

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> 8/20/2019 </u>	ADDENDUM NO.	<u> </u>	DATED	<u> </u>
ADDENDUM NO.	<u> 2 </u>	DATED	<u> 8/20/2019 </u>	ADDENDUM NO.	<u> </u>	DATED	<u> </u>
ADDENDUM NO.	<u> </u>	DATED	<u> </u>	ADDENDUM NO.	<u> </u>	DATED	<u> </u>

Number	Description
1	Revised Table of Contents; Added NTB No. 480; Amendment EBS Download Required.
2	Replaced Drawing in NTB No. 1725; Revised Bid Items; Amendment EBS Download Required.

TOTAL ADDENDA: 2
(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.
STBG-0010-01(165)/ 108043301000
Jackson County(ies)

Revised 01/26/2016

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 -NOTICE TO BIDDERS NO. 1725

CODE: (SP)

DATE: 06/13/2019

SUBJECT: Scope of Work

PROJECT: STBG-0010-01(165) / 108043301 – Jackson County

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

Minor changes in detail of design or construction procedure may be authorized by the Director of Structures, State Bridge Engineer, provided such changes will not be cause for contract price adjustment. Work for which no pay item is provided will not be paid for directly and shall therefore be considered an absorbed item of work.

It shall be the responsibility of the Contractor to protect existing structures from damage which might occur during construction. The Contractor shall replace or repair, as directed by the Engineer, any structures damaged as a result of the Contractor's operations. No payment will be made for replacement or repair of damaged items.

All details are based on the dimensions shown on the original plans for the existing structure. The Contractor shall be responsible for adjusting the elements of the new construction to ensure a proper fit with the existing structure. The Contractor shall verify all dimensions of the existing structure prior to beginning work.

During construction, care shall be exercised to ensure that no debris falls into the hydraulic crossing below the structures. All debris, including any material that has accumulated on the bridge caps, shall become the property of the Contractor and shall be removed from the construction site.

Work on the project shall consist of the following items for the following bridge:

I-10 Over the Pascagoula River, 4.4 Miles West of SR 613

Bridge # 65.4B

Bridge ID 11801

FRP Wrap:

The cap at Bent 185 shall be repaired with a fiber reinforced polymer (FRP) composite system applied according to the manufacturer's recommendations. Prior to applying the FRP system, the concrete surface shall be prepared according to the manufacturer's recommendations. Any spalls shall be repaired according to the details shown in the drawing provided. One of the following FRP composite systems, or an approved equal, shall be used to repair the bent cap:

FRP Wrap
Manufactured by Fyfe Co. LLC
www.aegion.com

FRP Wrap
Manufactured by BASF Building Systems LLC
www.master-builders-solutions.basf.us

FRP Wrap
Manufactured by QuakeWrap Inc.
www.quakewrap.com

All FRP composite systems shall be proprietary systems consisting of all associated fiber reinforcement and polymer adhesives/resins.

FRP systems shall not be installed when surface moisture is present on the substrate.

For all other notes regarding the FRP system, see the attached repair details.

Payment for this work shall be made under pay item 907-824-PP: Bridge Repair, FRP Wrap.

Pile Repair Notes:

Pile 3 at Bent 185 shall be repaired with a pile repair system applied according to the manufacturer's recommendations. One of the following systems, or an approved equal, shall be used to repair the pile:

FX-70 Structural Piling Repair and Protection System
Manufactured by Simpson Strong-Tie
www.strongtie.com

PileJax
Manufactured by Gulf Synthetic Products, LLC
www.joinlox.com

PileMedic
Manufactured by QuakeWrap Inc.
www.pilemedic.com

All pile repair systems shall be proprietary systems consisting of all associated fiberglass jackets and marine epoxy grout/resins.

For all other notes regarding the pile repair system, see the attached repair details.

Payment for this work shall be made under pay item 907-824-PP: Bridge Repair, Pile Repair.

Epoxy Repairs:

Repair any concrete spalls on the bent cap prior to applying FRP wrap according to the Epoxy

Repair Details.

All areas of the bridge repaired with epoxy mortar shall be restored to the original dimensions.

Materials:

- a. Epoxy Resin: Resin shall be selected from the MDOT approved materials list.
- b. Silica Sand: Silica sand material shall be bagged general purpose blast cleaning sand.
- c. Epoxy Mortar Mix: Epoxy mortar mix shall consist of part liquid epoxy and part clean, dry sand mixed in the ratio recommended by the manufacturer.

Application:

- a. A representative of the epoxy manufacturer must be present for sufficient time to ensure the Contractor is properly schooled in the use of the epoxy materials.
- b. Prior to placement of the mortar mix, the prepared surface shall be lightly primed with neat epoxy.
- c. Curing time shall be in accordance with manufacturer's recommendations.

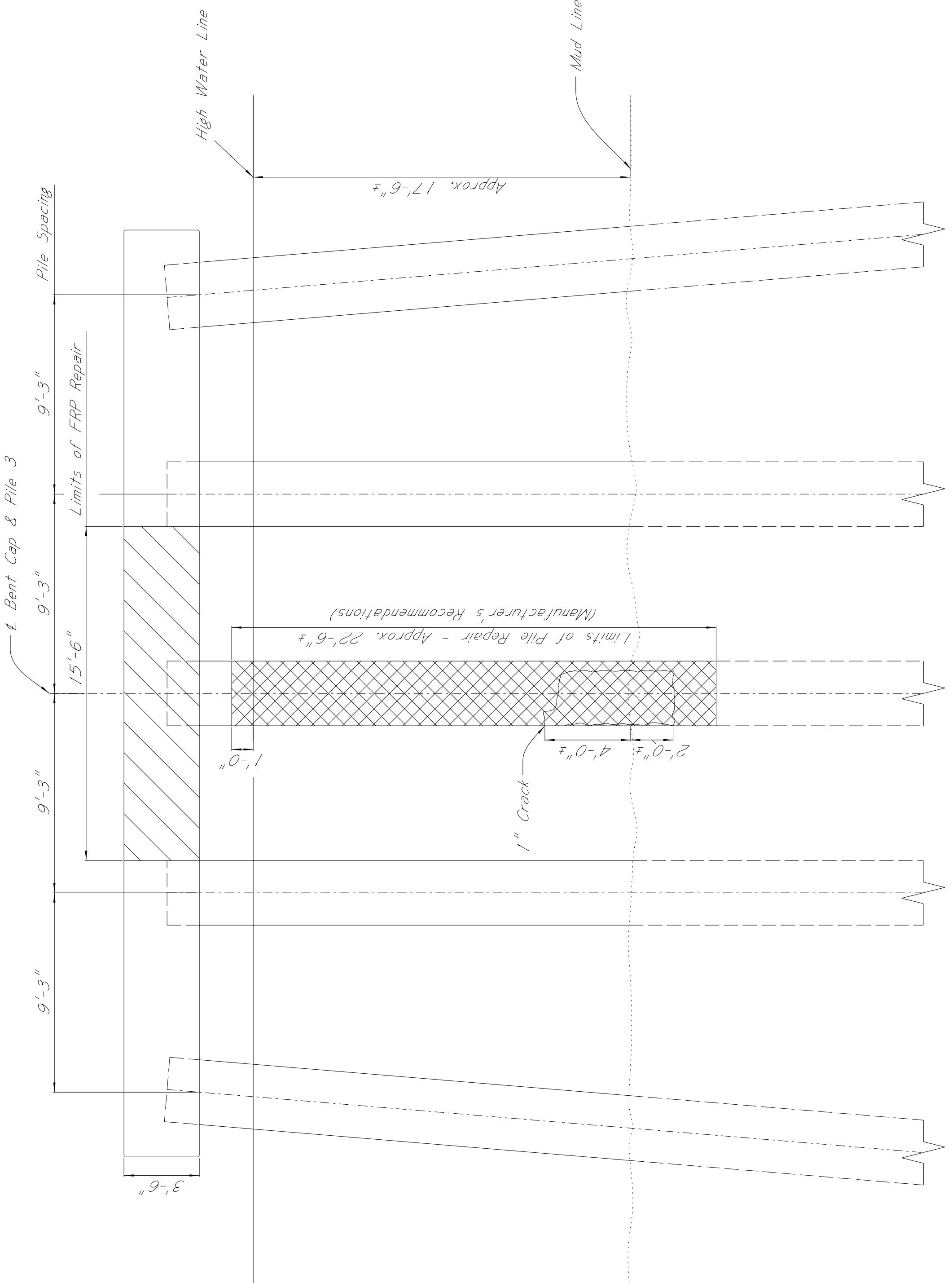
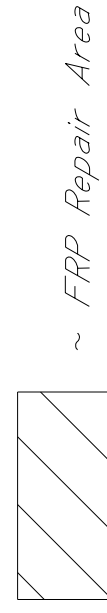
All work and material required to perform this item of work shall be included in pay item 907-824-PP: Bridge Repair, FRP Wrap.

Traffic Control Plan

The Contractor shall erect and maintain construction signing and provide all signs and traffic handling devices necessary to safely maintain traffic around or through the work areas in accordance with the Traffic Control Plan. Payment shall be included in the price bid for Pay Item No. 618-A: Maintenance of Traffic.

ADDITIONAL FRP WRAP NOTES:

1. FRP wrap shall be one of the following products and shall be applied according to the manufacturer's recommendations:
 - a. FRP Wrap as manufactured by Fyle Co. LLC, Nancy Ridge, Technology Center 6310 Nancy Ridge Drive, Suite 103, San Diego, CA 92121 Telephone Number: (858) 642-0694
 - b. FRP Wrap as manufactured by BASF Building Systems LLC 889 Valley Park Drive, Shakopee, MN 55379 Telephone Number: (800) 443-9517
 - c. FRP Wrap as manufactured by DukeWrap, Inc. 2055 E. 17th Street, Tuscon, AZ 85719 Telephone number: (520) 791-7000
2. The Contractor shall furnish all submittals indicating the materials, tools, equipment, transportation, necessary storage, labor, and supervision required for the application of the composite or polymer system to the Director of Structures, State Bridge Engineer prior to construction.
3. Products shall be stored according to the manufacturer's requirements and shall avoid contact with moisture, dust and chemical exposure.
4. All FRP composite systems shall be proprietary systems consisting of all associated fiber reinforcement and polymer adhesives/resins. FRP composites consisting of fiber reinforcement and polymers provided by more than one manufacturer are not allowed.
5. The FRP composite system shall utilize carbon fiber reinforcement as the primary fiber material (primary structural component).
6. The FRP system shall be top coated with a coating approved by the FRP system supplier. The coating color shall be selected by the Project Engineer to match the coating systems used elsewhere on the Project.
7. FRP wraps shall not be installed when the ambient temperature is below 40°F or above 130°F. In cold conditions, auxiliary heat may be applied to raise the ambient temperature to a suitable level. Clean heat sources shall be utilized for this purpose (e.g., electric or propane) that do not contaminate the substrate with carbonation.
8. FRP wraps shall not be installed when surface moisture is present on the substrate or concrete or condensation is anticipated in the work areas. Water leakage exists through cracks or concrete joints, water flow shall be stopped prior to FRP installation.
9. Resins (including primers and fillers) shall be mixed according to the FRP system manufacturer's installation instructions. All resin components shall be of a proper temperature and mixed in the manufacturer's prescribed mix ratio with there is a uniform and complete mixing of components. Resin components are often contrasting colors so that mixing is observed when color streaks are eliminated. Resins should be mixed for the Manufacturer's prescribed mixing time and visually inspected for uniformity of color.
10. A representative of the FRP wrap manufacturer must be present for sufficient time to assure that the Contractor is properly schooled in the installation of FRP wrap.
11. Prior to installation of FRP wrap, the Contractor shall repair concrete spall areas in accordance with concrete patching details notes shown on this sheet.
12. All labor, materials and surface preparation associated with the installation of FRP wrap, including epoxy mortar repairs, shall be included in pay item 907-824-PP003 Bridge Repair, FRP Wrap.
13. The fibrous reinforcement system shall have a minimum tensile force of 2.1 kpsi/in. in the direction of the shear reinforcement.
14. The direction of the fiber wrap shall be in the direction of the shear reinforcement (vertical for bent caps; horizontal for piles).



PILE REPAIR NOTES:

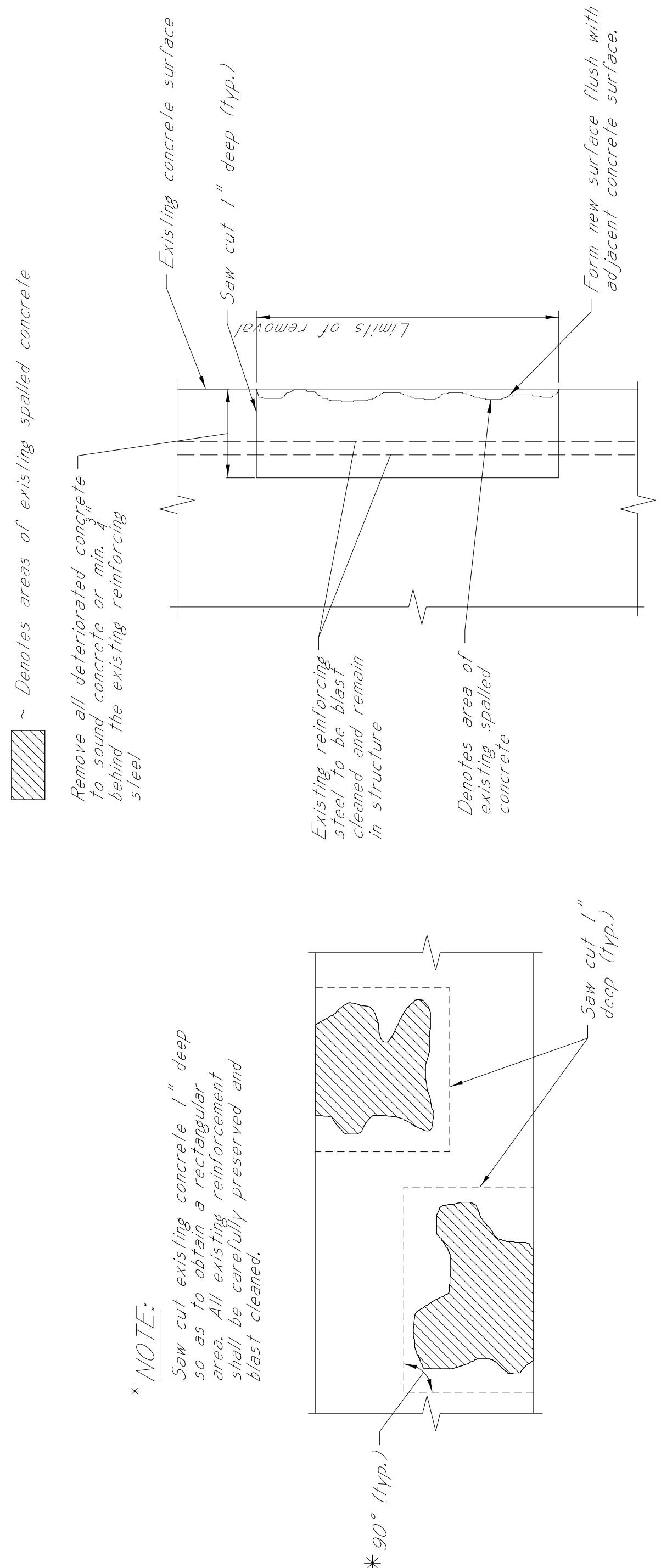
1. Pile repair system shall be one of the following products, or an equivalent, and shall be applied according to the manufacturer's recommendations:
 - a. FR-Structural Filling, Repair and Protection System as manufactured by SIMPSOIL, Inc. P.O. Box 10783, Pleasanton, CA 94588 Telephone number: (925) 560-0000
 - b. Pile Repair as manufactured by Gulf Synthetic Products, LLC 1178 McCombs Ferry Road, Gulf Breeze, FL 32561 Telephone number: (918) 234-7584
 - c. Pile Repair as manufactured by DukeWrap, Inc. 2055 E. 17th Street, Tuscon, AZ 85719 Telephone number: (520) 791-7000
2. The Contractor shall furnish all submittals indicating the materials, tools, equipment, transportation, necessary storage, labor, and supervision required for the application of the pile repair system to the Director of Structures, State Bridge Engineer, prior to construction.
3. Products shall be stored according to the manufacturer's requirements.
4. All FRP repair systems shall be proprietary systems consisting of all associated fiberglass jackets and marine epoxy grouts/resins. Pile repair systems consisting of fiberglass jackets and marine epoxy grouts/resins provided by more than one manufacturer are not allowed.
5. The fiberglass jackets shall be suitable for marine environments.
6. Epoxy grout/resins shall be mixed according to the pile repair system manufacturer's instructions.
7. A representative of the pile repair system manufacturer must be present for sufficient time to assure that the Contractor is properly schooled in the installation of the pile repair system.
8. All labor and materials associated with the installation of pile repair systems, shall be included in Pay Item 907-824-PP008, Bridge Repair, Pile Repair.

EPOXY MORTAR REPAIR NOTES:

- Repair any concrete spalled areas on the bent caps prior to applying FRP wrap using epoxy mortar.
- Spalled areas where pack rust has developed around or on reinforcement shall be removed by small hand tools or pressure washing (using 3500 psi pressure). Hammers used for removal shall be limited to 30 pounds. All areas of the bridge repaired with epoxy mortar shall be restored to the original dimensions, unless noted otherwise.
- Materials:
- a. Epoxy Resin: Resin shall be selected from the MDT approved materials list.
 - b. Silica Sand: Silica sand material shall be bagged general purpose blast cleaning sand.
 - c. Epoxy Mortar Mix: Epoxy mortar mix shall consist of part liquid epoxy and part clean, dry sand mixed in the ratio recommended by the manufacturer.
- Application:
- a. A representative of the epoxy manufacturer must be present for sufficient time to ensure the Contractor is properly schooled in the use of the epoxy materials.
 - b. Prior to placement of the mortar mix the prepared surface shall be lightly primed with neat epoxy.
 - c. Curing time shall be in accordance with manufacturer's recommendations.
- The cost of saw cutting, removing spalled or cracked concrete, cleaning exposed reinforcing steel, patching material, labor and any miscellaneous materials necessary to complete the repairs as shown shall be absorbed under Pay Item 907-824-PP003, Bridge Repair FRP Wrap.

INTERMEDIATE BENT 185 REPAIR LOCATIONS

Showing cap repair location & Pile 3 repair location



* NOTE:

Saw cut existing concrete 1" deep so as to obtain a rectangular area. All existing reinforcement shall be carefully preserved and blast cleaned.

* 90° (typ.)

SPALL REPAIR DETAILS

Bridge Repair on I-10 over the Pascagoula River, Bridge No. 65.4B, known as Federal Aid Project No. STBG-0010-01(165) / 108043301 in Jackson County.

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
Roadway Items					
0010	618-A001		1	Lump Sum	Maintenance of Traffic
0020	618-B001		1	Square Feet	Additional Construction Signs [\$10.00]
0030	620-A001		1	Lump Sum	Mobilization
Bridge Items					
0040	907-824-PP003		217	Square Feet	Bridge Repair, FRP Wrap
0050	907-824-PP008		23	Linear Feet	Bridge Repair, Pile Repair