
FOR POSTED SPEED LIMIT
OF 65 OR 70 MPH
(INTERSTATES AND OTHER 4-LANE
DIVIDED HIGHWAYS)
(MEDIAN LANE OR OUTSIDE
LANE CLOSED) (EXTENDED PERIOD)

ISSUE DATE: MAY 01, 2017

WORKING NUMBER: TCF-4
SHEET NUMBER: 6534

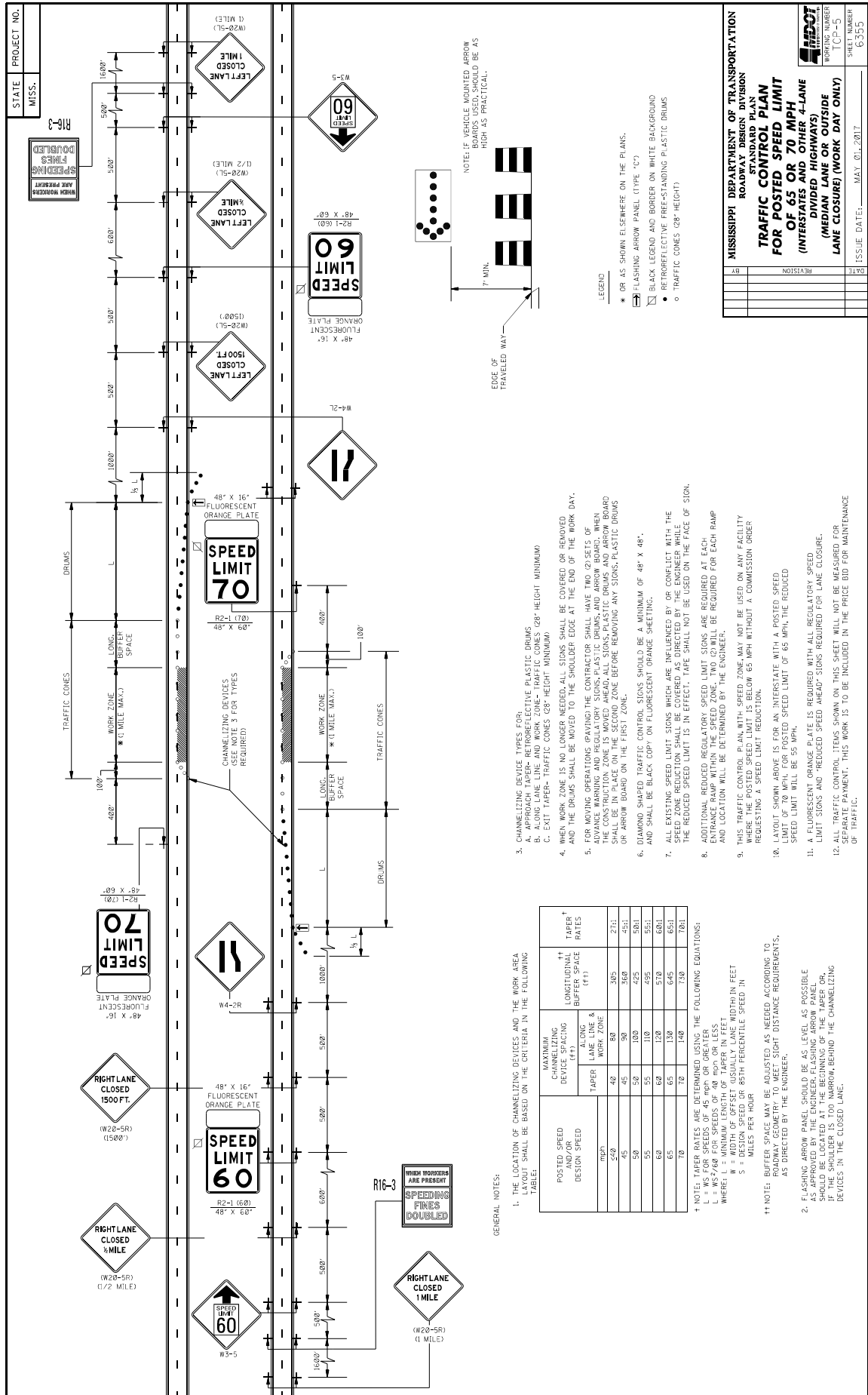
3. CHANNELIZING DEVICES:
- ALL CHANNELIZING DEVICES IN TAPERS SHALL BE RETROREFLECTIVE FREE STANDING PLASTIC DRUMS.
 - CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER RETROREFLECTIVE FREE STANDING PLASTIC DRUMS OR 42" TALL CONES.
 - ALL CHANNELIZING DEVICES SHALL BE RETROREFLECTIVE.
 - RETROREFLECTIVIZATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD-6A.
 - DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHOULD BE A MINIMUM OF 48" X 48" AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
 - ALL EXISTING SPEED LIMIT SIGNS WHICH ARE INFLUENCED BY OR COMPLECT WITH THE SPEED ZONE REDUCTION SHALL BE COVERED WITH A BLACK LEGEND AND BORDER ON WHITE BACKGROUND.
 - ADDITIONAL REQUIRED REGULATORY SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP WITHIN THE SPEED ZONE. TWO CONES ARE REQUIRED FOR EACH RAMP AND LOCATION WILL BE DETERMINED BY THE ENGINEER.
 - THIS TRAFFIC CONTROL PLAN WITH SPEED ZONE MAY NOT BE USED ON ANY FACILITY WHERE THE POSTED SPEED LIMIT IS BELOW 65 MPH WITHOUT A COMMISSION ORDER REQUESTING A SPEED LIMIT REDUCTION.
 - LAYOUT SHOWN ABOVE IS FOR AN INTERSTATE WITH A POSTED SPEED LIMIT OF 70 MPH. FOR POSTED SPEED LIMIT OF 65 MPH, THE REDUCED SPEED LIMIT WILL BE 55 MPH.
 - A FLUORESCENT ORANGE PLATE IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS REQUIRED FOR LANE CLOSURE.
 - 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.

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

| POSTED SPEED DESIGN SPEED mph | MAXIMUM CHANNELIZING DEVICE SPACING | | LONGITUDINAL BUFFER SPACE (FT) | TAPER RATES |
|-------------------------------|-------------------------------------|-----------|--------------------------------|-------------|
| | TAPER | WORK ZONE | | |
| 50 | 40 | 80 | 305 | 2.7:1 |
| 45 | 35 | 70 | 260 | 4:1 |
| 40 | 30 | 60 | 215 | 5:1 |
| 35 | 25 | 50 | 170 | 6:1 |
| 30 | 20 | 40 | 125 | 7:1 |
| 25 | 15 | 30 | 80 | 8:1 |
| 20 | 10 | 20 | 40 | 9:1 |

† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
 †† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.
 L = WS²/60 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 TAPER 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 AT THE END OF THE WORK ZONE, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.



STATE PROJECT NO.
MISS.

WORKING NUMBER
ICP-6
6350

SHEET NUMBER
1

ISSUE DATE: MAY 01, 2017

WING BARRICADES

- WING BARRICADES ARE TYPE III BARRICADES ERECTED ON THE SHOULDER OF ROADWAYS OR RESTRICTED ROADWAY. WING BARRICADES MAY BE USED AS A MOUNTING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.
- WING BARRICADES SHOULD BE USED:
 - IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED.
 - IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.

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.

STANDARD BARRICADES

- THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
- RAIL STRIPE SHALL BE 6 INCHES, EXCEPT THAT 4-INCH WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36 INCHES.
- DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
- FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.
- BARRICADES ARE CLASSIFIED BY FHWA AS CATEGORY II WORK ZONE DEVICES WHICH REQUIRE SUCCESSFULY CRASH TESTED. A LIST OF CRASHWORTHY BARRICADES AND OTHER CATEGORY II DEVICES CAN BE FOUND ON FHWA'S WEBSITE: http://safety.fhwa.dot.gov/roadway_dept/policy_guidance/road_hardware/cat2.cfm

CHEVRON SIGN DETAIL

- A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
- THE CHEVRON SIGN SHALL BE MOUNTED ON CRASHWORTHY SUPPORT.
- 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.

PLASTIC DRUM STRIPING DETAIL

- 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 THE MARKING STRIPES OR STRIPES. THE PREDOMINANT COLOR OF DRUMS SHALL BE ORANGE WITH FOUR RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL STRIPES (2 ORANGE & 2 WHITE) 6" WIDE.
- DRUMS SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
- WHERE PRACTICAL PLASTIC DRUMS SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

TYPE 3 OBJECT MARKER (OM-3R)

- TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER.
- 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.
- THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.

HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

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| STATE MISS. | PROJECT NO. | |
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MOBILE OPERATIONS ON MULTILANE ROAD

MOBILE OPERATIONS ON MULTILANE ROAD

MOBILE OPERATIONS ON TWO-LANE ROAD

MOBILE OPERATIONS ON TWO-LANE ROAD

NOTES FOR MULTILANE LANE OPERATION:

- VEHICLES USED FOR THESE OPERATIONS SHOULD BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT, SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLASERS, SIGNS, OR ARROW PANELS.
- SHADOW VEHICLE 2 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK MOUNTED ATTENUATOR (TMA), AN APPROPRIATE LANE CLOSURE SIGN SHOULD BE LEGIBLY MOUNTED ON SHADOW VEHICLE 2 SO AS NOT TO OBSCURE THE ARROW PANEL.
- SHADOW VEHICLE 1 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK-MOUNTED ATTENUATOR (TMA).
- 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.
- WHEN ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, SHADOW VEHICLE 2 SHOULD BE ELIMINATED.
- ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE SHOULD BE USED (I.e., VEHICLE 3 ON THE SHOULDER OF PRACTICALLY, VEHICLE 2 IN THE CLOSED LANE, AND VEHICLE 1 IN THE CLOSED LANE).
- ARROW PANELS SHALL BE AS A MINIMUM TYPE B, 60" X 30" IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCD.
- WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.
- 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.
- 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.

NOTES FOR TWO-LANE OPERATION:

- 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.
- 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 SIGHT DISTANCE IS NOT AVAILABLE, SHADOW VEHICLES 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.
- 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.
- A TRUCK-MOUNTED ATTENUATOR (TMA) SHOULD BE USED ON THE SHADOW VEHICLE AND MAY BE USED ON THE WORK VEHICLE.
- THE WORK VEHICLE SHALL BE EQUIPPED WITH BEACONS, AND THE SHADOW VEHICLE SHALL BE EQUIPPED WITH BEACONS. HIGH-BEAM LIGHTS AND WORK 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.
- 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.
- ARROW BOARD TO BE USED IN CAUTION MODE.
- 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 MULTILANE ROAD

MOBILE OPERATIONS ON TWO-LANE ROAD

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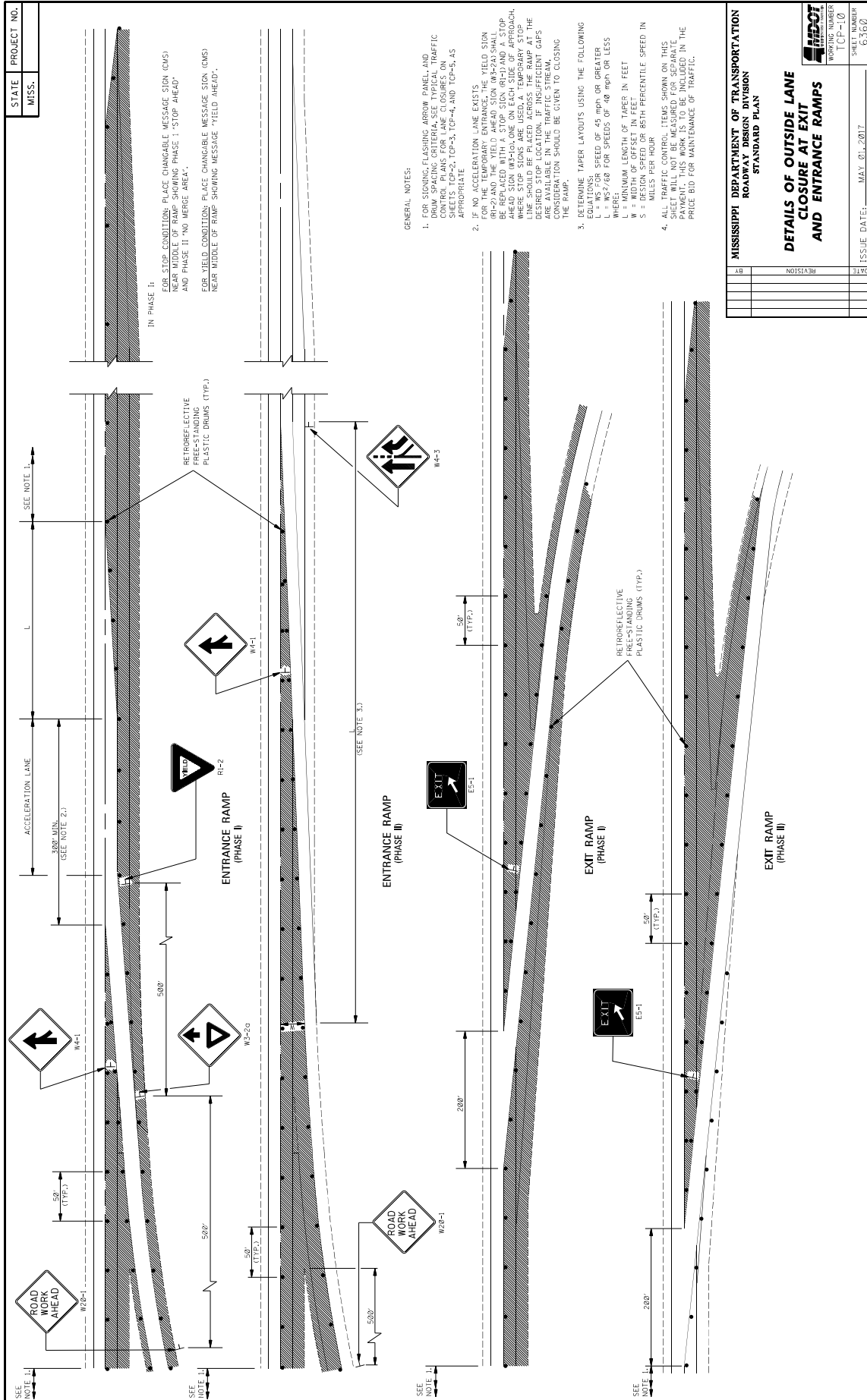
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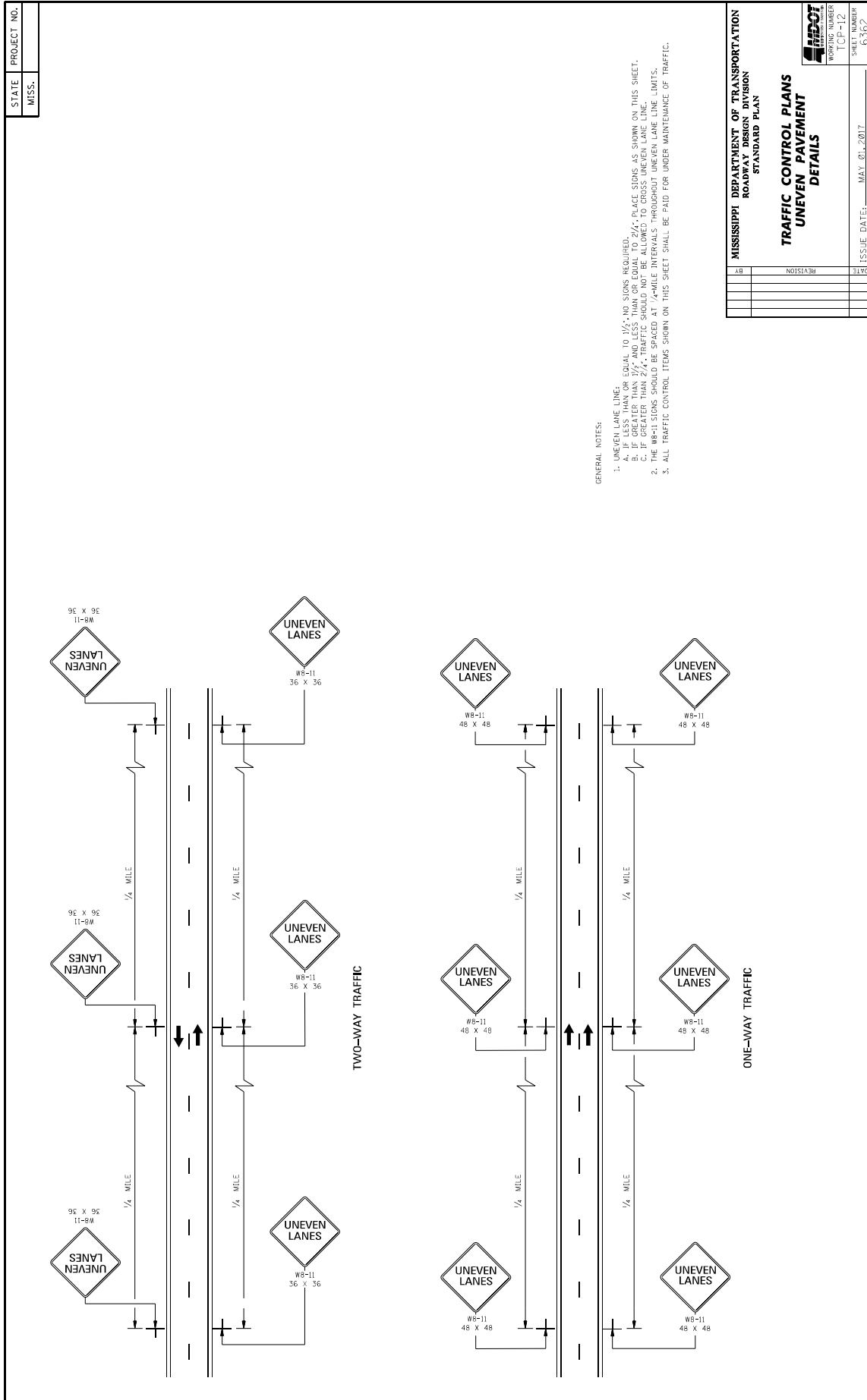
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

DETAILS OF OUTSIDE LANE CLOSURE AT EXIT AND ENTRANCE RAMP

ISSUE DATE: MAY 01, 2017

WORKING NUMBER: TCP-110
 SHEET NUMBER: 6360

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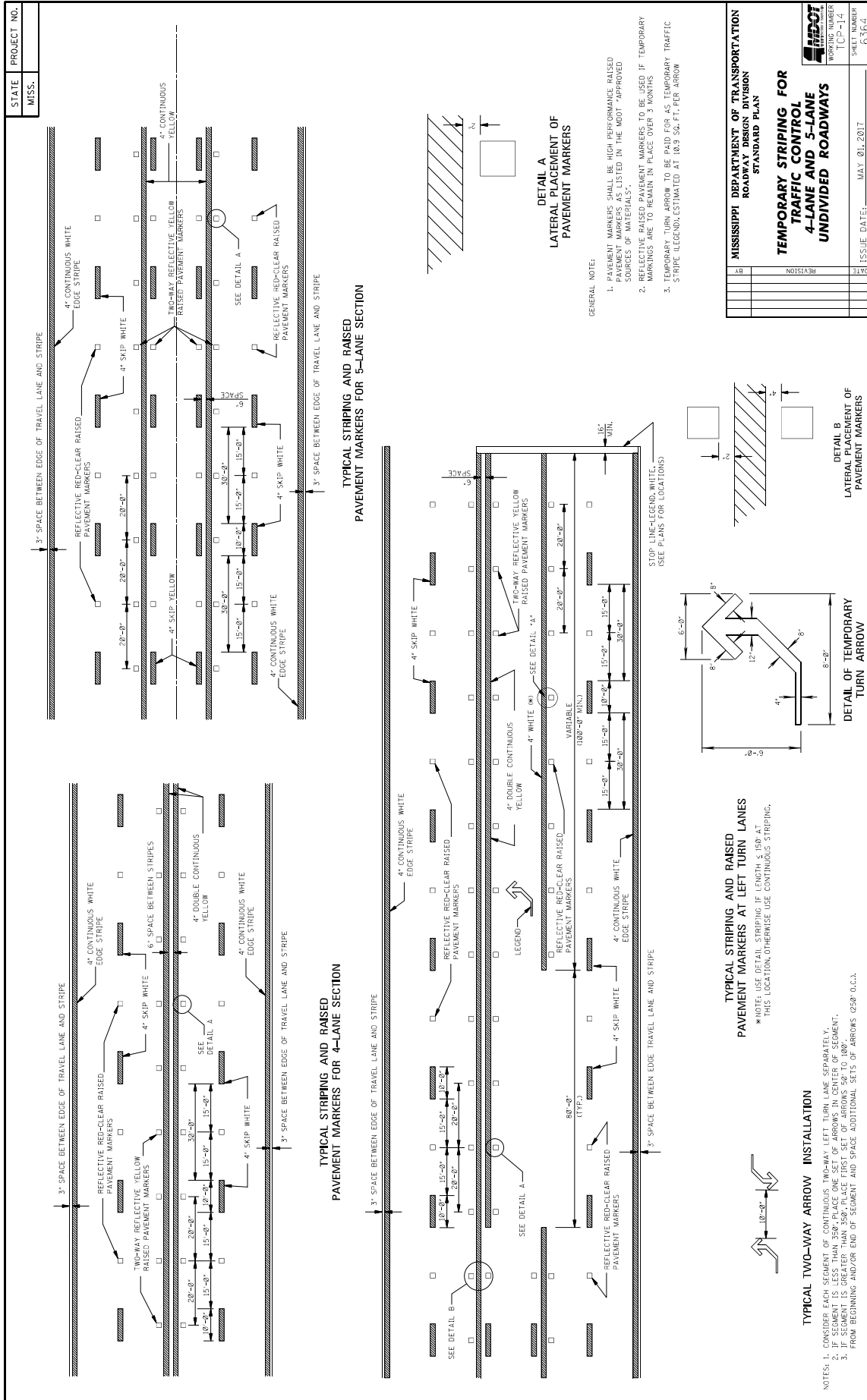
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MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

**TRAFFIC CONTROL PLANS
UNEVEN PAVEMENT
DETAILS**

SHEET NUMBER
TCP-12
6262

ISSUE DATE: MAY 01, 2017



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TYPICAL SHOULDER CLOSURE

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

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

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

GRANULAR MATERIAL REQUIRED (SAME CLASSIFICATION AS SHOULDER MATERIAL, SEE TYPICAL SECTIONS)

NOTES:

- * A. PAVEMENT EDGE DROP-OFF
 1. IF LESS THAN TWO AND ONE QUARTER (2.25) INCHES-NO PROTECTION REQUIRED. PLACE A SHOULDER 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 B (1538'+O.C.).
 2. TWO AND ONE QUARTER TO THREE INCHES-PLACE DRUMS, VERTICAL PANELS OR BARRICADES EVERY 120 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 MULTIPLIER $L/3L$, 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 = $2 \times S$
 2. WHERE $S =$ SPEED IN MPH (POSTED OR 85 PERCENTILE)
 3. WHERE $L =$ TAPER LENGTH IN FEET
 4. WHERE $W =$ WIDTH OF OFFSET IN FEET
- C. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.

| TABLE V-1. GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE | |
|---|---------------|
| X = SPEED (MPH) | LENGTH (FEET) |
| 25 | 35 |
| 30 | 45 |
| 35 | 55 |
| 40 | 65 |
| 45 | 75 |
| 50 | 85 |
| 55 | 95 |
| 60 | 105 |
| 65 | 115 |
| 70 | 125 |
| 75 | 135 |
| 80 | 145 |
| 85 | 155 |
| 90 | 165 |
| 95 | 175 |
| 100 | 185 |

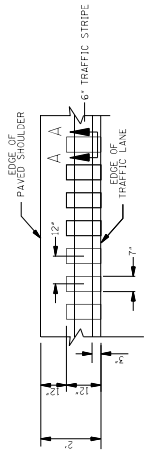
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

**TRAFFIC CONTROL DETAILS
DRUM PLACEMENT
AND SHOULDER CLOSURE**

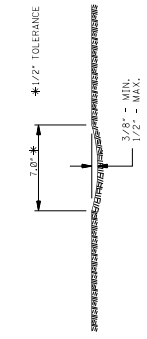
WORKING NUMBER: T-CP-16
SHEET NUMBER: 63-06
ISSUE DATE: MAY 01, 2017

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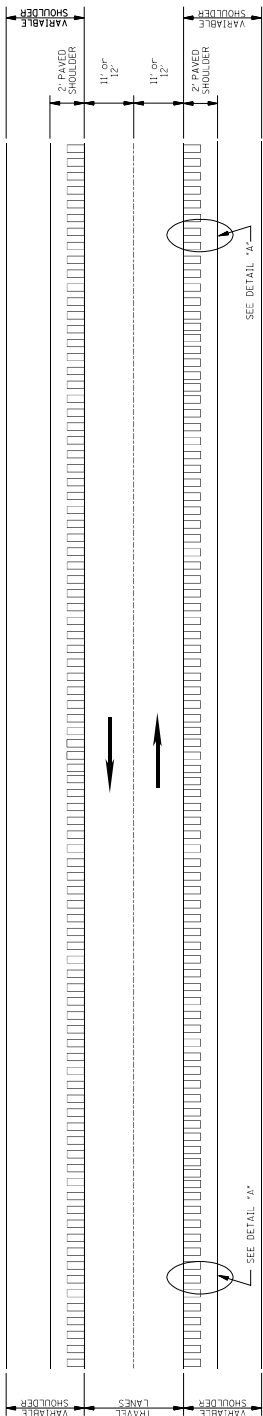
- GENERAL NOTES
- GROUND-IN RUMBLE STRIPES SHALL BE APPLIED ON LEFT AND RIGHT SHOULDERS OF ALL PAVED SHOULDERS ON THIS PROJECT.
 - GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO ALL PAVED SHOULDERS ON ROADWAYS OR OTHER INTERUPTIONS IN NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER.
 - COST TO BE PAID FOR USING APPROPRIATE PAY ITEMS.
 - GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO:
 - MAINLINE
 - INTERSECTING ROADWAY IF OVERLAD OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.W.
 - ANY ROADWAY WITH EXISTING RUMBLE STRIPES PRIOR TO CONSTRUCTION.
 - DO NOT USE WHERE TRAVEL LANE IS LESS THAN 11' WIDE.



DETAIL "A"



SECTION "A-A"

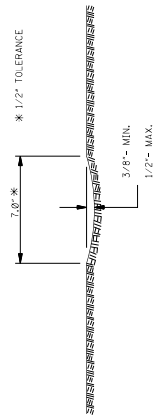


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NOT TO SCALE

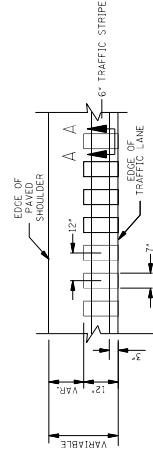
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|---|--------------------------|
| MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN | |
| RUMBLE STRIPES 2-LANE HIGHWAYS (ASPHALT LANES, 2-FT ASPHALT SHOULDERS) | |
| WORKING NUMBER RS-1 | SHEET NUMBER 606-1 |
| DATE | ISSUE DATE: MAY 01, 2017 |
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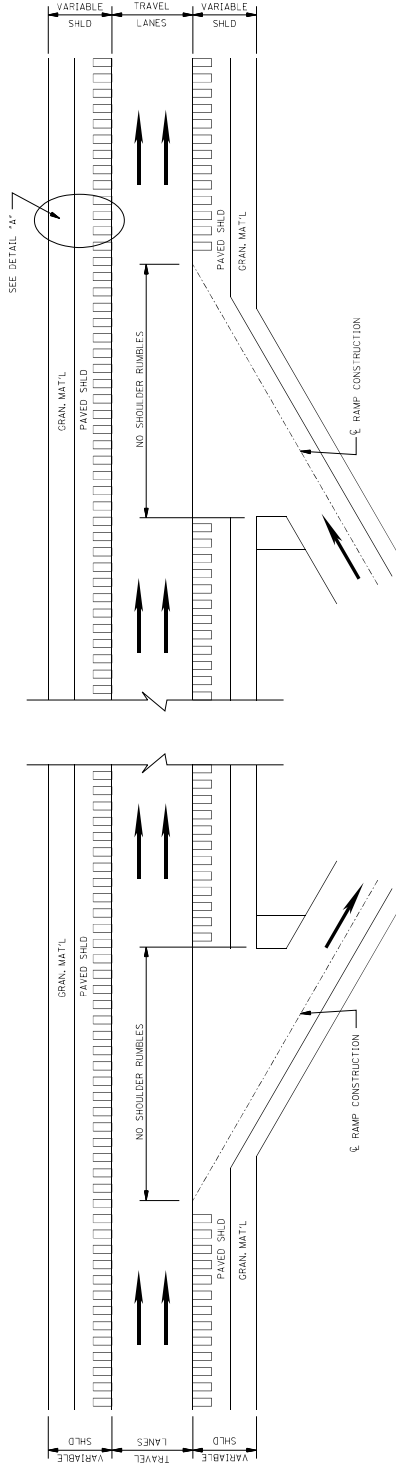
- GENERAL NOTES
- GROUND-IN RUMBLE STRIPES SHALL BE APPLIED ON LEFT AND RIGHT SHOULDERS OF ALL PAVED SHOULDERS ON THIS PROJECT
 - GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO ALL PAVED SHOULDERS ON ROADWAYS OR OTHER INTERSECTIONS IN NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER
 - COST TO BE PAID FOR USING APPROPRIATE PAY ITEMS
 - GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO:
 - MAINLINE
 - INTERSECTING ROADWAY IF OVERLAD OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.W.
 - ANY ROADWAY WITH EXISTING RUMBLE STRIPES PRIOR TO CONSTRUCTION.



SECTION "A-A"



DETAIL "A"



PLAN
NOT TO SCALE
DETAILS OF
RUMBLE STRIPS

| | |
|---|----------|
| MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN | |
| RUMBLE STRIPES 4-LANE HIGHWAYS (ASPHALT LANES, 2-FT OR WIDER, ASPHALT SHOULDERS) | |
| DATE | REVISION |
| | |
| | |
| | |
| SHEET NUMBER R.3-2 | |
| ISSUE DATE: MAY 21, 2017 | |

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

| <u>Page</u> | <u>Subsection</u> | <u>Change</u> |
|-------------|-------------------|--|
| 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. 1206

CODE: (SP)

DATE: 10/16/2018

SUBJECT: MASH Compliant Devices

Bidders are hereby advised that the Standard Specifications may require certain traffic control and permanent safety hardware devices to meet the requirements of the Manual for Assessing Safety Hardware (MASH). However, devices meeting the requirements of NCHRP Report 350 will be allowed until the mandatory effective date for MASH compliance. The following table shows the effective dates for MASH compliant devices.

| Device | Effective Date for MASH Compliance |
|--|------------------------------------|
| W-beam barriers, cast-in-place concrete barriers | December 31, 2017 |
| W-beam terminals - non-flared | June 30, 2018 |
| Crash cushions | December 31, 2018 |
| Cable barriers, cable barrier terminals, bridge rails, transitions, all other longitudinal barriers including portable barriers installed permanently, W-beam terminals - flared, all other terminals, sign supports, all other breakaway hardware | December 31, 2019 |

Temporary work zone devices, including portable barriers manufactured after December 31, 2019, must have been successfully tested to the 2016 Edition of MASH. Such devices manufactured on or before this date and successfully tested to NCHRP Report 350 or the 2009 Edition of MASH may continue to be used throughout their normal service lives.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1225

CODE: (SP)

DATE: 11/13/2018

SUBJECT: Early Notice to Proceed

Bidders are advised that if an early notice to proceed is allowed by the Department and the Contractor experiences problems or delays between the early notice to proceed date and the original notice to proceed date, this shall not be justification for any monetary compensation or an extension of contract time.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1226

CODE: (SP)

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: (SP)

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. 1543

CODE: (SP)

DATE: 04/30/2019

SUBJECT: Contract Time

PROJECT: MP-6000-34(301) / 306698301 – Jones County

The completion of work to be performed by the Contractor for this project will not be a specified date but shall be when all allowable working days are assessed, or any extension thereto as provided in Subsection 108.06. It is anticipated that the Notice of Award will be issued no later than **June 11, 2019**.

The Contractor shall request a Notice to Proceed/Beginning of Contract Time date between the dates of the **July 11, 2019 and August 8, 2019**.

A NOTICE TO PROCEED / BEGINNING OF CONTRACT TIME EARLIER THAN JULY 1, 2019 WILL NOT BE ALLOWED ON THIS PROJECT.

Should the Contractor request a Notice to Proceed earlier than **July 11, 2019** and it is agreeable with the Department for an early Notice to Proceed, the requested date will become the new Notice to Proceed and Beginning of Contract Time date.

Should the Contractor not request a Notice to Proceed by **July 11, 2019** the date for the Notice to Proceed and Beginning of Contract Time will be **August 8, 2019**.

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

51 Working Days have been allowed for the completion of work on this project.

The progress schedule for this project shows the Notice to Proceed and Beginning of Contract Time starting at the latest possible date. If the Contractor requests a Notice to Proceed earlier than this date, the Contractor shall submit a revised progress schedule showing the work beginning at the new Notice to Proceed and Beginning of Contract Time date.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1544

CODE: (SP)

DATE: 0319/2019

SUBJECT: Scope of Work

PROJECT: MP-6000-34(301) / 306698301 -- Jones County

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

Work on the project shall consist of the following:

1. Prior to the overlay, centerline alignment shall be determined by the Contractor by measuring the existing roadway at 500-foot intervals in tangent sections, and 100-foot intervals in horizontal curves. The existing shoulders shall be clipped and surplus material shall be spread along the edge of the shoulders, fore slopes, or other adjacent areas as directed by the Project Engineer, and will be an absorbed item.
2. It shall be the responsibility of the Contractor to protect the roadway and all existing structures, such as bridges, culverts, signs, and curb, from damage occurring as a result of the Contractor's operations. Damages to existing structures caused by the Contractor's operations shall be repaired or replaced at no cost to the Department.
3. The Contractor shall erect and maintain construction signing, provide all signs and traffic handling devices, and shall provide two portable R16-3 signs per work zone or lane closure in addition to signs required by standard drawings in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition. Fluorescent orange sheeting shall be used on all construction and traffic control signs except for those designated to be black legend and border on white background. All plastic drums shall have a ballasting collar made from recycled truck tires or other suitable material. The cost for this work is to be included in the price bid for pay item no. 618-A: Maintenance of Traffic.
4. Incidental work such as removing vegetation, shaping and compaction of shoulder, removing excess asphalt material, project clean-up, and other incidental work necessary to complete the project will not be measured for separate payment, but will be included in other bid items, and must be performed during the operating hours for this project.
5. If pavement section marking tape is encountered on this project, it shall be located prior to overlaying and placed back in same location after paving operations have ceased. The section marking shall be 8" high performance cold plastic detail stripe and shall be four feet (4') in length. The marking shall be centered across the centerline stripe. The cost of this item shall be absorbed in other bid items.

6. Cold mill ¾" & variable at all the transitions including E.O.P., B.O.P., bridge approaches, and all tie-ins.

7. Overlay all routes with ¾" Ultra-Thin asphalt. On all routes, private driveways shall receive a 2-foot paved pad of ¾" Ultra-Thin asphalt mixture placed in conjunction with the mainline by widening the paver gate two feet (2') at each private driveway. On all routes, remove any failed areas on the main facility by milling and repair by backfilling with 19-mm, ST, asphalt as directed by the Project Engineer. Removal areas will be marked by MDOT personnel and include, but are not limited to, areas included in Tables 1 through 3. Although it is anticipated the removal areas listed in Tables 1 through 3 may be removed by cold milling, the Contractor shall be prepared to remove the area by other methods at no additional cost or time and should be bid accordingly in pay item 202-B: Removal of Asphalt Pavement. Routes and information specific to each route are specified as follows:
 - (A) SR 533 from SR 28 North 3.85 miles to the Jasper County line. Approximately 275 tons of Ultra-Thin asphalt has been included in the project quantity total for leveling rutted areas, which will be accomplished during the single lift placement of the Ultra-Thin asphalt (2,485 tons). Thirty seven (37) tons of Ultra-Thin asphalt has been included to pave the 2-foot private driveway pads.

 - (B) SR 537 from Buck Temple Road North 2.4 miles to Mayfield Drive. Approximately 175 tons of Ultra-Thin asphalt has been included in the project quantity total for leveling rutted areas, which will be accomplished during the single lift placement of the Ultra-Thin asphalt (1545 tons). Thirty four (34) tons of Ultra-Thin asphalt has been set up to pave the 2-foot private driveway pads. Approximately 25 tons of 19-mm, ST, asphalt will be used for backfill in removal sections.

 - (C) SR 588 from the Covington County line East 11.56 miles to SR 29. Approximately 815 tons of Ultra-Thin asphalt has been included in the project quantity total for leveling rutted areas, which will be accomplished during the single lift placement of the Ultra-Thin asphalt (7310 tons). 80 tons of Ultra-Thin asphalt has been set up to pave the 2-foot private driveway pads. Approximately 89 tons of 19-mm, ST, asphalt will be used for backfill in removal sections.

 - (D) SR 590 from 0.35 miles West of Leaf River relief bridge East 6.02 miles to I-59. Approximately 225 tons of Ultra-Thin asphalt has been included in the project quantity total for leveling rutted areas, which will be accomplished during the single lift placement of the Ultra-Thin asphalt (3885 tons). Fifty five (55) tons of Ultra-Thin asphalt has been set up to pave the 2-foot private driveway pads. Approximately 50 tons of 19-mm, ST, asphalt will be used for backfill in removal sections.

Publicly maintained roads or streets shall be surfaced to the existing R.O.W. with Ultra-Thin asphalt. Any site grading at local roads will not be measured for separate payment but will be considered an absorbed item.

- 8. Raise the existing shoulders to match the new pavement elevations by placing ¾” and variable depth of Size 825B crushed stone on the shoulders. Placement of the crushed stone on the finished surface course shall not be permitted. The material shall be bladed, rolled, and compacted to a finished slope of 4% where practical. Shoulders with existing adequate shoulder material in place shall be bladed to a slope of 4%, the cost of which shall be included in the prices of other items bid.
- 9. Temporary striping shall conform to finished stripe specifications for alignment, neatness, reflectivity, and straightness. All permanent asphalt pavement markings are to be hot thermoplastic. On all bridges and concrete sections of highway, old traffic stripe shall be removed and replaced with 6” Cold Plastic Traffic Stripe or 6” Inverted Profile Thermoplastic Stripe. Special care should be taken for the placement of thermoplastic detail stripe along the edge of pavement at turn-outs on all local roads where detail stripe is required as per Typical PMD-1.
- 10. Raised pavement markers will be placed as per sheet PM-1 of the Standard Drawings. Any removal of existing raised pavement markers or rumble bars shall be considered an absorbed item. Only flexible adhesive shall be allowed for placement of raised pavement markers meeting the requirements of Subsection 720.03.7.7 of the Standard Specifications.

TABLE 1
SR 537 from Buck Temple Road North 2.5 miles to Mayfield Drive

| <u>Location</u> | <u>Lane</u> | <u>Size</u> | <u>Area (sf)</u> |
|-----------------|-------------|-------------|------------------|
| 55+32 to 55+62 | NB | 7 x 30 | 24 |
| 53+37 to 53+52 | SB | 7 x 15 | 12 |

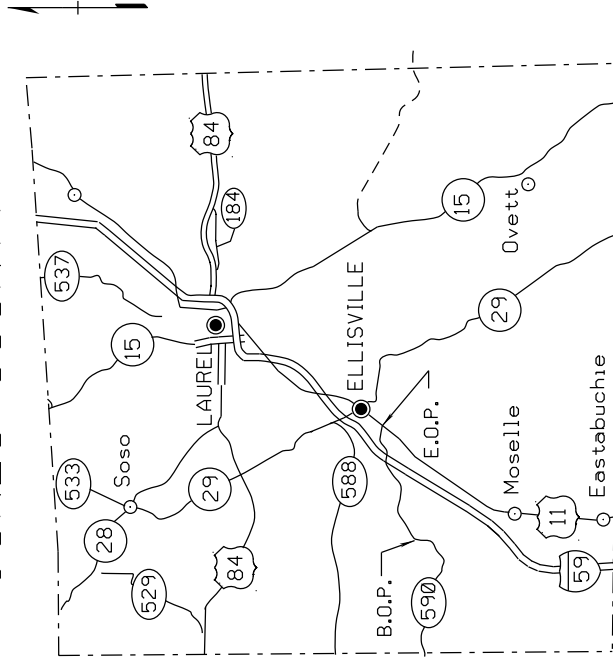
TABLE 2
SR 588 from the Covington County line East 11.86 miles to SR 29

| <u>Location</u> | <u>Lane</u> | <u>Size</u> | <u>Area (sf)</u> |
|------------------|-------------|-------------|------------------|
| 19+27 to 20+13 | EB | 7 x 86 | 67 |
| 182+57 to 182+89 | EB | 14 x 32 | 50 |
| 529+60 to 529+73 | EB | 7 x 13 | 10 |

TABLE 3
SR 590 from 0.35 miles East of Leaf River bridge East 6.2 miles to I-59

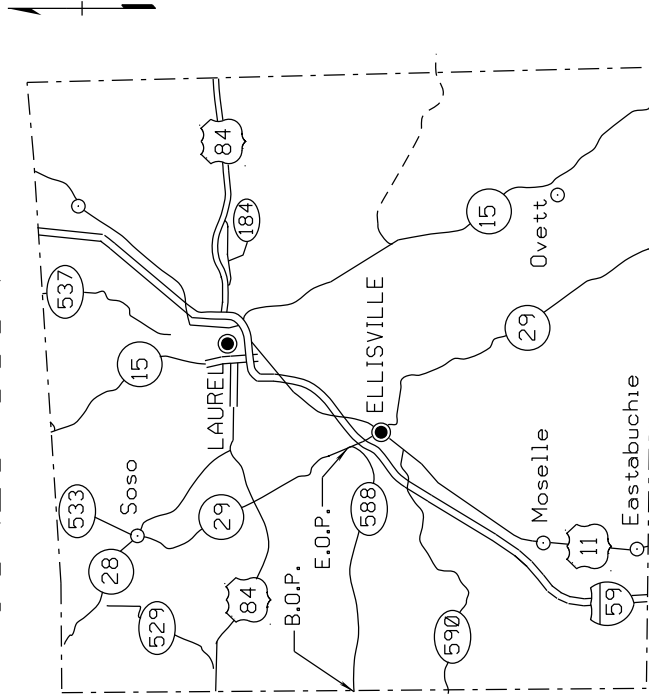
| <u>Location</u> | <u>Lane</u> | <u>Size</u> | <u>Area (sf)</u> |
|------------------|-------------|-------------|------------------|
| 24+62 to 25+00 | WB | 38 x 8 | 34 |
| 321+68 to 322+16 | WB | 8 x 48 | 37 |

MP-6000-34(301)
JONES COUNTY



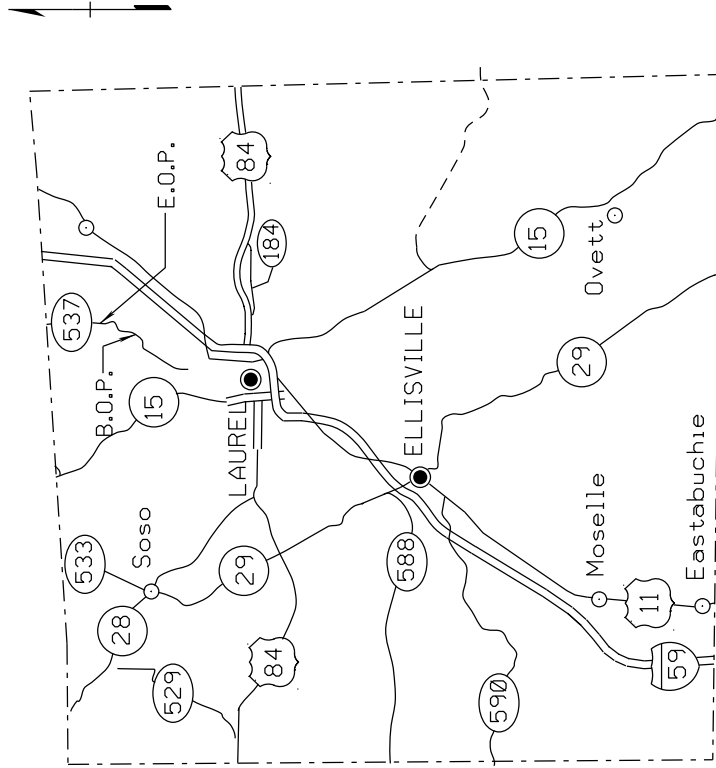
THE ABOVE REFERENCED PROJECT IS
 FOR OVERLAYING SR 590 FROM 0.35 MILES WEST OF THE
 LEAF RIVER RELIEF BRIDGE EAST 6.02 MILES TO I-59
 10+00 TO 340+40

MP-6000-34(301)
JONES COUNTY



THE ABOVE REFERENCED PROJECT IS
FOR OVERLAYING SR 588 FROM THE COVINGTON
COUNTY LINE EAST 11.56 MILES TO SR 29
10+00 TO 620+15

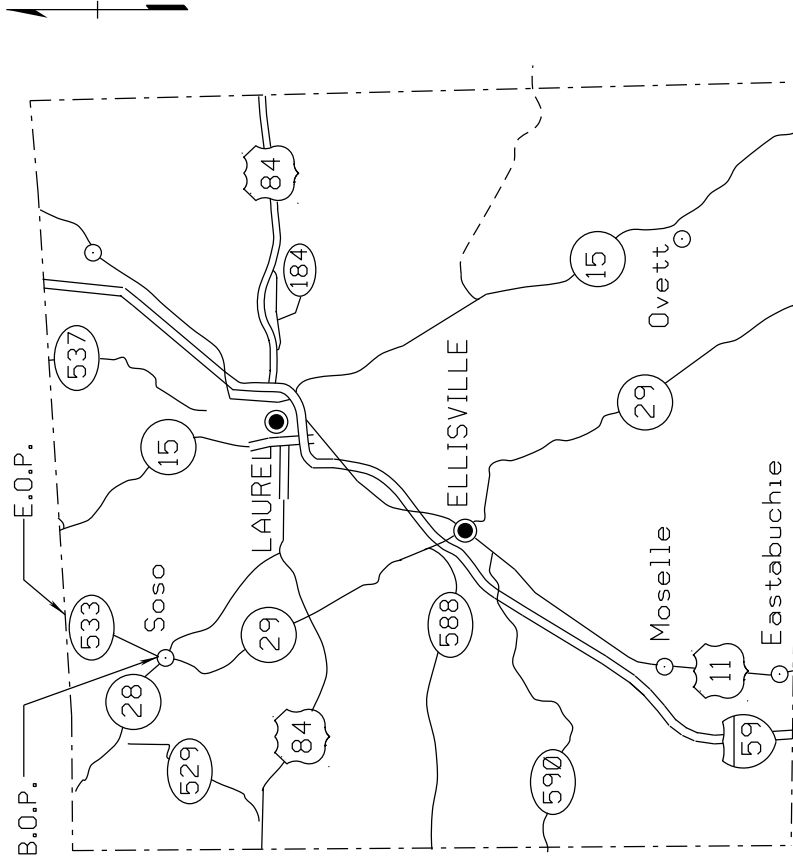
MP-6000-34(301)
JONES COUNTY



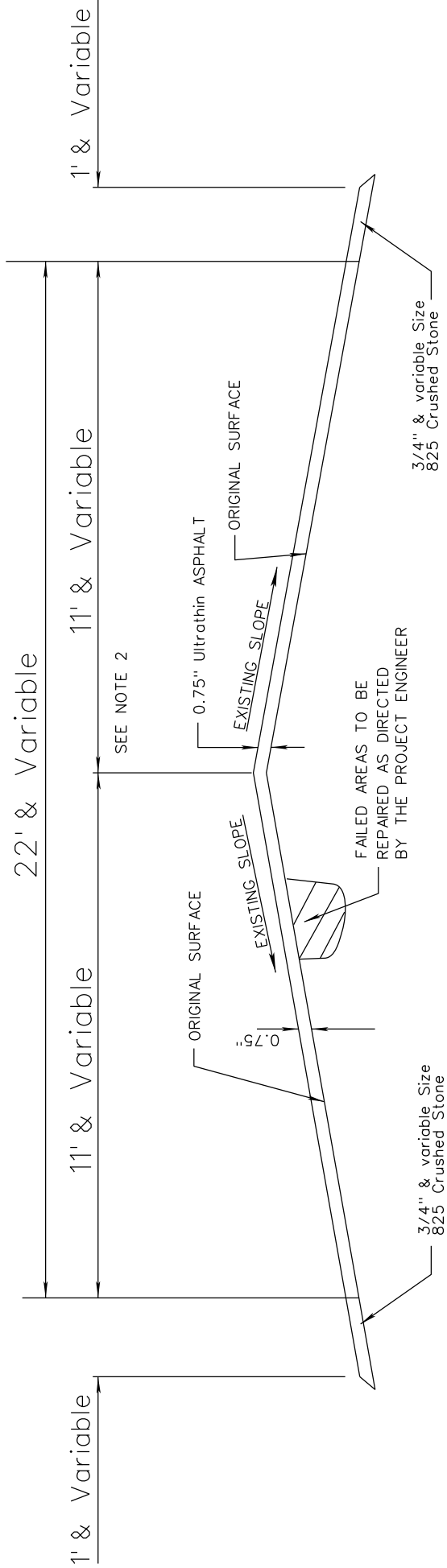
THE ABOVE REFERENCED PROJECT IS
FOR OVERLAYING SR 537 FROM BUCK TEMPLE
ROAD NORTH 2.4 MILES TO MAYFIELD ROAD
10+00 TO 136+65

MP-6000-34(301)

JONES COUNTY



THE ABOVE REFERENCED PROJECT IS
 FOR OVERLAYING SR 533 FROM SR 28 NORTH
 3.85 MILES TO THE JONES/JASPER COUNTY LINE
 10+00 TO 213+41

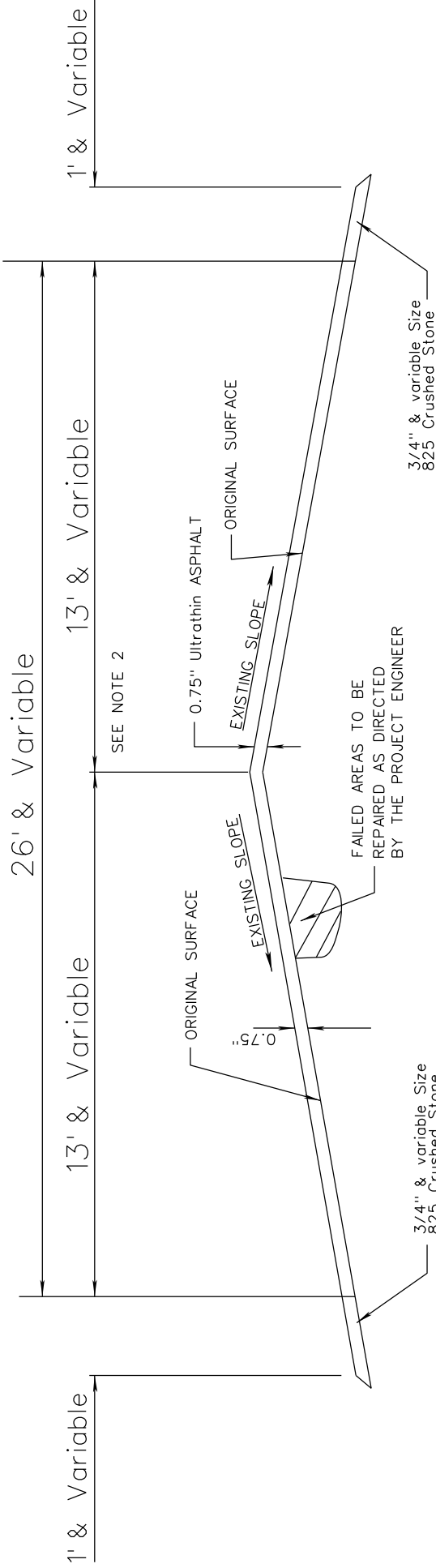


* SR 533 FROM SR 28 NORTH 3.85 MILES TO THE JASPER COUNTY LINE

* SR 537 FROM BUCK TEMPLE ROAD NORTH 2.4 MILES TO MAYFIELD DRIVE

NOTES:

- (1) THE EXISTING PAVEMENT EDGE SHALL BE CUT TO A SMOOTH AND NEAR VERTICAL FACE WITH AN APPROVED CUTTING DEVICE. (NOT TO BE MEASURED FOR SEPARATE PAY.)
- (2) TRUE CENTERLINE PAVEMENT ALIGNMENT SHALL BE DETERMINED BY THE CONTRACTOR BY MEASURING THE EXISTING ROADWAY AT 500ft. INTERVALS IN TANGENT SECTIONS, AND 100ft. INTERVALS IN HORIZONTAL CURVES.
- (3) AREAS OF MINIMAL RUTTING WILL BE CORRECTED WITH ULTRA THIN ASPHALT, PLACED AS THE SURFACE LIFT OF 3/4" ULTRA THIN ASPHALT IS PLACED.



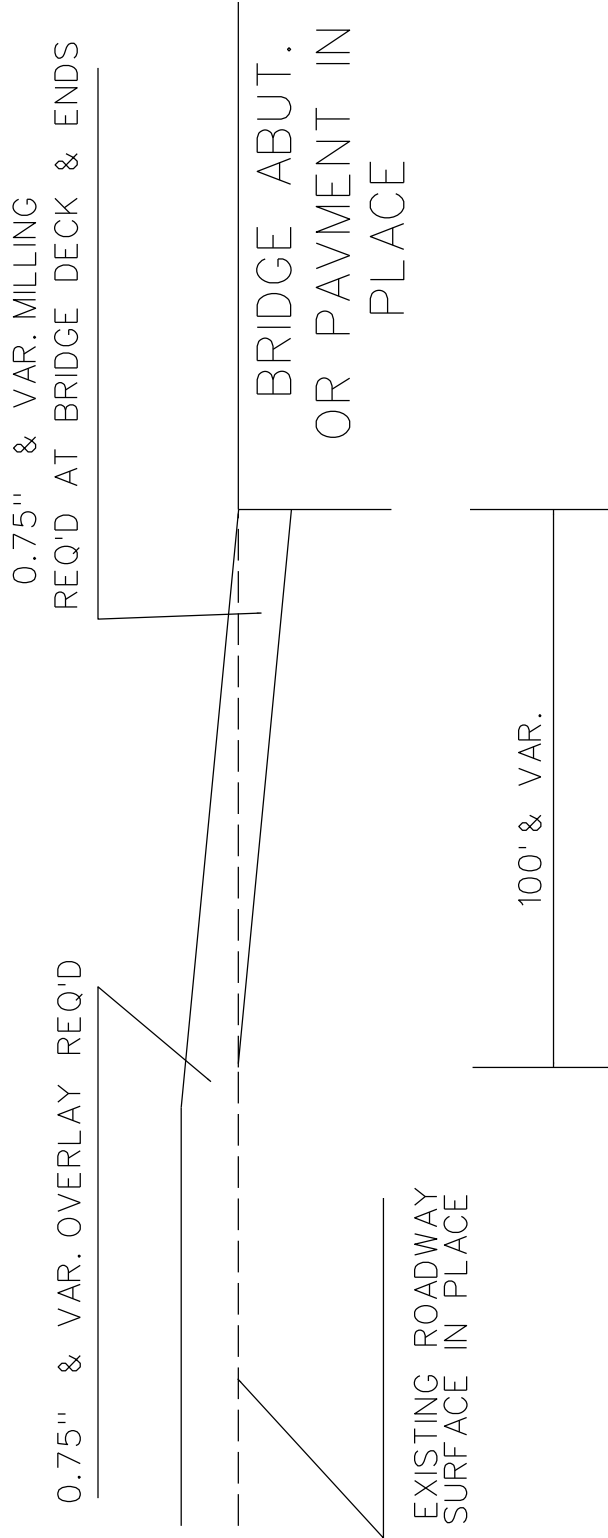
* SR 588 FROM THE COVINGTON COUNTY LINE EAST 11.56 MILES TO SR 29

* SR 590 FROM 0.35 MILE WEST OF THE LEAF RIVER RELIEF BRIDGE TO I-59

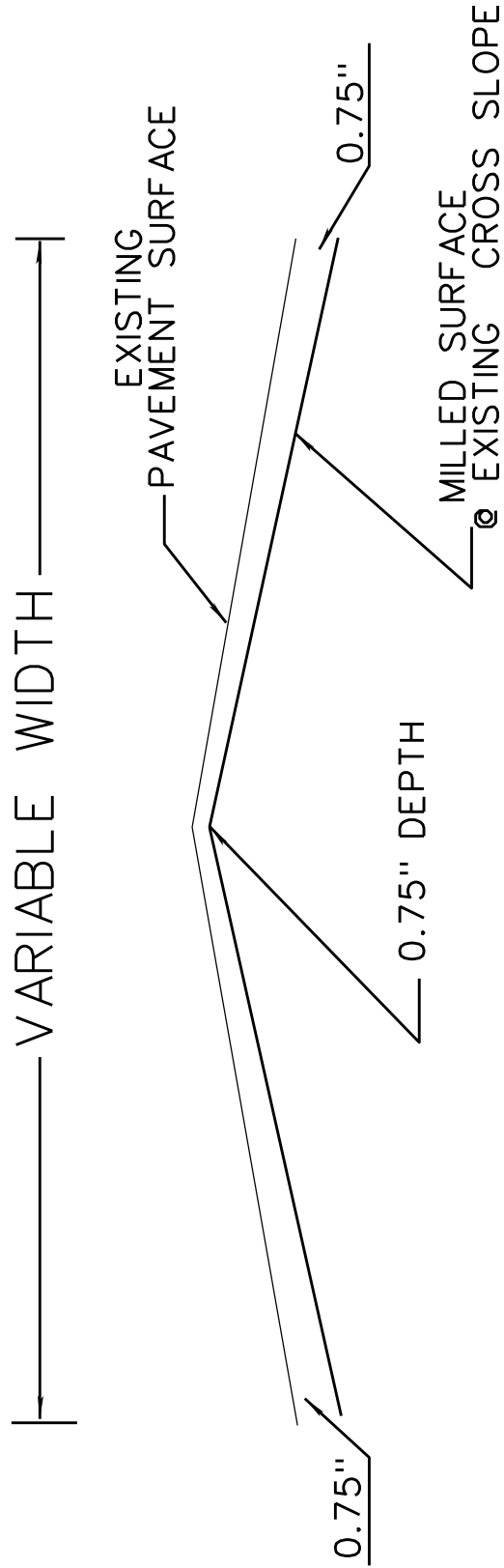
NOTES:

- (1) THE EXISTING PAVEMENT EDGE SHALL BE CUT TO A SMOOTH AND NEAR VERTICAL FACE WITH AN APPROVED CUTTING DEVICE. (NOT TO BE MEASURED FOR SEPARATE PAY.)
- (2) TRUE CENTERLINE PAVEMENT ALIGNMENT SHALL BE DETERMINED BY THE CONTRACTOR BY MEASURING THE EXISTING ROADWAY AT 500ft. INTERVALS IN TANGENT SECTIONS, AND 100ft. INTERVALS IN HORIZONTAL CURVES.
- (3) AREAS OF MINIMAL RUTTING WILL BE CORRECTED WITH ULTRA THIN ASPHALT, PLACED AS THE SURFACE LIFT OF 3/4" ULTRA THIN ASPHALT IS PLACED.

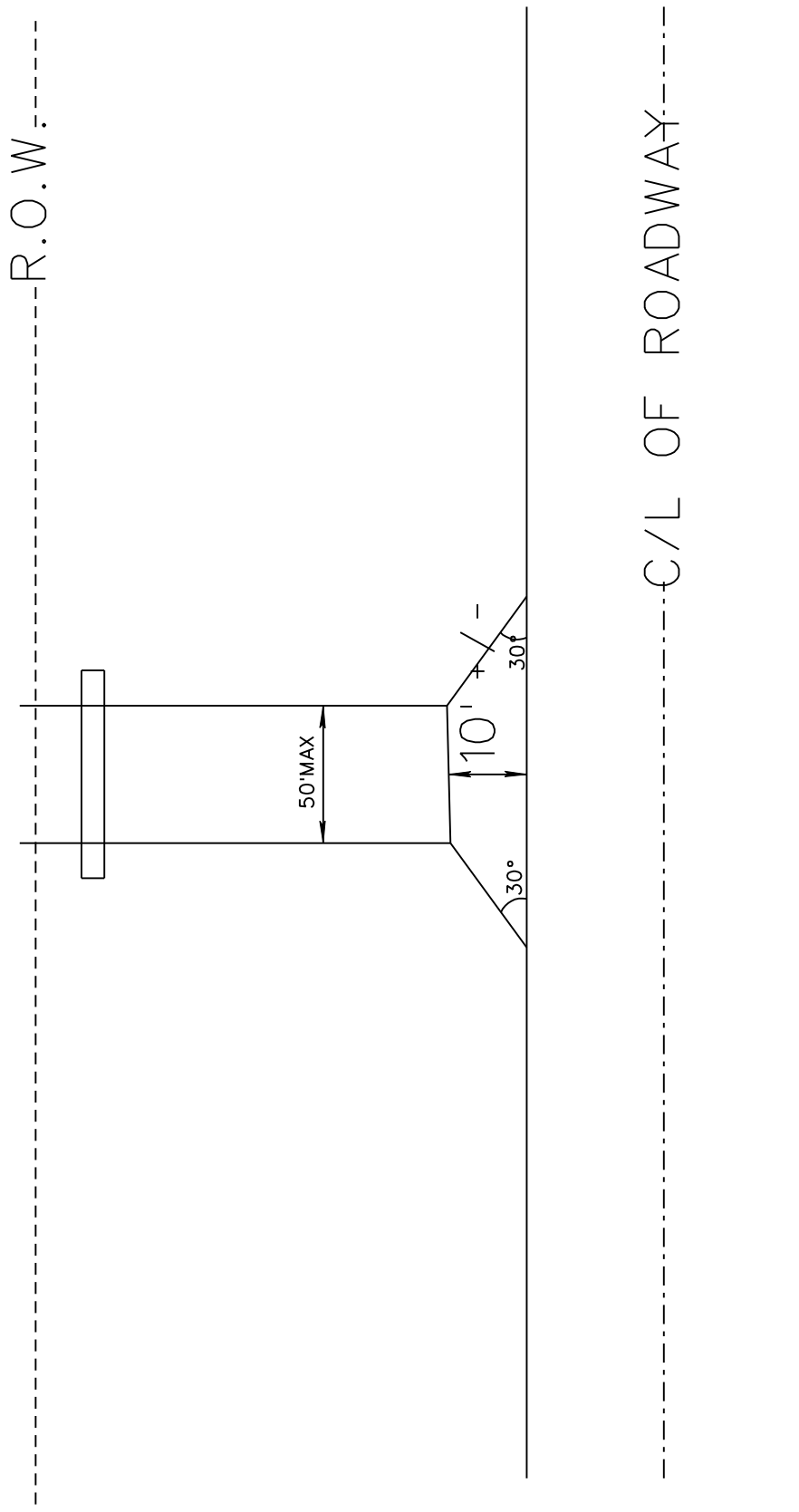
TYPICAL MILLED TRANSITION AT BRIDGE ABUT. OR PAVEMENT IN PLACE



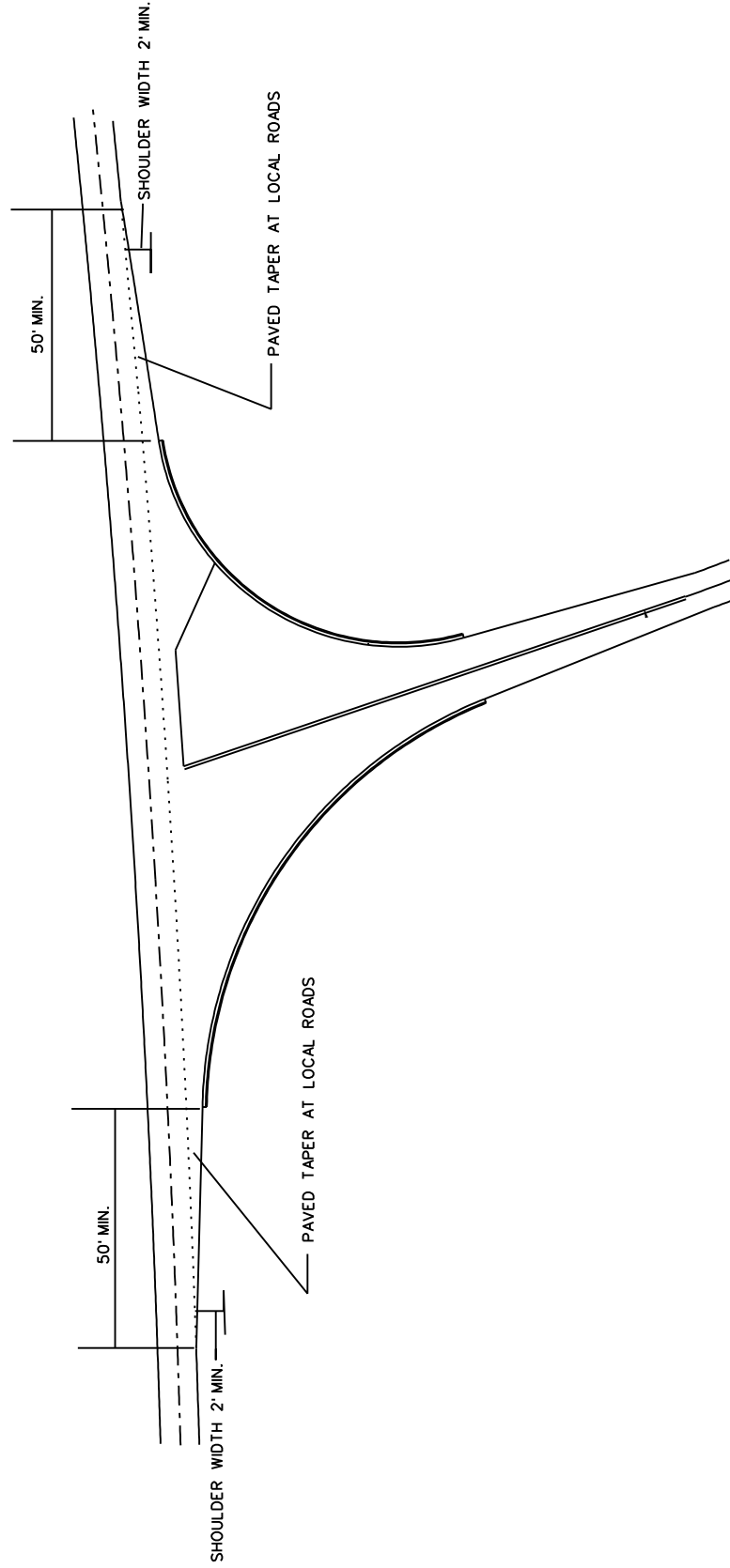
TYPICAL MILLING DIAGRAM

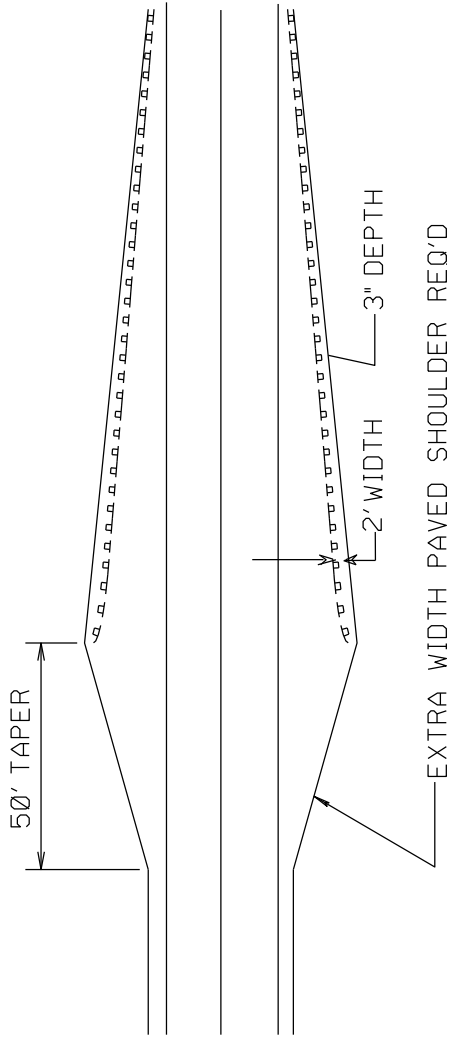


PRIVATE DRIVEWAY DETAIL



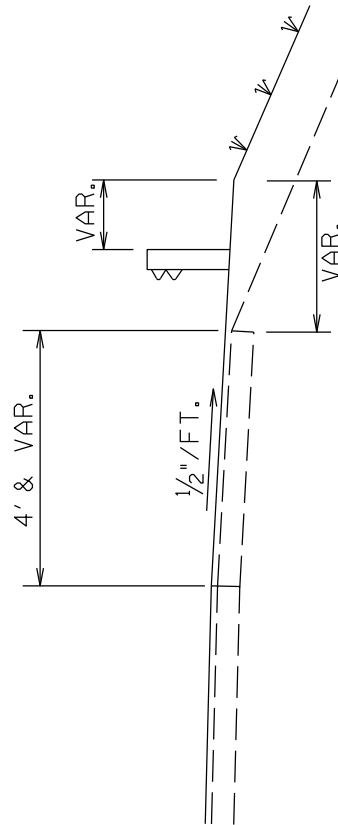
TYPICAL FOR PAVED TAPER AT LOCAL ROADS





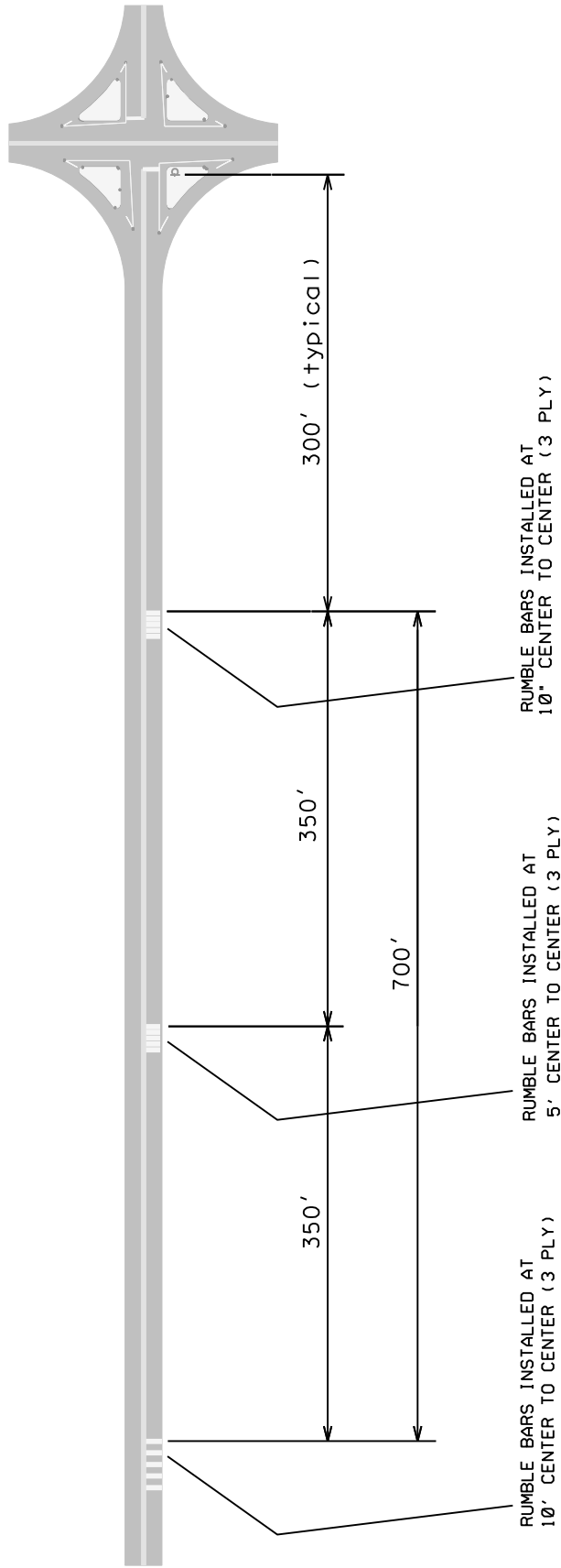
DETAIL OF INSTALLATION OF EXTRA WIDTH
PAVED SHOULDERS AT BRIDGES

1. 3" AND VAR. DEPTH 9.5MM ASPHALT PAVEMENT REQ'D



TYPICAL SECTION
DETAILS OF PAVED SHOULDERS AT
BRIDGE GUARD RAIL INSTALLATIONS

BOTH SIDES

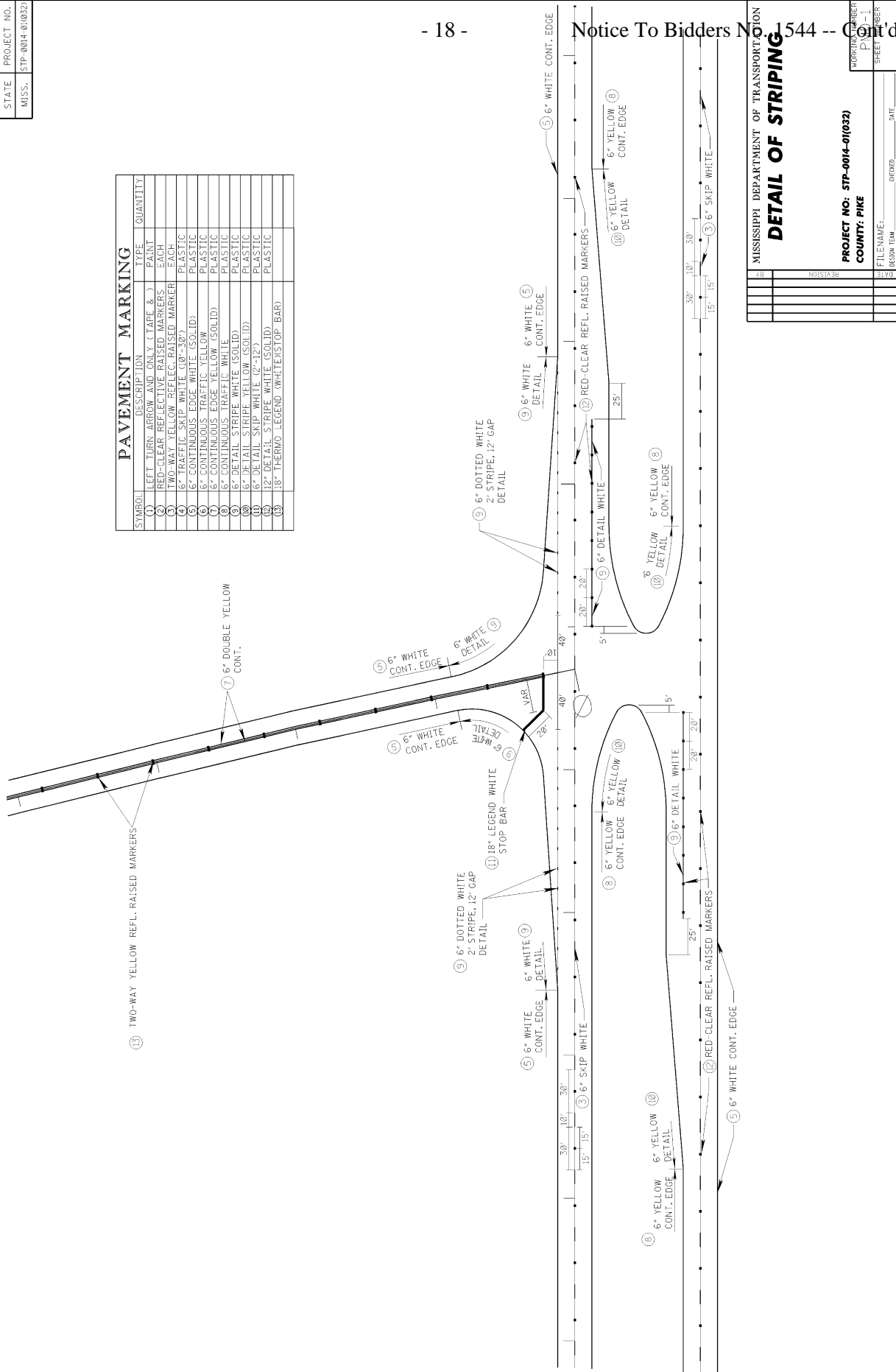


THIS DRAWING IS NOT TO SCALE

- NOTES:
 Install rumble bars as shown :
1. 1 set of rumble bars approx. 250' from STOP AHEAD
 2. 1 set of rumble bars approx. 300' from STOP
 3. 1 set of rumble bars approx. halfway between first and last set
 4. Rumble bars to be 6" thermoplastic legend (120 mil/each ply)
 5. 5 rumble bars per set minimum
 6. Installation may vary due to terrain

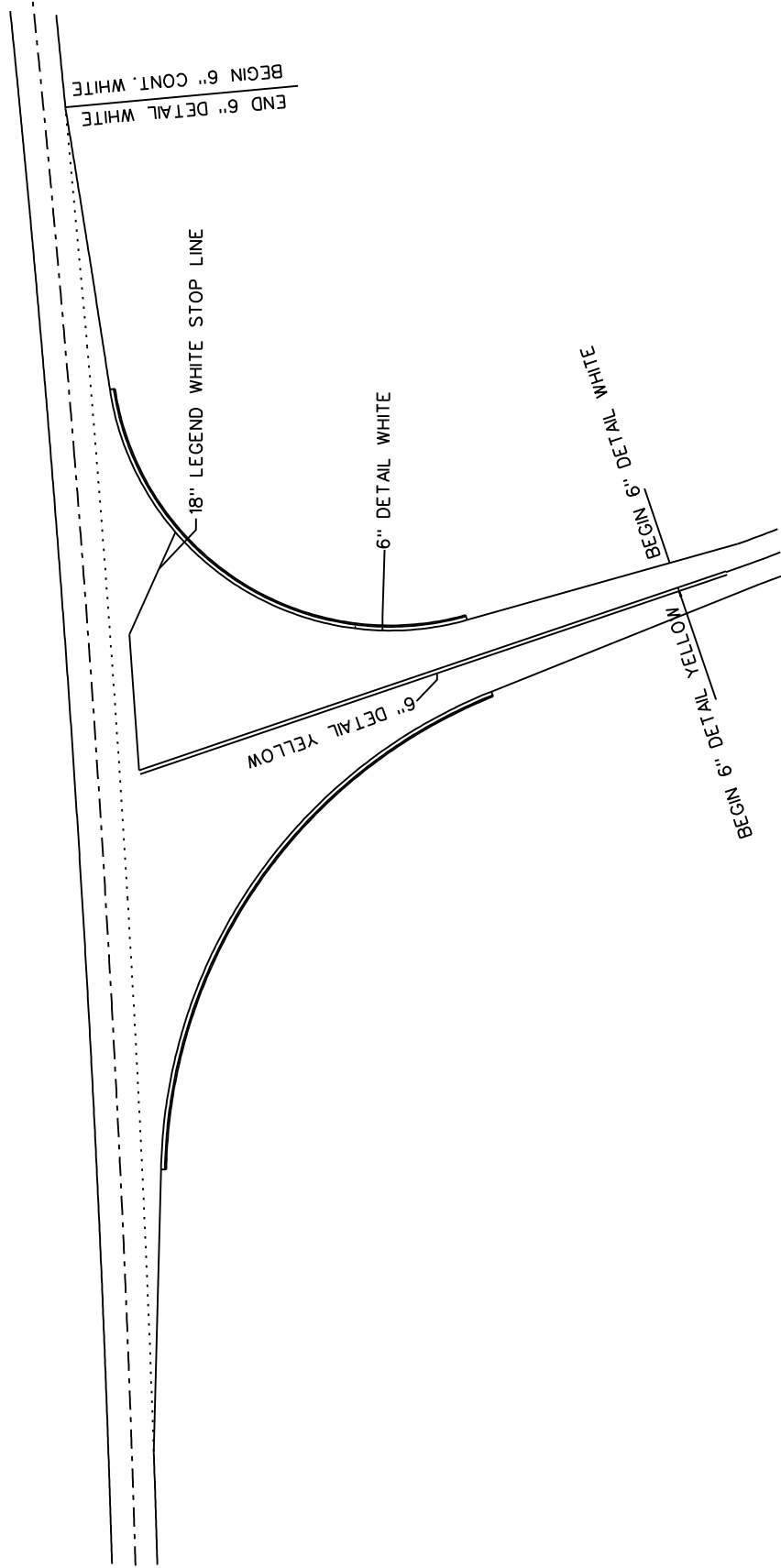
| | |
|-------|----------------|
| STATE | PROJECT NO. |
| MISS. | STP-0014-01032 |

| PAVEMENT MARKING | | | |
|------------------|---|---------|----------|
| SYMBOL | DESCRIPTION | TYPE | QUANTITY |
| (1) | LEFT TURN ARROW (CONV. TAPE & T) | PAINT | |
| (2) | RED-CLEAR REFLECTIVE RAISED MARKERS | EACH | |
| (3) | TWO-WAY YELLOW REFLECTIVE RAISED MARKER | EACH | |
| (4) | 6" TRAFFIC SKIP WHITE (10'-30') | PLASTIC | |
| (5) | 6" CONTINUOUS EDGE WHITE (SOLID) | PLASTIC | |
| (6) | 6" CONTINUOUS TRAFFIC YELLOW | PLASTIC | |
| (7) | 6" CONTINUOUS EDGE YELLOW (SOLID) | PLASTIC | |
| (8) | 6" DETAIL STRIPE WHITE (SOLID) | PLASTIC | |
| (9) | 6" DETAIL STRIPE YELLOW (SOLID) | PLASTIC | |
| (10) | 6" DETAIL STRIPE WHITE (SOLID) | PLASTIC | |
| (11) | 18" THERMO STOP BAR | PLASTIC | |
| (12) | 12" DETAIL STRIPE WHITE (SOLID) | PLASTIC | |
| (13) | 18" THERMO LEGEND (STOP BAR) | PLASTIC | |



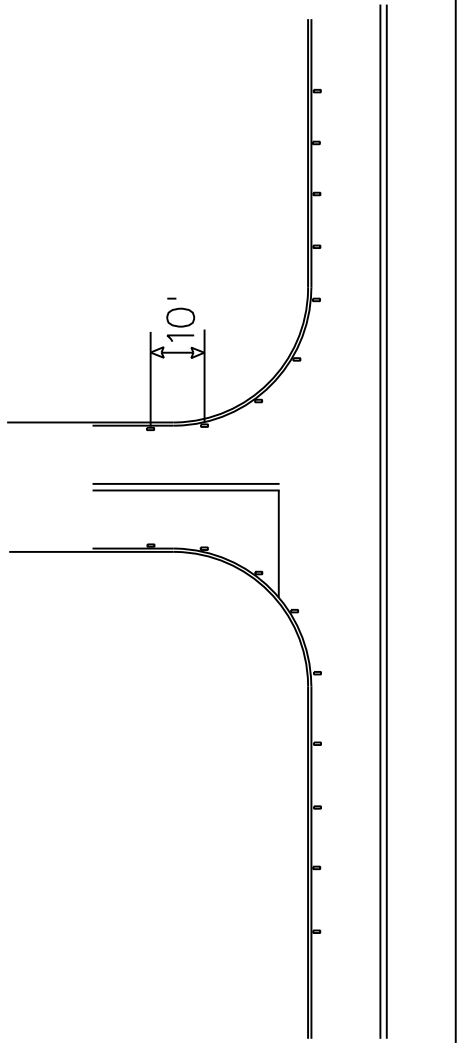
| | |
|--|---------------------|
| MISSISSIPPI DEPARTMENT OF TRANSPORTATION | |
| DETAIL OF STRIPING | |
| PROJECT NO. STP-0014-01032 | WORKSHEET REF. P. 1 |
| COUNTY: PIKE | SHEET NUMBER |
| FILE NAME: | DATE |
| DESIGNER: | DRAWN: |
| CHECKED: | DATE |

TYPICAL STRIPING FOR SIMPLE INTERSECTION AT LOCAL ROADS

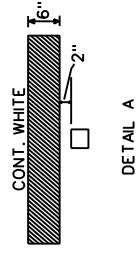


| | |
|-------|-------------|
| STATE | PROJECT NO. |
| MISS. | |

TYPICAL FOR RAISED PAVEMENT MARKERS
PLACED ON SIDE ROAD RADIUS



- NOTE 1. MARKERS SHALL BE PLACED EVERY 10 FEET.
- NOTE 2. MARKERS SHALL BE VISIBLE FROM THE TRAVELING MOTORIST ON STATE DESIGNATED HIGHWAYS.
- NOTE 3. MARKERS SHALL BE HIGH PERFORMANCE TWO WAY CLEAR.



| | |
|--|----------------|
| MISSISSIPPI DEPARTMENT OF TRANSPORTATION | |
| 2-LANE | |
| RAISED PAVEMENT MARKERS | |
| PLACED ON SIDE ROADS | |
| WORKING NUMBER | |
| SHEET NUMBER | |
| FILE NAME: | |
| LESSOR: TFM | CHECKED: DATE: |
| BY | REVISION |
| | |
| | |
| | |

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. 907-411-1

CODE: (SP)

DATE: 06/13/2018

SUBJECT: Material Transfer Equipment

Section 411, Ultra-Thin Asphalt Pavement, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-411.03--Construction Requirements. After Subsection 411.03.10 on page 327, add the following.

907-411.03.11--Material Transfer Equipment. Excluding the areas mentioned below, the material transferred from the hauling unit shall be remixed prior to being placed in the paver hopper or insert by using an approved Materials Transfer Device. Information on approved devices can be obtained from the State Construction Engineer. Areas excluded from this requirement include: temporary work of short duration, detours, bridge replacement projects having less than 1,000 feet of pavement on each side of the structure, acceleration and deceleration lanes less than 1,000 feet in length, tapered sections, transition sections (for width), shoulders less than 10 feet in width, crossovers, ramps, side street returns and other areas designated by the Engineer.

907-411.05--Basis of Payment. Add the “907” prefix to the pay item listed on page 328.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-618-4

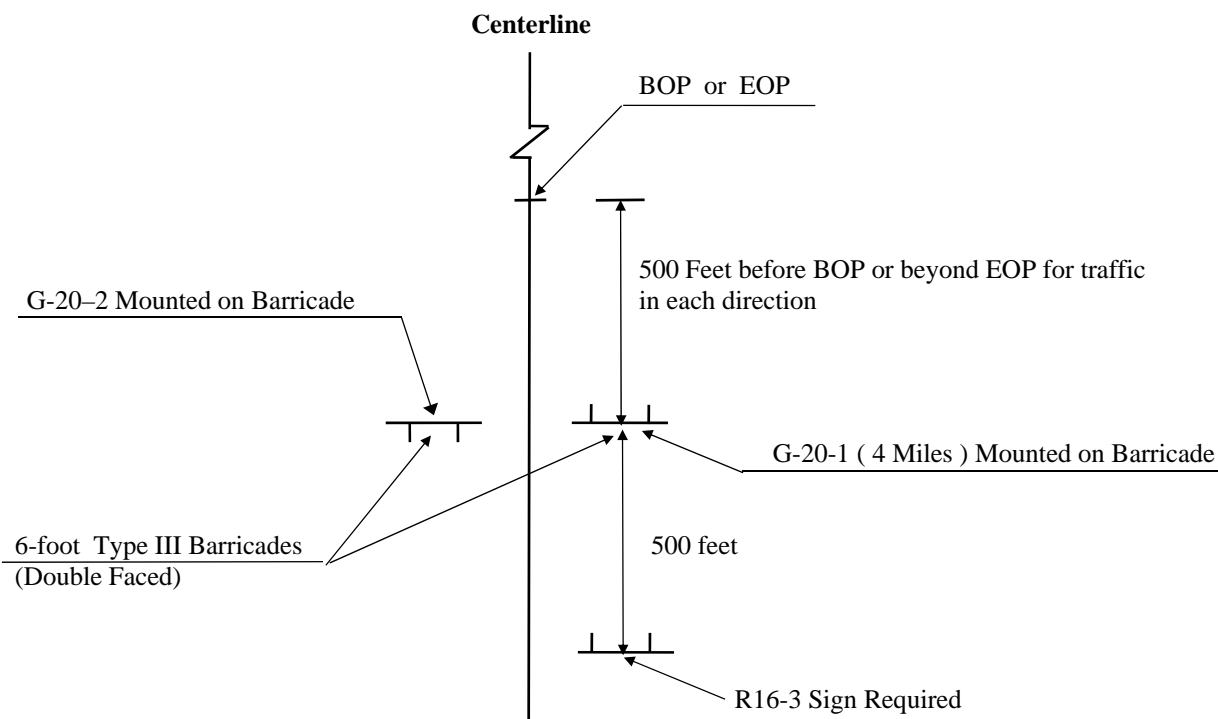
DATE: 03/19/2019

PROJECT: MP-6000-34(301) / 306698301 -- Jones County

After the first paragraph of Subsection 907-618.01.2 on page 1, add the following.

Additional [traffic control devices](#) will be required as follows.

SR 533



ADDITIONAL TRAFFIC CONTROL SIGNS REQUIRED:

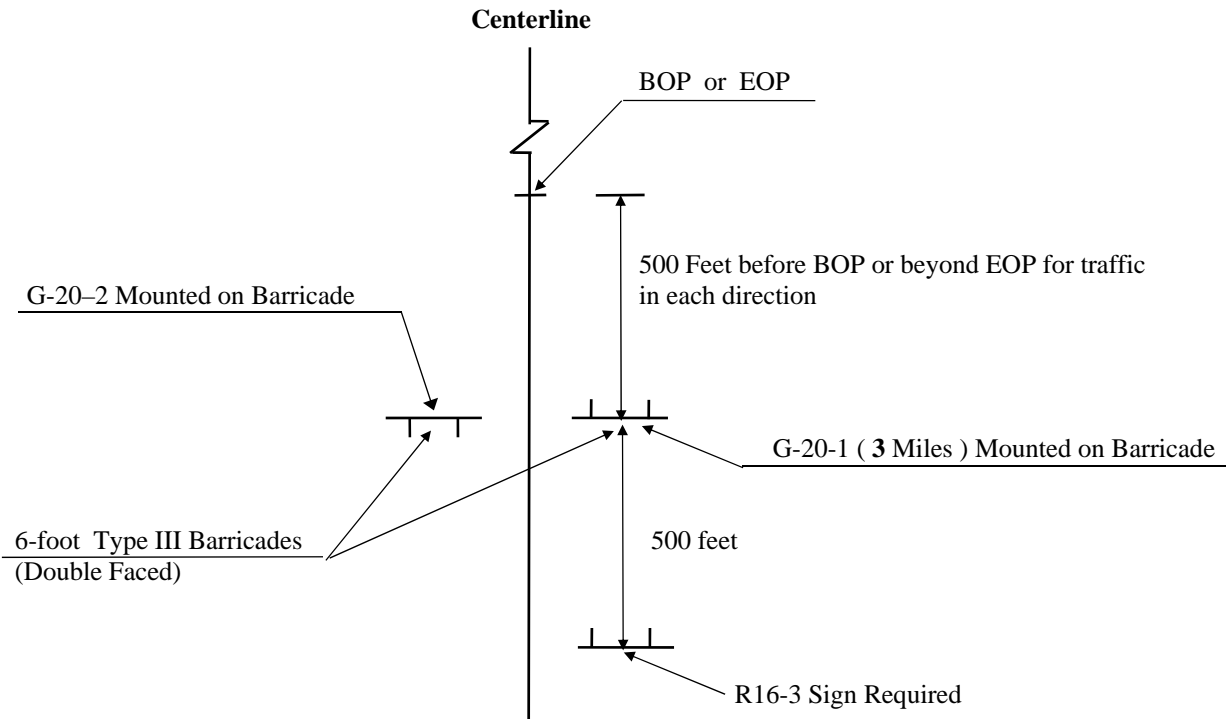
- 15 - W20-1 "AHEAD" signs required. One (1) W20-1 "AHEAD" sign is required at each local road or street entering the project.
- 48 - R4-1 "DO NOT PASS" signs required.
- 5 - R4-2 "PASS WITH CARE" signs required.
- 12 - W14-3 "NO PASSING ZONE" signs required.
- 4 - R16-3 "SPEEDING FINES DOUBLED" signs required.

R4-1 "DO NOT PASS", R4-2 "PASS WITH CARE", and W14-3 "NO PASSING ZONE" signs are required in accordance with Subsection 618.03.3, this drawing, and as specified in the Manual on Uniform Traffic Control Devices.

R16-3 signs shall be spaced in accordance with sheet titled "Location of R16-3 Signs".

All [construction signs and barricades shown on this page shall be](#) included in the bid [price](#) for Pay Item 618-A, Maintenance of Traffic. Fluorescent orange sheeting shall be used on all construction and traffic control signs except for R16-3, R4-1 and R4-2 signs which shall be black legend and border on white background.

SR 537



ADDITIONAL TRAFFIC CONTROL SIGNS REQUIRED:

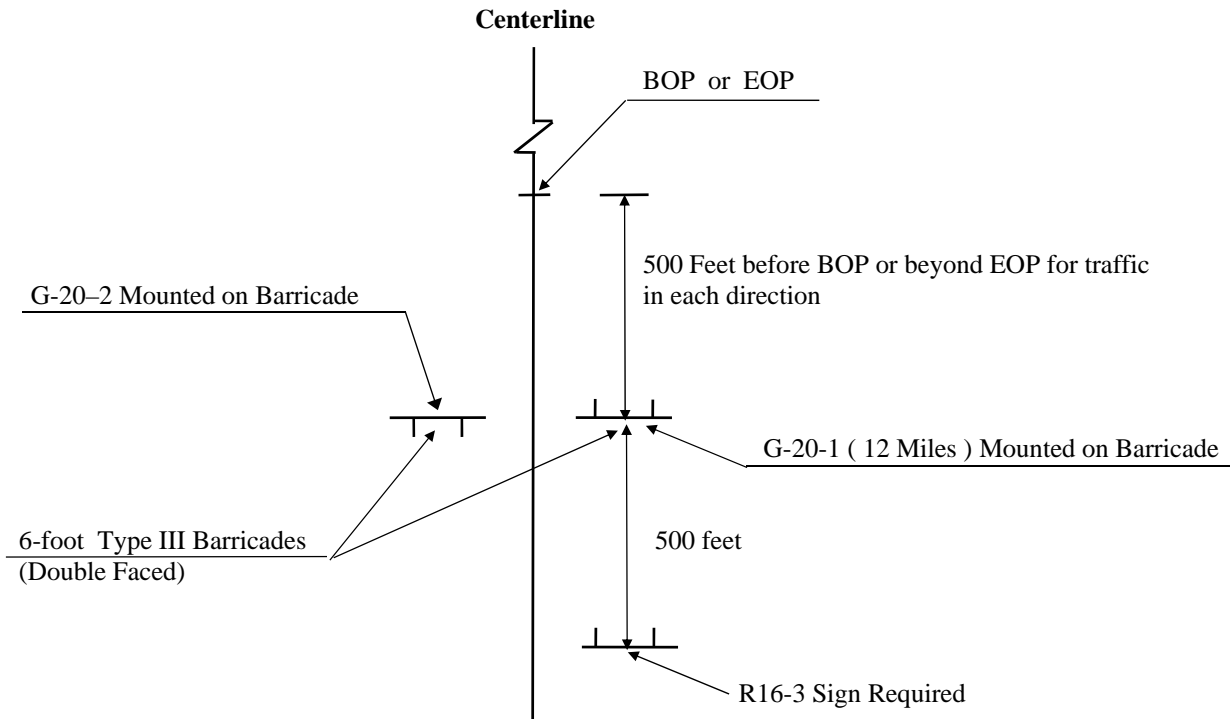
- 10 - W20-1 "AHEAD" signs required. One (1) W20-1 "AHEAD" sign is required at each local road or street entering the project.
- 28 - R4-1 "DO NOT PASS" signs required.
- 2 - R4-2 "PASS WITH CARE" signs required.
- 6 - W14-3 "NO PASSING ZONE" signs required.
- 4 - R16-3 "SPEEDING FINES DOUBLED" signs required.

R4-1 "DO NOT PASS", R4-2 "PASS WITH CARE", and W14-3 "NO PASSING ZONE" signs are required in accordance with Subsection 618.03.3, this drawing, and as specified in the Manual on Uniform Traffic Control Devices.

R16-3 signs shall be spaced in accordance with sheet titled "Location of R16-3 Signs".

All construction signs and barricades shown on this page shall be included in the bid price for Pay Item 618-A, Maintenance of Traffic. Fluorescent orange sheeting shall be used on all construction and traffic control signs except for R16-3, R4-1 and R4-2 signs which shall be black legend and border on white background.

SR 588



ADDITIONAL TRAFFIC CONTROL SIGNS REQUIRED:

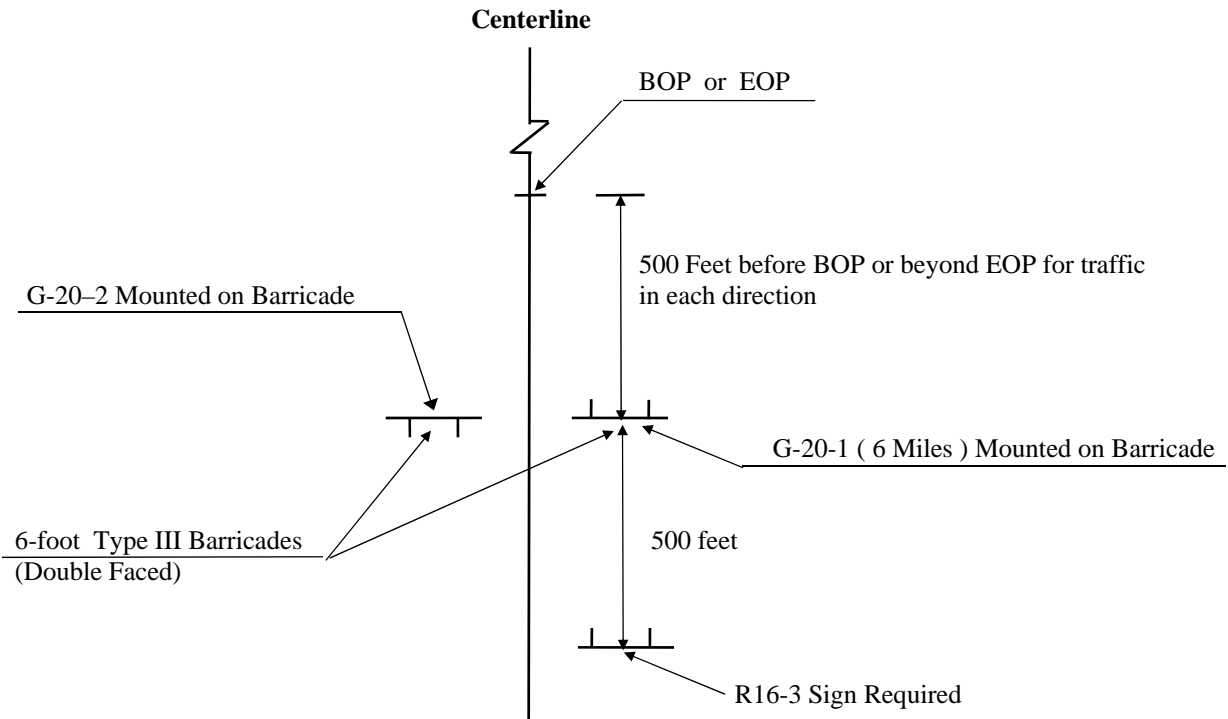
- 26 - W20-1 "AHEAD" signs required. One (1) W20-1 "AHEAD" sign is required at each local road or street entering the project.
- 117 - R4-1 "DO NOT PASS" signs required.
- 13 - R4-2 "PASS WITH CARE" signs required.
- 35 - W14-3 "NO PASSING ZONE" signs required.
- 4 - R16-3 "SPEEDING FINES DOUBLED" signs required.

R4-1 "DO NOT PASS", R4-2 "PASS WITH CARE", and W14-3 "NO PASSING ZONE" signs are required in accordance with Subsection 618.03.3, this drawing, and as specified in the Manual on Uniform Traffic Control Devices.

R16-3 signs shall be spaced in accordance with sheet titled "Location of R16-3 Signs".

All construction signs and barricades shown on this page shall be included in the bid price for Pay Item 618-A, Maintenance of Traffic. Fluorescent orange sheeting shall be used on all construction and traffic control signs except for R16-3, R4-1 and R4-2 signs which shall be black legend and border on white background.

SR 590



ADDITIONAL TRAFFIC CONTROL SIGNS REQUIRED:

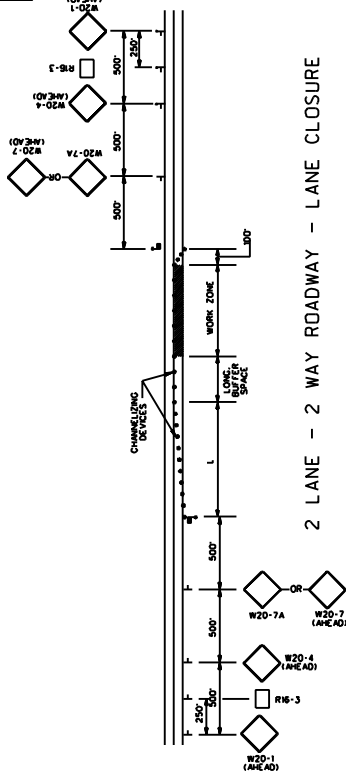
- 16 - W20-1 "AHEAD" signs required. One (1) W20-1 "AHEAD" sign is required at each local road or street entering the project.
- 68 - R4-1 "DO NOT PASS" signs required.
- 9 - R4-2 "PASS WITH CARE" signs required.
- 14 - W14-3 "NO PASSING ZONE" signs required.
- 4 - R16-3 "SPEEDING FINES DOUBLED" signs required.

R4-1 "DO NOT PASS", R4-2 "PASS WITH CARE", and W14-3 "NO PASSING ZONE" signs are required in accordance with Subsection 618.03.3, this drawing, and as specified in the Manual on Uniform Traffic Control Devices.

R16-3 signs shall be spaced in accordance with sheet titled "Location of R16-3 Signs".

All construction signs and barricades shown on this page shall be included in the bid price for Pay Item 618-A, Maintenance of Traffic. Fluorescent orange sheeting shall be used on all construction and traffic control signs except for R16-3, R4-1 and R4-2 signs which shall be black legend and border on white background.

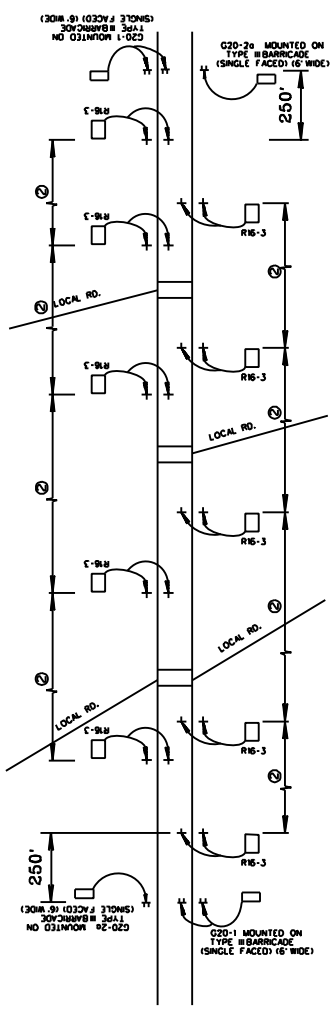
STATE PROJECT NO.
MISS.



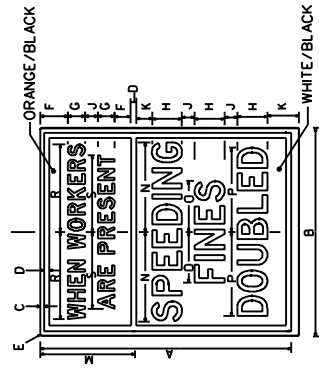
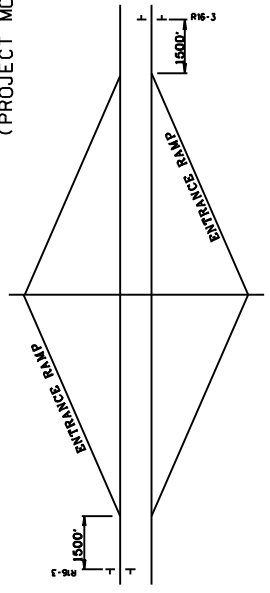
2 LANE - 2 WAY ROADWAY - LANE CLOSURE

DIVIDED HIGHWAY
(PROJECTS LESS THAN 1 MILE LENGTH)

- NOTES
- 1. R16-3 SIGN TO BE PLACED AS SHOWN OR AS DIRECTED BY THE ENGINEER.
 - 2. R16-3 SIGN SHALL BE SPACED AT A MAXIMUM OF 2 MILES THROUGHOUT LENGTH OF PROJECT.



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



| SIZE | A | B | C | D | E | F | G | H |
|--------|----|----|-------|-----|-----|-------|-------|-------|
| STL 60 | 48 | 36 | 1 1/4 | 3/4 | 3/4 | 1 1/2 | 1 1/2 | 7 1/2 |
| STL 72 | 60 | 48 | 1 1/4 | 3/4 | 3/4 | 1 1/2 | 1 1/2 | 8 1/2 |
| STL 84 | 72 | 60 | 1 1/4 | 3/4 | 3/4 | 1 1/2 | 1 1/2 | 9 1/2 |

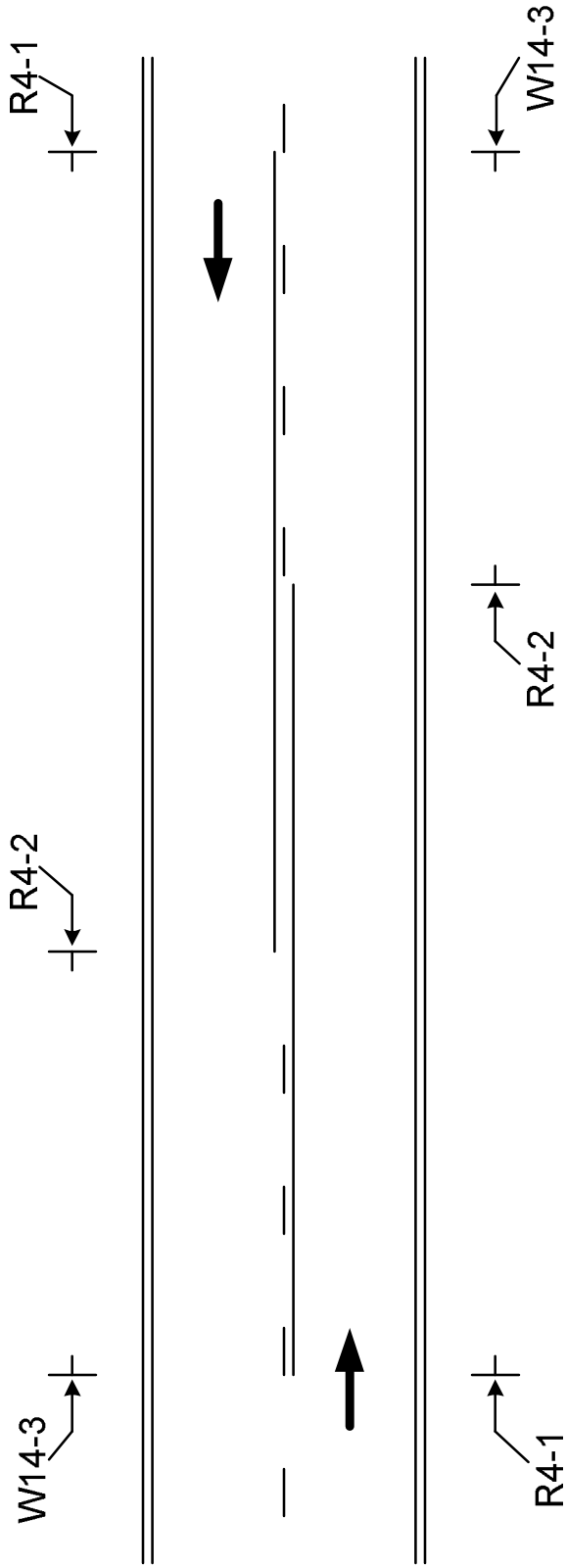
| SIZE | A | B | C | D | E | F | G | H |
|--------|----|----|-----|-----|-----|-------|-------|-------|
| STL 48 | 36 | 24 | 3/4 | 3/4 | 3/4 | 1 1/2 | 1 1/2 | 6 1/2 |
| STL 60 | 48 | 36 | 3/4 | 3/4 | 3/4 | 1 1/2 | 1 1/2 | 7 1/2 |
| STL 72 | 60 | 48 | 3/4 | 3/4 | 3/4 | 1 1/2 | 1 1/2 | 8 1/2 |

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

LOCATION OF R16-3 SIGNS

| REVISION | WORKING NUMBER |
|----------|----------------|
| | |
| | |
| | |
| | |

FILE NAME: SPEED_SIGN_DETAIL.DWG
CHECKED: DATE: 02/08/09



The W14-3, No Passing Zone sign, shall be placed on the left side of the road at the beginning of each no passing zone.

The R4-1, Do Not Pass signs, shall be placed on the right side of the road at the beginning of the no passing zone. Additional R4-1 signs shall be placed right and left in increments of 750 to 1000 feet throughout the length of the no passing zone.

The R4-2, Pass With Care sign, shall be placed on the right side of the road at the end of the no passing zone.

The R4-1, R4-2 and W14-3 signs are to be used when standard pavement markings are not in place. The signs may also be used to emphasize pavement markings.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-618-4

CODE: (SP)

DATE: 02/01/2018

SUBJECT: Additional Signing Requirements

Section 618, Maintenance of Traffic and Traffic Control Plan, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-618.01.2--Traffic Control Plan. At the end of Subsection 618.01.2 on page 441, add the following:

For compliance with the traffic control plan, the Contractor will be required to install and maintain traffic control devices at various locations throughout the project. Payment for these devices will be included in the price bid for pay item no. 618-A, Maintenance of Traffic per lump sum.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-619-6

CODE: (SP)

DATE: 03/21/2018

SUBJECT: Temporary Portable Rumble Strips

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. After Subsection 619.02.15 on page 472, add the following.

907-619.02.16--Temporary Portable Rumble Strips. Temporary portable rumble strips shall be RoadQuake manufactured by PSS and meet the following requirements:

- capable of being installed without adhesives or bolts,
- have a minimum weight of 100 pounds,
- have a minimum overall length of 11 feet,
- have a minimum width of 12 inches, and
- have a maximum height of 3/4 inch.

Temporary portable rumble strips shall be installed in accordance with the attached details, or as directed by the Engineer.

907-619.03--Construction Requirements. After Subsection 619.03.11 on page 476, add the following.

907-619.03.16--Temporary Portable Rumble Strips. Temporary portable rumble strips shall be placed at locations shown on the traffic control plans, attached drawing, or as directed by the Engineer. The rumble strips shall be removed when lane closures are removed, relocated when lane closures are relocated, or as directed by the Engineer.

Prior to placement of the rumble strips, the roadway shall be cleaned to be free of dust, sand, and other materials that may cause slippage. The minimum roadway temperature at the time of installation shall be in accordance with manufacturer recommendations.

A minimum of three (3) temporary portable rumble strips shall be arranged in an array. The spacing of temporary portable rumble strips in each array shall be on 15-foot centers. One array of three (3) strips shall be used in each lane. The rumble strips shall be regularly monitored and maintained to ensure they stay in place under traffic.

907-619.04--Method of Measurement. At the end of Subsection 619.04 on page 478, add the following.

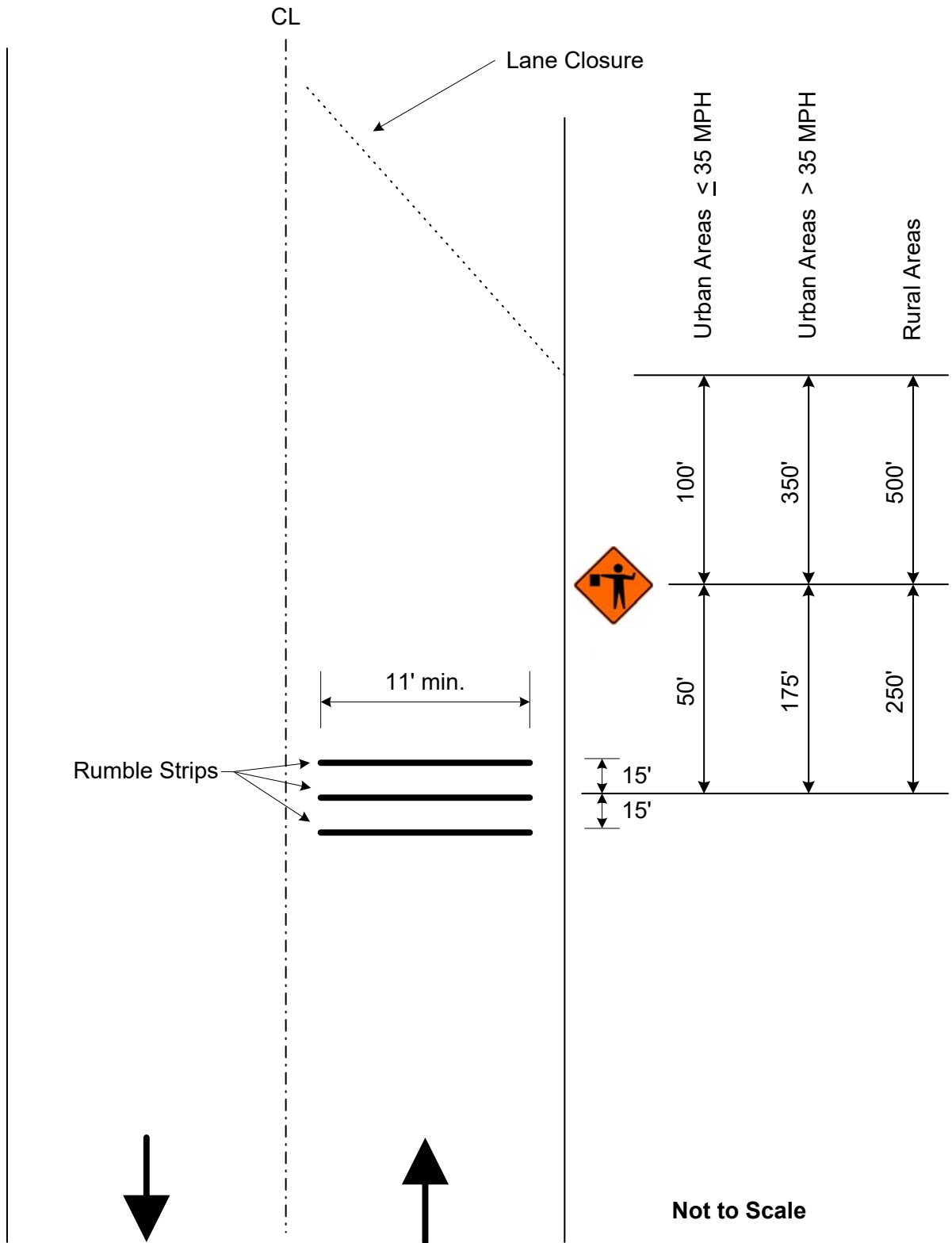
Temporary Portable Rumble Strips will be measured for payment by the linear foot only when a pay item for temporary portable rumble strips is included in the contract. Otherwise, temporary portable rumble strips will be included in the cost of pay item 618-A, Maintenance of Traffic. The quantity of temporary portable rumble strips will be the length of rumble strips approved by the Engineer to be in-place on the project at any one time.

907-619.05--Basis of Payment. After the fifth paragraph of Subsection 619.05 on page 478, add the following.

Temporary Portable Rumble Strips measured as prescribed above, will be paid for at the contract unit price per linear foot, which price shall be full compensation for cleaning the roadway surface, installing the rumble strips, maintenance and repair of the strips, cleaning and resetting of the strips, removal and replacement, and for all labor, equipment, tools, and incidentals necessary to complete the work.

After the last pay item listed on page 480, add the following.

907-619-B: Temporary Portable Rumble Strips - per linear foot



Detail of Temporary Portable Rumble Strips

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-624-1

CODE: (SP)

DATE: 01/17/2017

SUBJECT: Inverted Profile Thermoplastic Traffic Stripe

Section 907-624, Inverted Profile Thermoplastic Traffic Stripe, is hereby added to and made part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

907-624.01--Description. Inverted profile thermoplastic pavement markings consists of furnishing materials and placing inverted profile thermoplastic pavement markings in reasonably close conformity with these specifications and the details shown on the plans or established.

Inverted profile thermoplastic pavement markings, high contract, shall consist of furnishing materials and placing inverted profile thermoplastic pavement markings over a black thermoplastic pavement marking in order to enhance the marking's visibility.

907-624.02--Materials.

907-624.02.1--General. The inverted profile thermoplastic marking material shall consist of an alkyd/maleic or hydrocarbon based formulation. The material shall be so manufactured as to be applied to the pavement in a molten form, with internal and surface application of glass spheres, and upon cooling to normal pavement temperature, shall produce an adherent, reflectorized pavement marking of specified thickness and width, capable of resisting deformation.

Materials shall be obtained from approved sources as listed on the Department's "List of Approved Sources" for Inverted Profile Thermoplastic Pavement Marking Materials. The material shall not scorch, break down, discolor, or deteriorate when held at the application temperature for four hours or when reheated four times to the application temperature. Temperature-vs-viscosity characteristics of the plastic material shall remain constant when reheated four times, and shall be the same from batch to batch.

The thermoplastic material shall be a product especially compounded for pavement markings. The pavement markings shall maintain their original dimension and shall not smear or spread under normal traffic at temperatures below 140°F. The markings shall have a uniform cross section. Pigment shall be evenly dispersed throughout its thickness. The exposed surface shall be free from tack and shall not be slippery when wet. The material shall not lift from pavement in freezing weather. Cold ductility of the material shall be such as to permit normal movement with the pavement surface without chipping or cracking.

Black thermoplastic compound for the placement of inverted profile thermoplastic pavement markings, high contract, shall consist of a hydrocarbon or alkyd/maleic based formulation.

The manufacturers of the thermoplastic compound, glass beads and epoxy primer sealer shall furnish to the Engineer three copies of certified test reports showing results of all tests specified herein and shall further certify that the materials meet all requirements. The Contractor shall provide the warranty as specified herein to the Engineer.

907-624.02.2--Inverted Profile Thermoplastic Material. The thermoplastic material shall consist of homogeneously mixed pigments, fillers, resins and glass beads, and shall be available in both white and yellow. The material shall be free from all skins, dirt, and foreign objects. Materials shall conform to AASHTO M 249 with the following modifications:

907-624.02.2.1--Intermixed Glass Beads. The thermoplastic material shall contain a minimum of 40 percent Class H glass beads by weight. Class H glass beads shall meet the requirements of ASTM D 1155, and shall be coated with an adhesion promoting coating which shall also provide moisture resistance as tested by AASHTO M 247, Section 4.4.2. Class H beads shall have a minimum of 70 percent true spheres and the +20 sieve shall be tested visually.

The gradation of the Class H beads shall meet the following:

| <u>U. S. Standard Sieve</u> | <u>% Passing</u> |
|------------------------------------|-------------------------|
| 12 | 100 |
| 14 | 95 - 100 |
| 16 | 80 - 100 |
| 18 | 30 - 100 |
| 20 | 15 - 100 |
| 30 | 10 - 100 |
| 50 | 0 - 50 |
| 100 | 0 - 5 |

907-624.02.2.2--Binder Content. The binder content of the thermoplastic material shall be 19 percent minimum.

907-624.02.2.3--Titanium Dioxide. The titanium dioxide shall meet ASTM D 476, Type II, Rutile grade - 10 percent minimum titanium content.

907-624.02.2.4--Yellow Pigment. The yellow pigment for the yellow thermoplastic material shall be five (5) percent minimum.

907-624.02.2.5--Specific Gravity. The specific gravity of the thermoplastic pavement marking material shall not exceed 2.35.

907-624.02.2.6--Flow Characteristics.

907-624.02.2.6.1--Flowability. After heating the thermoplastic material for four (4) hours ±5 minutes at 425 ±3°F and testing flowability, the white thermoplastic shall have a maximum percent residue of 22 percent and the yellow thermoplastic shall have a maximum residue of 24 percent.

907-624.02.2.6.2--Flow Resistance. The material shall exhibit a maximum flow of 10%. The material's ability to form ribs on the markings shall be evaluated by casting a disc of material approximately 3.5 inches wide by 1.0 inch long by and 0.60 inch deep. After the material is cooled to ambient temperature, measure the exact height. The material shall then be stored at 190°F for four (4) hours. After the material is cooled to ambient temperature, re-measure the exact height and express the flow resistance as a flow percentage.

907-624.02.2.7--Reflectivity. The initial reflectance for the in-place marking shall have a minimum reflectance value of 450 mcd/ft² for white and 350 mcd/ft² for yellow, when measured with a MiroLux Ultra 30 retroreflectometer, or approved equal.

907-624.02.2.8--Wet Reflectivity. The initial reflectance for the in-place marking when wet shall have a minimum reflectance value of 200 mcd/ft² for white and 175 mcd/ft² for yellow, when measured with an approved retroreflectometer. The stripe shall be wetted utilizing a pump type sprayer for five (5) seconds. After 30 seconds, place the retroreflectometer on the stripe and measure the reflectance.

907-624.02.2.9--Inverted Profile. The thermoplastic pavement marking material shall be applied to have individual profiles having a minimum height of 0.140 inches with the recessed inverted profiles having a thickness of 0.025 to 0.050 inches. The profiles shall be well defined, spaced approximately one (1) inch apart, and not excessively run back together.

907-624.02.3--Black Pavement Marking Material for High Contrast Inverted Profile Pavement Markings.

907-624.02.3.1--General. In the molten state, the material shall not give off fumes that are toxic or otherwise injurious to persons or property. The manufacturer shall provide material safety data sheets for the product.

The temperature versus viscosity characteristic of the plastic material shall remain constant and the material shall not deteriorate in any manner during three reheating processes. There shall be no obvious change in color of the material as a result of up to three reheatings, or in maintaining the material at application temperature up to an aggregate time of four (4) hours, or from batch to batch. The maximum elapsed time after application at which normal traffic will leave no impression or imprint on the new stripe shall be 30 seconds when the air and road surface temperature is approximately 68 ±5°F. The applied stripe shall remain free from tack and shall not lift from the pavement under normal traffic conditions within a road temperature range of -20°F to 150°F. The stripe shall maintain its original dimensions and placement. Cold ductility of the material shall be such as to permit normal dimensional distortion as a result of tire impact within the temperature range specified.

The material shall provide a stripe that has a uniform thickness throughout its cross section.

907-624.02.3.2--Binder. The binder shall be hydrocarbon or alkyd/maleic based. The binder shall consist of a homogeneous mixture of pigment, fillers, resins, waxes and plasticizers. The total

binder content shall be well distributed throughout the compound. The binder shall be free from all foreign objects or ingredients that would cause bleeding, staining or discoloration. The binder shall be 19 percent minimum by weight of the thermoplastic compound.

907-624.02.3.3--Pigment. The pigment used for black pavement marking compound shall be as required and shall be uniformly distributed throughout the marking compound.

907-624.02.3.4--Filler. The filler to be incorporated with the resins shall be a white calcium carbonate, silica or any approved substitute.

907-624.02.3.5--Specific Gravity. The specific gravity of the marking compound shall not exceed 2.0.

907-624.02.3.6--Softening Point. After heating the marking compound for 4 hours \pm 5 minutes at $375 \pm 3^\circ\text{F}$ and testing in accordance with ASTM E 28, the material shall have a minimum softening point of 180°F as measured by the ring and ball method.

907-624.02.3.7--Tensile Bond Strength. After heating the marking compound for 4 hours \pm 5 minutes at $375 \pm 3^\circ\text{F}$, the tensile bond strength shall exceed 180 psi when tested in accordance with ASTM D 4806. The material shall be applied to unprimed, sandblasted Portland cement concrete block at a thickness of 0.0625-inch and at a temperature of $375 \pm 3^\circ\text{F}$. The test shall be conducted at room temperature.

907-624.02.3.8--Impact Resistance. After heating the marking compound for 4 hours \pm 5 minutes at $375 \pm 3^\circ\text{F}$, the impact resistance shall be a minimum of 50 inch-pounds minimum when tested in accordance with ASTM D 2794. No cracks or bond loss shall occur when a 0.0625-inch thick film drawdown is made at $375 \pm 3^\circ\text{F}$ on an unprimed sandblasted Portland cement concrete block. The sample is tested with a male indenter 5/8-inch and no female Die at room temperature.

907-624.02.3.9--Identification. Each package of material shall be stenciled with the manufacturer's name, the type of material and specification number, the month and year the material was packaged and lot number. The letters and numbers used in the stencils shall be a minimum of 1/2 inch in height.

907-624.02.3.10--Packaging. The material shall be packaged in suitable containers that will not adhere to the product during shipment and storage. The container of pavement marking material shall weigh approximately 50 lbs. Each container shall designate the color, type of resin, type of application and user information. The label shall warn the user that the material shall be heated in the range of 350° to 425°F .

907-624.02.3.11--Storage Life. The material shall meet the requirements of this specification for a period of one year. The material must also meet uniformly with no evidence of skins or unmelted particles for this one-year period. The manufacturer shall replace any material not meeting the above requirements.

907-624.02.3.12--Certifications. The material manufacturer shall furnish a certified copy of material test reports to the Engineer.

907-624.02.4--Drop-On Glass Beads. Drop-on glass beads shall be separated into two (2) classes, as follows:

907-624.02.4.1--Class G Glass Beads. Class G glass beads shall be coated with an adhesion promoting coating which shall also provide moisture resistance as tested by AASHTO M 247, Section 4.4.2 and shall exhibit the following characteristics:

- **Color and Clarity:** The glass beads shall be colorless and clear, and shall be free of carbon residues.
- **Index of Refraction:** minimum 1.50
- **Roundness:** The glass beads shall have a minimum of 80% true spheres per screen for the two highest sieve quantities, determined visually, and a maximum of 3% angular particles per sieve, determined visually. The remaining sieves shall have a minimum of 75% true spheres, determined visually per aspect ratio using microfiche reader.
- **Air Inclusions:** 10% maximum
- **Specific Gravity:** The specific gravity of the glass beads shall be a minimum of 2.50.
- **Gradation:** The gradation of Class G glass beads shall be as follows:

| <u>U. S. Standard Sieve</u> | <u>% Passing</u> |
|-----------------------------|------------------|
| 12 | 100 |
| 14 | 100 - 95 |
| 16 | 100 - 80 |
| 18 | 100 - 20 |
| 20 | 90 - 20 |
| 30 | 100 - 50 |
| Pan | 100 - 90 |

All Class G glass beads shall be coated with an adhesion promoting coating.

907-624.02.4.2--Class H Glass Beads. Class H glass beads shall meet the requirements of ASTM D 1155, and shall be coated with an adhesion promoting coating which shall also provide moisture resistance as tested by AASHTO M 247, Section 4.4.2. Class H beads shall have a minimum of 70 percent true spheres and the +20 sieve shall be tested visually.

The gradation of the Class H beads shall meet the following:

| <u>U. S. Standard Sieve</u> | <u>% Passing</u> |
|-----------------------------|------------------|
| 16 | 99 - 100 |
| 20 | 75 - 100 |
| 30 | 55 - 95 |
| 50 | 10 - 35 |
| 100 | 0 - 5 |

907-624.03--Construction Requirements.

907-624.03.1--Equipment. The application equipment shall be specifically designed for placing thermoplastic material in a hot molten state on the pavement surface utilizing a pressure type application method. The thermoplastic stripe shall be formed by a die that is allowed to drag along in proximity with the pavement surface. The die is pulled forward by a special linkage that will allow it to automatically level itself as to float and remain parallel with the pavement surface. The traffic stripe shall be formed by reason that the hot thermoplastic material is forced under pressure through four sides to the die onto the pavement surface. The top of the die shall be enclosed and provide entry means for the hot molten thermoplastic material to enter the die cavity. The bottom of the die shall contain a movable door that is remote controlled so as to start or stop the flow of thermoplastic material onto the pavement surface. When the movable door is open, thermoplastic material can flow through the die and will apply a thermoplastic stripe that will be formed rearward of the advancing die. The pavement surface shall be at the bottom of the die enclosure. Thermoplastic material shall be fed to the die under pressure through flexible oil-jacketed stainless steel hoses. The thermoplastic material must be either pumped or fed from a pressure vessel to the die under pressure in order to obtain the proper adhesion with the pavement surface.

The system shall consist of a low pressure drop-on type glass bead gun, (bead coat #1). The thermoplastic die shall be oil-jacketed on four (4) sides and is formed from a single solid block of steel. The glass bead gun shall dispense glass beads onto the hot thermoplastic stripe from a height of approximately one (1) inch above the pavement surface. The point at which the glass beads strike the surface of the stripe shall be approximately three inches (3”) behind the strike point of the thermoplastic material itself. This reflective bead coat #1 shall utilize Class G glass beads as specified herein, and shall provide a surface coating of 50 percent of the thermoplastic stripe surface. Of this 50 percent stripe coverage, at least 50 percent of the beads shall be embedded to a depth of 60 percent of their diameter.

A second curtain coater, low pressure drop-on type glass bead gun capable of applying a continuous sheet or ribbon of glass beads, shall follow at an interval of approximately 10 inches behind the first bead gun. This second glass bead gun shall apply bead coat #2 which will form a continuous drop-on coat of Class H glass beads immediately in front of the profiling device. This second curtain of glass beads shall have a low impact speed so that they are not forced into the stripe under pressure.

A special rotatable wheel profiling device shall be located approximately eight (8) inches behind bead gun #2. This rotatable wheel device shall be approximately seven (7) inches in diameter and shall have a plurality of spaced projections located around its circumference. The profiling device shall be wider than the stripe being applied in order that the stripe shall be adequately covered. The projections on the rotatable profiling device shall have an angular profiling surface set at an angle to the pavement surface. The rotatable profile device shall be mounted with an automatic leveling device to the same carriage assembly as the thermoplastic gun. This is required so that a traffic stripe of accurate and uniform definition can be obtained. The inverted profile grooves shall be pressed into the hot molten thermoplastic stripe within one (1) second of the thermoplastic material application in order to insure proper bead adhesion to the stripe. Using rollers to place grooves in the traffic stripe utilizing a separate vehicle or grooves that are not pressed within one

(1) second of the thermoplastic material application will not be allowed. To insure that no thermoplastic material adheres to the wheel as it rotates and profiles the stripe, a small air atomizer water jet shall apply a thin mist coat of water to the rotatable profile wheel. It is the intent of this specification that a minimum amount of water be used and that no water puddles greater than ¼ inch in diameter be allowed to accumulate on the pavement surface in proximity to the freshly placed stripe. Excess water on the pavement surface can cause bond failure of the thermoplastic material.

All parts of the thermoplastic holding tank including manifolds, hoses, pipes, dies, etc., shall be oil-jacketed to insure accurate temperature control. The thermoplastic material shall be preheated in kettles designed specifically for that purpose. Each kettle of preheated thermoplastic material shall be properly mixed and heated to the correct application temperature. The preheated material shall then be fed to the thermoplastic gun for application.

The striping machine shall contain enough glass beads and water to apply one full kettle of thermoplastic material.

907-624.03.2--Cleaning of Pavement Surface. Immediately before application, the areas to receive markings shall be cleaned thoroughly using equipment capable of cleaning without damaging the pavement surface. This will include, but not be limited to, all vegetation, loose soil, oils, and other debris. On areas of pavement cured with compound, the membrane shall be removed completely by "shot" blasting, sand blasting or other approved method. Striping shall follow as closely as practical after the pavement surface has been cleaned.

907-624.03.3--Application Over Existing Striping. Where shown on the plans or directed by the Engineer, the existing traffic stripe shall be removed by grinding or sandblasting. When placing inverted profile thermoplastic pavement markings on existing pavement that has more than one light coat (pavement not showing through stripe) of striping material, the existing stripe shall be removed to the point that 80 percent of the pavement surface is visible.

Removal of existing stripe will be paid for as a separate item of work.

Where unsatisfactory striping performed by the Contractor must be removed and replaced in accordance with these specifications, the Contractor shall use the removal method described above. No payment will be made for removal or replacement of the Contractor's unsatisfactory striping.

907-624.03.4--Surface Conditions. When placing inverted profile thermoplastic pavement markings, no striping shall be permitted when the pavement surface temperature is less than 60°F. A non-contact infrared pyrometer shall be furnished by the Contractor for use by the Engineer for verification of the temperature. Striping shall not be performed when there is moisture on the pavement surface or when winds exceed 12 mph. When unseen moisture is suspected to be present, a moisture test shall be performed. The test shall be as follows:

- 1) Place a piece of roofing felt on the pavement surface.
- 2) Pour 0.5 gallon of thermoplastic material at application temperature onto the paper.

- 3) After two (2) minutes, lift the paper and inspect to see if moisture has been drawn from the pavement.
- 4) If moisture is present, striping is not to begin until the surface is moist free.

Documentation of weather and pavement conditions shall be recorded as part of completing the MDOT Inverted Profile Thermoplastic Pavement Marking Inspectors Report.

907-624.03.5--Application. Prior to the placement of pavement markings, the Contractor shall furnish the Engineer three copies of the manufacturer's warranty stating that the manufacturer will guarantee the pavement marking to meet the requirements of this specification.

The thermoplastic material shall be preheated and thoroughly mixed. The application temperature of the thermoplastic material shall be between 400°F and 430°F. A digital thermometer complete with a 24-inch probe shall be furnished by the Contractor for use by the Engineer for verification of the temperature.

When measured at the highest point of the profile, the cold thickness of the in-place thermoplastic stripe shall be a minimum of 0.140 inch for Inverted Profile Thermoplastic Pavement Markings. The thickness of the thermoplastic material in the bottom of the profiles shall range from 0.025 to 0.050 inch. The individual profiles shall be located transversely across the stripe at intervals of approximately one (1) inch. The bottoms of these intervals shall be between 3/32 inch and 5/16 inch wide. In order to drain water and to reflect light, it is normal for the top surface of the inverted profiles to be irregular. The application rate of thermoplastic material for Inverted Profile Thermoplastic Pavement Markings shall be a minimum of 2700± pounds per mile for a continuous 6-inch stripe.

The application rate for Class G glass beads (bead coat #1) shall be 300± pounds per mile for 6-inch continuous stripe.

The application rate for Class H glass beads (bead coat #2) shall be 300± pounds per mile for 6-inch continuous stripe.

The thickness of the striping materials shall be verified periodically (at least every 1320 feet) and any thickness more than five (5) percent under the designated thickness shall be reworked. A consistent, uncorrected under-run will not be allowed and the Contractor will be required to install the specified minimum thickness of 0.140 inch. A wet thickness gauge and cold thickness gauge shall be furnished by the Contractor for use by the Engineer for the verification of film thickness.

When striping over existing painted stripe (one light coat), on old oxidized asphalt, on all concrete surfaces or on asphalt surfaces when ambient temperatures are below 70°F, a two component epoxy primer sealer shall be used and installed as recommended in writing by the thermoplastic material manufacturer. The epoxy primer sealer shall be EX255/EX256 as manufactured by Crown Paint Company of Oklahoma City, Oklahoma, or approved equal. The Contractor shall furnish certification of compatibility of the epoxy primer sealer to be used with the thermoplastic material supplied. If an alternate epoxy primer sealer to the EX255/EX256 is used, the Contractor

shall furnish a mill analysis and proof of adequate performance of the alternate epoxy primer sealer when used with thermoplastic pavement markings.

907-624.03.6--Inverted Profile Thermoplastic Traffic Stripe, High Contrast. Before applying the black pavement marking material, the Contractor shall remove any dirt, glaze, grease or any other material that would reduce the adhesion of the thermoplastic to the pavement.

The pavement marking material shall be installed in a molten state by the spray method at a minimum temperature of 350°F and a maximum temperature of 425°F. Scorching or discoloration of material shall be cause for rejection by the Engineer. The machinery shall be constructed so that all mixing and conveying parts, up to and including the thermoplastic gun, maintain the material in the molten state.

The pavement marking materials shall not be applied when air and pavement surface temperatures are below 60°F or when the surface of the pavement contains any evidence of moisture.

The pavement marking material shall be applied at a thickness of not less than 0.040-inch.

The equipment used to install hot applied pavement marking material shall provide continuous mixing and agitation of the material while maintaining a minimum temperature exceeding 400°F. A strainer shall be in place between the main material reservoir and the gun to prevent accumulation and clogging. The equipment shall be constructed for easy accessibility to parts requiring cleaning and maintenance.

After the black thermoplastic pavement markings are applied, inverted profile thermoplastic markings shall be placed over the black thermoplastic pavement markings in accordance with the specifications and to the dimensions and details shown on the plans or established.

907-624.03.7--Warranty. The manufacturer shall warrant that the inverted profile thermoplastic markings will meet the minimum performance level of 150 mcd/fc/sq. ft. dry and 75 mcd/fc/sq. ft. wet for a period of 48 months from the date of final inspection when exposed to normal roadway conditions regardless of the average daily traffic. Failure to meet this requirement will result in the total replacement of the portion of the stripe shown to be below these minimums. All costs of labor, material and other incidentals necessary for the replacement of unacceptable pavement markings shall be at no additional costs to the State.

Compliance will be determined by an average brightness reading over a minimum zone marking length of 300 linear feet, using an approved reflectometer. The zone of measurement referred to includes centerline stripe, edge lines and skip lines.

| Performance Requirements: | White | | Yellow | |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|
| | <u>Dry</u> | <u>Wet</u> | <u>Dry</u> | <u>Wet</u> |
| Initial Reflectivity, mcd/fc/sq. ft. | 450 | 200 | 350 | 175 |
| 48-Month Retained Reflectivity | 150 | 75 | 150 | 75 |

The measurement procedure for this warranty will entail a visual night inspection by a manufacturer representative and a MDOT representative to identify areas of the installation, which appear to be below the specified minimum, warranted reflectance value. All reflectance measurements for dry conditions shall be made on a clean dry surface at a minimum temperature of 40°F. All reflectance measurements for wet conditions shall be made using the setting conditions of Subsection 907-624.02.2.8 at a minimum temperature of 40°F.

Measurement intervals for installations with areas less than, or equal to, three (3) miles shall be at a minimum of three (3) check points for each zone. These check points should include the start point, approximate mid-point and the end point.

Measurement intervals for installations with areas greater than three (3) miles shall be at a minimum of three (3) check points, one at the start point, one at the end point and additional measurements spaced at 3-mile intervals between the start and end points of the area in question.

The number of measurements at each check point for each zone will be as follows:

- (A) Skip Lines: Eighteen (18) measurements, distributed over six (6) skip lines, shall be made at each check point.
- (B) Center Lines and/or Edge Lines: Eighteen (18) measurements shall be made over 300 linear feet of continuous stripe.

When taking reflectivity measurements, the value of the measurement shall be determined by averaging three measurements; one at the left edge of the stripe, one at the center of the stripe and one at the right edge of the stripe.

In addition, the reflectance values measured at each check point shall be averaged by zone to determine conformance to the minimum warranted reflective values.

907-624.04--Method of Measurement. Inverted profile thermoplastic traffic stripe of the type specified will be measured by the mile or by the linear foot, as indicated, from end-to-end of individual stripes. In the case of skip lines the measurement will include skips. The length used to measure centerline and edge stripes will be the horizontal length computed along the stationed control line. Inverted profile thermoplastic detail traffic stripe will be measured by the linear foot from end-to-end of individual stripes. Measurements will be made along the surface of each stripe and will exclude skip intervals where skips are specified. Stripes more than six (6) inches in width will be converted to equivalent lengths of six-inch widths.

907-624.05--Basis of Payment. Inverted profile thermoplastic traffic stripe, measured as prescribed above, will be paid for at the contract unit price per mile or linear foot, as applicable, which shall be full compensation for completing the work.

Payment will be made under:

| | | |
|------------|--|------------------------------|
| 907-624-A: | 6" Inverted Profile Thermoplastic Traffic Stripe, Skip White * | - per linear foot or mile |
| 907-624-B: | 6" Inverted Profile Thermoplastic Traffic Stripe, Continuous White * | - per linear foot or mile |
| 907-624-C: | 6" Inverted Profile Thermoplastic Traffic Stripe, Skip Yellow * | - per linear foot or mile |
| 907-624-D: | 6" Inverted Profile Thermoplastic Traffic Stripe, Continuous Yellow * | - per linear foot or mile |
| 907-624-E: | Inverted Profile Thermoplastic Detail Traffic Stripe, <u>Color</u> * | - per linear foot |

* High Contrast may be specified

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-701-1

CODE: (SP)

DATE: 10/23/2018

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 third paragraph of Subsection 701.01 on page 718, change “mills” to “plants.”

In the second sentence of the seventh 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.

The Equivalent alkali content for all cement types in this Subsection shall not exceed 0.60%.

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 (C₃A) 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.

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**

| Test Requirements | LD-7 | | CHPF-1 | | Test Method |
|--|------|------|--------|------|--------------|
| | Min. | Max. | Min. | Max. | |
| 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. 907-703-1

CODE: (IS)

DATE: 06/13/2018

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--Course 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.

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. 907-711-2

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. 907-720-2

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.

SECTION 905 - PROPOSAL

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.

Ultra Thin Overlay approximately 25 miles on SR 533 from SR 28 North to the Jasper County Line, SR 537 from Buck Temple Road North to Mayfield Drive, SR 588 from the Covington County Line East to SR 29, & SR 590 from 0.35 miles West of Leaf River Relief Bridge East to I-59, known as State Project No. MP-6000-34(301) / 306698301 in Jones County.

| Line no. | Item Code | Adj Code | Quantity | Units | Description[Fixed Unit Price] |
|------------------------------------|--------------|----------|----------|-------------|---|
| Roadway Items | | | | | |
| 0010 | 202-B007 | | 240 | Square Yard | Removal of Asphalt Pavement, All Depths |
| 0020 | 202-B240 | | 7,400 | Linear Feet | Removal of Traffic Stripe |
| 0030 | 304-F003 | (GT) | 2,025 | Ton | Size 825B Crushed Stone Base |
| 0040 | 403-A006 | (BA1) | 165 | Ton | 19-mm, ST, Asphalt Pavement |
| 0050 | 406-A002 | | 4,300 | Square Yard | Cold Milling of Bituminous Pavement, All Depths |
| 0060 | 407-A001 | (A2) | 35,000 | Gallon | Asphalt for Tack Coat |
| 0070 | 618-A001 | | 1 | Lump Sum | Maintenance of Traffic |
| 0080 | 618-B001 | | 1 | Square Feet | Additional Construction Signs (\$10.00) |
| 0090 | 619-A1001 | | 47 | Mile | Temporary Traffic Stripe, Continuous White |
| 0100 | 619-A2001 | | 34 | Mile | Temporary Traffic Stripe, Continuous Yellow |
| 0110 | 619-A4002 | | 12 | Mile | Temporary Traffic Stripe, Skip Yellow |
| 0120 | 619-A5001 | | 11,300 | Linear Feet | Temporary Traffic Stripe, Detail |
| 0130 | 619-A6002 | | 5,320 | Linear Feet | Temporary Traffic Stripe, Legend |
| 0140 | 620-A001 | | 1 | Lump Sum | Mobilization |
| 0150 | 626-C002 | | 47 | Mile | 6" Thermoplastic Double Drop Edge Stripe, Continuous White |
| 0160 | 626-D003 | | 12 | Mile | 6" Thermoplastic Traffic Stripe, Skip Yellow |
| 0170 | 626-E004 | | 34 | Mile | 6" Thermoplastic Traffic Stripe, Continuous Yellow |
| 0180 | 626-G002 | | 7,800 | Linear Feet | Thermoplastic Detail Stripe, White |
| 0190 | 626-G003 | | 3,500 | Linear Feet | Thermoplastic Detail Stripe, Yellow |
| 0200 | 626-H005 | | 5,320 | Linear Feet | Thermoplastic Legend, White |
| 0210 | 627-J001 | | 1,340 | Each | Two-Way Clear Reflective High Performance Raised Markers |
| 0220 | 627-L001 | | 2,550 | Each | Two-Way Yellow Reflective High Performance Raised Markers |
| 0230 | 907-411-A001 | (BA1) | 18,900 | Ton | Ultra Thin Asphalt Pavement |
| 0240 | 907-619-B001 | | 66 | Linear Feet | Temporary Portable Rumble Strips |
| ALTERNATE GROUP AA NUMBER 1 | | | | | |
| 0250 | 628-B001 | | 4,800 | Linear Feet | 6" Cold Plastic Traffic Stripe, Continuous White |
| 0260 | 628-C002 | | 310 | Linear Feet | 6" Cold Plastic Traffic Stripe, Skip Yellow |
| 0270 | 628-D002 | | 2,350 | Linear Feet | 6" Cold Plastic Traffic Stripe, Continuous Yellow |
| ALTERNATE GROUP AA NUMBER 2 | | | | | |
| 0280 | 907-624-B002 | | 4,800 | Linear Feet | 6" Inverted Profile Thermoplastic Traffic Stripe, Continuous White |
| 0290 | 907-624-C002 | | 310 | Mile | 6" Inverted Profile Thermoplastic Traffic Stripe, Skip Yellow |
| 0300 | 907-624-D002 | | 2,350 | Linear Feet | 6" Inverted Profile Thermoplastic Traffic Stripe, Continuous Yellow |

SECTION 905 - COMBINATION BID PROPOSAL (Continued)

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).

| | <u>Project No.</u> | <u>County</u> | <u>Project No.</u> | <u>County</u> |
|----|--------------------|---------------|--------------------|---------------|
| 1. | _____ | _____ | 6. | _____ |
| 2. | _____ | _____ | 7. | _____ |
| 3. | _____ | _____ | 8. | _____ |
| 4. | _____ | _____ | 9. | _____ |
| 5. | _____ | _____ | 10. | _____ |

(a) If 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. | | | | | |

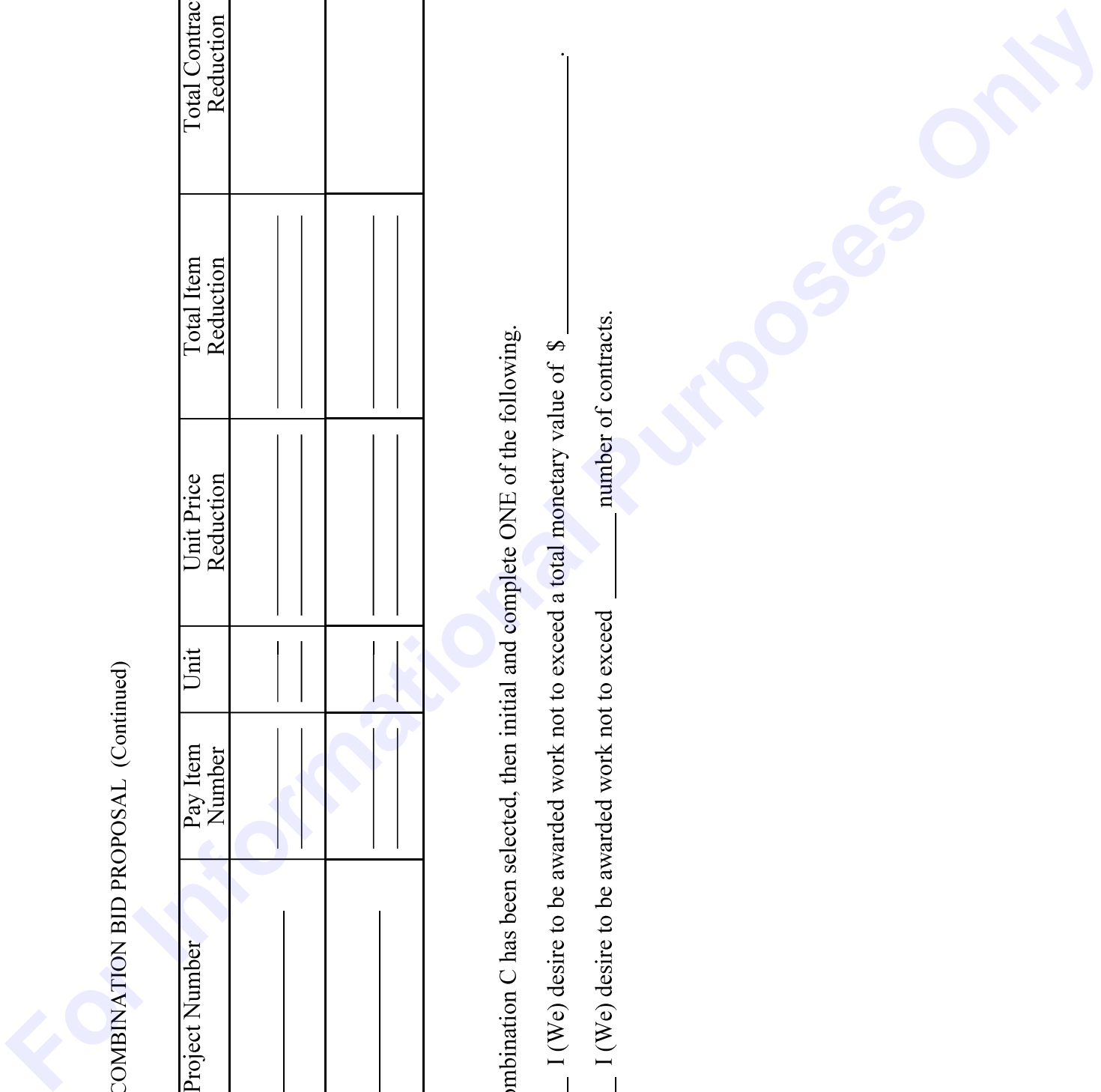
For Informational Purposes Only

SECTION 905 - COMBINATION BID PROPOSAL (Continued)

| Project Number | Pay Item Number | Unit | Unit Price Reduction | Total Item Reduction | Total Contract Reduction |
|----------------|-----------------|-------|----------------------|----------------------|--------------------------|
| 9. | _____ | _____ | _____ | _____ | _____ |
| 10. | _____ | _____ | _____ | _____ | _____ |

(c) If 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. **MP-6000-34(301)/ 306698301000**

in **Jones** _____ 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 MP-6000-34(301)/ 306698301000

LOCATED IN THE COUNTY(IES) OF Jones

STATE OF MISSISSIPPI,
COUNTY OF HINDS

This contract entered into by and between the Mississippi Transportation Commission on one hand, and the undersigned contractor, on the other witnesseth;

That, in consideration of the payment by the Mississippi Transportation Commission of the prices set out in the proposal hereto attached, to the undersigned contractor, such payment to be made in the manner and at the time of times specified in the specifications and the special provisions, if any, the undersigned contractor hereby agrees to accept the prices stated in the proposal in full compensation for the furnishing of all materials and equipment and the executing of all the work contemplated in this contract.

It is understood and agreed that the advertising according to law, the Advertisement, the instructions to bidders, the proposal for the contract, the specifications, the revisions of the specifications, the special provisions, and also the plans for the work herein contemplated, said plans showing more particularly the details of the work to be done, shall be held to be, and are hereby made a part of this contract by specific reference thereto and with like effect as if each and all of said instruments had been set out fully herein in words and figures.

It is further agreed that for the same consideration the undersigned contractor shall be responsible for all loss or damage arising out of the nature of the work aforesaid; or from the action of the elements and unforeseen obstructions or difficulties which may be encountered in the prosecution of the same and for all risks of every description connected with the work, exceptions being those specifically set out in the contract; and for faithfully completing the whole work in good and workmanlike manner according to the approved Plans, Specifications, Special Provisions, Notice(s) to Bidders and requirements of the Mississippi Department of Transportation.

It is further agreed that the work shall be done under the direct supervision and to the complete satisfaction of the Executive Director of the Mississippi Department of Transportation, or his authorized representatives, and when Federal Funds are involved subject to inspection at all times and approval by the Federal Highway Administration, or its agents as the case may be, or the agents of any other Agency whose funds are involved in accordance with those Acts of the Legislature of the State of Mississippi approved by the Governor and such rules and regulations issued pursuant thereto by the Mississippi Transportation Commission and the authorized Federal Agencies.

The Contractor agrees that all labor as outlined in the Special Provisions may be secured from list furnished by

It is agreed and understood that each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein and this contract shall be read and enforced as though it were included herein, and, if through mere mistake or otherwise any such provision is not inserted, then upon the application of either party hereto, the contract shall forthwith be physically amended to make such insertion.

The Contractor agrees that he has read each and every clause of this Contract, and fully understands the meaning of same and that he will comply with all the terms, covenants and agreements therein set forth.

Witness our signatures this the ___ day of _____, _____.

Contractor(s)

By _____

MISSISSIPPI TRANSPORTATION COMMISSION

Title _____

By _____

Signed and sealed in the presence of:
(names and addresses of witnesses)

Executive Director

Secretary to the Commission

Award authorized by the Mississippi Transportation Commission in session on the ___ day of _____, _____, Minute Book No. _____, Page No. _____.

Revised 8/06/2003

SECTION 903
PERFORMANCE AND PAYMENT BOND

CONTRACT BOND FOR: MP-6000-34(301)/ 306698301000

LOCATED IN THE COUNTY(IES) OF: Jones

STATE OF MISSISSIPPI,
COUNTY OF HINDS

Know all men by these presents: that we, _____

Principal, a _____ (Contractor)

residing at _____ in the State of _____

and _____

(Surety)

residing at _____ in the State of _____,

authorized to do business in the State of Mississippi, under the laws thereof, as surety, effective as of the contract date

shown below, are held and firmly bound unto the State of Mississippi in the sum of _____

_____ Dollars, lawful money of the United States of America, to be paid to it for which payment well and truly to be made, we bind ourselves, our heirs, administrators, successors, or assigns jointly and severally by these presents.

The conditions of this bond are such, that whereas the said _____

_____ principal, has (have) entered into a contract with the Mississippi Transportation Commission, bearing the date of _____ day of _____ A.D. _____ hereto annexed, for the construction of certain projects(s) in the State of Mississippi as mentioned in said contract in accordance with the Contract Documents therefor, on file in the offices of the Mississippi Department of Transportation, Jackson, Mississippi.

Now therefore, if the above bounden _____ in all things shall stand to and abide by and well and truly observe, do keep and perform all and singular the terms, covenants, conditions, guarantees and agreements in said contract, contained on his (their) part to be observed, done, kept and performed and each of them, at the time and in the manner and form and furnish all of the material and equipment specified in said contract in strict accordance with the terms of said contract which said plans, specifications and special provisions are included in and form a part of said contract and shall maintain the said work contemplated until its final completion and acceptance as specified in Subsection 109.11 of the approved specifications, and save harmless said Mississippi Transportation Commission from any loss or damage arising out of or occasioned by the negligence, wrongful or criminal act, overcharge, fraud, or any other loss or damage whatsoever, on the part of said principal (s), his (their) agents, servants, or employees in the performance of said work or in any manner connected therewith, and shall be liable and responsible in a civil action instituted by the State at the instance of the Mississippi Transportation Commission or any officer of the State authorized in such cases, for double any amount in money or property, the State may lose or be overcharged or otherwise defrauded of, by reason of wrongful or criminal act, if any, of the Contractor(s), his (their) agents or employees, and shall promptly pay the said agents, servants and employees and all persons furnishing labor, material, equipment or supplies therefor, including premiums incurred, for Surety Bonds, Liability Insurance, and Workmen's Compensation Insurance; with the additional obligation that such Contractor shall promptly make payment of all taxes, licenses, assessments, contributions, damages,

any liquidated damages which may arise prior to any termination of said principal's contract, any liquidated damages which may arise after termination of the said principal's contract due to default on the part of said principal, penalties and interest thereon, when and as the same may be due this state, or any county, municipality, board, department, commission or political subdivision: in the course of the performance of said work and in accordance with Sections 31-5-51 et seq. Mississippi Code of 1972, and other State statutes applicable thereto, and shall carry out to the letter and to the satisfaction of the Executive Director of the Mississippi Department of Transportation, all, each and every one of the stipulations, obligations, conditions, covenants and agreements and terms of said contract in accordance with the terms thereof and all of the expense and cost and attorney's fee that may be incurred in the enforcement of the performance of said contract, or in the enforcement of the conditions and obligations of this bond, then this obligation shall be null and void, otherwise to be and remain in full force and virtue.

| | |
|-------------------------|---------------------------------|
| _____ | _____ |
| (Contractors) Principal | Surety |
| By _____ | By _____ |
| | (Signature) Attorney in Fact |
| | Address _____ |
| | _____ |
| Title _____ | _____ |
| (Contractor's Seal) | (Printed) MS Agent |
| | _____ |
| | (Signature) MS Agent |
| | Address _____ |
| | _____ |
| | _____ |
| | (Surety Seal) |
| | _____ |
| | Mississippi Insurance ID Number |



BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____
Contractor

Address

City, State ZIP

As principal, hereinafter called the Principal, and _____
Surety

a corporation duly organized under the laws of the state of _____

as Surety, hereinafter called the Surety, are held and firmly bound unto State of Mississippi, Jackson, Mississippi

As Obligee, hereinafter called Obligee, in the sum of **Five Per Cent (5%) of Amount Bid**

Dollars(\$ _____)

for the payment of which sum will and truly to be made, the said Principal and said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for **Ultra Thin Overlay approximately 25 miles on SR 533 from SR 28 North to the Jasper County Line, SR 537 from Buck Temple Road North to Mayfield Drive, SR 588 from the Covington County Line East to SR 29, & SR 590 from 0.35 miles West of Leaf River Relief Bridge East to I-59, known as State Project No. MP-6000-34(301) / 306698301 in Jones 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__

(Witness)

(Witness)

(Principal) (Seal)

By: _____
(Name) (Title)

(Surety) (Seal)

By: _____
(Attorney-in-Fact)

(MS Agent)

Mississippi Insurance ID Number

