

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.

Bidder acknowledges receipt of and has added to and made a part of the proposal and contract documents the following addendum (addenda):

ADDENDUM NO. <u>1</u>	DATED <u>5/4/2021</u>	ADDENDUM NO. _____	DATED _____
ADDENDUM NO. <u>2</u>	DATED <u>5/18/2021</u>	ADDENDUM NO. _____	DATED _____
ADDENDUM NO. <u>3</u>	DATED <u>5/20/2021</u>	ADDENDUM NO. _____	DATED _____

Number	Description
1	Revised Table of Contents; Added Supplement & NTB No. 2654; Added NTB No. 3318; Amendment EBSx Download Required.
2	Revised NTB No. 3299 with Attachments; Revised Bid Items; Amendment EBSx Download Required.
3	Revised Attachments to NTB No. 3299; Amendment EBSx Download Required.

TOTAL ADDENDA: 3
(Must agree with total addenda issued prior to opening of bids)

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.

SP-0039-02(055)/ 108657301000

Rankin County(ies)

Revised 01/26/2016

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 3299

CODE: ()

DATE: 04/15/2021

SUBJECT: Scope of Work

PROJECT: SP-0039-02(055) / 108657301 – Rankin 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”.

Work on this project shall consist of the following.

Mill and overlay approximately 1 mile of State Route 18 from US Highway 80 (Station 10+00) to the Bridge at Terrapin Skin Creek (Station 66+15). Details of specific work are mentioned in the following sections.

From BOP (Station 10+00) to Station EOP (66+15)

This project includes sections of 4-lane and 2-lane highway shown in the included typical sections. Work in this section will consist of repairing failed areas, replacing damaged signs, removing and replacing guardrail, and replacing existing traffic loops with radar detection systems. Prior to milling and overlay operations, failed pavement areas shall be repaired full depth as described in General Notes. Travel lanes, turn lanes, crossovers, shoulders, local roads, and interstate ramps shall be milled at a depth of 2” and variable. The Interstate ramps shall be milled and paved to the curb returns or as directed by the Engineer. Following the milling operations, the roadway shall be then overlaid with a 2”and variable of 12.5-mm, HT, asphalt. Further details on each operation can be found in the general notes for each operation.

Due to an upcoming project on US 80 and the SR 18 intersection, the left turn lane on SR 18 to US 80 Westbound shall not be milled or paved (See attached milling area detail). Temporary striping shall also be left in place in lieu of permanent thermoplastic on the Northbound and Southbound lanes according to the attached detail.

GreenField Road Turn Lane Addition

The Turn Lane from Greenfield Rd to SR 18 East shall be extended according to the attached typical sections and detail drawings. Excess excavation shall be used to remove existing material to a depth of 14”. The new pavement structure consists of 6” of Crushed stone (day-lighted) and 7” of 12.5mm HT, Leveling, placed in 3 lifts (2@2.5” and 1@2”). Type V Geotextile fabric shall be placed under all areas requiring stone. This work shall be completed before milling and paving operations begin. Care shall be taken to limit the drop off to no greater than 2” if work cannot be completed in one day.

General Notes

Milling

Milling/paving shall not begin until an **approved** asphalt mix design has been received, nor until such time that, in the opinion of the Engineer, weather conditions have been consistently suitable enough to allow placement of the asphalt after the milling operations.

The Reclaimed Asphalt Pavement (RAP) material removed by the milling operation shall become the property of the Contractor with the exception of 10,000 tons or 50% of the total anticipated RAP tonnage, whichever is less, to be stockpiled at the MDOT Whitfield Maintenance Yard, 3769 Highway 468, Pearl, MS, 39208. The Contractor shall coordinate the efforts with the Maintenance Office to effectively stockpile the milled material as directed by the Engineer. Anytime that milling is being hauled to MDOT, the Contractor shall provide the necessary equipment and operator(s) at the above mentioned location to stockpile the material. All costs associated with the hauling, placing, and stockpiling the State-retained material will be absorbed in other items bid and will not be measured for separate payment.

Where milling is required, the Contractor shall provide outlets in the existing shoulders at sufficient intervals to prevent pooling or standing water on the milled surface, the cost of which shall be absorbed in other items bid.

Milling and paving operations shall be performed such that a -2% slope from centerline is provided in normal crown roadway sections. Super-Elevation through curves shall be maintained as it currently exists or improved as directed.

Milling operations shall be performed in accordance with the Contract Documents and the MDOT Standard Specifications. Variable width and length transitions may be required for ties at ramps, local roads, project limits.

Milling of driveway pads shall be conducted in a manner to prevent gouging or otherwise affecting the roadway pavement structure and slope. Milling of driveway pads shall not be performed in simultaneous path with main line milling.

Traffic will be allowed to travel on the milled surface for two (2) days. Traffic will be allowed to run on all milled local roads for two (2) days unless otherwise stated. Approved mix designs must be on hand prior to milling.

Paving

Prior to mainline milling and paving operations, failed areas in the existing pavement shall be removed and backfilled with 12.5-mm, HT, Leveling asphalt as per the attached typical sections and details. Asphalt shall be placed in multiple lifts with a maximum lift thickness of 2.5". Any granular/chemically treated/stone/etc. base or subgrade material deemed unsuitable by the Engineer shall be removed as directed and backfilled with 12.5-mm, HT, Leveling asphalt. Payment for the excavation of the granular base and subgrade will be made using pay item 203-

G: Excess Excavation. A list of the failed areas is shown in the attached tables. Pavement repairs shall be completed as a continuous operation in order to minimize traffic impacts. Lane closures shall remain in place until the failed area has been completely repaired. Lane closures may not be left unattended.

Payment for saw cuts on failed areas will be made using the appropriate pay items. If milling techniques are used, the area will not require saw cuts but care should be exercised in order to create a neat removal line and to prevent damage to the adjacent pavement structure. If saw cuts are used in conjunction with milling, payment will be made using the appropriate items. Payment will not be made for saw cuts not performed.

Publicly maintained roads and streets shall be paved to the existing right-of-way and in accordance with the attached drawings.

Privately owned entrances shall be paved to the shoulder line per the included typical drawing, unless otherwise directed. Pad dimensions shall match the existing lengths and widths, unless otherwise directed. Pads shall be shaped horizontally and vertically to prevent excessive drop-offs. Any new driveway pads deemed necessary by the Engineer shall be placed according to specifications.

Granular Shoulder Material

Any material excavated from the existing shoulder during pavement widening operations or as a result of shoulder blading shall be used on the existing shoulder to match the new pavement elevation and any surplus material shall be spread along the edge of the shoulders, fore slopes, or other adjacent areas as directed by the Engineer and will be an absorbed item. Material which cannot be suitably placed in adjacent areas and deemed to be excess excavation by the Engineer shall be removed from the project site. Payment for removal of excess material will be made using pay item 203-G: Excess Excavation.

Granular material (crushed stone) shall be provided around driveway pads as directed to prevent shoulder drop-offs and shall be placed in a timely manner. Drop-offs exceeding 2½" shall be corrected within two (2) calendar days of the placement of the pad.

Where applicable, the existing shoulders shall be raised to match the new pavement elevation by placing variable depth granular material (crushed stone). Placement of the granular material on the finished asphalt course shall not be permitted. The existing shoulder shall be scarified to allow incorporation of the new shoulder material. The material shall be bladed, rolled, and compacted to a finished slope of four percent (4%) in normal crown sections. Placement of this material shall be performed to provide a uniform and compacted shoulder with a minimum depth and width of material placed. Shoulders with adequate shoulder material in place shall be bladed to a slope of four percent (4%) in normal crown sections. The cost of blading will be an absorbed item and shall be included in the price of other items bid. Crushed concrete will not be allowed.

Temporary and Permanent Pavement Markings

Temporary traffic stripe will be required immediately after the milling and/or required overlay and prior to opening area to traffic. Temporary stripe shall be placed in the same location and configuration as the permanent stripe except that it may be offset as required for milling and paving operations. If temporary stripe is offset, the Contractor shall conduct operations in a manner to insure the final temporary stripe is placed at the required location of the permanent stripe. If removal of temporary offset stripe is required in order to achieve the correct location and alignment of permanent stripe, the cost of removal will be absorbed in other items bid. Placing double temporary centerline will not be allowed.

Temporary striping shall conform to finished stripe specifications for alignment, neatness, and straightness.

The use of short strips of traffic tape will not be allowed unless approved by the Engineer.

Temporary raised pavement markers shall be placed along the centerline of the roadway in any areas expected to be dormant for more than 90 days and/or as directed by the Engineer.

All permanent striping will be double drop thermoplastic, 90-mil thickness unless otherwise specified in Subsection 626.03.1.2. Edge lines shall be placed to accommodate the lane widths shown on the attached applicable typical sections unless prevented by field conditions.

Guardrail

Guardrails shall be replaced at the locations shown on the attached table. Removal of guardrail shall consist of removal of bridge end section, w-beam/thrie beam, terminal end section, posts, and all other appurtenances. All guardrail removed shall be replaced the same day and prior to reopening the adjacent lane of traffic. Voids created by the removal of posts, concrete anchors, footings, etc. shall be backfilled and tamped in accordance with Section 203 of the Standard Specifications. Asphalt shall be extended under the guard rail and two feet (2') behind guard rail post as per the attached detail. The area to be paved shall be bladed to accommodate 3" of asphalt. All existing guardrail will be retained by the Department. The removed material shall be delivered to the MDOT Whitfield Maintenance Yard, 3769 Highway 468, Pearl, MS, 39208. The Contractor shall coordinate the delivery of the retained guard rail with MDOT maintenance personnel. Pavement around guardrail posts shall be blocked out in accordance with the attached drawing. The excavated material shall be retained and used to raise the existing shoulder to match the new pavement elevation. The cost of blading will be an absorbed item and shall be included in the price of other pay items bid. Material which cannot be placed and blended in adjacent areas and deemed to be excess excavation by the Engineer shall be removed under pay item 203-G: Excess Excavation. Object markers at bridge approaches and other locations shall be replaced as shown in the attached table. Removal of object markers shall be absorbed in the cost of other items bid.

Permanent Signs

Permanent signs as listed on the attached tables shall be replaced. Unless otherwise listed in the attached tables, existing posts, anchors, angles/bars, and other components shall be reused. The Contractor shall use new bolts, screws, washers, nuts, etc. of the required sizes in the installation of signs. If required as part of the sign replacement activities, all post, pipe, and I-beam lengths

in these plans are estimated. Post lengths for all signs shall be verified in the field by the Contractor prior to fabrication. Installation dates shall be clearly written in bold black markings on the back bottom half of all signs with a permanent marking stick that is waterproof, fade resistant, and marks on wet or dry surfaces. The removal of damaged signs shall be absorbed in the price of other items bid. All existing signs which are to be removed as a part of this project that are not in conflict with construction shall remain in place until new signs are installed unless noted or directed otherwise by the Project Engineer.

Radar Detection Systems

All existing vehicle loop assemblies in the attached table shall be replaced with radar detection systems with the exception of the West Bound Approach at US 80. The Contractor shall replace all three (3) detection loops for the WB approach (6' x 50' QUAD). The cost of loop tails shall be cost absorbed. The vehicle loop assemblies shall be replaced at this location only. Removal of existing loop assemblies shall be absorbed into other items bid. The existing EPAC Controllers shall be replaced with new controllers. Existing EPAC controllers are to be salvaged to MDOT Signal Shop (601-359-1454). Contractor shall be responsible for transferring existing controller data to the new controllers. Radar units shall be mounted per manufacturer recommendations. Contractor shall be responsible for setting up all new signal controllers and detection units to communicate with MDOT Network via existing network switch in each signal cabinet. MDOT shall provide the IP addresses. Contractor may remove existing detection loop cable, if necessary.

Traffic Control

The Contractor shall erect and maintain construction signing and provide all signs and traffic control devices necessary to safely maintain traffic around and through the work areas in accordance with the Traffic Control Plan and the MUTCD. The cost shall be included in the price bid for pay item 618-A: Maintenance of Traffic. Fluorescent orange sheeting shall be used on all construction and traffic control signs except those designated in the plans to be black legend and border on white background.

Standard roadside construction signs, barricades, etc. shall be placed in accordance with the attached tables, drawings, and as directed by the Engineer. W20-1 signs shall be placed on all public road approaches as shown or as directed. Payment for standard roadside construction signs, barricades, etc. will be made using the appropriate pay items.

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

Temporary asphalt joints (aka paper joints) shall be employed at all locations requiring traffic to traverse an uneven, transverse, pavement joint. Paper joints shall be a minimum of nine feet (9') in length and for the full width of the milled/paved surface. Paper joints for 1" OGFC joints shall be a minimum of three feet (3') in length. Paper joints shall be adequately maintained.

Potholes that may exist or occur in the existing pavement shall be patched in a timely manner as required. Patching of potholes shall be considered an absorbed item.

Miscellaneous Notes

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

Any signs that are in conflict with construction of this project shall be removed and relocated by the Contractor as directed by the Engineer; the cost of which shall be absorbed in other items bid.

Removal of existing raised pavement markers shall be included in the prices for other items bid.

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

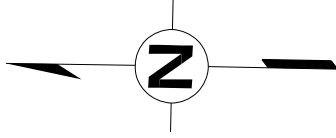
Temporary portable rumble strips, paid for under pay item 907-619-B, shall be used in accordance with detail shown. These rumble strips shall be retained by the Department upon completion of the project. The rumble strips shall be delivered to the MDOT Whitfield Maintenance Yard, 3769 Highway 468, Pearl, MS 39208.

Bridges shall be swept off and cleaned at the end of the project to remove any existing debris plus any debris accumulated from construction activities. The sweeping and cleaning of the bridges shall be absorbed into other items bid.

RANKIN COUNTY
SR 18 FROM RR TO HIGHWAY 80
SP-0039-02(055) 108657/301000

BOP
STA 10+00

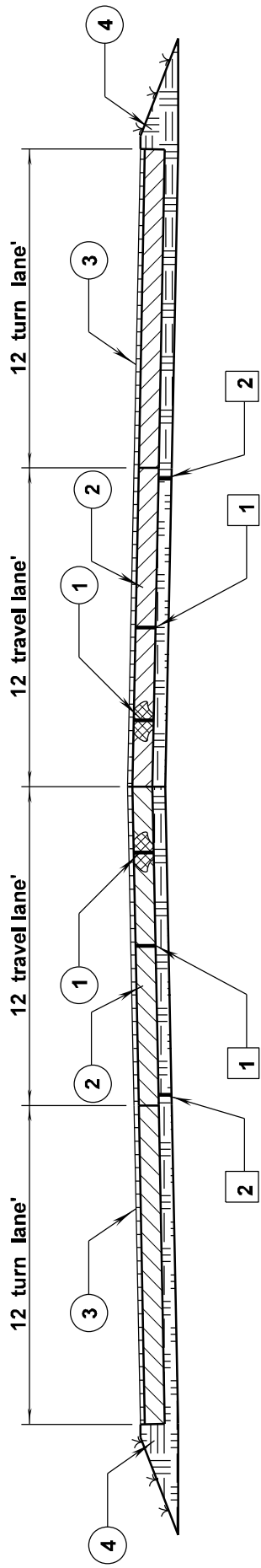
EOP
STA. 63+20.08



RANKIN COUNTY
 SP-0039-02(055)
 108657/301000
 HIGHWAY 18

NORTHBOUND
 STA. 10+88 - STA. 14+02
 STA. 18+92 - STA. 20+05
 STA. 47+86 - STA. 50+33
 STA. 58+47 - STA. 60+29

SOUTHBOUND
 STA. 15+96 - STA. 17+87
 STA. 41+47 - STA. 46+89



EXISTING

- 1 - 9" HMA
- 2 - 6" and Variable Granular Material, CL 10, GR D
- ▨ = Overlay with 2" 12.5mm, Mix, MT
- ▩ = Repair area
- ▧ = Existing asphalt
- ▤ = Granular Material, CL10, GR D

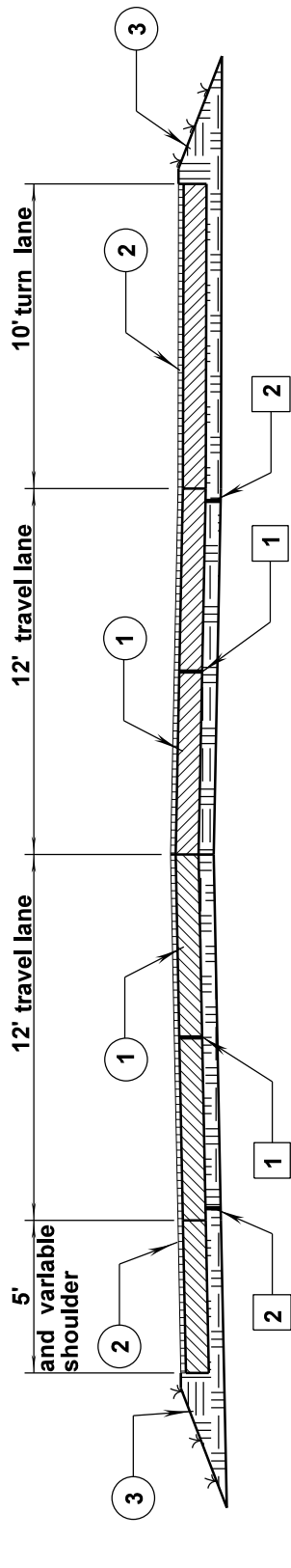
PROPOSED

- 1 Repair failed areas with 12.5mm, Mix, HT leveling full depth.
- 2 Mill existing asphalt 2" and variable.
- 3 Overlay with 2" and variable of 12.5mm Mix, HT.
- 4 Place crushed stone to bring shoulders to grade.

RANKIN COUNTY
 SP-0039-02(055)
 108657/301000
HIGHWAY 18

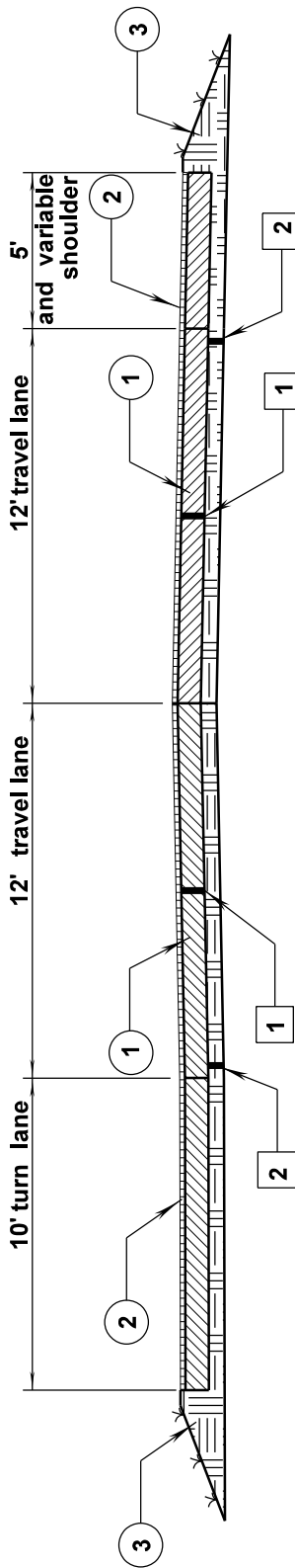
NORTHBOUND
 STA. 14+02 - STA. 18+00
 STA. 20+05 - STA. 24+54
 STA. 43+87 - STA. 46+00

SOUTHBOUND
 STA. 34+19 - STA. 36+57



SOUTHBOUND
 STA. 38+37 - STA. 41+47
 STA. 48+17 - STA. 49+77
 STA. 50+85 - STA. 51+88

NORTHBOUND
 STA. 10+13 - STA. 10+88



EXISTING

- 1 - 9" HMA
- 2 - 6" and Variable Granular Material, CL 10, GR D
- [Hatched pattern] = Overlay with 2" 12.5mm, Mix, MT
- [Cross-hatched pattern] = Repair area
- [Diagonal hatched pattern] = Existing asphalt
- [Horizontal hatched pattern] = Granular Material, CL10, GR D

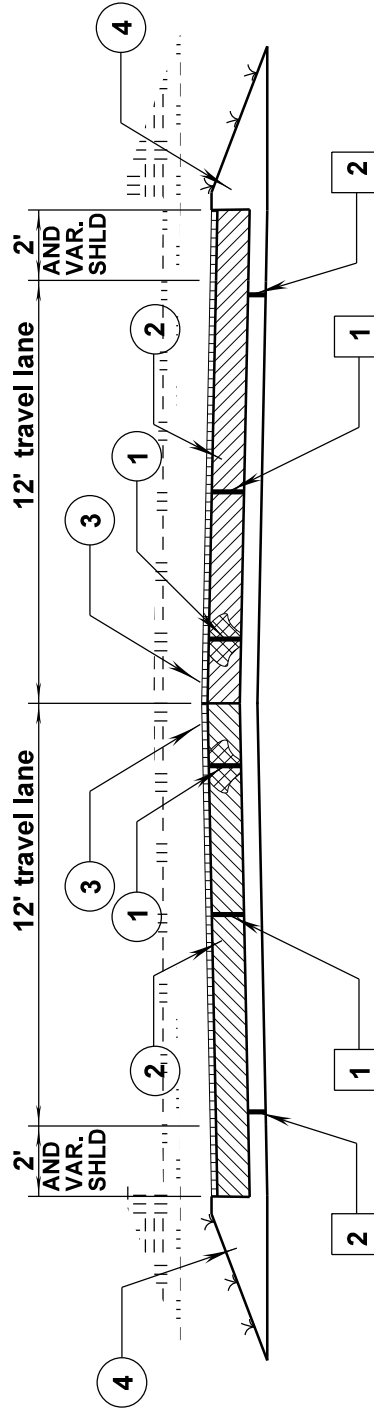
PROPOSED

- 1 Mill existing asphalt 2" and variable.
- 2 Overlay with 2" and variable of 12.5mm, Mix, HT.
- 3 Place crushed stone to bring shoulders to grade.

RANKIN COUNTY
 SP-0039-02(055)
 108657/301000
 HIGHWAY 18

NORTHBOUND
 STA. 25+79 - STA. 43+55
 STA. 50+33 - STA. 58+47
 STA. 60+29 - EOP

SOUTHBOUND
 STA. 10+00 - STA. 15+96
 STA. 18+86 - STA. 34+19
 STA. 36+97 - STA. 38+37
 STA. 49+77 - STA. 50+85
 STA. 51+88 - EOP



EXISTING

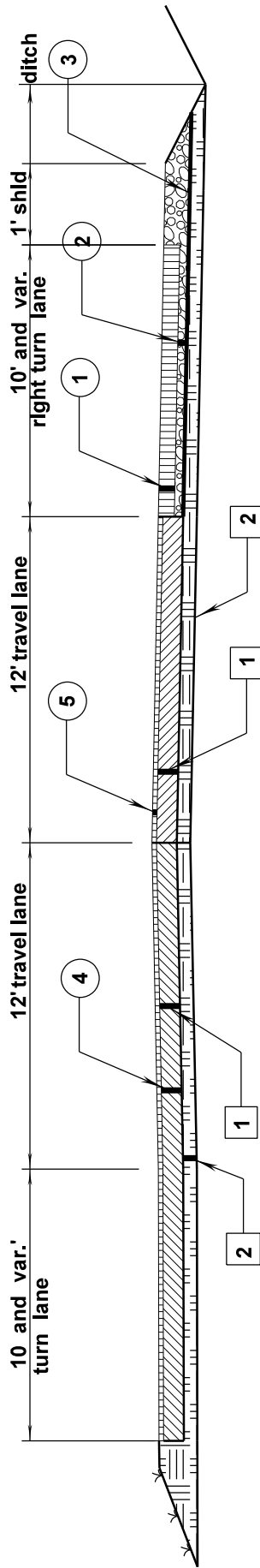
- 1 - 11" and variable HMA
- 2 - 6" and Variable Granular Material
- [Hatched pattern] = Overlay with 2" 12.5mm, Mix, MT
- [Cross-hatched pattern] = Repair area
- [Diagonal hatched pattern] = Existing asphalt
- [Horizontal hatched pattern] = Granular Material, CL10, GR D

PROPOSED

- 1 Repair failed areas with 12.5mm, Mix HT Leveling full depth.
- 2 Mill existing asphalt 2" and variable.
- 3 Overlay with 2" and variable of 12.5mm Mix, HT.
- 4 Place crushed stone to bring shoulders to grade.

RANKIN COUNTY
 SP-0039-02(055)
 108657/301000
 HIGHWAY 18

Greenfield Road



EXISTING

- 1 - 11" and variable HMA
- 2 - 6" and Variable Granular Material
- [Hatched pattern] = Overlay with 2" 12.5mm, Mix, MT
- [Stippled pattern] = Daylight stone
- [Solid black line] = Geotextile fabric
- [Diagonal hatched pattern] = Existing asphalt
- [Horizontal hatched pattern] = Granular Material, CL10, GR D

PROPOSED

- 1 Overlay 7" and variable of 12.5mm Mix, HT Leveling.
- 2 Place 6" of crushed stone to be daylighted.
- 3 Place geotextile fabric.
- 4 Mill existing asphalt 2" and variable.
- 5 Overlay with 2" and variable of 12.5mm MIX, HT.

619-D2001 Standard Roadside Construction Signs (10 Sq. Ft. or More)					
STATION	LOCATION	DESCRIPTION	QUANTITY	UNIT	REMARKS
	US 80	Road Work Ahead	10	SF	Crossgates Blvd
	US 80	Road Work Ahead	16	SF	Crossgates Blvd
	US 80	Road Work Ahead	16	SF	500' West of SR 18
	US 80	Road Work Ahead	16	SF	500' East of SR 18
	SR 18	Road Work Ahead	16	SF	Disotell Blvd
	SR 18	Road Work Ahead	16	SF	Gray Daniels Blvd
	SR 18	Road Work Ahead	16	SF	I20 NE Ramp
	SR 18	Road Work Ahead	16	SF	I20 SW Ramp
	SR 18	Road Work Ahead	16	SF	Boyce Thompson Dr
	SR 18	Road Work Ahead	16	SF	Orleans Way
	SR 18	Road Work Ahead	16	SF	Elizabeth Lane
	SR 18	Road Work Ahead	16	SF	Buckingham Dr
	SR 18	Road Work Ahead	16	SF	Greenfield Rd
	SR 18	Road Work Ahead	16	SF	HWY 18
TOTAL			218	SF	
619-D1001 Standard Roadside Construction Signs (Less than 10 Sq. Ft.)					
Station	Location	Description	Quantity	Unit	Remarks
	Crossgates Blvd	End Road Work	8	SF	500' West of BOP (LLL)
	Crossgates Blvd	End Road Work	8	SF	500' West of BOP (RL)
70+00	SR 18	End Road Work	8	SF	500' East of EOP
TOTAL			24	SF	
619-G4001 Barricades, Type III, Double Faced					
Location	Station	Description	Quantity	Unit	Description
	RT	500' East of EOP	6	LF	Mounted on G20-1
	LT	500' East of EOP	6	LF	Mounted on G20-2
TOTAL			12	LF	
619-G4005 Barricades, Type III, Single Faced					
Location	Station	Description	Quantity	Unit	Description
	LT	500' West of BOP	6	LF	Mounted on G20-1
	RT	500' West of BOP	6	LF	Mounted on G20-2
TOTAL			12	LF	

Removal of Asphalt Failed Areas, All Depths												
Location	STA	to	STA	Length (ft)	Width (ft)	Saw Cuts (ft)	Area (SY)	Estimated Asphalt Req. (TONS)	Estimated Excess	REMARKS		
RRL	37+00			50	12	74	66.667	45.000	22.22	NW Ramp		
LRL	58+25			20	20	60	44.444	30.000	14.81			
RRL	37+00			50	12	112	66.667	45.000	22.22			
				Total		246	177.778	120.000	59.259			

* Failed areas may be adjusted at the descretion of the Engineer.

GUARD RAIL QUANTITIES													
STATION	GUARDRAIL			Non-Flared		Flared		BRIDGE END SECTION		DELINEATORS		REMOVAL ITEMS	REMARKS
	(W-BEAM)	TRANS. SECT.	THRIE BEAM	TERMINAL	END	TERMINAL	END	TYPE "H"	TYPE "G"	WHITE	YELLOW		
	(LF)	(EA)	(LF)	SECTION	SECTION	SECTION	SECTION	(EA)	(EA)				
29+47	137.5			1	1	1	1	1		7		200	RRL
29+47	137.5					1	1	1			7	200	LRL
32+50	137.5			1	1	1	1	1		7		200	LLL
32+50	137.5			1	1	1	1	1			7	200	RLL
63+00	0			1					1	4		62.5	LL
62+25	12.5			1					1	5		75	LL
65+15	0			1					1	4		37.5	RL
64+65	0			1					1	4		62.5	RL
TOTAL =	562.5	0	0	4	4	4	4	4	4	31	14	1037.5	
	L.F.	EA.	LF.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	LF.

* ALL TERMINAL END SECTIONS ARE 37.5

* REMOVAL OF ALL GUARDRAIL (BRIDGE END SECTIONS, W-BEAM, TYPE-I CABLE ANCHORAGE, TERMINAL END SECTIONS, ETC.) WILL BE PAID UNDER PAY ITEM 202-B REMOVAL OF GUARD RAIL.

* REMOVAL OF GUARDRAIL DELINEATORS ARE CONSIDERED INCIDENTAL TO THE REMOVAL OF GUARDRAIL AND WILL NOT BE MEASURED AS A SEPARATE PAY ITEM.

*REMOVAL OF OBJECT MARKERS WILL NOT BE MEASURED AS A SEPARATE PAY ITEM AS SHALL BE ABSORBED IN OTHER ITEMS

TRAFFIC SIGNAL RADAR DETECTION CHART										
Intersection	Detection Zone Location	Phase #	Detection Zone Size	STOPBAR Radar Units	Advance Radar Unit	Radar Cable (ft)	Vehicle Loop (LF)	IP Address	Existing Controller Type	Existing Pole Configuration
MS 18 at US 80						Ø		Controller 10.135.12.99	Existing M34 Controller (New Controller Required)	Mast Arm Poles
						Ø		Detection 10.135.12.103		
	NB Left Turn/Thru Lanes	3	6'X50'			Ø	456			
	SB Left Turn Lane	1	6'X50'	1		300		Controller 10.135.12.91	Existing M34 Controller (New Controller Required)	Mast Arm Poles
	SB Thru Lanes	6	6'X50'			120		Detection 10.135.12.104		
	NB Left Turn Lane	5	6'X50'	1		240				
MS 18 at Gray Daniels Blvd	NB Thru Lanes	2	6'X50'	1		35				
	NB Left Turn/Thru Lanes	3	6'X50'	1		115		Controller 10.135.12.79	Existing M50 Controller FIO Firmware (New Controller Required)	Steel Strain Poles Spanwire
	WB Left Turn/Thru Lanes	4	6'X50'	1		230		Detection 10.135.12.105		
	EB Left Turn/Thru Lanes	4	6'X50'	1		40				
MS 18 at I-20 WB Ramp	SB Thru Lanes	6	6'X50'	1		200		Controller 10.135.12.95	Existing M50 Controller FIO Firmware (New Controller Required)	Steel Strain Poles Spanwire
	NB Left Turn Lane	5 FYA	6'X50'	1		200		Detection 10.135.12.106		
	NB Thru Lanes	2	6'X50'	1		240				
	WB Left Turn/Thru Lanes	4	6'X50'	1		55		Controller 10.135.12.80	Existing M34 Controller (New Controller Required)	Mast Arm Poles
	SB Left Turn Lane	1	6'X50'	1		90		Detection 10.135.12.107		
	SB Thru Lanes	6	6'X50'	1		250				
MS 18 at I-20 EB Ramp	NB Thru Lanes	2	6'X50'	1		115		Controller 10.135.12.89	Existing M34 Controller (New Controller Required)	Mast Arm Poles
	EB Left Turn/Thru Lanes	4	6'X50'	1		115		Detection 10.135.12.108		
	SB Left Turn Lane	1	6'X50'	1		230				
	SB Thru Lanes	6	6'X50'	1		75				
MS 18 at Orleans Way	NB Left Turn Lane	5	6'X50'	1		2950	456			
	NB Thru Lanes	2	6'X50'	1		0				
	WB Left Turn/Thru Lanes	3	6'X50'	1		18				
	EB Left Turn/Thru Lanes	4	6'X50'	1		0				
	SB Left Turn Lane	1	6'X50'	1		18				
	SB Thru Lanes	6	6'X50'	1		0				
MS 18 at Greenfield Road	NB Left Turn Lane	5	6'X50'	1		18				
	NB Thru Lanes	2	6'X50'	1		0				
	WB Left Turn/Thru Lanes	3	6'X50'	1		18				
	EB Left Turn/Thru Lanes	4	6'X50'	1		0				
Total				18	0	2950	456			

PROJECT NO. 108657301000
 COUNTY: RANKIN

STANDARD ROADSIDE SIGNS - 0.080" THICKNESS											
STATION	SIGN NUMBER	SIZE (in. x in.)	AREA (sf)	PIPE POSTS (lf)			U POST (lf)		(7/16" x 2-1/2") BARS 3.72 lbs/lf	Class "B" Conc (cy)	REMARKS
				3"	3-1/2"	4"	5"	2 lb/ft			
11+90	M3-1	24" x 12"	2.00					11.00			RRL
11+90	M1-5	24" x 24"	4.00					11.00			RRL
44+00	R3-7R	30"x30"	6.25					11.00			RRL, leaning
Total this sheet =			12.250	0.00	0.00	0.00	0.00	0.00	33.00	0.00	

*Signs attached to pipe post shall be mounted on the existing post and footing, removal of existing signs shall be absorbed in other items bid.

PROJECT NO. 108657301000
COUNTY: RANKIN

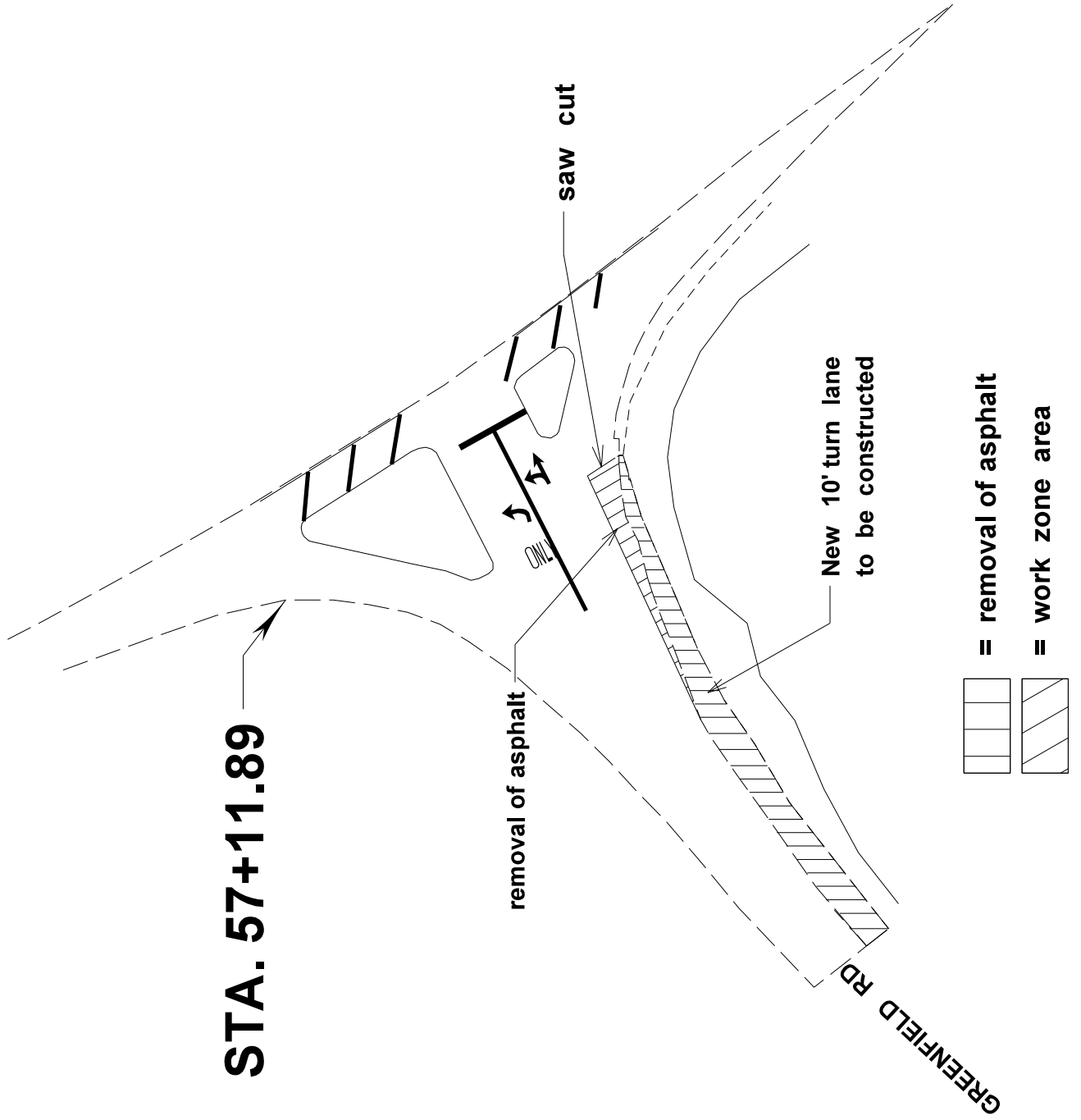
STANDARD ROADSIDE SIGNS - 0.125" THICKNESS

STATION	SIGN NUMBER	SIZE (in. x in.)	AREA (sf)	PIPE POSTS (lf)				U POST (lf)		(7/16" x 2-1/2") BARS 3.72 lbs/lf	Class "B" Conc (cy)	REMARKS					
				3"	3-1/2"	4"	5"	2 lb/ft	3 lb/ft								
33+87	R5-1a	42"x30"	8.75				5"			11.00		RRL, Wrong Way, sign only					
53+72	W1-6R	48"x24"	8.00				5"			22.00		LRL					
53+72	R6-2R	24"x30"	5.00				5"					LRL, same post as W1-6R					
Total this sheet =											21.75	0.00	0.00	0.00	0.00	33.00	0.00

*Signs attached to pipe post shall be mounted on the existing post and footing, removal of existing signs shall be absorbed in other items bid.

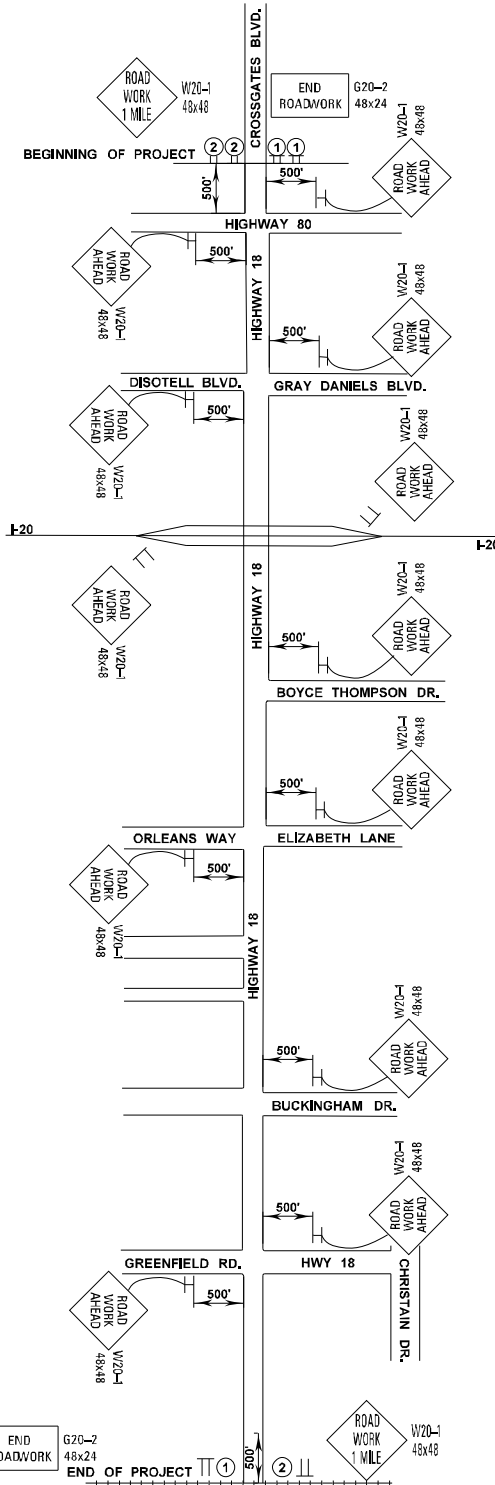
**Turn Lane widening
at
Greenfield Road**

STA. 57+11.89



-  = removal of asphalt
-  = work zone area

CONSTRUCTION SIGN DETAIL



LOCAL ROADS

* Road Work Ahead signs are to be placed 500' back from edge of pavement.

SEE STANDARD ROADSIDE CONSTRUCTION SIGN TABLE FOR LOCATIONS

SIGN LEGEND	
NUMBER	DESCRIPTION
1	END ROADWORK G20-2 48x24
2	ROAD WORK 1 MILE W20-1 48x48
3	ROAD WORK AHEAD W20-1 48x48

- TRAFFIC CONTROL SIGNS REQUIRED
- 2 - G20-1 "ROAD WORK NEXT MILE"
 - 2 - G20-1 "END ROAD WORK"
 - 12 - W20-1 "ROAD WORK AHEAD"
 - 4 - TYPE III DOUBLE FACED BARRICADES
 - 0 - R4-1 "DO NOT PASS"
 - 0 - R4-2 "PASS WITH CARE"
 - 0 - W14-3 "NO PASSING ZONE"

NOTES:

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

W20-1 AND G20-2 SIGNS MOUNTED ON TYPE III DOUBLE FACED BARRICADES ON THE MAINLINE AT SOUTH END OF THE PROJECT.

W20-1 AND G20-2 SIGNS MOUNTED ON TYPE III SINGLE FACED BARRICADES ON THE NORTH END OF THE PROJECT.

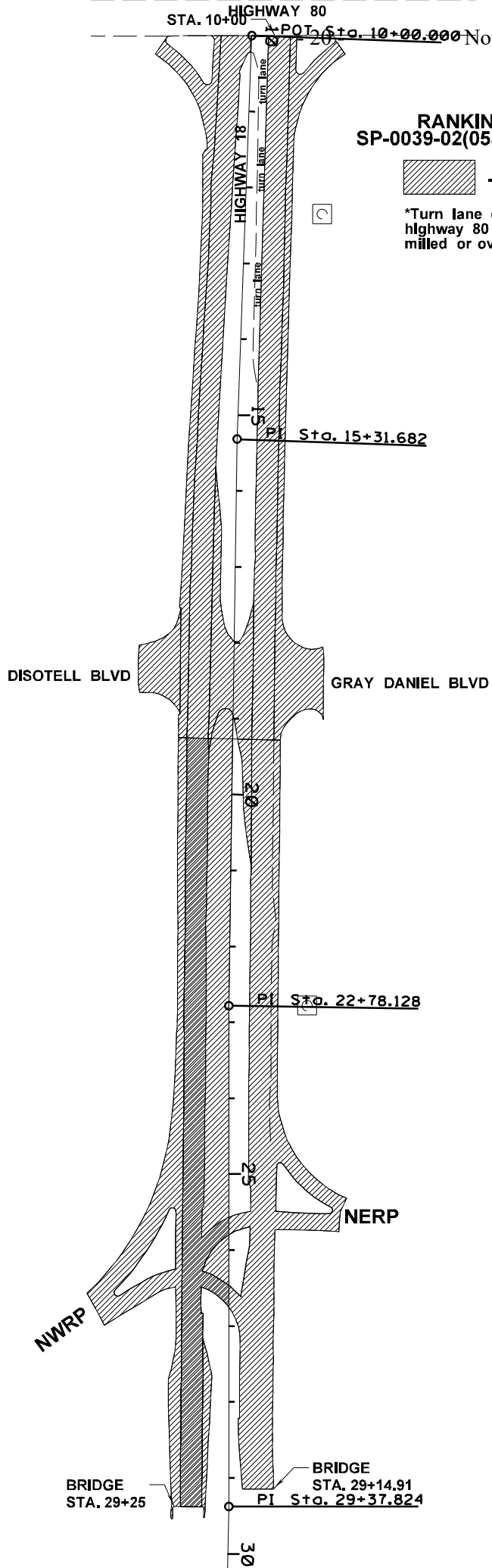
FIELD CONDITIONS MAY REQUIRE SOME SIGNS ON THIS DETAIL TO BE ADJUSTED.

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

RANKIN COUNTY
SP-0039-02(055) 108657/301000

 - Milled Areas

*Turn lane on highway 18 onto
highway 80 west will not be
milled or overlaid.



BRIDGE
STA. 32+64.83

BRIDGE
STA. 32+40.72
Sta. 32+40.728

RANKIN COUNTY
SP-0039-02(055) 108657/301000

 - Milled Areas

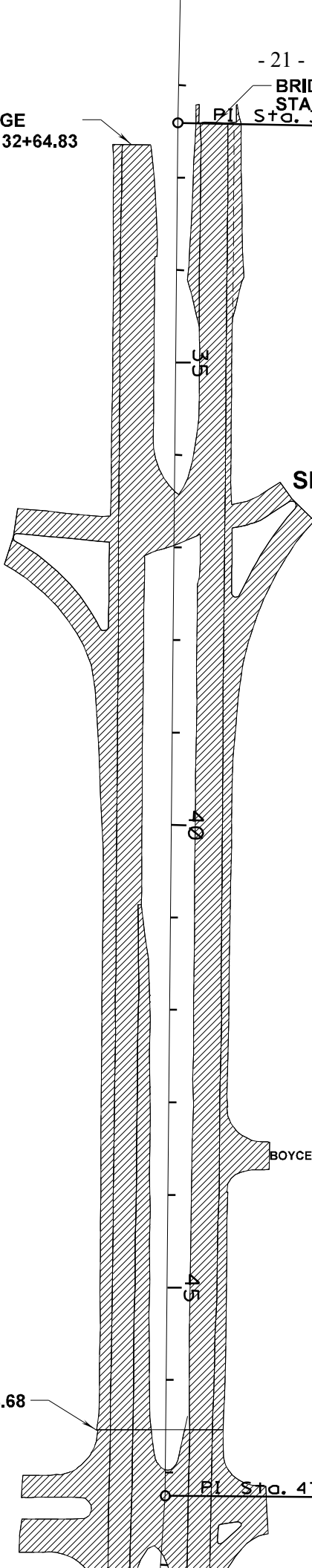
SWRP

SERP

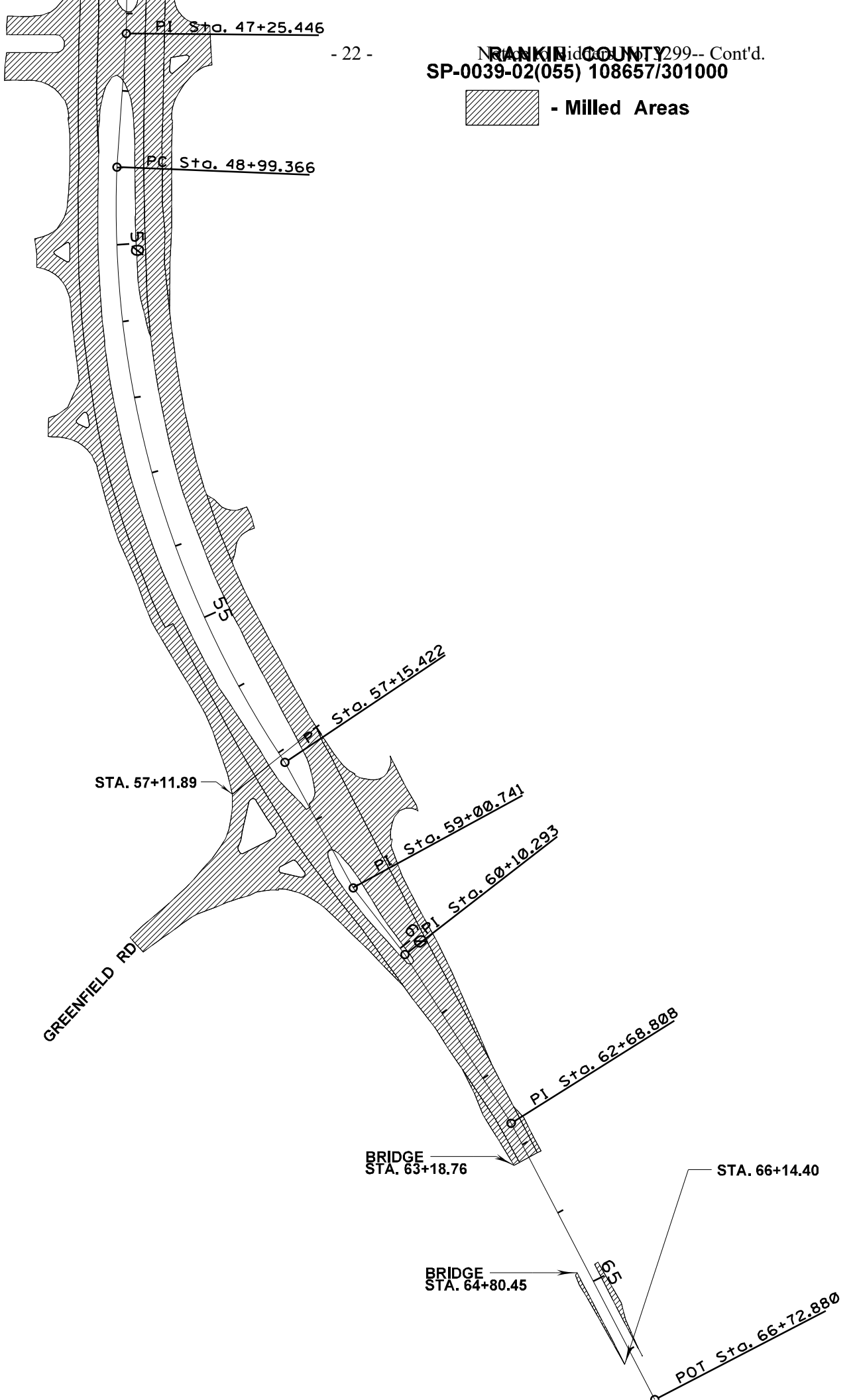
BOYCE THOMPSON DR

STA. 46+54.68

PI Sta. 47+25.446

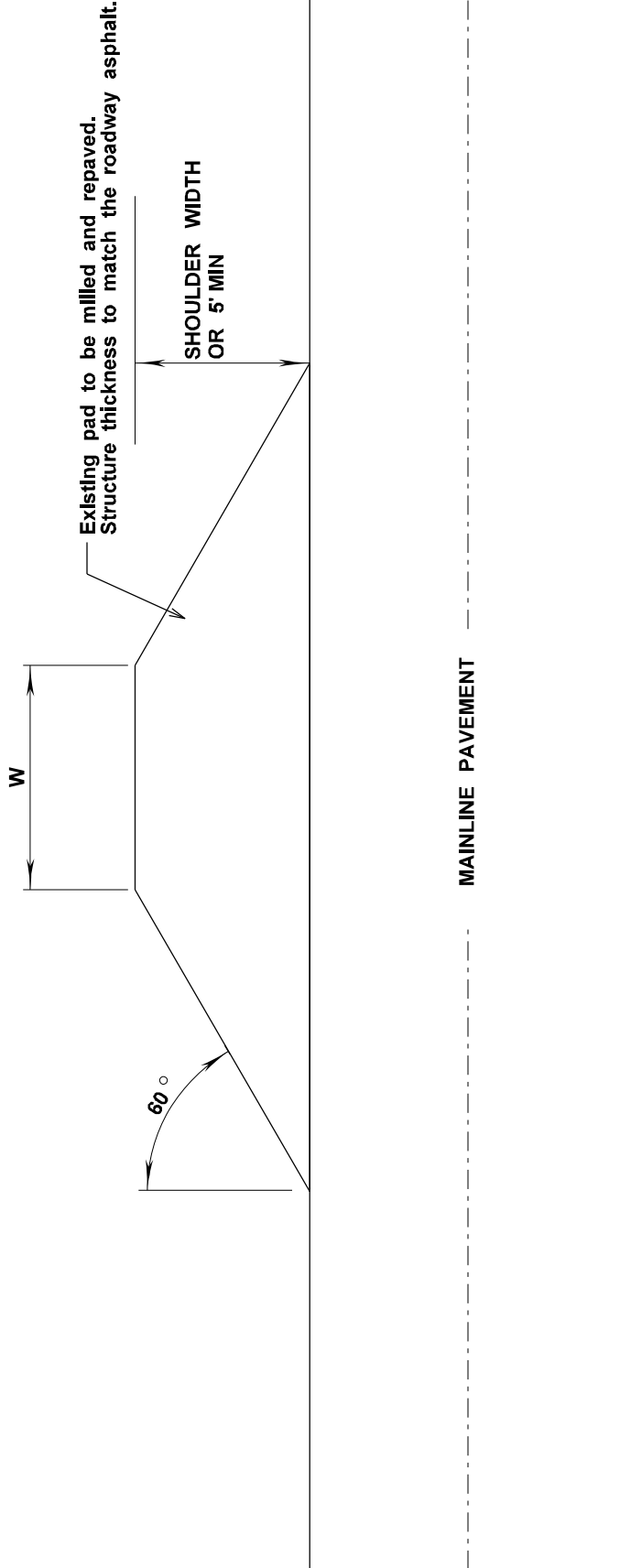


 - Milled Areas



HINDS COUNTY
STP-0039-02(055)108657/301000
HIGHWAY 18

DRIVEWAY PAD DETAIL



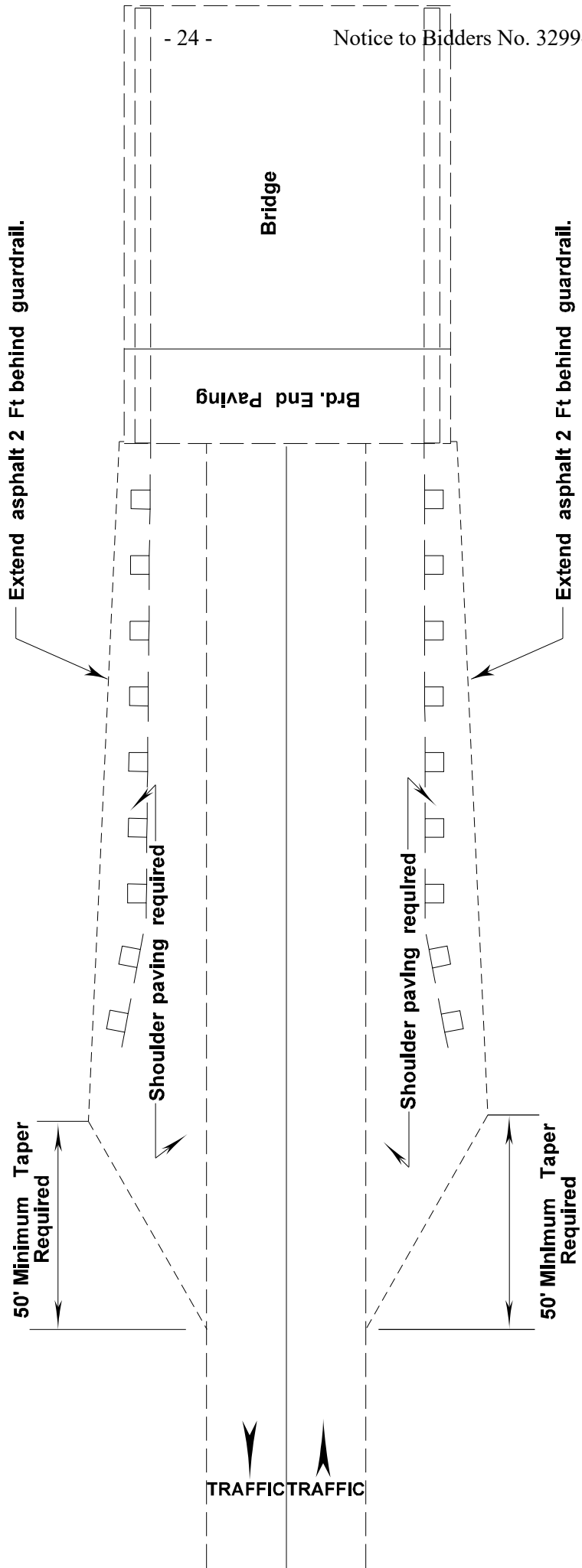
W = 16' MAX RESIDENTIAL
W = 30'-50' COMMERCIAL

NOTE:

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

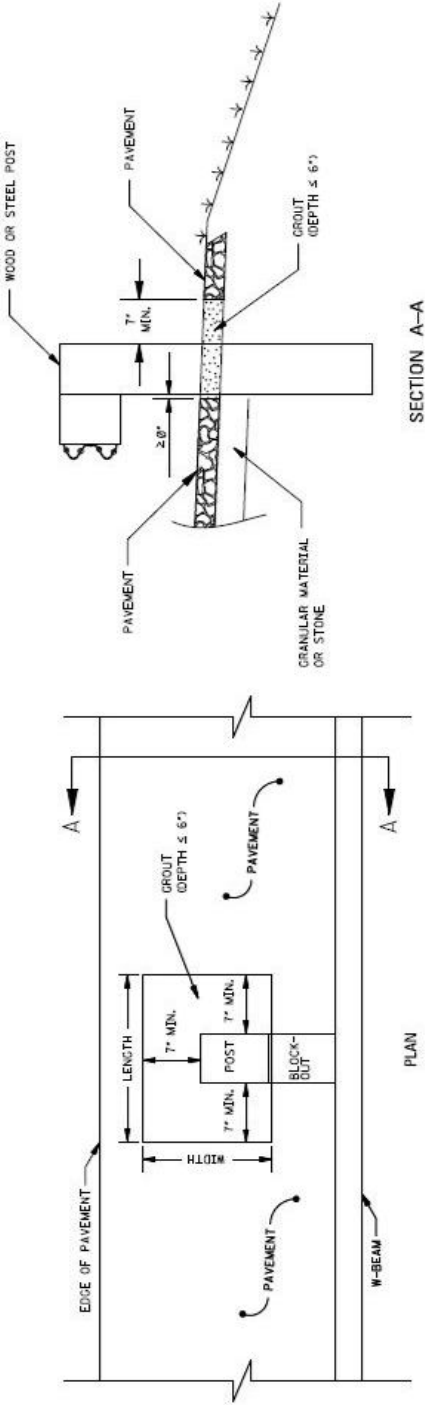
RANKIN COUNTY
SP-0039-02(055) 108657/301000

**TYPICAL DETAIL OF ADDITIONAL SHOULDER PAVING
REQUIRED AT GUARDRAIL LOCATIONS**

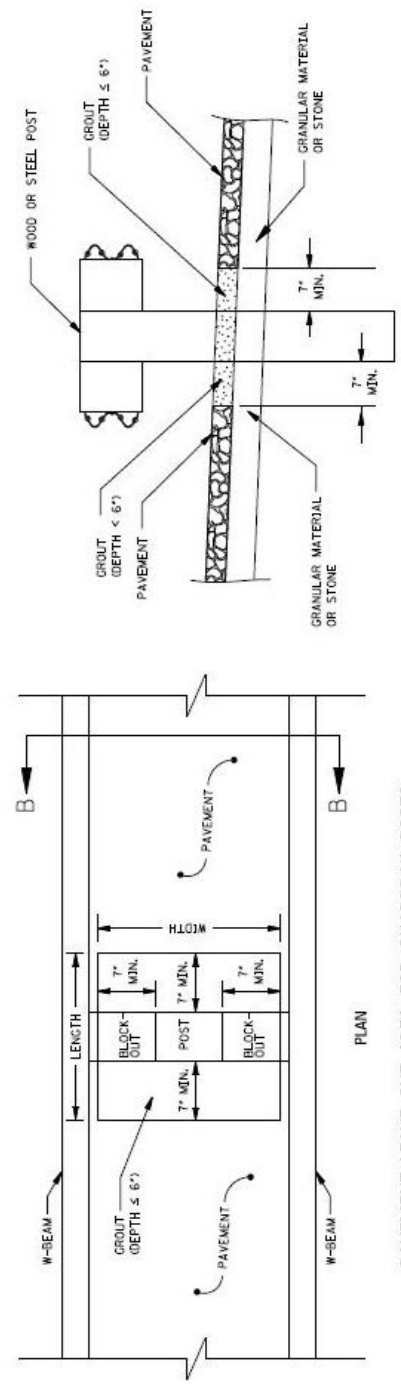


*Asphalt Thickness
See scope of work for additional details

Guardrail Post Installation in Paved Areas



PAVEMENT LEAVE-OUT AREA FOR GUARDRAIL POSTS
SINGLE-FACED GUARDRAIL



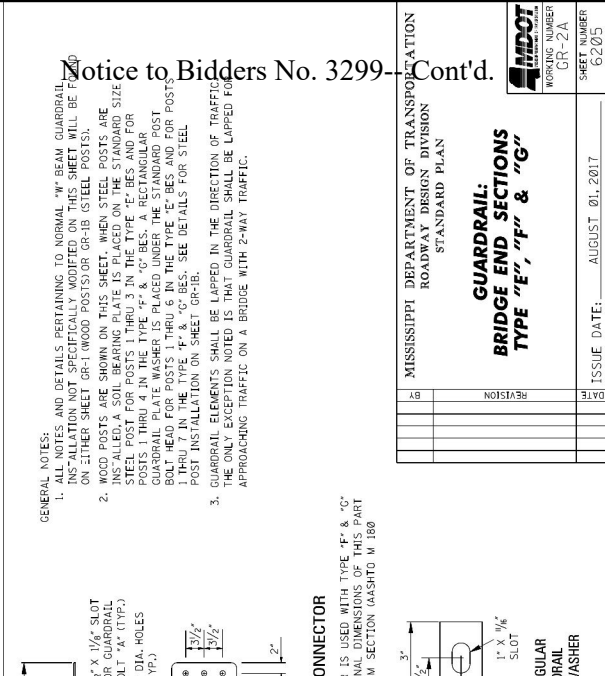
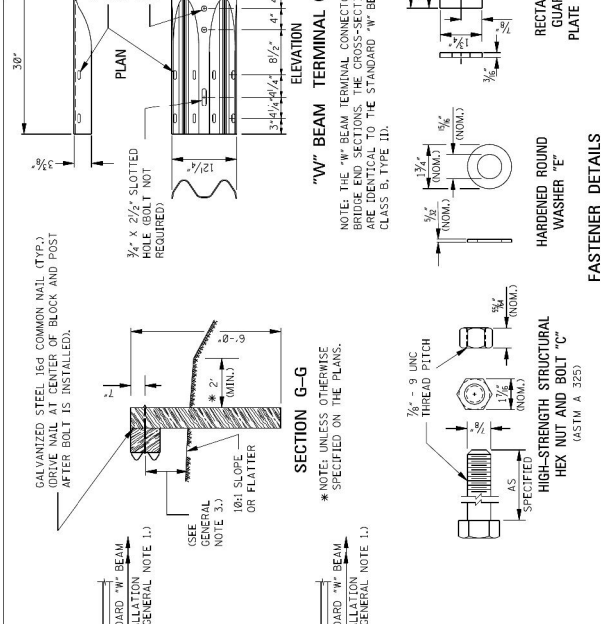
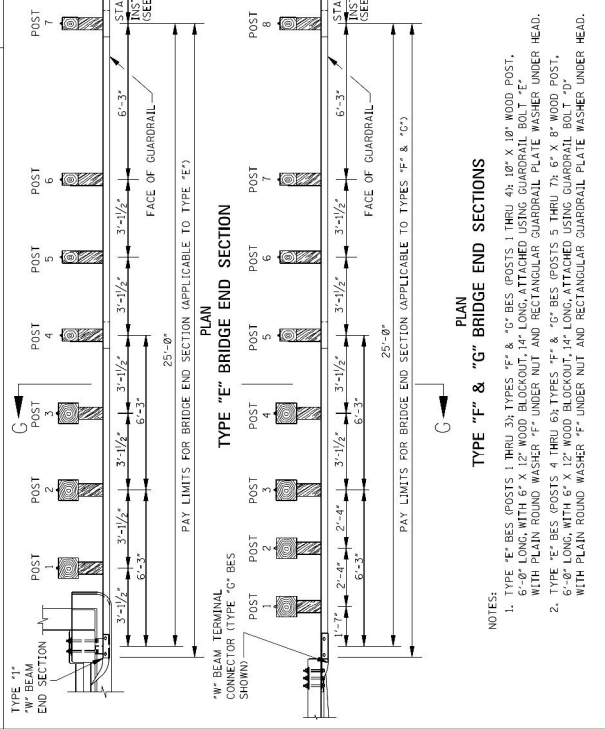
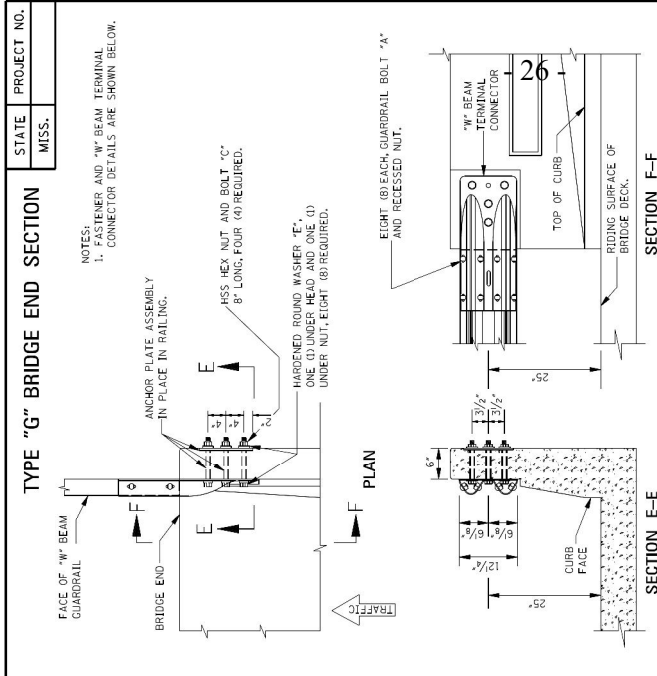
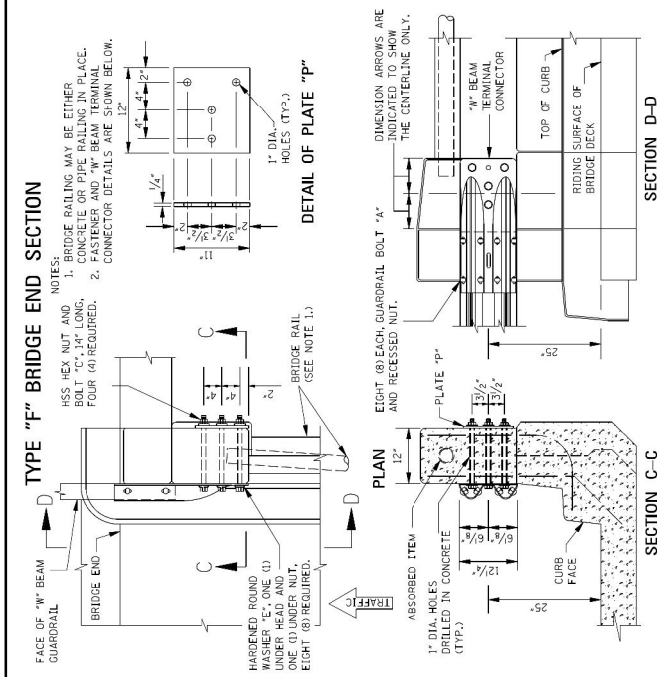
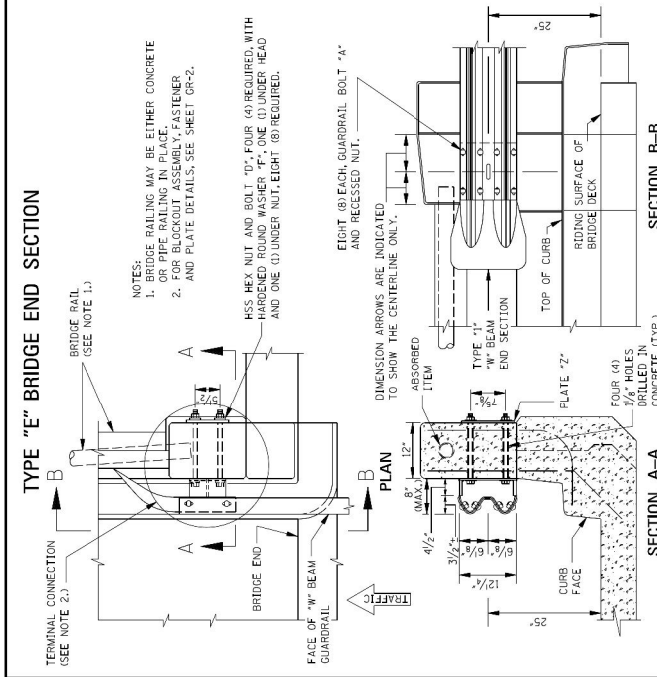
PAVEMENT LEAVE-OUT AREA FOR GUARDRAIL POSTS
DOUBLE-FACED GUARDRAIL

POST	MIN. PAV'T LEAVE-OUT AREA	
	SINGLE-FACED LENGTH (IN.)	DOUBLE-FACED LENGTH (IN.)
6" x 8" WOOD (GR.)	29	22
6" x 8" WOOD (GR.)	29	22
10" x 18" WOOD	24	24
#6 x 3 STEEL	18	13

GENERAL NOTES

1. GUARDRAIL POSTS SHALL NOT BE COMPLETELY SURROUNDED BY PAVEMENT. THE AREA BEHIND AND LATERAL OF THE POST SHALL HAVE A MINIMUM 7" CLEARANCE FROM THE PAVEMENT. THIS AREA SHALL BE FILLED WITH A LOW STRENGTH GROUT WITH A MAXIMUM 28 DAY COMPRESSIVE STRENGTH OF 120 PSI.
2. GROUT SHALL BE INSTALLED AT A DEPTH EQUAL TO THE SURROUNDING PAVEMENT UP TO A MAXIMUM OF 6". IF SURROUNDING PAVEMENT IS GREATER THAN 6", THE DIFFERENCE SHALL BE FILLED IN WITH SHOULDER GRANULAR MATERIAL.
3. COST OF GROUT SHALL BE ABSORBED IN THE COST OF OTHER ITEMS BID.
4. PAVEMENT LEAVE-OUT AREAS ARE REQUIRED FOR STEEL AND WOOD POSTS.
5. STANDARD EMBEDMENT DEPTHS STILL APPLY, MEASURED FROM THE TOP OF THE PROJECTED PAVEMENT SURFACE.

GUARDRAIL: BRIDGE END SECTION
 TYPE "E", "F" & "G"



DATE	REVISION	BY

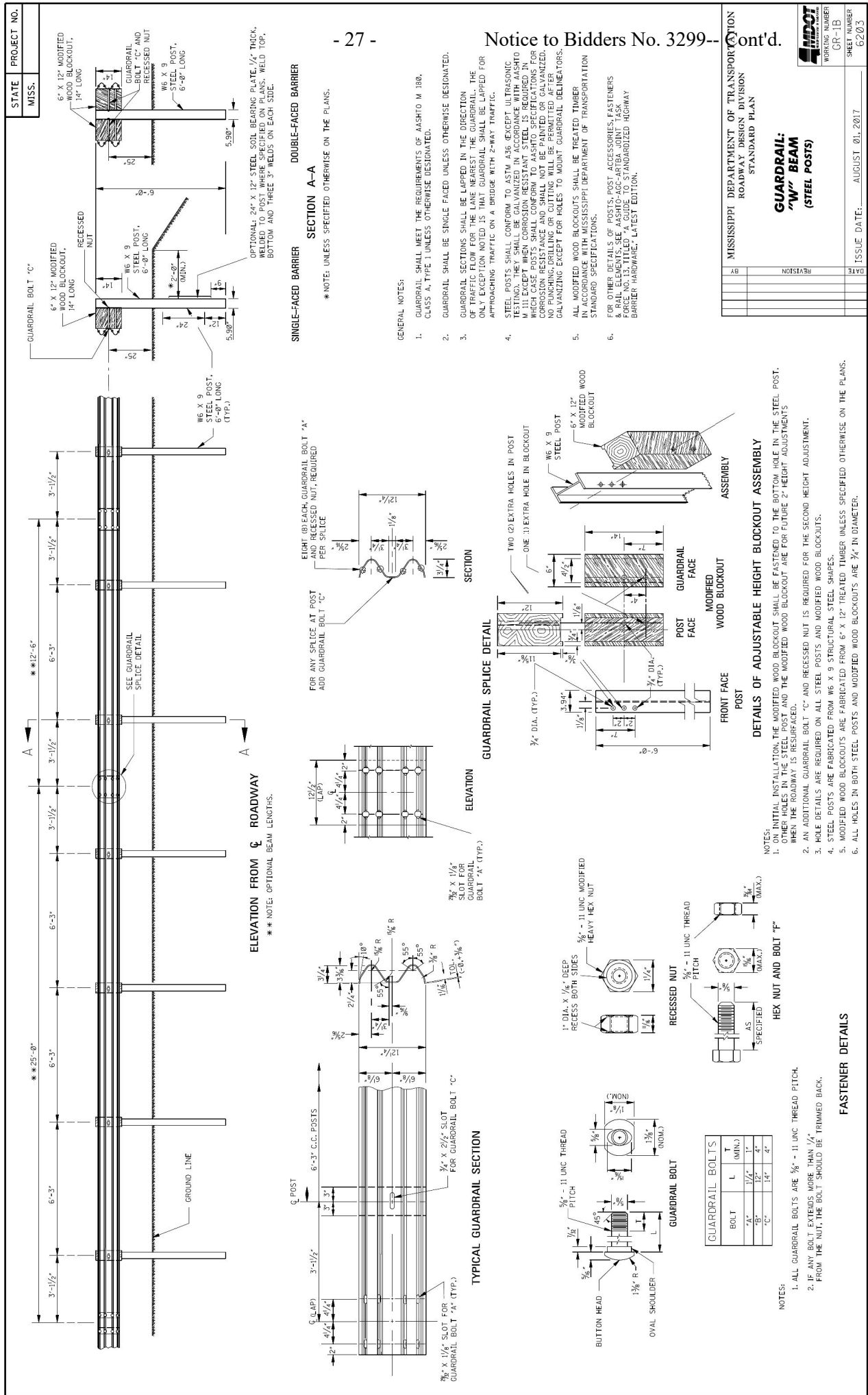
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 STANDARD PLAN

**GUARDRAIL:
 BRIDGE END SECTIONS
 TYPE "E", "F" & "G"**

ISSUE DATE: AUGUST 01, 2017
 SHEET NUMBER: GR-2A
 PROJECT NO.: 6205

RANKIN COUNTY
SP-0039-02(055) 108657/301000

**GUARDRAIL: "W" BEAM
(STEEL POST)**



STATE	PROJECT NO.
MISS.	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

**GUARDRAIL:
"W" BEAM
(STEEL POSTS)**

ISSUE DATE: AUGUST 01, 2017
SHEET NUMBER: CR-1B
PROJECT NUMBER: 62803

DATE	REVISION

SECTION A-A

- GENERAL NOTES:**
- GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
 - GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH Z-WAY TRAFFIC.
 - STEEL POSTS SHALL CONFORM TO ASTM A36 EXCEPT ULTRASONIC TESTING. THEY SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM M 111 EXCEPT WHEN CORROSION RESISTANT STEEL IS REQUIRED IN WHICH CASE POSTS SHALL CONFORM TO AASHTO SPECIFICATIONS FOR GALVANIZED STEEL. WELDING SHALL BE PERMITTED AFTER NO PRUNING, DRILLING OR CUTTING WILL BE PERMITTED AFTER GALVANIZING EXCEPT FOR HOLES TO MOUNT GUARDRAIL DELINEATORS.
 - ALL MODIFIED WOOD BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
 - FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS AND DETAILS OF POST AND BOLT, REFER TO STANDARD HIGHWAY BARRIER HARDWARE, LATEST EDITION.

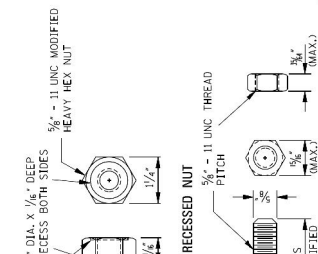
DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY

- NOTES:**
- ON INITIAL INSTALLATION, THE MODIFIED WOOD BLOCKOUT SHALL BE FASTENED TO THE BOTTOM HOLE IN THE STEEL POST. OTHER HOLES IN THE STEEL POST AND THE MODIFIED WOOD BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENTS WHEN THE ROADWAY IS RESURFACED.
 - AN ADDITIONAL GUARDRAIL BOLT "C" AND RECESSED NUT IS REQUIRED FOR THE SECOND HEIGHT ADJUSTMENT.
 - HOLE DETAILS ARE REQUIRED ON ALL STEEL POSTS AND MODIFIED WOOD BLOCKOUTS.
 - STEEL POSTS ARE FABRICATED FROM W6 X 9 STRUCTURAL STEEL SHAPES.
 - MODIFIED WOOD BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
 - ALL HOLES IN BOTH STEEL POSTS AND MODIFIED WOOD BLOCKOUTS ARE 3/4" IN DIAMETER.

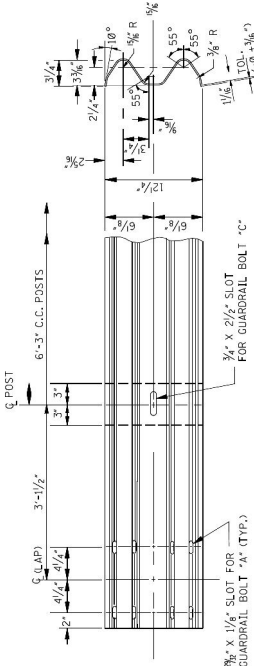
FASTENER DETAILS

- NOTES:**
- ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
 - IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

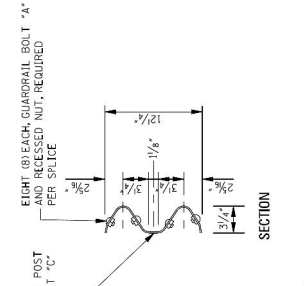
HEX NUT AND BOLT "F"



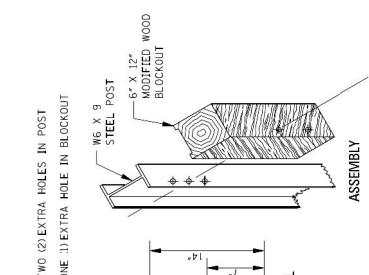
TYPICAL GUARDRAIL SECTION



GUARDRAIL SPICE DETAIL

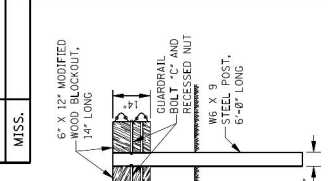
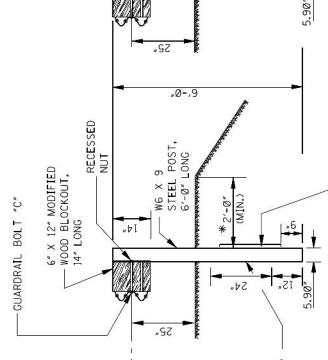
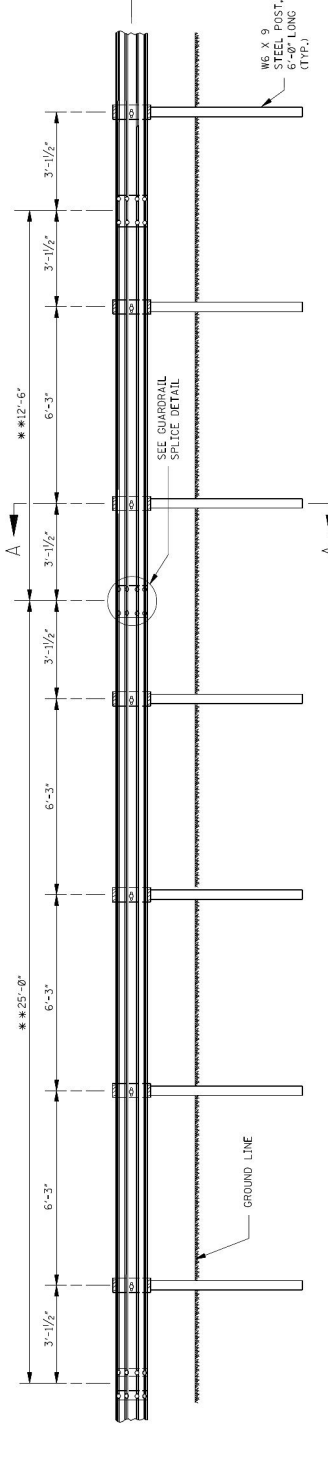


SECTION



ELEVATION FROM CL ROADWAY

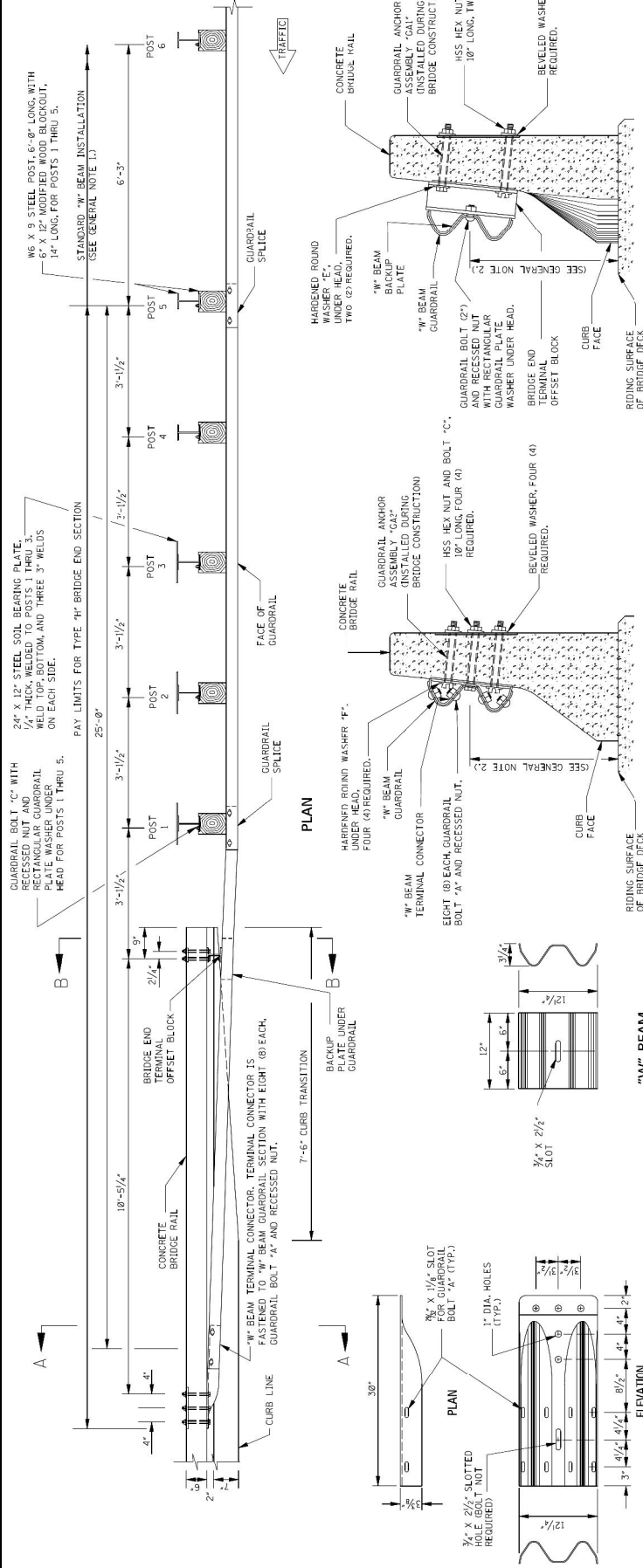
** NOTE: OPTIONAL BEAM LENGTHS.



OPTIONAL: 24" X 12" STEEL SOIL BEARING PLATE, 1/4" THICK, WELDED TO POST WHERE SPECIFIED ON PLANS. WELD TOP, BOTTOM AND THREE 3" WELDS ON EACH SIDE.

GUARDRAIL: BRIDGE END SECTION TYPE "H"
 (STEEL POSTS)

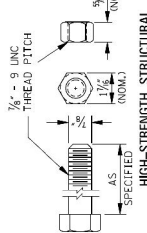
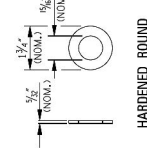
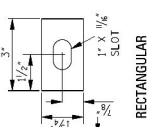
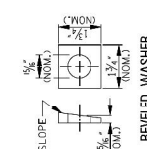
STATE	PROJECT NO.
MISS.	



SECTION B-B

SECTION A-A

- GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL SHALL BE REFERENCED TO SHEET GR-2D.
 2. THE HEIGHT OF RAIL AT THE BRIDGE END IS 21" AND WILL BE TRANSITIONED TO 25" AT POST 5.
 3. GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.

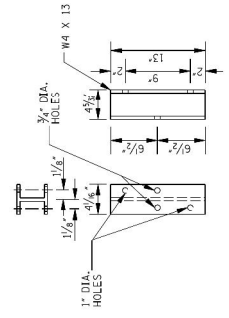


"W" BEAM BACKUP PLATE

NOTE: THE "W" BEAM BACKUP PLATE IS USED UNDER THE "W" BEAM RAIL SECTION WHERE INDICATED ON THIS SHEET. THE CROSS-SECTIONAL DIMENSIONS OF THIS PART ARE THOSE OF THE STANDARD "W" BEAM RAIL SECTION.

"W" BEAM TERMINAL CONNECTOR

NOTE: THE "W" BEAM TERMINAL CONNECTOR IS USED WITH THE TYPE "H" BRIDGE END SECTION. THE CROSS-SECTIONAL DIMENSIONS OF THIS PART ARE THOSE OF THE STANDARD "W" BEAM RAIL SECTION.



FRONT FACE
 SIDE
 DETAIL OF BRIDGE END
 TERMINAL OFFSET BLOCK

BR	REVISION	DATE

ISSUE DATE: AUGUST 01, 2017
 SHEET NUMBER: 6208

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 STANDARD PLAN
**GUARDRAIL:
 BRIDGE END SECTION
 TYPE "H"
 (STEEL POSTS)**



RANKIN COUNTY
SP-0039-02(055) 108657/301000

STRIPE DETAIL - COUNTY ROADS

