

William R. "Bill" Minor
Northern District Commissioner

Dick Hall
Central District Commissioner

Wayne H. Brown
Southern District Commissioner



Larry L. "Butch" Brown
Executive Director

Harry Lee James
Deputy Executive Director/
Chief Engineer

P. O. Box 1850 / Jackson, Mississippi 39215-1850 / Telephone (601) 359-7001 / FAX (601) 359-7110 / www.goMDOT.com

Inter-Departmental Memorandum

Date: April 19, 2004

To: Roadway Design Section Engineers
Roadway Design Team Leaders

From: Roadway Design Division Engineer
John B. Pickering, P.E. *J.B.P.*

Subject: Use of Rumble Stripes on 2-foot Paved Shoulders

Attached is a Special Design Sheet for the use of rumble stripes on 2-foot paved shoulders. Notice the use of the term "stripes" and not "strips" due to the edge stripe being placed on the rumble strips.

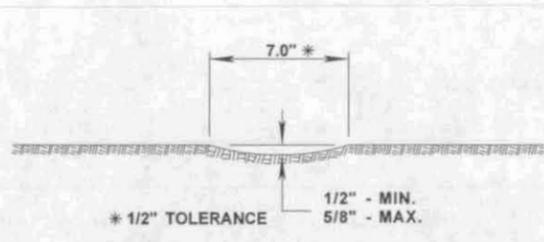
This Special Design Sheet was developed for the Districts' use on their maintenance projects and not for projects being designed within Roadway Design Division; however, if a District request the use of rumble stripes on 2-foot paved shoulders be used on projects developed within Roadway Design Division, the District must request a design variance from the Chief Engineer and be approved before it can be included within the plan development.

If there are any questions or if additional information is needed, please advise.

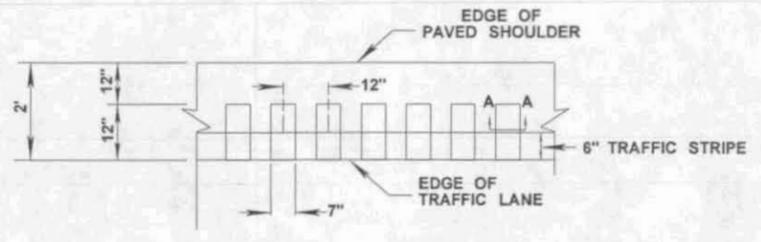
Attachment

pc: Asst. Chief Engineer - Preconstruction
Asst. Chief Engineer - Operations
Asst. Chief Engineer - Operational Maintenance
District Engineers
Construction Division
Traffic Engineering Division
Maintenance Division
Research Division
FHWA
Asst. Roadway Design Division Engineer
Roadway Design Quality Control Engineer
Design File ✓



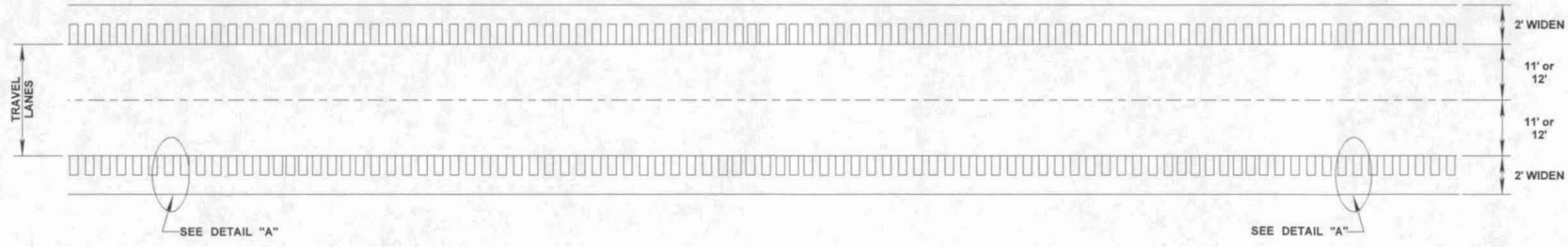


SECTION "A-A"



DETAIL "A"

- 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 OMITTED ACROSS PRINCIPAL INTERSECTING ROADWAYS OR OTHER INTERRUPTIONS 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 ONLY.
 - DO NOT USE WHERE TRAVEL LANE IS LESS THAN 11' WIDE.



PLAN
NOT TO SCALE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
SPECIAL DESIGN: RUMBLE STRIPES (GROUND-IN)	
DATE	WORKING NUMBER
DESIGN TEAM <u>s.reeves</u> CHECKED	SHEET NUMBER
DATE <u>04/16/04</u>	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Zack Stewart
Northern District Commissioner

Wynne O. Burkes
Central District Commissioner

Ronnie Shows
Southern District Commissioner



Dr. Robert L. Robinson
Executive Director

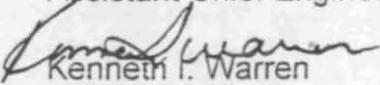
Kenneth L. Warren
Deputy Executive Director/
Chief Engineer

Mississippi Department of Transportation / P.O. Box 1850 / Jackson, Mississippi 39215-1850 / FAX (601) 359-7110

Inter-Departmental Memorandum

Date: December 11, 1996

To: All District Engineers
All Division Heads
Assistant Chief Engineers

From: 
Kenneth L. Warren
Chief Engineer

Subject: New Construction Lane Width & NO RUMBLE STRIPS

Effective with the February, 1997 letting, all construction and maintenance projects shall include 14 foot (4.27 m) lanes. My memo dated November 13, 1996, explains the criteria for maintenance projects. Metric projects will use a 4.20 meter (13.78') lane. The 14 foot (4.27 m) lane is required on all roadways with the following exceptions:

- The interior lanes of an undivided multi-lane roadway.
- Curb and gutter sections.
- Temporary roadways.
- Interchange ramps. The extra width for the mainline will begin or end at the nose point or merging end of the ramp with a taper of approximately 50 feet (15.24 m).
- Turning roadways, such as channelized intersections, are considered curb and gutter sections, i.e. no additional width will be required through the limits of curb and gutter.

The depth of the additional 2 feet (0.61 m) of pavement shall be the same as the travel lane. The slope will be the normal pavement slope, typically 2%. The typical section will indicate a 14 foot (4.27 m) width with a 12 foot (3.66 m) travel lane. Metric projects will show a 4.2 meter (13.78') width with a 3.6 m (11.81') travel lane. The total roadway crown width or shoulder to shoulder width will not change with this directive.



Full width paved shoulders should be considered when warranted. Factors that may warrant such treatment include, but are not limited to the following:

- Unstable soil conditions.
- Paved shoulders on adjacent sections of highway.
- Urban areas.
- Frequency of use (stoppage), especially trucks.

When using full width and full depth paved shoulders, the travel lane will be 12 feet at 2% normal slope and the full width paved shoulder will slope at 4%.

Edge lines shall be striped as per existing standards or as if there was no additional pavement width. No rumble strips should be used on the additional pavement.

Again, I sincerely appreciate your input in shaping this new policy and I thank you in advance for carrying it out.

Zack Stewart
Northern District Commissioner

He O. Burkes
Central District Commissioner

Ronnie Shows
Southern District Commissioner



83-01

John R

Dr. Robert L. Robinson
Executive Director

Kenneth I. Warren
Deputy Executive Director
Chief Engineer

Mississippi Department of Transportation, P.O. Box 1850, Jackson, Mississippi 39205-1850 / FAX (601) 359-7110

November 4, 1996

RECEIVED

NOV 04 1996

ROADWAY DESIGN

MEMORANDUM

TO: Chief Engineer
Kenneth I. Warren

FROM: Special Projects Engineer
Bobby Moseley *Bm*

RE: Paved Shoulders

ROADWAY DESIGN DIVISION	ION	OT
ENG		
ROADWAY ENG	✓	
CONV ENG	✓	
EC ENG		
TC ENG		
TRC ENG		
SA ENG	✓	
PA ENG	✓	
ET ENG		
TECHNICAL MANAGER		

✓ We need to discuss.
WTR

In accordance with your request, a meeting was held on November 1, 1996, to discuss the issue of paved shoulders and develop recommendations for your consideration. Messrs. Jim Kopf, Richard Young, Steve McMahan, Wilmer James, Wendel Ruff and I were in attendance and concurred with the attached recommendations and/or comments. Please note that I shared with the attendees a summary of the District Engineers' comments on the subject in question.

If you desire additional information, please advise.

RWM/cc

Attachment

- pc: Assistant Chief Engineer-Operations
- Assistant Chief Engineer-Preconstruction
- State Maintenance Engineer
- State Construction Engineer
- Roadway Design Division Engineer ✓

RECOMMENDATIONS:

1. As of the January, 1997 letting, all construction and maintenance projects shall include 14' lanes, except:
 - the interior lanes of an undivided multi-lane roadway.
 - curb and gutter sections.
 - when an existing shoulder width is less than 3' or inadequate to allow for the construction of additional lane width.

2. The depth of the additional 2' of pavement shall be the same as the travel lane on new construction projects.

The depth of the additional 2' of pavement shall be a minimum of 3" on maintenance overlays or retrofitting projects by contractors or District Maintenance personnel. The depth may be increased on a case by case basis due to specific conditions that exist. Trench widening should be performed prior to the installation of the pavement.

3. Full width paved shoulders should be considered by the Department when warranted. Factors that may warrant such treatment include, but not limited to the following:

- A. Unstable soil conditions
- B. Paved shoulders on adjacent sections of highway.
- C. Urban areas
- D. Frequency of use (stoppage), especially by trucks.

4. When projects are developed to add the additional 2' of pavement, whether by contract or MDOT maintenance, the Districts shall prioritize the sections of highway to receive the additional pavement based upon the greatest need. Consideration shall be given to functional classification, accident history, traffic volumes (especially number of oversize loads), shoulder maintenance history, roadway alignment, existing shoulder width, and other factors relevant to this issue and each individual section of highway.

Comments:

1. The attendees agreed that this is not paved shoulders, but additional pavement width.
2. No rumble strips should be used on the additional pavement.
3. Edge lines shall be striped as per existing standards or as if there was no additional lane width.
4. The Department should not lose sight of the need for adding additional shoulder width to those sections of highway that have minimal shoulders.

Pickering, John

From: Pickering, John
Sent: Wednesday, April 28, 2004 8:12 AM
To: Reese, John
Subject: RE: Rumble strip on 2 ft. paved shoulders

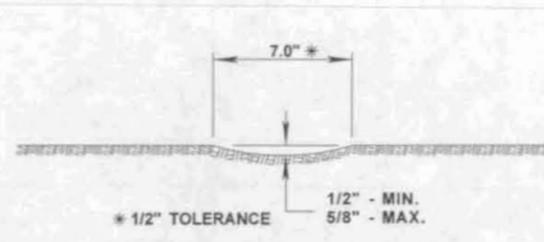
I need a copy. Thanks.

-----Original Message-----

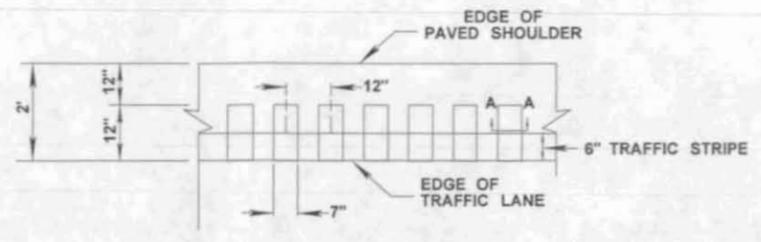
From: Reese, John
Sent: Tuesday, April 27, 2004 3:33 PM
To: Pickering, John
Subject: Rumble strip on 2 ft. paved shoulders

I did a little research into your inquiry regard our written policy on rumble strips. The only policy I found that mentions rumble strips is our policy on the extra 2 foot of pavement dated Dec. 11, 1996. That policy, which was based on a recommendation from Special Projects Engineer, Bobby Mosley, states that rumble strips should not be used on the additional pavement.

I can furnish you a copy of this if you need one.

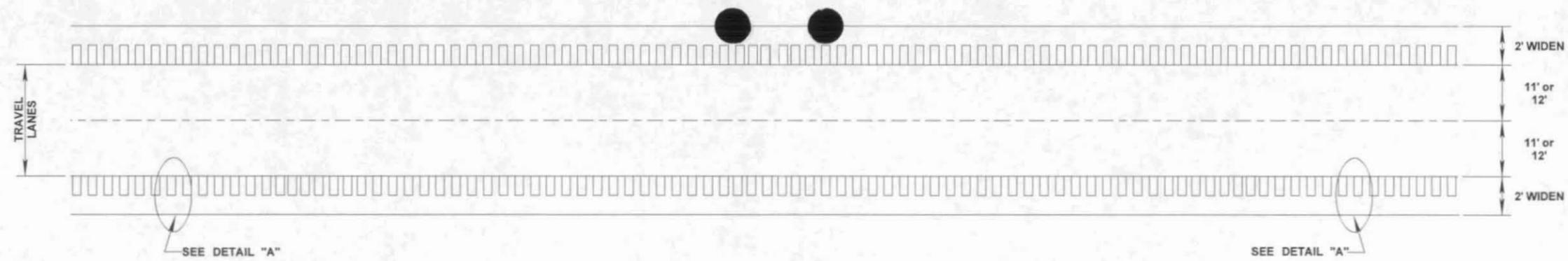


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MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
SPECIAL DESIGN: RUMBLE STRIPES (GROUND-IN)	
DATE	REVISION
DESIGN TEAM: s.reeves	CHECKED: _____
DATE: 04/16/04	WORKING NUMBER
SHEET NUMBER	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 PLANNING & DESIGN DIVISION
 035 03044 P14 DDM011 LEVASE