1st O.REV.

	STATE	PROJECT NO.	SHEET NO.
	MISS.	BR-0010-01(147)	1

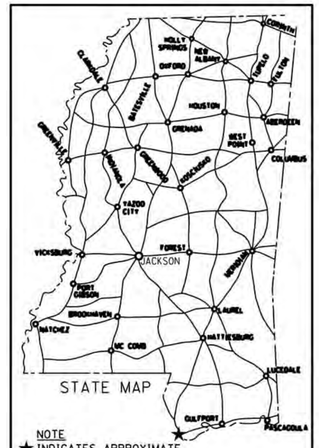
STATE OF MISSISSIPPI

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY FEDERAL AID PROJECT NO. BR-0010-01(147)

I-10 OVER EAST PEARL RIVER
JOINT REPAIRS
HANCOCK COUNTY, MISSISSIPPI ⚠1

FMS-106598/301000



NOTE
★ INDICATES APPROXIMATE LOCATION OF PROJECT.

LAT. N 30° 18' 12.27" LONG. W 89°38' 28.96"
(APPROX. MIDDLE OF PROJECT)

BRIDGE STRUCTURES REQ'D.

NONE

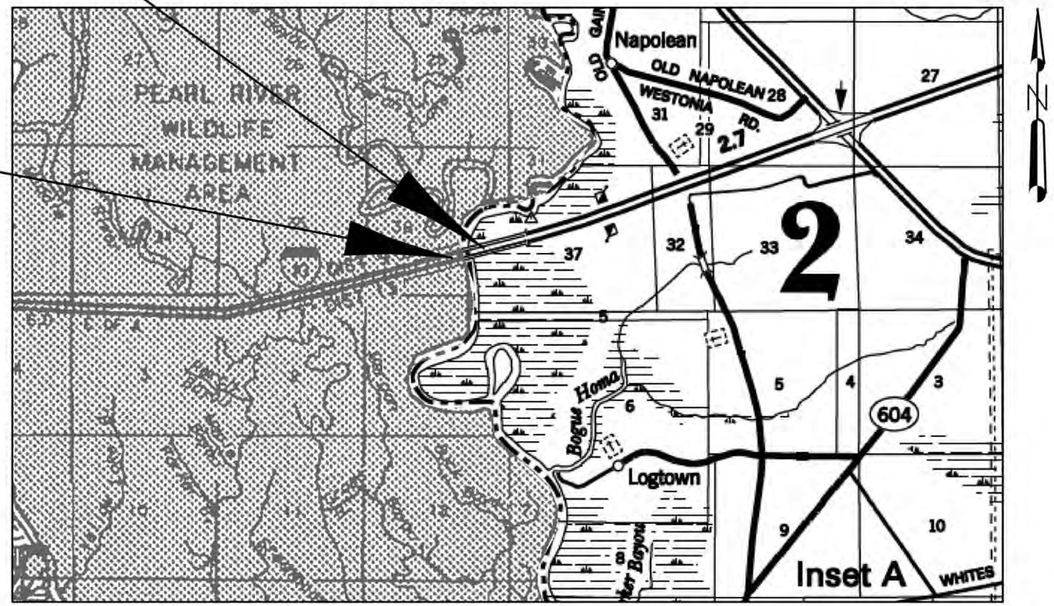
BOX BRIDGES REQ'D.

NONE

SCALES		
PLAN		1:1000
PROFILE	HOR.	1:1000
	VERT.	1:100
LAYOUT		1:2000

END PROJ. STA. 375+31.13

BEGIN PROJ. STA. 370+48.88



DESIGN CONTROL
N/A MPH = V (SPEED DESIGN)
ADT (___) =_____: ADT (___) =_____
DHV =_____: D =_____% T=_____%

PERMITS ACQUIRED BY MDOT		
WETLANDS AND WATERS PERMITS (NECESSARY FOR ULTIMATE IMPROVEMENTS ONLY):	WATERS	WETLANDS
NATIONWIDE #14	N	N
NATIONWIDE (OTHER)*	N	N
GENERAL*	N	N
INDIVIDUAL (404)*	N	N
* ACQUISITION OF PERMITS FOR TEMPORARY IMPACTS DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR		
STORMWATER PERMIT	N	
Y REQUIRED, CNOI SUBMITTED BY MDOT (DISTURBED AREA = 5 ACRES)		
S REQUIRED, SCNOI TO BE SUBMITTED BY CONTRACTOR (1 TO 4.99 ACRES)		
N NO STORMWATER PERMIT REQUIRED (<1 ACRE)		
APPROVED BY: _____ DATE: 3/12/14		

GPS CONTROL NOTES

HORIZONTAL DATUM: NAD MS ZONE (US SURVEY FEET)
HORIZONTAL MONUMENT NORTH EAST

VERTICAL DATUM: NAVD (US SURVEY FEET)
VERTICAL MONUMENT ELEVATION

ALL AZIMUTHS AND DISTANCES ARE GRID VALUES, US SURVEY FEET
CONVERSION VALUES PROJECT AVERAGE
GROUND TO GRID (COMBINED) FACTOR
GRID TO GEODETIC AZIMUTH

EQUATIONS

NONE

LENGTH DATA

	TOTAL
LENGTH OF ROADWAY	0.00 ft
LENGTH OF BRIDGES	482.25 ft
LENGTH OF PROJECT (NET)	482.25 ft
LENGTH OF EXCEPTIONS	0.00 ft
LENGTH OF PROJECT (GROSS)	482.25 ft

EXCEPTIONS

NONE

JAMES GREGORY THREE ENGINEER STATE OF MISSISSIPPI
3/12/14

HNTB

DATE	REVISED PROJECT TITLE	BY
4/2/14	REVISIONS	JPG

APPROVED:
CHIEF ENGINEER — DATE 3/12/14
EXECUTIVE DIRECTOR — DATE 3/12/14
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

APPROVED:
DIVISION ADMINISTRATOR — DATE
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

TITLE: ROADWAY DESIGN DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION
09B_09AMPH ONLY LENGTH
MACCITY

1st O.REV.

STATE	PROJECT NO.
MISS.	BR-0010-01(147)

SCOPE OF WORK

In General, The Scope Of Work Shall Consist Of The Following:

1. Replace Joints At Pier 39 Eastbound And Pier 42 Westbound.
2. Install Drain Pipe Extension.
3. Maintain Traffic In Accordance With These Plans.

GENERAL NOTES:

General Specifications: Mississippi Department Of Transportation Standard Specifications For Road and Bridge Construction, 2004.
Design Specifications: AASHTO LRFD Bridge Design Specifications 6th Edition, 2012 With 2013 Interims.
All Dimensions Are Horizontal Unless Otherwise Noted On The Plans And Measured At Normal Temperature Of 60°F.
The Dimensions And Elevations Shown Are Based On The Information As Detailed In The Plans For The Existing Bridge, Sheets 13 Thru 24. It Is The Contractor's Responsibility To Verify These Dimensions And Elevations Before Beginning Construction.
Bridge Concrete Shall Be Class AA High Early And Shall Be In Accordance With Section 804 Of The Specifications.
Bar Bending Details Shall Be In Accordance With "Manual Of Standard Practice For Detailing Reinforced Concrete Structures" (ACI 315R-94).
All Reinforcing Steel Shall Be ASTM A615, Grade 60.
All Bar Spacing's Are Center-To-Center Unless Otherwise Noted. Reinforcing Steel Shall Have A Minimum 2" Clear Cover Unless Otherwise Noted.
All Bending Dimensions Are Out-To-Out Of Bars. Hooks And Bends, Unless Otherwise Shown Shall Be In Accordance With The ACI Code Of Standard Practice.
All Structural Steel And Miscellaneous Steel Shall Conform To ASTM A709, Grade 50 Unless Otherwise Noted On The Plans. Any Necessary Substitution Must Have Prior Approval Of The Director Of Structures, State Bridge Engineer. Payment For Structural Steel Is Made Under Item 810-A004 Structural Steel Per Pound.
All Bolted Connections Are Designed As Slip Critical And Made With ⅞" Diameter High-Strength Bolts conforming To ASTM A325 (Type 1), Unless Otherwise Noted On The Plans. One (1) Washer Will Be Required Beneath The Turning Element. Direct Tension Indicators Shall Be Installed Between The Washer And The Plate Being Bolted.
All Welding Shall Conform To AASHTO/AWS D1.5-88 "BRIDGE WELDING CODE."
All Welds That Are To Be Made On Any Structural Steel Shall Be Shown In The Structural Steel Shop Drawings, And Are Subject To Approval By The Director Of Structures, State Bridge Engineer. "All Welds" Is Defined As Any Welds Placed From Initiation Of Fabrication To Final Acceptance Including Fabrication, Transportation, Erection and Construction.
All Welds Shall Be Continuous. Field Welding Shall Not Be Permitted Unless Called For On The Plans. All Butt Welds Shall Be Full Penetration Groove Welds.
Detailed Erection Drawings Outlining Complete Procedures And Equipment To Be Used Shall Be Submitted To The Director Of Structures, State Bridge Engineer For Review And Approval.
All Work For Which No Pay Items Are Provided In The Proposal Will Not Be Paid For Directly And Compensation Therefore Will Be Considered Included In The Prices And Payment For Bid Items.
No Change Of Bridge Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes In Details Of Design Or Construction May Be Authorized In Writing By The Director Of Structures, State Bridge Engineer, Provided Such Changes Are Not Justifiable Reasons For Contract Price Adjustments.
Traffic Will Be Maintained In Accordance With The Standard Traffic Control Plans, Posted Speed Thru Construction Zone Shall Be 60 MPH.
The Contractor Shall Conduct His Operations So As Not To Interfere With River Traffic And Will Be Responsible For Maintenance Of The Existing Navigational Lighting.
The Contractor Shall Submit Shop Drawings For Structural Steel To The Director Of Structures, State Bridge Engineer For Review and Approval Prior To Commencement Of Fabrication.
Replacement Of Joint At Pier 39 Eastbound And Pier 42 Westbound Are To Be Done Simultaneously.
Salvage, Clean, And Straighten Existing Reinforcing Steel. Replace Reinforcing Steel Damaged By Construction Activities As Directed By The Project Engineer. This Shall Not Be Paid For Directly But Shall Be Subsidiary To The Bid Item 805-A001. Replace Deteriorated Reinforcing Steel As Directed By The Project Engineer. This Shall Be Paid For At the Unit Price Bid Per Pound For 805-A001.

SPECIAL PROVISIONS REQUIRED:

Preformed Joint Seal, ... 907-823-5

GENERAL NOTES:

Clearly Mark The Location Of The Existing Girder And Stringer Top Flanges On Top Of The Existing Deck Concrete. Mark The Length Of All Girders And Stringers Within The Limits Of Removal Before Sawing Or Removing Any Concrete. Concrete Sawing Shall Be Limited To A Maximum Depth Of 1 Inch Directly Above Any Girder And Within 1 Inch Of Either Edge Of A Girder Top Flange.
Contractor Shall Be Limited To A 30 Lb Hammer When Removing Existing Concrete And 15 Lb Hammer When Removing Concrete Within 1'-0" Of A Girder Top Flange.
Damage To The Existing Structural Steel Caused By Procedures Not Conforming To The Above Recommendations Shall Be Repaired As Directed By The Project Engineer At The Contractor's Expense (No Cost To The State).
Any Costs Incurred For Testing Or Engineering Evaluations Will Be Included In The Contractor's Expense For Repair. Care Shall Be Taken To Minimize The Amount Of Rubble Caused By These Operations As Directed By The Project Engineer.
All Materials Removed From The Existing Structure Shall Become The Property Of The Contractor And Removed From The Site.
Contractor Must Ensure Concrete Design Strength Is Reached Before Traffic Is Present.
Any Existing Paint Removed By The Contractor Shall Be Replaced With Rust Grip Or Approved Equal.
All New Structural Steel Shall Be Painted Per Standard Specifications.
Contractor Shall Submit Means and Methods For Removing Existing Concrete For Review And Approval By The Director Of Structures, State Bridge Engineer.
Contractor Shall Be Responsible For Temporarily Supporting Existing Barriers When Concrete Is Removed.

FIBERGLASS REINFORCED PLASTIC (FRP) DRAIN PIPE

Contractor Shall Be Responsible For Field Verifying All Dimensions Prior To Purchasing Any FRP Drain Pipes.
Inner Dimension Of The Extension Pipe Shall Be Larger Than The Outer Dimension Of The Existing Drain Pipe.
FRP Drain Pipe May Be Substituted With Steel Drain Pipes At No Additional Expense.
The Contractor Shall Ensure And Properly Prepare All Joint Interfaces Prior To Installation.

TEMPORARY PRECAST BARRIER

The Contractor May Submit An Alternate Detail For The Temporary Barrier Anchors Subject To The Approval of The Director Of Structures, State Bridge Engineer.
Payment For Temporary Barriers On Bridge Shall Be As Specified In The Traffic Control Plans.
Payment For Such Barriers Shall Be Full Compensation For The Barrier, Connection Pins, Washers, Drilling And Repairing The Holes In The Bridge Deck.
After Removal Of The Temporary Precast Barrier, All Anchor Holes Shall Be Cleaned And Filled With Non-Shrink "Sure-Grip Grout" (The Dayton Sure-Grip And Shore Co.) Or "Supreme Grout" (Gilford-Hill & Co.,Inc.) Or Approved Equal, Applied According To Manufacturer's Directions.

HIGH EARLY STRENGTH CONCRETE

The Contractor Shall Furnish Material That Reaches 4000 Psi Strength In 24 Hours, Has Air Content Of 3-6%, And A Maximum Slump Of 6 Inches.
Non-Chloride Based Accelerator May Be Used If The Ambient Temperature is 50°F Or Less, But Shall Not Used If The Ambient Temperature Is Greater Than 50°F.
Synthetic Structural Fibers Shall Be Used. The Contractor Shall Select A Manufacturer From MDOT's Approved Products List, And The Manufacturer's Recommendations Shall Be Followed For The Dosage Rate.
Curing Is To Be Continuous Until 4000 Psi Is Attained. Traffic Is To Be Diverted From The Repair Area Until This Value Is Reached. The Contractor May Use The Maturity Method Per Section 907-804 To Estimate The Concrete Compressive Strength For The Purpose Of Releasing The Repair Area To Traffic. However, Final Acceptance Of The In-Place Concrete Shall Be Determined Using Eight Concrete Test Cylinders, Which Shall Be Cured In A Container Next To Concrete Placement. Two Cylinders Are To Be Tested At 8, 16, And 24 Hour Intervals. The Two Remaining Cylinders Shall Be Used To Determine The 28-Day Compressive Strength Of The Concrete.

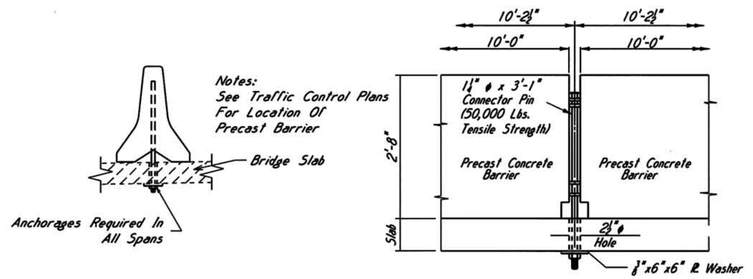
PS & E PLANS-DATE 3-17-14		
FMS CON. # 106598-301000		
REVISIONS		
DATE	SHEET NO.	BY
4-21-14	1,3	JG

INDEX OF DRAWINGS

WORKING NUMBER	SHEET NUMBER	DESCRIPTION OF SHEET
A01	1	TITLE SHEET
A02	2	GENERAL NOTES AND DETAILED INDEX
A03	3	SUMMARY OF QUANTITIES
A04-A05	4-5	TRAFFIC CONTROL PLANS
A06	6	GENERAL PLAN & ELEVATION BASCULE AND STEEL GIRDER SPANS
A07	7	BRIDGE JOINT REMOVAL
A08	8	EXISTING JOINT PHOTOS
A09	9	BRIDGE JOINT REPLACEMENT
A10	10	JOINT REPLACEMENT DETAILS
A11	11	PHASING DETAILS
A12	12	DRAIN PIPE EXTENSION
	13-24	AS-BUILT PLANS

STANDARD DRAWINGS

		SHEET NUMBER
Standard Temporary Precast Concrete Barrier	MB-2A	25



PRECAST BARRIER ANCHOR DETAIL

STEVEN T. HAGUE
REGISTERED PROFESSIONAL
ENGINEER
12881
STATE OF MISSISSIPPI
3/12/14

HNTB

REVISIONS	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
I-10 OVER EAST PEARL RIVER

GENERAL NOTES AND DETAILED INDEX

PROJECT BR-0010-01(147)
106598/301000

HANCOCK COUNTY

WORKING NUMBER A02 OF 25

DESIGNED RS DETAILED JSF TRACED
CHECKED JRB ISSUED DATE

SHEET NUMBER 2

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PLOTTED: 12-MAR-2014 16:50
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