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.	1	DATED	8/12/2022	ADDENDUM NO.		DATED	
ADDENDUM NO	2	DATED	8/17/2022	ADDENDUM NO.		DATED	
ADDENDUM NO		DATED		ADDENDUM NO.		DATED	

Number	Description
1	Revised Table of Contents; Deleted Notice to Bidder No. 4424; Added Notice to Bidder No. 4520; Revised Bid Items; Revised Plan Sheets Nos. 2, 4, 5, 6, 7 & 28; Amendment EBSx Download Required.
2	Revised S.P No. 907-420-5; Amendment EBSx 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.

SP-0163-00(008)/ 108896301000

Amite County(ies)

Revised 01/26/2016

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-420-5 **CODE: (SP)**

DATE: **08/16/2022**

SUBJECT: **Undersealing Concrete Pavement**

PROJECT: **SP-0163-00(008) / 108896301 – Amite County**

Section 907-420, Undersealing Concrete Pavement, is hereby added to and made a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows:

SECTION 907-420 -- UNDERSEALING CONCRETE PAVEMENT

907-420.01--Description. Undersealing concrete pavement shall consist of placing a polyurethane foam mixture beneath existing concrete pavement at the locations shown in the plans, or directed by the Engineer.

The intent of the undersealing process is to lift, underseal, and fill the voids under existing concrete pavement, or bridge end slabs. When raising concrete pavement/slabs, care shall be taken to assure that the final elevation of the concrete pavement/slab is aligned vertically with the adjacent and surrounding pavement.

907-420.02--Materials. Material for undersealing shall meet the following requirements.

Properties	Test Value	Test Method
Density, lbs./ft., minimum	4.0	ASTM D 1622
Tensile Strength, psi, minimum	90	ASTM D 1622
Compression Strength, psi (at yield point), minimum	80	ASTM D 1621

The material for undersealing shall achieve 90% of its compressive strength in 15 minutes.

The material shall be a polyurethane-forming mixture, having a water insoluble diluent, which permits the formation of structural polyurethanes in excess water.

The high density polyurethane material shall maintain 90% of the density and compressive strength requirements in wet conditions.

The Contractor shall furnish the Engineer with certified test reports showing that the material meets the requirements of the specification.

907-420.03--Construction Requirements.

907-420.03.1--General. All undersealing will be done at the locations specified in the plans, or as directed by the Engineer. The equipment shall be that customarily used in undersealing. It shall consist of no less than the following:

1. A pneumatic or electric drill capable of drilling holes in the concrete pavement. The equipment shall be in satisfactory operating condition and operated in such a manner as to prevent unnecessary damage to the pavement.
2. A pump capable of injecting the high density polyurethane between the concrete pavement and the underlying material while controlling the rate of rise of the pavement.
3. A leveling unit to ensure the concrete pavement is raised to the desired elevation.

907-420.03.2--Drilling Holes. Unless otherwise shown in the plans, the injection holes shall be drilled at six to eight-foot intervals throughout the concrete pavement. The holes shall be a maximum of ¾ inch in diameter. Any other size hole must be approved by the Engineer.

907-420.03.3--Injection Process. The nozzle of the discharge hose shall be secured in the drilled hole in a manner that provides an adequate seal during the pumping process. As the polyurethane reacts, it expands and hardens resulting in a lift of the pavement. The amount of rise shall be controlled by regulating the rate of injection. When the nozzle is removed, the hole shall be plugged or sealed to the satisfaction of the Engineer. Any excess polyurethane material shall be removed from the pavement.

A leveling device (survey level, laser level, string line, etc.) shall be used to monitor and verify the elevation of the pavement as it rises. After the pavement is raised, it shall meet a 1/4 inch in 25-foot string line requirement. The Contractor will be required to correct any pavement out of tolerance or raised in excess of the required elevation. Any necessary repairs due to out of tolerance or over height pavement shall be corrected at no additional cost to the State.

Pumping Units. Each production truck shall be equipped with two (2) mounted pumping units capable of injecting the polyurethane material at a controlled rate into the aggregate base, subbase, or foundation soils to the required depth(s). The pumping units shall be equipped with certified flow meters to precisely measure the amount of each component injected, so that the 1:1 ratio by volume is maintained for quality control and a certified volume of injected polymer material obtained for proper payment. The units shall be equipped with pressure and temperature control devices capable of maintaining proper temperature and proportionate mixing of the two chemical components.

907-420.03.4--Curing Time and Opening to Traffic. Traffic shall not use the undersealed pavement within 30 minutes after the injection process has been completed. Any deposits of urethane on the pavement or shoulders shall be removed and the surface cleaned prior to opening to traffic.

907-420.04--Method of Measurement. Undersealing concrete pavement, complete and accepted, will be measured by the pound. The quantity of urethane will be based on the supplier's packaging information for the material delivered and incorporated into the project.

907-420.05--Basis of Payment. Undersealing concrete pavement, as measured above, will be paid for at the contract price per pound, which price shall include all mobilization, labor, equipment, traffic control, materials, and incidentals necessary to complete the required work.

Unless otherwise indicated in the plans, costs for maintenance of traffic and individual traffic control devices as required by the plans for undersealing operations shall be included in the unit price for undersealing and will not be measured for separate payment.

Payment will be made under:

907-420-A: Undersealing Concrete Pavement - per pound