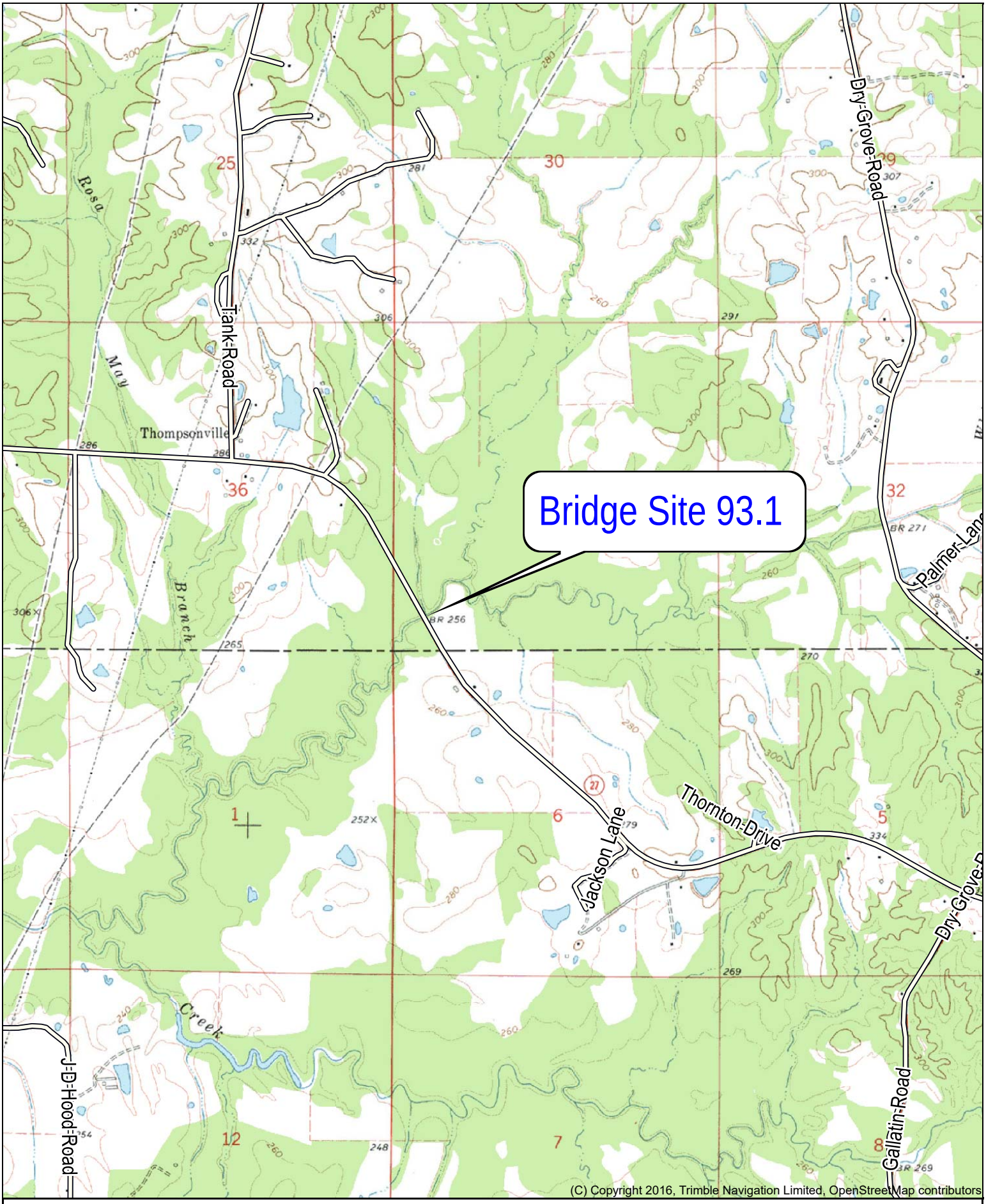
Copiah/Hinds 27
BR-0054-02(025); 106113-302000, 303000

Section 404 General Permit 46
and Section 401 Water Quality



Name: Crystal Springs
Date: 7/2/2021
Scale: 1 inch = 2,000 ft.

Location: 032° 03' 05.8590" N, 090° 26' 43.2480" W
Hinds 27 Bridge Replacement
FMS: 106113/302000/303000

Datum: NAD27

Table 1. Wetland Data Point Summary Table

Data Point	Wetland ID#	Site # OR Worksheet #	Latitude	Longitude	Station	Section-Township-Range	Area from ROW to ROW (Acres)	Cowardin Classification	Impact
DP-5	n/a	2	32.05116	-90.449022	6+50	31-3N-2W	n/a	Upland	n/a
DP-6	W-4	2	32.051232	-90.449033	7+00	31-3N-2W	0.49	R2UBH	0.87 acres Temporary fill 0.50 acres Permanent fill
DP-7	W-5	2	32.052928	-90.450678	14+50	31-3N-2W	0.30	R4SBC	0.14 acres Temporary fill 0.21 acres Permanent fill
DP-8	W-6	2	32.051659	-90.449801	9+10	31-3N-2W	6.84	PFO1A	1.13 acres Temporary fill 0.51 acres Permanent fill

DP - Data point- collection point for sampling data for wetland assessment
W – Wetland areas described as wetlands
PFO1A – Palustrine Forested Broad-Leaved Deciduous Temporarily Flooded
R2UBH – Riverine Lower Perennial, Unconsolidated Bottom Permanently Flooded
R4SBC – Riverine Intermittent Streambed Seasonally Flooded
Station Numbers are approximate
**Latitude and Longitude in Decimal Degrees, NAD 83, State Plane – The location of the Data Point*

Wetland Summary:	**Total Present (acres)**	**Permanent Fill (acres)**	**Temporary Fill (acres)**
Forested	6.84	1.22	2.14
Shrub-Scrub	0	0	0
Emergent	0	0	0
Riverine	0.79	0	0
Total	**7.63**	**1.22**	**2.14**

Table 2. Channel Assessment Table

CA #	Site #/ OR Worksheet #	Latitude	Longitude	Section-Township-Range	Station	Type	Length in Project Area (feet)	Channel Width (feet)	Name	Impact
1	2	32.051322	-90.448865	31-3N-2W	7+00	P	502	31	Little White Oak Creek	17 linear feet of impacts due to shading from new bridge will occur; temporary impacts due to new bridge construction. 24 linear feet of impacts due to shading from temporary bridge will occur; temporary impacts due to temporary bridge construction. 300 linear feet of impacts due to placing riprap at channel.
2	2	32.049792	-90.448671	31-3N-2W	1+60	I	322	28	Unnamed	200 linear feet of impacts due to placing riprap at channel. 143 linear feet of impacts due to new 12'x8' RCBC
3	2	32.051969	-90.449369	31-3N-2W	9+50	I	381	12	Unnamed	No impacts
4	2	32.052927	-90.450676	31-3N-2W	14+60	I	235	6	Unnamed	200 linear feet of impacts due to placing riprap at channel. 117 linear feet of impacts due to new 10'x6' RCBC

CA- Channel Assessment- Channel Assessment point location
OW- Other Water
Type:
P-Perennial
I-Intermittent
E-Ephemeral
Station numbers (Sta.) are approximate
**Latitude and Longitude in Decimal Degrees, NAD 83, State Plane – The location of the CA Form Data Point*
**Impacts are based on preliminary slope stakes boundaries*

CA Summary:	Total Present (feet)	New Bridge Width Shade/ Clear (ft)	Temporary Bridge Width Shade/Clear (ft)	Culvert/ Pipe (ft)	Rip-Rap/ Armor (ft)	Relocate and Fill (ft)	New Channel with Rip-Rap (ft)
Perennial	502	17	24	0	300	0	0
Intermittent	938	0	0	260	400	0	0
Ephemeral	0	0	0	0	0	0	0
Total	**1440**	**17**	**24**	**260**	**700**	**0**	**0**

Note: Sheet ECD-17 will be included with the plans.

GENERAL INDEX

INCLUDED THIS PROJECT		BEGIN WITH SHEET
☒	ROADWAY	1
☒	PERMANENT SIGNS	1001
☐	TRAFFIC SIGNALS	2001
☐	ITS COMPONENTS	3001
☐	LIGHTING	4001
☐	(RESERVED)	5001
☒	ROADWAY STANDARD DWGS	6001
☒	BOX CULVERT STD. DRAWINGS (LRFD)	7001
☐	BOX CULVERT STD. DRAWINGS (STD. SPEC.)	7501
☒	STRUCTURES	8001
☒	CROSS SECTIONS	9001

BRIDGE STRUCTURE REQ'D.

BRIDGE NO. 93.1
SR 27 @ LITTLE WHITE OAK CREEK
STA. 5 + 72.833 TO STA. 7 + 95.167
SPANS: 1 @ 60', 1 @ 100', 1 @ 60'
SKEW: NORMAL TO CENTERLINE
TOTAL LENGTH: 222' – 4"

BOX BRIDGES REQ'D.

NONE

STATE OF MISSISSIPPI

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

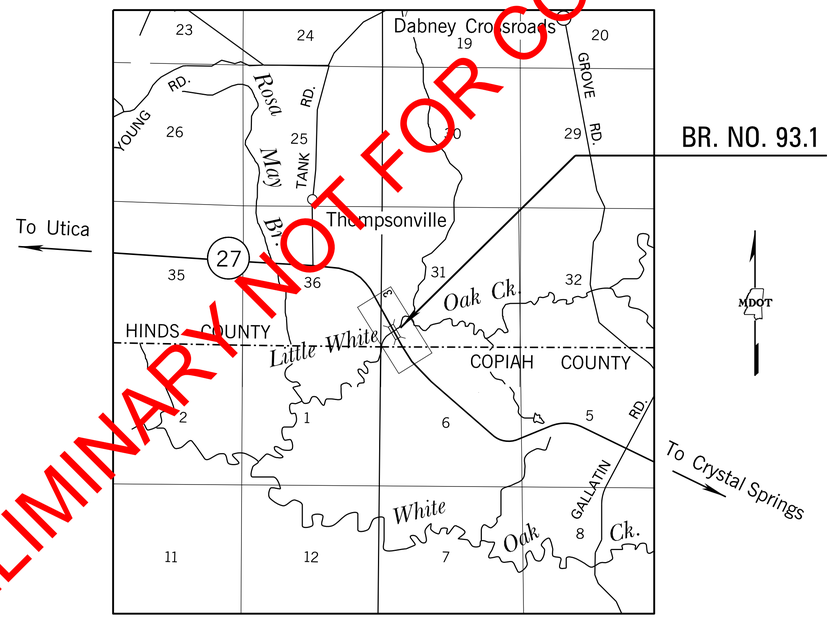
FEDERAL AID PROJECT NO. BR–0054–02(025)

SR 27
BRIDGE REPLACEMENT AT LITTLE WHITE OAK CREEK, BR. NO. 93.1
COPIAH & HINDS COUNTIES

F.M.S. CONST. NO.: 106113 /302000 (COPIAH CO.)
F.M.S. CONST. NO.: 106113 /303000 (HINDS CO.)

SCALES

PLAN		1 IN. = 100 FT.
PROFILE	HOR.	1 IN. = 100 FT.
	VERT.	1 IN. = 10 FT.
LAYOUT		1 IN. ≈ 7400 FT.



EQUATIONS

394 + 60.09 BK. = 0 + 48.30 AH.

EXCEPTIONS

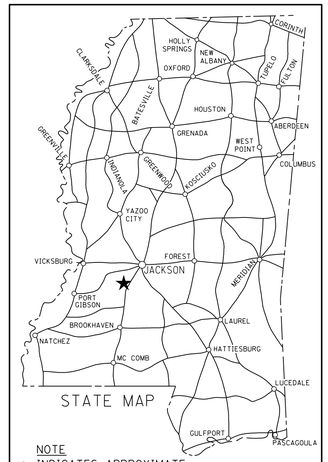
NONE

LENGTH DATA

	COPIAH COUNTY		HINDS COUNTY		TOTAL	
LENGTH OF ROADWAY	535.09 FT.	0.101 MI.	1,806.70 FT.	0.342 MI.	2,341.79 FT.	0.444 MI.
LENGTH OF BRIDGES	0.00 FT.	0.000 MI.	220.00 FT.	0.042 MI.	220.00 FT.	0.042 MI.
LENGTH OF PROJECT (NET)	535.09 FT.	0.101 MI.	2,026.70 FT.	0.384 MI.	2,561.79 FT.	0.485 MI.
LENGTH OF EXCEPTIONS	0.00 FT.	0.00 MI.	0 FT.	0 MI.	0 FT.	0 MI.
LENGTH OF PROJECT (GROSS)	535.09 FT.	0.101 MI.	2,026.70 FT.	0.384 MI.	2,561.79 FT.	0.485 MI.

R.O.W. FMS 106113/201000 (HINDS) R.O.W. FMS 106113/202000 (COPIAH)	
PLANS STAGE	DATE PRINTED
☐ PRE–R.O.W.	
☐ FIELD INSPECTION	08/22/17
☐ R.O.W. PLANS TO SMD	11/30/17
☐ FINAL R.O.W.	03/19/18
☐ R.O.W. REVISION	06/05/18
☒ OFFICE REVIEW	09/23/20

STATE	PROJECT NUMBER	SHEET NO.
MISSISSIPPI	BR–0054–02(025)	1



NOTE
★ INDICATES APPROXIMATE LOCATION OF PROJECT.

BR. NO. 93.1
LAT. 32° 03' 04.08" N LONG. 90° 26' 57.16" W
(APPROX. MIDDLE OF PROJECT)

DESIGN CONTROL (BR. NO. 93.1)
65 MPH = V (SPEED DESIGN)
ADT (2018) = 2600 : ADT (2038) = 3200
DHV = 350 : D = 60 % T= 20 %

PERMITS ACQUIRED BY MDOT		
WETLANDS AND WATERS PERMITS	WATERS	WETLANDS
NATIONWIDE #14	☐	☐
NATIONWIDE (OTHER)*	☐	☐
GENERAL*	☐	☐
INDIVIDUAL (404)*	☐	☐

STORMWATER PERMIT ☒ Y	
Y	REQUIRED, CNOI SUBMITTED BY MDOT (DISTURBED AREA = 5 ACRES)
S	REQUIRED, SCNOI TO BE SUBMITTED BY CONTRACTOR (1 TO 4.99 ACRES)
N	NO STORMWATER PERMIT REQUIRED (<1 ACRE)

APPROVED BY: _____

P S & E DATE:

APPROVED:

DEPUTY EXECUTIVE DIRECTOR / CHIEF ENGINEER

EXECUTIVE DIRECTOR

REVISIONS BY DATE

PRELIMINARY NOT FOR CONSTRUCTION

MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

STATE	PROJECT NO.
MISS.	BR-0054-02(025)

Curve ML_93_1_3
Δ = 18° 41' 56.174" (RT)
D = 1° 29' 59.999"
L = 1,246.596'
T = 628.890'
R = 3,819.719'
BK N 48° 57' 04.033" W
AH N 30° 15' 07.859" W
PC 379+83.658
PT 392+30.254

SUPER EL. 0.050 FT/FT WIDTH
EXTRA WIDTH ON INSIDE Ø FT
SEE DWG. SE-2A CASE 1

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	COPIAH	HINDS	TOTALS
DITCH LINER	S.Y.		134	62	196
SOIL REINF. MATERIAL	S.Y.		132	227	359
PAVED DITCH	C.Y.				
RIPRAP	TON		-	3341	3341
GEOTEXTILE	S.Y.		-	2600	2600
SOLID SOD	S.Y.				

MI-1
KEITH DAVIS HOOD
DB 12 H PG 142

MI-2
KEITH DAVIS HOOD
DB 12H PG 142;
DB 13H PG 131

MI-3
JOHNNY HAND HALEY
DB 362 PG 443; DB 480 PG 783;
DB 602 PG 115; DB 715 PG 332

MI-4
KEITH DAVIS HOOD
DB 12H PG 142 (COPIAH)
DB 383 PG 367 (HINDS)
BOUNDARY LINE AGREEMENT:
DB 702 PG 715

MI-5
WILLIAM M. HALEY
& REGINA L. HALEY

COPIAH COUNTY / HINDS COUNTY

50' 389+50 TIE TO EXIST.ROW
65' 390+50
65' @ PT
FL ELEV. 250.84'
21' OF 18"RCP (TO REMOVE)
FL ELEV. 250.42'
190' 1+49.12 TIE TO C.L.
65' 0+76.65 TIE TO C.L.
30' X 75' EASEMENT PARCEL 2 DB135 PG 497
190' 2+00
90' 3+00
90' 5+00
70' 5+75
34' OF 12'X8' RCBC (TO REMOVE)
FL ELEV. 240.74'
FL ELEV. 240.93'
75' X 500' EASEMENT PARCEL 4 DB 135 PG 497
BEGIN STA. 6+24.00
END STA. 7+41.93
70' 8+00
100' 9+00
70' 10+00
135' 14+50
135' 13+95
110' 15+00
35' OF 12'X5' RCBC (TO REMOVE)
75' 16+65
FL ELEV. 243.83'
FL ELEV. 244.18'
75' 20+00
END CONSTRUCTION STA. 20+75
50' 20+75 TIE TO EXIST.ROW
FL ELEV. 252.35'
41' OF 36"RCP (TO REMAIN)
FL ELEV. 252.03'
50' 20+75 TIE TO EXIST.ROW
60' 19+00
60' 20+50
120' 16+65
145' 14+50
120' 10+50
180' 7+25
120' 6+35
140' 0+75
115' 394+25
75' @ PT
50' 391+00
50' 389+75
40' 389+25 TIE TO EXIST.ROW
BEGIN CONSTRUCTION STA. 389+25
PT Sta. 392+30.254
EQUATION: Sta. 394+60.087 BK = Sta. 0+48.300 AH
BRIDGE NUMBER 93.1
BRIDGE SPANS 1@30'-0" SPAN
1@60'-0" SPAN
1@100'-0" SPAN
CONC.CAST-IN-PLACE
BOTTOM BEAM ELEVATION - 249.73'
75' X 550' EASEMENT PARCEL 3 DB 135 PG 497
N 30° 15' 07.859" W

WETLAND SITE		
TEMPORARILY FILLED	2.14	AC.
PERMANENTLY FILLED	1.22	AC.
BRIDGED		AC.

EARTHWORK TOTAL THIS SHEET	COPIAH	HINDS	TOTAL	UNIT
Cut	164	3,327	3,491	CuYds
Fill	870	10,249	11,119	CuYds
Excess	915	12,397	13,312	CuYds
Channel	-	-	-	CuYds
Borrow (B-9)	739	7,587	8,326	CuYds

INDICATES REMOVAL OF EMBANKMENT.
INDICATES REMOVAL OF PAVEMENT.

SR 27
DESIGN SPEED = 65

Ø 100 200 300
SCALE: 1"=100' HOR.

UTILITIES:
POWER - ENTERGY - (601)-351-4400
WATER - SOUTH CENTRAL WATER ASSOC INC - (601)-878-9639
TELEPHONE - AT&T DISTRIBUTION JACKSON - (601)-922-8879

STA. 1+76.00
98'-12'X8' RCBC REQ'D.
SKEW-NORMAL TO CENTERLINE
2-3:1 WINGWALLS REQ'D.
DISCHARGE (50 YR.)-488 CFS
DESIGN VELOCITY-5.1 FPS
DRAINAGE AREA-0.28 AC
RIP RAP BASIN D.S. REQ'D.

EQUATION: BK 394+60.09 = AH 0+48.30

EXIST. GROUND LINE
PLAN GRADE
VPC 390+15.00 EL. 256.722
258.63
SDG LT -3.20%
SDG RT -3.30%
-2.6000%
+0.0000%
VPT 393+65.00 EL. 252.172
VPI 391+90.00 EL. 252.17 350.00' V.C. K = 135
915 EXCESS (COPIAH)
164 CUT (COPIAH)
870 FILL (COPIAH)
12'X8' RCBC REQ'D.
USFL 237.04
DSFL 236.45

STA. 5+74.00
125' GUARDRAIL REQ'D. (25' LT., 100' RT.)
2-TYPE "I" BRIDGE END SECTS. REQ'D.
2-TERMINAL END SECTS. REQ'D.
A=143.1458', B=100.00'
C=68.1458', D=25.00'

BRIDGE NO. 93.1
SR 27 OVER LITTLE WHITE CREEK
STA. 5+74.00 TO STA. 7+94.00
SPANS = 1 @ 60', 1 @ 100', 1 @ 60'
SKEW = NORMAL TO CENTERLINE
TOTAL LENGTH = 220'-0"
D.A. = 16.00 SQ. MI.

WIDEN & OVERLAY
NEW CONSTR.
STA. 5+74.00
50' GUIDEBANK REQ'D. RT.
BERM ELEV. = 250.5
VPC 0+75.00 EL. 252.172
VPI 2+00.00 EL. 252.17 250.00' V.C. K = 92
VPT 3+25.00 EL. 253.797
VPC 3+75.00 EL. 254.447
+0.0000%
+1.3000%
SDG RT 5.00%
SDG LT 10.00%
SDG RT 0.50%
SDG LT 0.50%
SDG RT 2.00%
VPI 6+75.00 EL. 258.35 600.00' V.C. K = 231
+1.3000%
-1.3000%
50-YEAR DESIGN STAGE ELEV. 248.5
REMOVE EXIST. EMBANKMENT UNDER BRIDGE TO ELEV. 247.5
5,640 EXCESS (HINDS)
1,787 CUT (HINDS)
3,739 FILL (HINDS)

STA. 7+94.00
125' GUARDRAIL REQ'D. (100' LT., 25' RT.)
2-TYPE "I" BRIDGE END SECTS. REQ'D.
2-TERMINAL END SECTS. REQ'D.
A=143.1458', B=100.00'
C=68.1458', D=25.00'

STA. 7+94.00
50' GUIDEBANK REQ'D. RT.
BERM ELEV. = 250.5
NEW CONSTR.
WIDEN & OVERLAY
VPT 9+75.00 EL. 254.447
VPC 10+50.00 EL. 253.472
PLAN GRADE
-1.3000%
+0.2750%
VPI 11+75.00 EL. 251.85 250.00' V.C. K = 159
VPI 13+50.00 EL. 252.33 100.00' V.C. K = 267
VPCC 13+00.00 EL. 252.191
VPT 14+00.00 EL. 252.279
SDG LT 0.50%
SDG LT 3.00%
6,757 EXCESS
1,540 CUT
6,452 FILL

STA. 14+62.00
82'-10'X6' RCBC REQ'D.
SKEW-NORMAL TO CENTERLINE
2-3:1 WINGWALLS REQ'D.
DISCHARGE (50 YR.)-295 CFS
DESIGN VELOCITY-4.9 FPS
DRAINAGE AREA-0.31 AC
RIP RAP BASIN D.S. REQ'D.
WIDEN & OVERLAY
NC
WIDEN & OVERLAY
VPC 15+75.00 EL. 252.104
VPI 16+75.00 EL. 252.279
VPC 18+35.00 EL. 252.999
VPT 20+35.00 EL. 255.149
VPI 16+25.00 EL. 252.05 100.00' V.C. K = 182
VPI 19+35.00 EL. 253.45 200.00' V.C. K = 160
10'X6' RCBC REQ'D.
USFL 242.50
DSFL 242.10
EXIST. GROUND LINE
SDG LT 1.50%
+0.4500%
+1.7000%
255.40

SCALE: 1"=10' VERT.

387	388	389	390	391	392	393	394	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
266.06	265.02	263.61	261.80	260.11	258.40	256.99	255.55	254.42	253.57	252.93	252.49	252.20	252.07	252.00	252.02	251.98	252.08	252.03	252.25	252.65	253.22	253.88	254.51	254.94	255.13	255.25	246.63	235.48
258.41	257.11	255.86	254.78	253.89	253.18	252.66	252.33	252.18	252.17	252.17	252.32	252.58	252.97	253.49	254.12	254.76	255.30	255.73	256.06	256.28	256.38	256.38	256.28	256.06	255.73	255.30	254.76	254.12

255.18	255.17	254.86	254.48	253.96	253.50	253.05	252.54	252.24	252.10	252.07	252.15	252.23	252.28	252.21	252.18	252.13	252.06	252.05	252.13	252.31	252.54	252.79	253.05	253.36	253.83	253.93	254.53	255.34	256.15
256.28	256.06	255.73	255.30	254.76	254.12	253.47	252.90	252.49	252.23	252.13	252.19	252.28	252.23	252.18	252.13	252.06	252.10	252.18	252.39	252.62	252.84	253.07	253.42	253.93	254.59	255.40			

DESIGN TEAM: FISHER ARNOLD
FILENAME: WK3.DGN
COUNTY: COPIAH & HINDS
PROJECT NO.: BR-0054-02(025)
SHEET ID: SR 27 - BR. NO. 93.1

Wk. Sh. 3
Sh. No. $PGS

PLAN-PROFILE
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

10/14/2022 21:52:05 PWK: 3.DGN

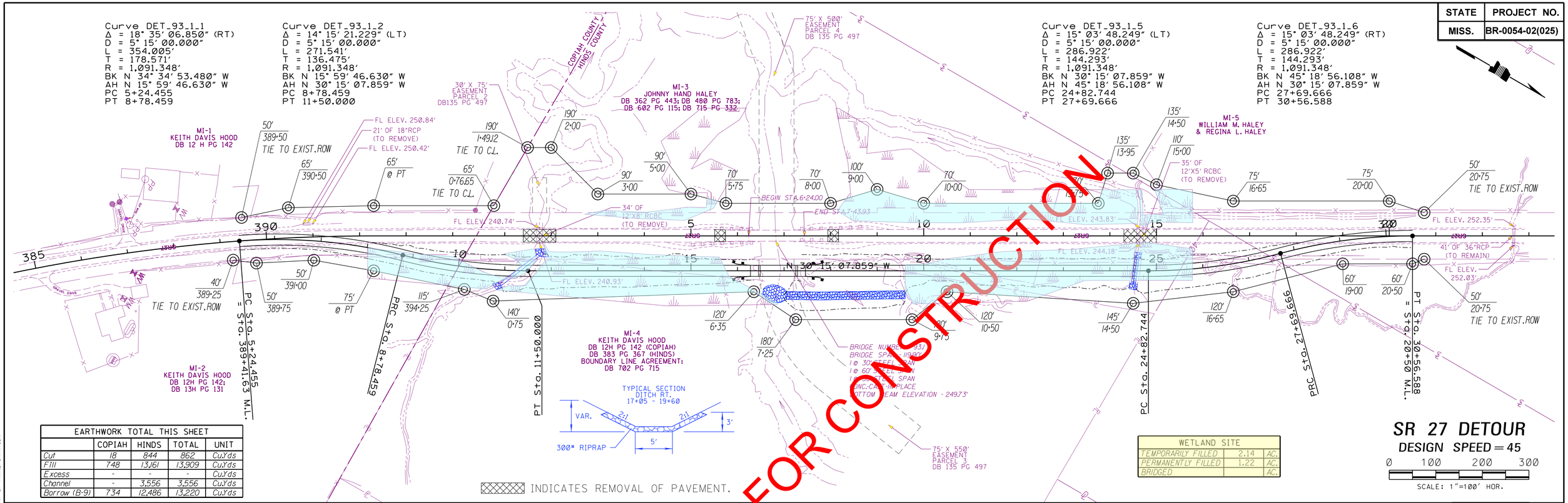
STATE	PROJECT NO.
MISS.	BR-0054-02(025)

Curve DET_93_1_1
Δ = 18° 35′ 06.850″ (RT)
D = 5° 15′ 00.000″
L = 354.005′
T = 178.571′
R = 1,091.348′
BK N 34° 34′ 53.480″ W
AH N 15° 59′ 46.630″ W
PC 5+24.455
PT 8+78.459

Curve DET_93_1_2
Δ = 14° 15′ 21.229″ (LT)
D = 5° 15′ 00.000″
L = 271.541′
T = 136.475′
R = 1,091.348′
BK N 15° 59′ 46.630″ W
AH N 30° 15′ 07.859″ W
PC 8+78.459
PT 11+50.000

Curve DET_93_1_5
Δ = 15° 03′ 48.249″ (LT)
D = 5° 15′ 00.000″
L = 286.922′
T = 144.293′
R = 1,091.348′
BK N 30° 15′ 07.859″ W
AH N 45° 18′ 56.108″ W
PC 24+82.744
PT 27+69.666

Curve DET_93_1_6
Δ = 15° 03′ 48.249″ (RT)
D = 5° 15′ 00.000″
L = 286.922′
T = 144.293′
R = 1,091.348′
BK N 45° 18′ 56.108″ W
AH N 30° 15′ 07.859″ W
PC 27+69.666
PT 30+56.588



EARTHWORK TOTAL THIS SHEET				
	COPIAH	HINDS	TOTAL	UNIT
Cut	18	844	862	CuYds
Fill	748	13,161	13,909	CuYds
Excess	-	-	-	CuYds
Channel	-	3,556	3,556	CuYds
Borrow (B-9)	734	12,486	13,220	CuYds

WETLAND SITE		
TEMPORARILY FILLED	2.14	AC.
PERMANENTLY FILLED	1.22	AC.
BRIDGED		AC.

SR 27 DETOUR

DESIGN SPEED = 45

Ø 100 200 300

SCALE: 1″=100′ HOR.

PRELIMINARY NOT FOR CONSTRUCTION

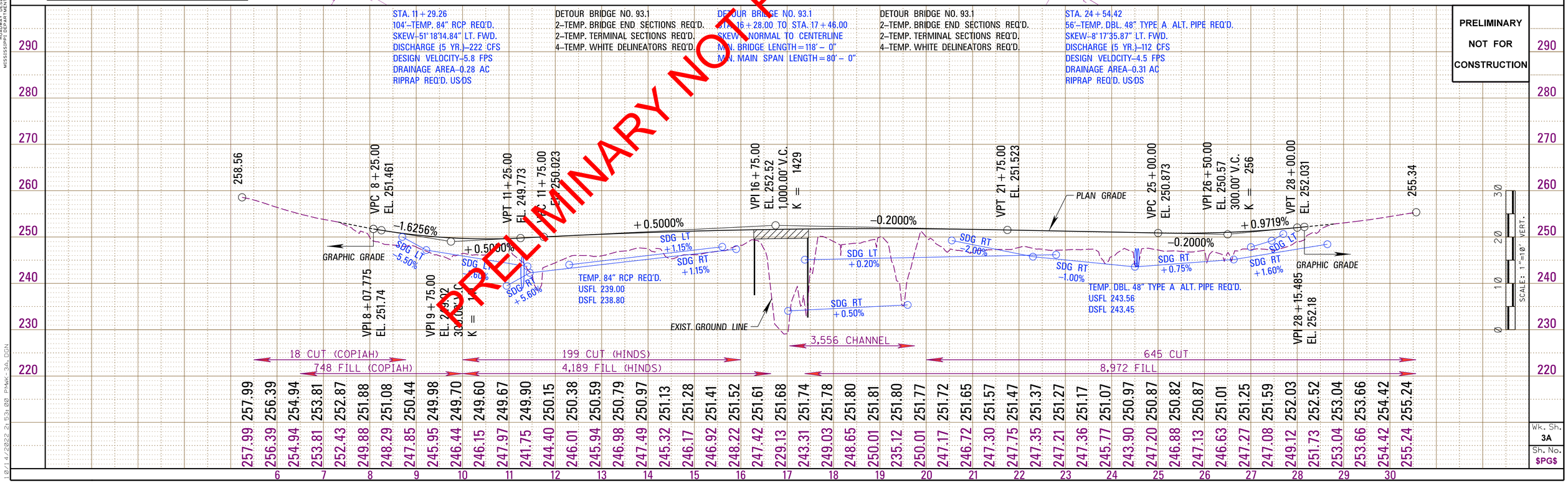
STA. 11 + 29.26
104′–TEMP. 84″ RCP REQ'D.
SKEW–51° 18′14.84″ LT. FWD.
DISCHARGE (5 YR.)–222 CFS
DESIGN VELOCITY–5.8 FPS
DRAINAGE AREA–0.28 AC
RIPRAP REQ'D. USDS

DETOUR BRIDGE NO. 93.1
2–TEMP. BRIDGE END SECTIONS REQ'D.
2–TEMP. TERMINAL SECTIONS REQ'D.
4–TEMP. WHITE DELINEATORS REQ'D.

DETOUR BRIDGE NO. 93.1
STA. 16 + 28.00 TO STA. 17 + 46.00
SKEW–NORMAL TO CENTERLINE
MIN. BRIDGE LENGTH = 118′ – 0″
MIN. MAIN SPAN LENGTH = 80′ – 0″

DETOUR BRIDGE NO. 93.1
2–TEMP. BRIDGE END SECTIONS REQ'D.
2–TEMP. TERMINAL SECTIONS REQ'D.
4–TEMP. WHITE DELINEATORS REQ'D.

STA. 24 + 54.42
56′–TEMP. DBL. 48″ TYPE A ALT. PIPE REQ'D.
SKEW–8° 17′35.87″ LT. FWD.
DISCHARGE (5 YR.)–112 CFS
DESIGN VELOCITY–4.5 FPS
DRAINAGE AREA–0.31 AC
RIPRAP REQ'D. USDS



Wk. Sh. 3A
Sh. No. PG

PLAN-PROFILE
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

10/14/2022 2:53:00 PM K:\3A_DGN

DESIGN TEAM: FISHER ARNOLD | FILENAME: WK3A.DGN | COUNTY: COPIAH & HINDS | PROJECT NO.: BR-0054-02(025) | SHEET ID: SR 27 - BR 93.1 DETOUR

DRAFT FINAL PLANS - 06/11/2021

STATE	PROJECT NO.
MISS.	106113/303000

V.P.C. Sta. 3+75
Elev. 254.447

+1.3000%

V.P.I. Sta. 6+75
Elev. 258.347

P.G. Elev. 256.397

-1.3000%

V.P.T. Sta. 9+75
Elev. 254.447

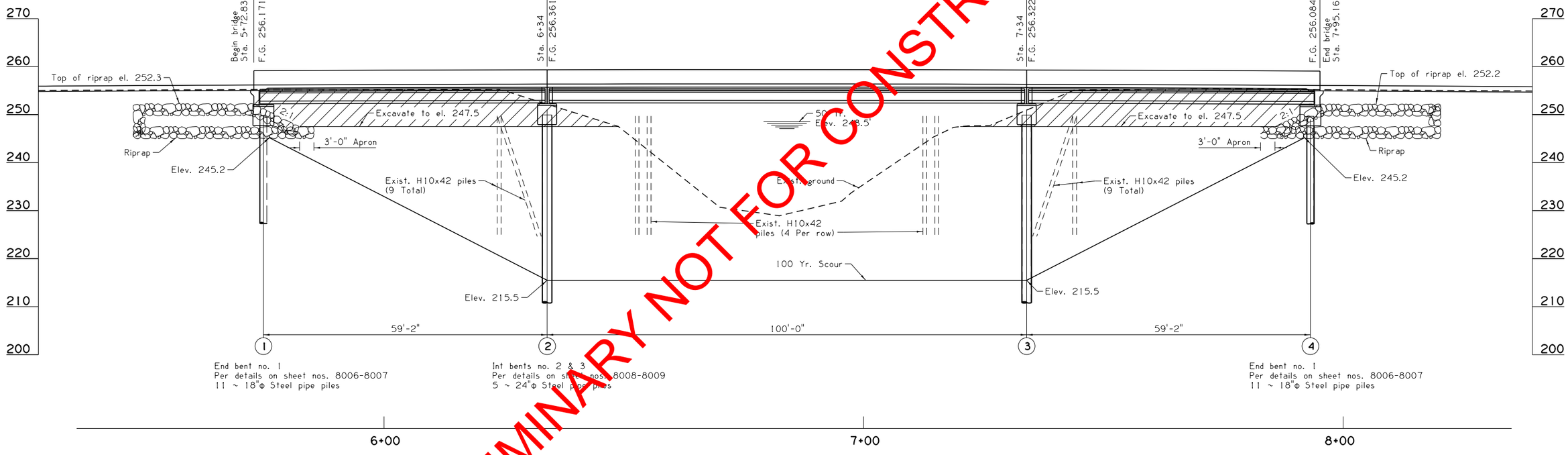
600' VERTICAL CURVE

Total length of bridge = 222'-4"

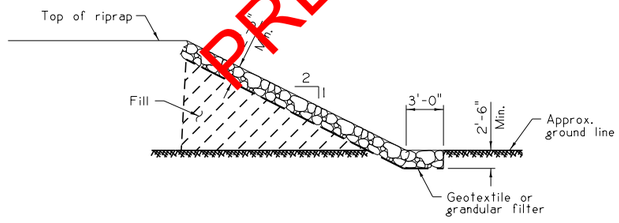
61'-2" FIB-36 prestressed concrete beam span
Per details on sheet nos. 8011, 8013-8018

100'-0" FIB-36 prestressed concrete beam span
Per details on sheet nos. 8012-8018

61'-2" FIB-36 prestressed concrete beam span
Per details on sheet nos. 8011, 8013-8018



ELEVATION WITH PROFILE ALONG ℄ APPROACH ROADWAY
Scale: 1" = 10'-0"



RIPRAP DETAIL

500 YEAR SCOUR	
Bent No.	Elevation
1	242.8
2	213.1
3	213.1
4	242.8

DRAINAGE DATA:

Drainage Area . . . . . 16.0 Sq. Miles
Q50 (U.S.G.S.) . . . . . 5,916 cfs
Effective area . . . . . 877 Sq. ft.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

ENGINEER:
JOSEPH BRIAN JOHNSON
LICENSE NO.:
18727

Stantec

REVISIONS | BY | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 5+73.917
SR 27 OVER LITTLE WHITE OAK CREEK
ELEVATION

PROJECT BR-0054-02(025)
106113/303000

HINDS COUNTY

WORKING NUMBER 2 OF 18

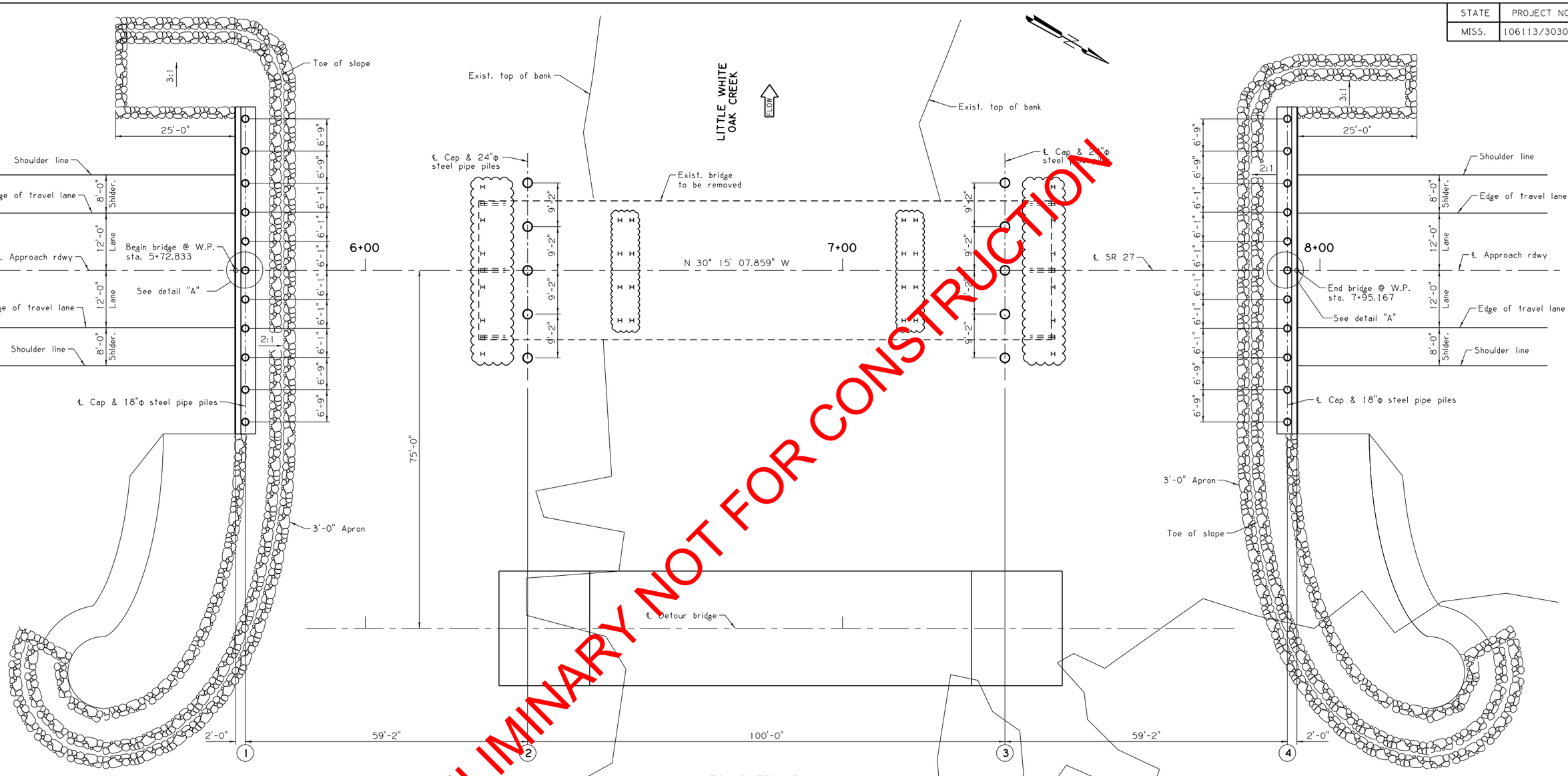
DESIGNER M. YE CHECKER B. JOHNSON
DETAILER P. GELPI ISSUE DATE

DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.

SHEET NUMBER 8004

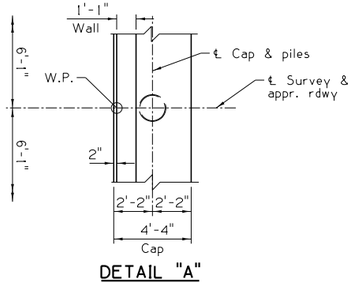
DRAFT FINAL PLANS - 06/11/2021

STATE	PROJECT NO.
MISS.	106113/303000



FOUNDATION PLAN

Scale: 1'-0" = 10'-0"



DETAIL "A"

Bent no. 1 shown, bent no. 2 similar

NOTES:

Riprap shall be 2'-6" thick (min.).
Geotextile fabric is required under all riprap.

LEGEND:

Denotes existing piles

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

ENGINEER:
JOSEPH BRIAN JOHNSON
LICENSE NO.:
18727

Stantec

REVISIONS | BY | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 5+73.917
SR 27 OVER LITTLE WHITE OAK CREEK
FOUNDATION PLAN

PROJECT BR-0054-02(025)
106113/303000

HINDS COUNTY

WORKING NUMBER 3 OF 18

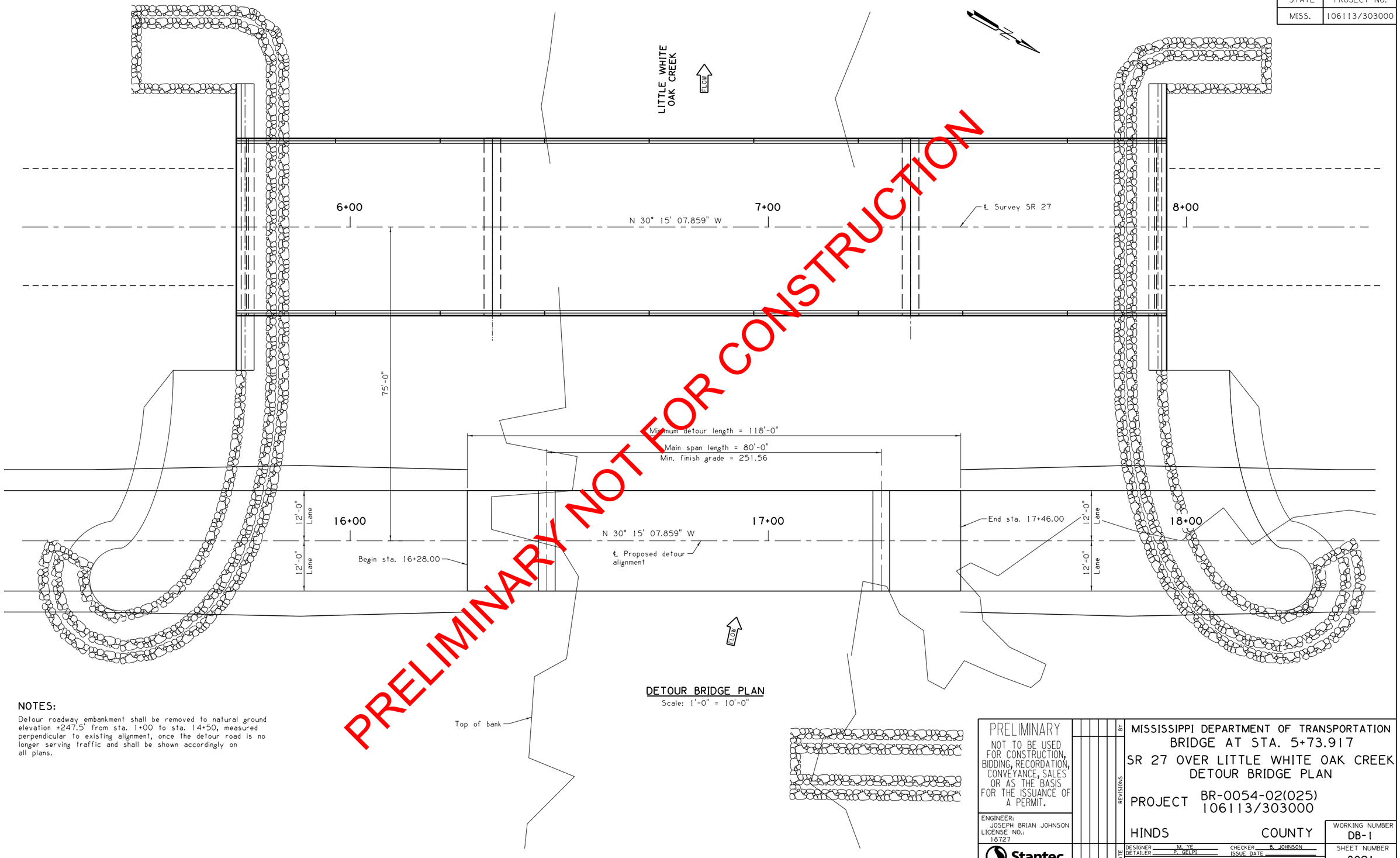
DESIGNER M. YE CHECKER B. JOHNSON
DETAILER P. GELPI ISSUE DATE

DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.

SHEET NUMBER 8005

DRAFT FINAL PLANS - 06/11/2021

STATE	PROJECT NO.
MISS.	106113/303000



DETOUR BRIDGE PLAN
Scale: 1'-0" = 10'-0"

NOTES:

Detour roadway embankment shall be removed to natural ground elevation ±247.5' from sta. 1+00 to sta. 14+50, measured perpendicular to existing alignment, once the detour road is no longer serving traffic and shall be shown accordingly on all plans.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

ENGINEER:
JOSEPH BRIAN JOHNSON
LICENSE NO.:
18727

Stantec

REVISIONS | BY | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 5+73.917
SR 27 OVER LITTLE WHITE OAK CREEK
DETOUR BRIDGE PLAN

PROJECT BR-0054-02(025)
106113/303000

HINDS COUNTY

WORKING NUMBER DB-1

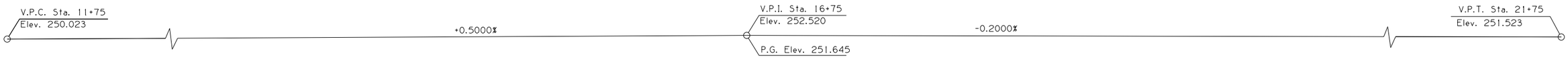
DESIGNER M. YE CHECKER B. JOHNSON
DETAILER P. GELPI ISSUE DATE

DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.

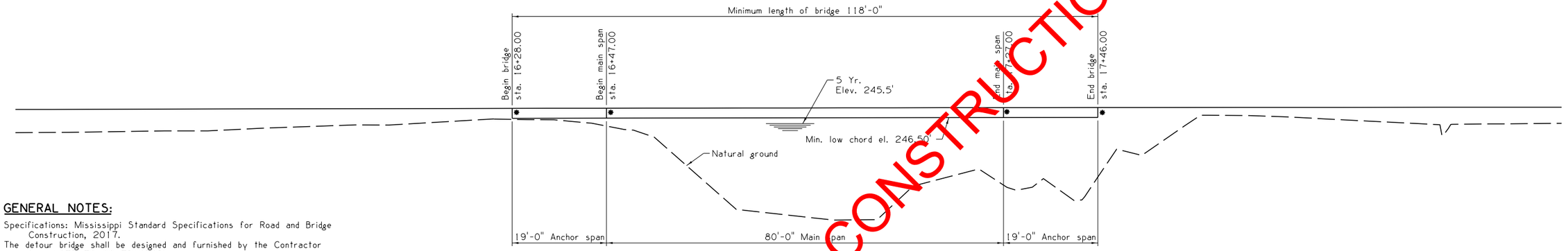
SHEET NUMBER 8021

DRAFT FINAL PLANS - 06/11/2021

STATE	PROJECT NO.
MISS.	106113/303000



1000' VERTICAL CURVE



SR 27 DETOUR BRIDGE OVER LITTLE WHITE OAK CREEK
Scale: 1" = 10'-0"

* NOTE:
For minimum finished grades, see Roadway Plan Sheets.

GENERAL NOTES:

Specifications: Mississippi Standard Specifications for Road and Bridge Construction, 2017.
The detour bridge shall be designed and furnished by the Contractor (see NOTE TO CONTRACTOR).
The detour bridge deck surface shall be of concrete, asphalt, or other skid resistant material subject to approval by MDOT.
The detour bridge superstructure shall be constructed of new or used precast concrete units, steel beams, steel framing or prestressed concrete units. Used units or components shall be in good, sound condition having no visible defects. All elements shall be compatible.
Use of open-grid bridge decking will not be permitted.
The bridge railing shall have a minimum LRFD rating of test level two (TL-2).
Rough, untreated hardwood timber may be used for the construction of bulkheads or bent caps.
Used timber shall be in good, sound condition.
Untreated timber piles may be used.
Piling size shall be as designated in Section 719 of the Specifications.
Piling shall be driven to bearing sufficient to meet pile bearing requirements and ensure stability of the substructure.
Piles in bulkhead shall be an absorbed item.
During the time the detour bridge is in place, the waterway shall be kept free of all obstructions to the free flow of water.
After the permanent structure has been opened to traffic, the detour bridge shall be removed by the Contractor.
All material furnished by the Contractor and used in construction with the detour bridge shall remain the property of the Contractor and shall be removed from the site.
Test piles shall be driven out of position and shall be removed to a minimum of one foot (1.00) below the ground line upon acceptance by the Project Engineer.
Detour bridge piles shall be pulled or cut off a minimum of one foot (1.00) below the ground line.
The Contractor's detour bridge submittal shall include a plan to address potential scour and drift effects by utilizing methodologies such as substructure bracing/strengthening, rip rap protection, brush deflectors, deeper pile penetration, stronger/more durable pile types and bridge inspection with drift removal during storm events
The detour bridge length shown hereon utilizes a bulkhead abutment configuration to meet the minimum effective opening requirements. Use of bridge configurations that incorporate spill-through slopes may require additional bridge length to meet the minimum effective opening requirements. Additional bridge length, span length and/or other bridge adjustments required to address minimum effective opening requirements, site conditions and/or erosion control requirements will not be cause for additional compensation.
Payment for the detour bridge will be made under the pay items in Section 618 of the Standard Specifications
Work for which no pay item is provided in the proposal will not be paid for directly and compensation therefor will be included in the prices and payments for bid items.

NOTE TO CONTRACTOR:

The Contractor shall employ the service of a registered Professional Engineer who is knowledgeable and proficient in the field of bridge design.
The Contractor's Design Engineer shall determine the required ultimate pile bearing capacities based on the use of Pile Dynamic Analysis (PDA) for the condition/bearing resistance determination method per the AASHTO LRFD Bridge Design Specifications.
The Contractor's Design Engineer will be responsible for providing the Pile Dynamic Analysis (PDA) and for establishing the production pile driving criteria.
The Contractor's Design Engineer shall determine the lengths of all test piles and production piles.
The following exceptions to the AASHTO LRFD Bridge Design Specifications will be allowed for the design of Detour Bridges:
(1) The design of the substructure of the Detour Bridge shall be made to satisfy the requirements of the following Limit States: Strength I, Strength III, Strength V, and Service I.
(2) With PDA pile tests for the Detour Bridge Piling being performed and the corresponding Resistance Factor for Driven Piles may be used to set final Detour Bridge pile lengths.
(3) The Design Vehicular Loading (Truck + Lane) used may be 75% of the HL-93 Live Loading.
A complete set of bridge detail drawings, bearing the official seal of the Contractor's Design Engineer, along with design calculations, shall be submitted to the Project Engineer and the Director of Structures, State Bridge Engineer for review. The submittal shall specify the bridge span arrangement, configuration, location, minimum geometric and loading requirements, verification of ground line elevations and effective area of opening. The submittal shall also specify the LRFD factored pile loading (Strength I), the required ultimate pile bearing capacities based on the condition/resistance determination method used, type and estimated length of test and production piling, the stationing and finish grade at each bent and total length of the detour bridge.
The Contractor's erosion control plan shall address the construction, maintenance, and removal of the detour bridge. The detour bridge shall be long enough such that spill-through slopes of abutments do not spill over into the channel.
Prior to opening the detour bridge to traffic, the Contractor shall submit test pile data and pile records to the Engineer for review and shall provide MDOT written certification from the Contractor's Design Engineer that construction of the bridge was in full accordance with the design plans.
Any deviations in construction of the detour bridge from the detour bridge design plans shall require the Contractor's Design Engineer to provide corrected calculations and corresponding revisions made to the detour bridge plans which shall be stamped by the Contractor's Design Engineer.

DRAINAGE DATA:

Drainage Area . . . . . 16.0 Sq. Miles
050 (U.S.G.S.) . . . . . 3,920 cfs
Effective area . . . . . 877 Sq. ft.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

ENGINEER:
JOSEPH BRIAN JOHNSON
LICENSE NO.:
18727

Stantec

REVISIONS | BY | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT STA. 5+73.917
SR 27 OVER LITTLE WHITE OAK CREEK
ELEVATION

PROJECT BR-0054-02(025)
106113/303000

HINDS COUNTY

WORKING NUMBER DB-2

DESIGNER M. YE CHECKER B. JOHNSON
DETAILER P. GELPI ISSUE DATE

DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER PE.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD PE.

SHEET NUMBER 8022

CERTIFICATION OF COMPLIANCE
WITH DEPARTMENT OF THE ARMY PERMIT

Nationwide Permit Number:	RGP-46
Identification Number:	MVK-2022-871
Name of Permittee:	Ms. Andrea Wodtke Mississippi Department of Transportation
Issued Date:	03/07/2023
Evaluator Name:	Mr. Anthony Lobred
Expiration Date:	10/02/2024
Compliance Location:	The activity is located at the following GPS coordinates: 32.051628, -90.445347 within Section 6, T2N-R2W and Sections 26 & 31, T3N-R2 &3W, Copiah and Hinds Counties, Mississippi

Upon completion of the activity authorized by this permit, sign this certification and return it to the following address:

USACE, Vicksburg District
ATTN: Regulatory Division
4155 Clay Street
Vicksburg, Mississippi 39183-3435

Please note that your permitted activity is subject to a compliance inspection by an Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit modification, suspension, or revocation.

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of the said permit including any required mitigation.

Date work was completed: _____

_____ _____
Signature of Permittee Date Signed

US Army Corps of Engineers
Vicksburg District
4155 Clay Street
Vicksburg, MS 39183-3435
www.mvk.usace.army.mil

GENERAL PERMIT

FILE NO.: GENERAL PERMIT – 46
DATE: October 2, 2019
EXPIRES: October 2, 2024

FOR: **REGULATED ACTIVITIES ASSOCIATED WITH THE DISCHARGE OF DREDGED OR FILL MATERIAL IN WATERS OF THE UNITED STATES AND/OR STRUCTURES OR WORK AFFECTING NAVIGABLE WATERS OF THE UNITED STATES ASSOCIATED WITH THE CONSTRUCTION AND STABILIZATION OF ROADWAY EMBANKMENTS AND BRIDGE ABUTMENTS**

WHERE: **THE STATE OF MISSISSIPPI**

BY WHOM: **DISTRICT ENGINEER, VICKSBURG DISTRICT, ON BEHALF OF THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION (MDOT)**

The U.S. Army Corps of Engineers (USACE), Vicksburg District, is hereby reissuing a Department of the Army General Permit for the discharge of dredged or fill material in waters of the United States and/or structures or work affecting navigable waters of the United States associated with the construction and stabilization of roadway embankments and bridge abutments performed by or having oversight from MDOT within the State of Mississippi. This General Permit shall authorize activities such as the repair and stabilization of existing roadway embankments and bridge abutments; the installation of additional traffic lanes to existing roadways; the upgrading of bridges and other stream-crossing structures; and, construction along new alignments.

This action is being taken pursuant to Federal regulations printed in the Federal Register on November 13, 1986, concerning permits for activities in waters of the United States (U.S.). These regulations state the U.S. Army Corps of Engineers' responsibility for regulating structures or work in or affecting waters of the United States under Section 10 of the Rivers and Harbors Act of 1899 (30 Stat. 1151; 33 U.S.C. 403); and discharges of dredged and/or fill material into waters of the United States under Section 404 of the Clean Water Act (33 U.S.C. 1344).

An agreement was finalized between MDOT, the Federal Highway Administration

(FHWA), and the U.S. Army Corps of Engineers with concurrence from the appropriate Districts on December 12, 2008, which specifies that all MDOT projects within the State will be evaluated by the Vicksburg District. The address is USACE, Vicksburg District, ATTN: Regulatory Branch, 4155 Clay Street, Vicksburg, Mississippi 39183-3435.

Upon expiration of the agreement, since portions of the State are within jurisdictional boundaries of five United States Army Corps of Engineers Districts (enclosure 1), subsequent authorizations to proceed with work proposed under this General Permit will be granted by letter from the appropriate District within whose boundaries the work will be located. The MDOT will be notified of any changes to the agreement and furnished the mailing address of each district.

This General Permit contains certain limitations intended to protect the environment and natural and cultural resources. Conformance with conditions contained in the General Permit does not necessarily guarantee authorization under this General Permit. In cases where the District Engineer considers it necessary, an application will be required for an individual permit.

Regulated construction, dredging, or fill operations not specifically covered by this General Permit are prohibited unless authorized by a separate permit.

General Permits may be issued for a category or categories of activities when: (1) those activities are substantially similar in nature and cause only minimal individual and cumulative environmental impacts; or (2) the General Permit would result in avoiding unnecessary duplication of the regulatory control exercised by another Federal, State, or local agency, provided it has been determined that the environmental consequences of the actions are individually and cumulatively minimal. The determination that the proposed activities comply with the requirements for the issuance of General Permits was made using information which is available for inspection at the office of the Vicksburg District's Regulatory Branch at 4155 Clay Street, Vicksburg, Mississippi.

In compliance with requirements of Section 401 of the Clean Water Act, the Vicksburg District has obtained water quality certification from the Mississippi Department of Environmental Quality (enclosure 2).

The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the U.S. to the maximum extent practicable at the project site (i.e., on site). Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

In order to compensate for any unavoidable losses of functions of jurisdictional waters of the United States associated with the work authorized by this General Permit; the Mississippi Department of Transportation shall develop a compensatory mitigation plan. The compensatory mitigation plan will be fully described in accordance with 33 CFR

Parts 325 and 332, Compensatory Mitigation for Losses of Aquatic Resources; Final Rule, April 2008.

REQUEST FOR AUTHORIZATION UNDER THE GENERAL PERMIT: IN ORDER TO BE AUTHORIZED BY THIS GENERAL PERMIT, THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION ARE REQUIRED TO SUBMIT TO THE DISTRICT ENGINEER, IN WRITING, THE FOLLOWING INFORMATION A MINIMUM OF 60 DAYS PRIOR TO THE PROPOSED BID ADVERTISEMENT DATE:

a. Statement that the work will be conducted in compliance with the terms and conditions of General Permit 46, will not adversely impact adjoining properties, and will be mitigated for in accordance with the terms of this General Permit.

b. A location map showing the proposed worksite (including Section, Township, Range, and County).

c. A brief description of the proposed worksite in its present condition.

d. For the selected site, a full set of construction plans (including quantities and types of any fill and quantities of any excavation), maps, and engineering drawings for the proposed activity at that site. These shall include a map of sufficient scale that illustrates an "overlay" of the proposed construction/development activity (e.g. construction roads, ditches, parking areas, lay-down pads, temporary work areas, remaining natural areas, etc.) on jurisdictional waters of the U.S.

e. The estimated starting and completion dates of the proposed construction.

f. Name, mailing address, telephone number, and email address, of the person acting as the point of contact for the requested authorization.

g. If wetlands or other waters of the U.S. are to be impacted, the following information is required:

(1) A map delineating the wetlands and other waters of the U.S. and copies of the associated data form(s) for routine wetland determinations from the 1987 Corps of Engineers Wetland Delineation Manual and its subsequent Regional Supplement Manual(s) covering the proposed project area(s).

(2) The type and date of approval of the NEPA documentation by the FHWA and a copy of their findings as required by Executive Order 11990.

h. A discussion of how adverse impacts to waters of the U.S. from the proposed activity will be avoided and minimized to the maximum extent practicable at the construction site.

i. If the loss or conversion to waters of the United States at a single and complete project site exceeds 0.1 acre, the application shall include a compensatory mitigation plan based on an approved wetland functional assessment methodology. Such recommendations should include copies of all factual information (e.g. worksheets) used in performing the calculations of the functional assessment. (Note: The District Engineer will consider this recommendation, however, the District Engineer retains discretionary authority in making the final decision on compensatory mitigation measures).

j. If impacts to a natural waterway at a single and complete project site exceed 100 linear feet, MDOT shall include a compensatory mitigation plan based on an approved stream functional assessment methodology. Such recommendations shall include copies of all factual information (e.g. worksheets) used in performing the calculations of the functional assessment. (Note: The District Engineer will consider this recommendation, however, the District Engineer retains discretionary authority in making the final decision on compensatory mitigation measures).

k. Comments from the Mississippi Department of Wildlife, Fisheries and Parks, Mississippi Department of Archives and History (including the results of any National Historic Preservation Act, Section 106, consultation actions), United States Fish and Wildlife Service (including the results of any Endangered Species Act, Section 7, consultation actions), and the Mississippi Department of Environmental Quality on the project.

l. Concurrence in writing from the Mississippi Department of Marine Resources (related to the Coastal Zone Management Act) and the National Marine Fisheries Service (including the results of any Magnuson-Steven Fisheries Conservation and Management Act, essential fish habitat consultation actions), if the project is located in Hancock, Harrison, or Jackson County, Mississippi. (See Special Condition h. below).

Upon receipt of this information, the District Engineer will: advise MDOT, in writing, either that the work will be evaluated for authorization under the General Permit 46; will request additional information, if needed; or will advise MDOT that the proposed activity will be evaluated as an individual permit.

Special Conditions:

a. No more than 7 acres of wetlands and other waters shall be directly impacted by the placement of fill at each single and complete crossing of a water of the United States where the proposed work involves either upgrading an existing highway within an established corridor or where the work is to be constructed along a new alignment. Any wetlands cut off from their natural hydrologic regime as a result of project work would be considered as directly impacted.

b. For stream or river crossings, discharges of permanent fill material and temporary

fill material shall be the minimum necessary to complete the crossing. The term fill refers to earthen material, riprap, concrete, and any other materials associated with the work.

c. The stabilization or construction work shall not interfere with navigation (including recreational boating) or adversely impact the flow-carrying capacity of the affected waterbody.

d. Material to be used for fill must be nonpolluting and may be obtained either offsite or from site preparation. Offsite material shall not be obtained from wetlands outside the 7-acre limit or from other areas which may adversely affect adjacent wetlands. Any excess material shall be placed in an upland area and properly contained or stabilized to prevent entry into adjacent water-bodies or wetlands.

e. Disturbed areas on the site shall be stabilized to minimize erosion. Stabilization of erodible areas shall be accomplished by seeding or sodding as soon as practicable to restore vegetative cover. If initial re-vegetation is unsuccessful, the area shall be reseeded or re-sodded until re-vegetation is successful. In areas subject to currents, riprap may be required for slope protection.

f. No activity that has the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, or a site that has previously been unevaluated, shall be authorized by this General Permit until the requirements of Section 106 of the National Historic Preservation Act have been satisfied. Additional fill material should not be taken from a known historical or archaeological site within or outside of regulated areas. If the permittee, during prosecution of work authorized herein, inadvertently discovers or accidently destroys a cultural resource such as a cemetery, shipwreck, mound, historic structure, or archaeological site, within the area subject to Department of the Army jurisdiction, they must cease work in the immediate area and notify the District Engineer within 24 hours. The District Engineer, in consultation with the appropriate State Historic Preservation Officer and the Federally recognized Tribe, shall comply with the procedures set forth in 33 CFR 325, Appendix C, paragraph 11 (Historic Properties Discovered During Construction).

g. The work shall not occur in a National Wildlife Refuge, State Game Management Area, or other such Federal or State lands, or lands leased to those entities without the appropriate Federal or State authorization in writing.

h. For work within the Mississippi Coastal Zone Management Area, including all areas below Interstate I-10, a set of complete plans shall be sent to the three agencies listed below for review and/or approval as appropriate. Comments and concurrence resulting from this coordination should be submitted with the request for authorization under this General Permit.

1. The Mississippi Department of Marine Resources
   1141 Bayview Avenue
   Suite 101
   Biloxi, Mississippi 39530

2. National Marine Fisheries Service
   Southeast Regional Office
   Protected Resources
   Attention: Ms. Karla Reece
   263 13th Ave. S.
   St. Petersburg, Florida 33701
   Email: Karla.reece@noaa.gov

3. National Marine Fisheries Service
   Room 266, Military Science Building
   Attention: Mr. Brandon Howard
   South Stadium Drive
   La. State University
   Baton Rouge, Louisiana 70803-7535

i. All temporary fills must consist of non-erodible material or be protected to prevent erosion.

j. Any materials used for temporary structures such as cofferdams, equipment pads, or temporary crossings, shall be removed as soon as practicable, and the waterway should be restored to preconstruction contours.

k. Disturbance to riparian vegetation shall be kept to a minimum during construction.

l. No activity shall be authorized under this General Permit which is likely to directly or indirectly jeopardize the continued existence of a Federally-listed threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will likely directly or indirectly destroy or adversely modify the critical habitat of such species. No activity shall be authorized under this General Permit which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed. No activity shall be authorized under this General Permit which "may affect" essential fish habitat as identified under Magnuson-Stevens Fishery Conservation and Management Act, unless essential fish habitat consultation addressing the effects of the proposed activity has been completed.

m. Discharges shall not restrict or impede the movement of aquatic species indigenous to the waters.

n. All work shall be performed in a manner that will minimize increased turbidity of the water in the project area and otherwise avoid adverse effects on water quality and aquatic life especially during fish spawning season. This may require avoiding construction activities during the peak spawning months of April, May, and June.

o. The discharge shall not adversely affect a public water supply intake or a National or State Fish Hatchery intake.

p. The discharge shall not contain unacceptable levels of pathogenic organisms (as prescribed in standards set by the Mississippi Department of Environmental Quality) in areas used for water-contact sports.

q. The construction activity shall not result in the permanent diversion or relocation of a stream or a river channel except where needed to align a waterway crossing to avoid potential damage to the roadway. In no case, should any realignment extend beyond 150 feet upstream and 150 feet downstream from the centerline of a crossing structure. The construction activity shall not result in stream flow impediment or drain adjacent wetlands.

r. Authorization under this General Permit is valid until the General Permit expires. Activities authorized under this General Permit which are under construction, or that are under contract to commence by the expiration of this General Permit, will remain authorized provided the activity is completed within 12 months of the date of expiration.

s. Current standards and practices shall be used to determine what type drainage structure is required at a particular stream crossing (box culvert, bridge, etc.).

t. To minimize potential adverse impacts to wetlands within the right-of-way or associated with the project, the Mississippi Department of Transportation shall incorporate into each project's design all practicable measures to:

(1) Minimize impact on hydrology in wetland areas.

(2) Minimize potential for toxic spills and leaching into wetland areas.

(3) Minimize discharge of materials, such as silt, into wetlands.

(4) Maintain adequate flow through wetlands by providing culverts, ditches, and other hydrologic structures.

(5) Provide berms, traps, or ditches to direct potential toxic spills away from wetlands.

(6) Provide for animal migration to and from wetland areas or habitat corridors.

(7) Provide erosion and sediment control features throughout the construction phase of a project which will minimize both short- and long-term impacts to water quality.

(8) Provide treatment facilities which may be required to treat highway runoff which would otherwise adversely affect wetlands.

(9) Provide contractual provisions for stopwork orders, project staging, and other specifications pertaining to minimizing impacts on wetlands and to onsite monitoring.

General Conditions:

a. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

b. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

c. This permit does not grant any property rights or exclusive privileges.

d. This permit does not authorize any injury to the property or rights of others.

e. This permit does not authorize interference with any existing or proposed Federal project.

f. In issuing this permit, the Federal Government does not assume any liability for the following:

(1) Damages to the permitted project, or uses thereof, as a result of other permitted or unpermitted activities or from natural causes.

(2) Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

(3) Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

(4) Design or construction deficiencies associated with the permitted work.

(5) Damage claims associated with any future modification, suspension, or revocation of this permit.

g. In issuing individual authorizations under this General Permit, the Government shall rely on the information and data which the permittee provides in connection with

the permit application. If, subsequent to the authorization, such information and data prove to be false, incomplete, or inaccurate, this authorization may be modified, suspended, or revoked, in whole or in part, and/or the Government may, in addition, institute appropriate legal proceedings.

h. This office may re-evaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

(1) Failure to comply with the terms and conditions of this permit.

(2) The information provided in support of a request for authorization proves to have been false, incomplete, or inaccurate (See g. above).

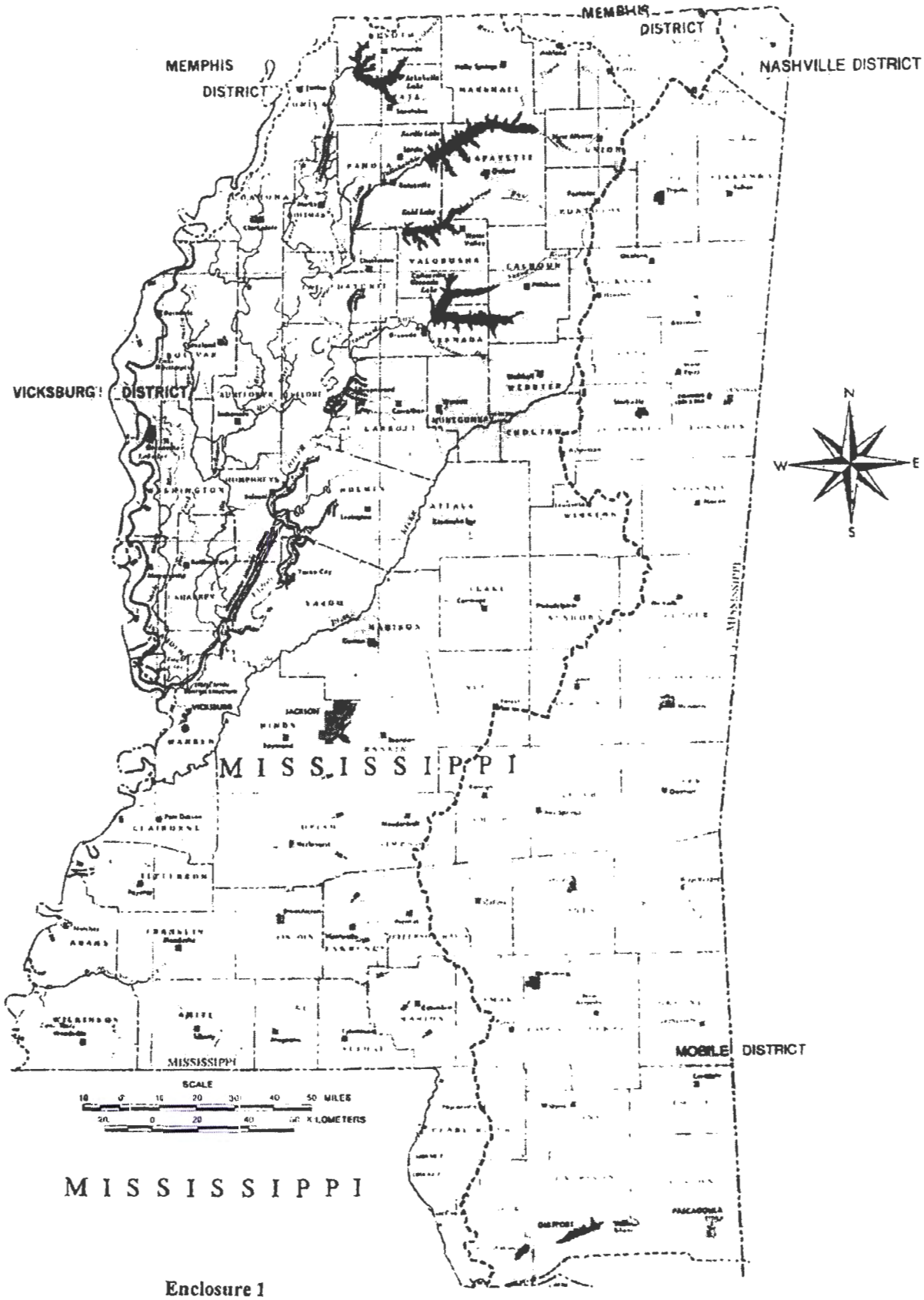
(3) Significant new information surfaces which was not considered in reaching the original public interest decision.

i. The General Permit is valid for 5 years from the date of the issuance. At the end of that time, the cumulative environmental effects of completed work will be reviewed and reissuance of the permit may be considered. However, if unforeseen adverse environmental effects result from the issuance of this General Permit, it may be modified or terminated at any time.

j. Authorization under this General Permit is valid until the General Permit expires. Activities authorized under this General Permit which are under construction, or that are under contract to commence by the expiration of this General Permit, will remain authorized provided the activity is completed within 12 months of the date of expiration.

Cori Carraway

Cori Carraway
Acting Chief, Regulatory Branch



Enclosure 1

(Encl 1)

STATE OF MISSISSIPPI

PHIL BRYANT

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

GARY C. RIKARD, EXECUTIVE DIRECTOR

January 30, 2019

Certified Mail No. 7017 0530 0000 5971 7466

Ms. Jennifer Mallard
U.S. Army Corps of Engineers
Vicksburg District
4155 Clay Street
Vicksburg, Mississippi 39183-3435

Dear Ms. Mallard:

Re: U. S. Army Corps of Engineers
Vicksburg District
General Permit 46. MDOT
Warren County
COE No. MVK20180808
WQC No. WQC2018047

Pursuant to Section 401 of the Federal Water Pollution Control Act (33 U. S. C. 1251, 1341), the Office of Pollution Control (OPC) issues this Certification, after public notice and opportunity for public hearing, to the U.S. Army Corps of Engineers, Vicksburg District, an applicant for a Federal License or permit to conduct the following activity:

> U.S. Army Corps of Engineers, Vicksburg District, General Permit 46: Proposed reissuance of a statewide General Permit for the discharge of dredged or fill material in waters of the United States and/or structures or work affecting navigable waters of the United States associated with the construction and stabilization of roadway embankments and bridge abutments. This General Permit would authorize activities such as the repair and stabilization of existing roadway embankments and bridge abutments; the installation of additional traffic lanes to existing roadways; the upgrading of bridges and other stream-crossing structures; and construction along new alignments.
>
> This proposed General Permit contains certain limitations intended to protect the environment and natural and cultural resources. Conformance with conditions contained in the General Permit does not necessarily guarantee authorization under this General Permit. In cases where the District Engineer considers it necessary, an application will be required for an individual permit. Regulated construction, dredging, or fill operations not specifically authorized by this General Permit would be prohibited unless authorized by a separate permit.

General Permits may be issued for a category or categories of activities when: (1) those activities are substantially similar in nature and cause only minimal individual and cumulative environmental impacts; or (2) the General Permit would result in avoiding unnecessary duplication of the regulatory control exercised by another Federal, State, or local agency, provided it has been determined that the environmental consequences of the actions are individually and cumulatively minimal.

In order to be authorized by this General Permit, the Mississippi Department of Transportation would be required to submit to the District Engineer in writing, the following information a minimum of 60 days prior to the proposed bid advertisement date:

a. Statement that the work would be conducted in compliance with the terms and conditions of General Permit 46, would not adversely impact adjoining properties, and would be mitigated for in accordance with the terms of this General Permit.

b. A location map showing the proposed worksite (including Section, Township, Range, and County).

c. A brief description of the proposed worksite in its present condition.

d. For the selected site, a full set of construction plans (including quantities and types of any fill and quantities of any excavation), maps, and engineering drawings for the proposed activity at that site. These shall include a map of sufficient scale that illustrates an "overlay" of the proposed construction/development activity (e.g. construction roads, ditches, parking areas, lay-down pads, temporary work areas, remaining natural areas, etc.) on jurisdictional waters of the U.S.

e. The estimated starting and completion dates of the proposed construction.

f. Name, mailing address, telephone number, and email address of the person acting as the point of contact for the requested authorization.

g. If wetlands or other waters of the U.S. are to be impacted, the following information is required:

    (1) A map delineating the wetlands and other waters of the U.S. and copies of the associated data form(s) for routine wetland determinations from the 1987 Corps of Engineers Wetland

Delineation Manual and its subsequent Regional Supplement Manual(s) covering the proposed project area(s).

(2) The type and date of approval of the NEPA documentation by the FHWA and a copy of their findings as required by Executive Order 11990.

h. A discussion of how adverse impacts to waters of the U.S. from the proposed activity will be avoided and minimized to the maximum extent practicable at the construction site.

i. If the loss or conversion to waters of the United States at a single and complete project site exceeds 0.1 acre, the application shall include a compensatory mitigation plan based on an approved wetland functional assessment methodology. Such recommendations should include copies of all factual information (e.g. worksheets) used in performing the calculations of the functional assessment. (Note: The District Engineer will consider this recommendation; however, the District Engineer retains discretionary authority in making the final decision on compensatory mitigation measures).

j. If impacts to a natural waterway at a single and complete project site exceed 100 linear feet, MDOT would include a compensatory mitigation plan based on an approved stream functional assessment methodology. Such recommendations would include copies of all factual information (e.g. worksheets) used in performing the calculations of the functional assessment. (Note: The District Engineer will consider this recommendation, however, the District Engineer retains discretionary authority in making the final decision on compensatory mitigation measures).

k. Comments from the Mississippi Department of Wildlife, Fisheries and Parks, Mississippi Department of Archives and History (including the results of any National Historic Preservation Act, Section 106, consultation actions), United States Fish and Wildlife Service (including the results of any Endangered Species Act, Section 7, consultation actions), and the Mississippi Department of Environmental Quality on the project.

l. Concurrence in writing from the Mississippi Department of Marine Resources (related to the Coastal Zone Management Act) and the National Marine Fisheries Service (including the results of any Magnuson-Steven Fisheries Conservation and Management Act, essential fish habitat consultation actions) if the project is located in

Hancock, Harrison, or Jackson County, Mississippi. (See Special Condition h. below).

Upon receipt of this information the District Engineer will: advise MDOT, in writing, either that the work will be evaluated for authorization under the General Permit 46; will request additional information, if needed; or will advise MDOT that the proposed activity will be evaluated as an individual permit.

Special Conditions of the General Permit:

a. No more than 7 acres of wetlands and other waters would be directly impacted by the placement of fill at each single and complete crossing of a water of the United States where the proposed work involves either upgrading an existing highway within an established corridor or where the work is to be constructed along a new alignment. Any wetlands cut off from their natural hydrologic regime as a result of project work would be considered as directly impacted.

b. For stream or river crossings, discharges of permanent fill material and temporary fill material would be the minimum necessary to complete the crossing. The term fill refers to earthen material, riprap, concrete, and any other materials associated with the work.

c. The stabilization or construction work would not interfere with navigation (including recreational boating) or adversely impact the flow-carrying capacity of the affected waterbody.

d. Material to be used for fill must be nonpolluting and may be obtained either offsite or from site preparation. Offsite material would not be obtained from wetlands outside the 7-acre limit or from other areas which may adversely affect adjacent wetlands. Any excess material would be placed in an upland area and properly contained or stabilized to prevent entry into adjacent water-bodies or wetlands.

e. Disturbed areas on the site would be stabilized to minimize erosion. Stabilization of erodible areas would be accomplished by seeding or sodding as soon as practicable to restore vegetative cover. If initial re-vegetation is unsuccessful, the area would be reseeded or re-sodded until re-vegetation is successful. In areas subject to currents, riprap may be required for slope protection.

f. No activity that may adversely affect a site listed in or eligible for listing in the National Register of Historic Places would be authorized by this General Permit until the requirements of Section 106 of the National Historic Preservation Act have been satisfied. Additional material would not be taken from a known historical or archaeological site. If you discover any previously

unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the District Engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The District Engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

g. The work would not occur in a National Wildlife Refuge, State Game Management Area, or other such Federal or State lands, or lands leased to those entities without the appropriate Federal or State authorization in writing.

h. For work within the Mississippi Coastal Zone Management Area, including all areas below Interstate I-10, a set of complete plans would be sent to the two agencies listed below for review and/or approval as appropriate. Comments and concurrence resulting from this coordination would be submitted with the request for authorization under this General Permit.

1. Mississippi Department of Marine Resources
   1141 Bayview Avenue
   Suite 101
   Biloxi, Mississippi 39530

2. National Marine Fisheries Service
   Southeast Regional Office
   Protected Resources
   Attention: Ms. Karla Reece
   263 13th Avenue S.
   St. Petersburg, Florida 33701
   Email: Karla.reece@noaa.gov

3. National Marine Fisheries Service
   Room 266, Military Science Building
   Attention: Mr. Brandon Howard
   South Stadium Drive
   La. State University
   Baton Rouge, Louisiana 70803-7535

i. All temporary fills must consist of non-erodible material or be protected to prevent erosion.

j. Any materials used for temporary structures such as cofferdams, equipment pads, or temporary crossings, would be removed as soon as practicable, and the waterway would be restored to preconstruction contours.

k. Disturbance to riparian vegetation would be kept to a minimum during construction.

l. No activity shall be authorized under this General Permit which would likely directly or indirectly jeopardize the continued existence of a Federally-listed threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which would likely directly or indirectly destroy or adversely modify the critical habitat of such species. No activity shall be authorized under this General Permit which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed. No activity shall be authorized under this General Permit which "may affect" essential fish habitat as identified under Magnuson-Stevens Fishery Conservation and Management Act, unless essential fish habitat consultation addressing the effects of the proposed activity has been completed.

m. Discharges would not restrict or impede the movement of aquatic species indigenous to the waters.

n. All work would be performed in a manner that would minimize increased turbidity of the water in the project area and otherwise avoid adverse effects on water quality and aquatic life especially during fish spawning season. This may require avoiding construction activities during the peak spawning months of April, May, and June.

o. The discharge would not adversely affect a public water supply intake or a National or State Fish Hatchery intake.

p. The discharge would not contain unacceptable levels of pathogenic organisms (as prescribed in standards set by the Mississippi Department of Environmental Quality) in areas used for water-contact sports.

q. The construction activity would not result in the permanent diversion or relocation of a stream or a river channel except where needed to align a waterway crossing to avoid potential damage to the roadway. In no case, would any realignment extend beyond 150 feet upstream and 150 feet downstream from the centerline of a crossing structure. The construction activity would result in neither stream flow impediment nor drain adjacent wetlands.

r. Authorizations under this General Permit would be valid for five (5) years from the date of the authorizing letter.

2. Prior to the start of construction activities, coverage under a Stormwater Construction General NPDES Permit shall be obtained. No construction activities shall begin until such approvals are obtained.

3. Extreme care shall be taken to prevent the permanent restriction or impedance of water flow. Pre-construction hydrology shall be maintained.

4. All stream impacts (including streams identified as ephemeral by the U.S. Army Corps of Engineers and described as non-relatively permanent waters) shall be mitigated in kind with stream mitigation elements. In the event that stream mitigation is not available and alternate mitigation proposals are provided, a pre-construction notification shall be provided to MDEQ and 10 working days shall be allowed to provide comments.

5. A pre-construction notification shall be provided to MDEQ for projects that include channel work within waterways found on the latest version of the State of Mississippi's Section 303(d) List of Impaired Water Bodies for sediment or biological impairment or waterways with a completed Total Maximum Daily Load (TMDL) for sediment or biological impairment. This notification shall include the following:

    a. Justification of why the impacts cannot be avoided;

    b. Proposed best management practices that would minimize the impacts to receiving sensitive waters; and

    c. Compensatory mitigation primarily along the same reach of stream or on another impaired stream within the same drainage basin.

6. The turbidity outside the limits of a 750-foot mixing zone shall not exceed the ambient turbidity by more than 50 Nephelometric Turbidity Units.

7. No sewage, oil, refuse, or other pollutants shall be discharged into the watercourse.

The Office of Pollution Control also certifies that there are no limitations under Section 302 nor standards under Sections 306 and 307 of the Federal Water Pollution Control Act which are applicable to the applicant's above-described activity.

This certification is valid for the project as proposed. Any deviations without proper modifications and/or approvals may result in a violation of the 401 Water Quality Certification. If we can be of further assistance, please contact us.

Sincerely,

Krystal Rudolph

Krystal Rudolph, P.E., BCEE
Chief, Environmental Permits Division

KR: chb

cc: Tony Lobred, U.S. Army Corps of Engineers, Vicksburg District
Willa Brantley, Department of Marine Resources
David Felder, U.S. Fish and Wildlife Service
Molly Martin, Environmental Protection Agency