

U069-046 KA 4876-01 ACNHP-A487(601)**CONTRACT PROPOSAL****DOT Form No. 202 Rev. 09/18****Contract ID: 519012171**

1. The Secretary of Transportation of the State of Kansas [Secretary] will accept only electronic internet proposals from prequalified contractors for construction, improvement, reconstruction, or maintenance work in the State of Kansas, said work known as Project No.:

U069-046 KA 4876-01 / ACNHP-A487(601)

The general scope, location and net length are:

**BRIDGE REPAIR. SB US-69 FR MM 138 S 1100 FT. BR(103) IN JO
CO. LENGTH IS 0.2483 MI.**

2. This is the Proposal of [Contractor] to complete the Project for the amount set out in the accompanying Unit Prices List.

3. The Contractor makes the following ties and riders as part of its Proposal in addition to state ties, if any:

4. Contractors and other interested entities may examine the Bidding Proposal Form/Contract Documents (see paragraph 11 below) at the County Clerk's Office in the County in which the Project is located and at the Kansas Department of Transportation [KODT] Bureau of Construction and Materials, Eisenhower State Office Building, 700 SW Harrison, Topeka, Kansas 66603. Contractors may examine and print the Bidding Proposal Form/Contract Documents by using KDOT's website at <http://www.ksdot.org> and choosing the following selections: "Doing Business", "Bidding & Letting" and "Proposal Information", and using the links provided in the Project information for this project. KDOT will not print and mail paper copies of Proposal Forms. Contractors shall notify KDOT of their intent to bid as a prime contractor by identifying themselves as a Bid Holder on the website above. Contractors shall furnish this notice no later than the close of business on the Monday preceding the scheduled Letting Date. For a fee, Contractors and other interested entities may order paper copies of the KDOT Standard Specifications for State Road and Bridge Construction, 2015 Edition, [Standard Specifications] by using KDOT's website of <http://www.ksdot.org> and choosing the following selections: "Doing Business", "Bidding & Letting" and "Specifications".

5. Contractors shall use the AASHTO's Project Bids software in combination with the electronic bidding system file created for the Project with Project Bids software [EBSX file] to generate an electronic internet proposal. The Project Bids software and Project EBSX file are available on Bid Express' website at <http://www.bidx.com>.

6. Contractors shall only use the the Project Bids software to create a proposal and submit an electronic internet proposal to KDOT using the Bid Express website at <http://www.bidx.com>.

7. The KDOT Bureau of Construction and Materials will only accept electronic internet proposals on-line using Bid Express until 1:00 P.M. Local Time on the Letting Date. KDOT will open and read these proposals at the Eisenhower State Office Building, 700 SW Harrison, Topeka, Kansas 66603 at 1:30 P.M. Local Time on the Letting Date. An Audio Broadcast of the Bid Letting is available at <http://www.ksdot.org/burconsmain/audio.asp>.

8. The Contractor shall execute a contract for the proposed work within ten (10) business days after notice of the award of the contract.

9. The Contractor shall complete the work within 70 working days and number of cleanup days allowed by Standard Specifications, subsection 108.4. A blank field for the number of working days is an indication that the Contractor shall complete the work within the time specified in Project Special Provision "Work Schedule".

10. The Contractor shall complete the Project according to the plans, Standard Specifications, provisions identified in the Special Provision List and all other Contract Documents identified in Standard Specifications subsection 101.3

11. The undersigned declares that the Contractor has carefully examined the Bidding Proposal Form for the Project. The Contractor understands the following:

A. The Bidding Proposal Form consists of the following documents: the Project EBSX files on the Bid Express website (which includes DOT Form 202, required contract provisions, and the Unit Prices List), special provision list, project special provisions, special provisions, Standard Specifications, plans, exploratory work documents, any additional contract information, any addenda, and any amendments the Secretary provides for the Project. The Contractor can obtain these documents at KDOT's website (see paragraph 4).

B. The special provision list identifies all required contract provisions, project special provisions and special provisions that apply to the Project.

C. The Bidding Proposal form becomes the Contractor's Proposal after the Contractor completes the EBSX file, electronically signs the Proposal where required on DOT Form 202, and submits the completed EBSX file documents and bid bond to KDOT using Bid Express. The special provision list, project special provisions, special provisions, Standard Specifications, plans, exploratory work documents, any additional contract information, and any addenda are incorporated by reference into the Proposal. These documents are part of the Contractor's Proposal.

D. In electronically signing this Proposal, the Contractor waives the right to claim that the Contractor misunderstood the contents of the Proposal or the procurement process.

12. The Contractor has inspected the actual location of the work. The Contractor has determined the availability of materials. The Contractor has evaluated all quantities and conditions. In electronically signing this Proposal, the Contractor waives the right to claim that the Contractor misunderstood the scope of the work.

13. SPECIAL PROVISIONS REQUIRING INFORMATION. The following Required Contract Provisions (I-XIV) require the Contractor to furnish information. The current versions of these provisions are contained in the Project EBSX file. Some or all of these apply to the Project as indicated in the Special Provision List. The Contractor shall complete these provisions within the EBSX file. When these documents are required, the Secretary will reject proposals that fail to contain completed Provisions I, II, III or IV in the EBSX file, and may reject proposals that fail to contain completed Provisions V, VI, VII, VIII, IX, X, XI, XII, XIII, or XIV in the EBSX file.

- I. 08-10-66 Certification-Noncollusion & History of Debarment
- II. 04-30-82 Certification-Financial Prequalification Amount
- III. 04-26-90 Declaration-Limitations on Use of Federal Funds for Lobbying
- IV. 07-19-80 DBE Contract Goal
- V. 08-04-92 Certification-Contractual Services with a Current Legislator or a Current Legislator's Firm
- VI. 10-10-00 Price Adjustment for Fuel
- VII. 08-08-01 Furnishing and Planting Plant Materials
- VIII. 06-01-06 Price Adjustment for Asphalt Material
- IX. 05-18-07 Repair (Structures)
- X. 08-31-09 Price Adjustment for Emulsified Asphalt
- XI. 11-15-17 Electric Lighting System Unit Cost
- XII. 04-06-09 ITS Unit Cost
- XIII. 01-01-18 Smart Work Zone System Unit Cost
- XIV. 01-01-11 Kansas Department of Revenue Tax Clearance Certificate

14. The funding source for this Project is FEDERAL/STATE. On Projects involving City or County funds, the Secretary acts as the Agent of the City or County and as the administrator of federal or state funds. Each governmental entity's responsibilities are described in a contract between the entities which is available on request.

15. FEDERAL AID DOCUMENTS INCLUDED IN PROPOSAL. If the Project is supported in whole or in part by Federal funds, the latest revisions of the following provisions (I - VI) also apply to the Project. These documents are not included in the Project EBSX file but are accessible on KDOT's website and incorporated by reference into the proposal like other provisions and the exploratory work documents.

- I. 11-03-80 Affirmative Action For EEO
- II. 11-15-96 Affirmative Action & EEO Policies
- III. 09-06-94 U.S. DOT Fraud Hotline
- IV. FHWA-1273 Federal-Aid Required Contract Provisions
- V. 03-10-06 Use of DBE As Aggregate Supplier/Regular Dealer
- VI. 07-18-80 Use of DBE

16. The Secretary reserves the right to reject any and all proposals and to waive any or all technicalities.

17. SIGNATURE SECTION:

A. Electronic Internet Proposal

The person submitting the electronic internet Proposal, on the Contractor's behalf, shall be the person whose digital identification is used to submit this Proposal. That person shall complete paragraphs B and C. The person whose digital identification is used to electronically sign this Proposal binds the Contractor to this Proposal and binds the named individual to the certification in paragraph B.

B. Certification

I CERTIFY THAT I AM AUTHORIZED TO REPRESENT THE CONTRACTOR IN PREPARING AND PRESENTING THIS PROPOSAL. I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING (INCLUDING BUT NOT LIMITED TO THE INFORMATION CONTAINED IN THE SPECIAL PROVISIONS REFERENCED IN PARAGRAPH 13) IS TRUE AND CORRECT.

EXECUTED ON (DATE IN MM/DD/YYYY FORMAT).

C. Signature

Number of company or joint venture:

Name of company or joint venture:

Name of person signing:

Title of the person signing:

Signature: Electronic Internet Proposal

RELEASED FOR CONSTRUCTION:

Date: _____

Chief of Construction and Materials

KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION LIST

PAGE: 1
DATE: 12/11/18

STATE PROJECT NO: U069-046 KA 4876-01

STATE CONTRACT NO: 519012171

PREPARED DATE:

WAGE AREA: 5

REVISED DATE:

PRIMARY DISTRICT: 1

PRIMARY COUNTY: JOHNSON

DESCRIPTION: BRIDGE REPAIR. SB US-69 FR MM 138 S 1100 FT. BR(103) IN JO CO. LENGTH IS 0.2483 MI.

NOTE: THE FOLLOWING LIST OF SPECIAL PROVISIONS ARE FOR THIS PROJECT. OMISSION OF ALL OR PART OF A SPECIAL PROVISION IN THE ATTACHED PROPOSAL (CONTRACT) DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR OBTAINING THE COMPLETE PROVISION AS LISTED.

PROVISION NO. DESCRIPTION

08-10-66-R05	REQUIRED CONTRACT PROVISION-NONCOLLUSION / HISTORY-DEBARMENT
04-30-82-R07	REQUIRED CONTRACT PROVISION-FINANCIAL PREQUALIFICATION
08-04-92-R03	REQUIRED CONTRACT PROVISION-CONTRACTUAL SERVICES-LEGISLATOR
04-26-90-R05	REQUIRED CONTRACT PROVISION-LIMITS OF FED FUNDS FOR LOBBYING
07-19-80-R13	REQUIRED CONTRACT PROVISION-DBE CONTRACT GOAL
11-03-80-R09	REQUIRED CONTRACT PROVISION-NOTICE FOR AFFIRMATIVE ACTION
11-15-96-R05	REQUIRED CONTRACT PROVISION-EEO REQUIREMENT
07-01-17-R1	REQUIRED CONTRACT PROVISION - BOYCOTT OF ISRAEL PROHIBITED
02-01-95-R02	REQUIRED CONTRACT PROVISION-AREA PRACTICE DG-JO-LV-MI-SN-WY
01-01-11-R01	REQUIRED CONTRACT PROVISION-TAX CLEARANCE CERTIFICATE
09-06-94-R01	NOTICE TO CONTRACTORS (USDOT HOTLINE)
KS190009	MINIMUM WAGE RATE (AREA 5)
FHWA-1273	REQUIRED CONTRACT PROVISION-FEDERAL-AID CONSTRUCTION CONTRACTS
03-10-06-R01	REQUIRED CONTRACT PROVISION-DBE SUPPLIERS/REGULAR DEALERS
07-18-80-R29	REQUIRED CONTRACT PROVISION-UTILIZATION OF DBE'S
03-01-18	POLICY AGAINST SEXUAL HARASSMENT
15-ER-1-R15	ERRATA SHEET FOR STD SPEC BOOK FOR RD & BR CONST, 2015 ED
15-01011-R06	ENVIRONMENTAL CONCERNS - MIGRATORY BIRD TREATY ACT
15-01016-R02	PROSECUTION AND PROGRESS
15-01017	CARGO PREFERENCE ACT
15-01018	CONTROL OF MATERIALS
15-01019	CONTROL OF WORK
15-01021-R01	BIDDING REQUIREMENTS AND CONDITIONS
15-01022	SCOPE OF WORK
15-04002	STRUCTURAL CONCRETE
15-04003	ON GRADE CONCRETE
15-04005	GENERAL CONCRETE
15-07011-R01	CONCRETE STRUCTURE CONSTRUCTION
15-08001-R03	WORK ZONE TRAFFIC CONTROL AND SAFETY (FOR 1R'S)
15-11002-R01	AGGREGATE FOR HMA
15-11003-R02	AGGS FOR CONCRETE NOT PLACED ON GRADE
15-11004-R01	AGGREGATE FOR ON GRADE
15-11005	AGGREGATES FOR SUBGRADE MODIFICATION OR RECONSTRUCTION
15-12001	GENERAL REQUIREMENT DIVISION 1200
15-14001-R01	AIR-ENTRAINING ADMIXTURES FOR CONCRETE

KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION LIST

PAGE: 2
DATE: 12/11/18

STATE PROJECT NO: U069-046 KA 4876-01

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PROVISION NO. DESCRIPTION

15-14002	SHEET MATERIALS FOR CURING CONCRETE
15-15001	HOT JOINT SEALING COMPOUND
15-15002	PREFORMED EXPANSION JOINT FILLER FOR CONCRETE
15-16003-R01	STEEL WIRE & WELDED WIRE FABRIC FOR CONCRETE REINFORCEMENT
15-17001	PORTABLE CHANGEABLE MESSAGE SIGNS
15-17004-R02	RELEASE COMPOUND FOR ASPHALT MIXES
15-20001	PORTLAND CEMENT AND BLENDED HYDRAULIC CEMENT
15-20002	HYDRATED LIME
15-22003-R01	MULTI - COMPONENT LIQUID PAVEMENT MARKING MATERIAL
15-22004-R02	PAVEMENT MARKING PAINT
15-22005-R01	IMAGE SYSTEMS
15-22006	RETROREFLECTIVE SHEETING
15-25001-R06	PART V
15-25002	CONSTRUCTION MANUAL - PART V
15-26001-R07	MATERIALS CERTIFICATIONS
15-PS0018	COMBINATION, TIED BIDS ON 1R PROJECTS WITH FEDERAL-AID FUNDS
15-PS0100-R2	POLYESTER POLYMER CONCRETE OVERLAY

END OF SPECIAL PROVISION LIST

REQUIRED CONTRACT PROVISION - 08-10-66-R05 (Rev. 07/05)**CERTIFICATION - NONCOLLUSION AND HISTORY OF DEBARMENT****K.A.R. 36-30-4, 49 C.F.R. 29.335, 23 U.S.C. 112(c), 49 U.S.C. 322**

Complete the exceptions below if applicable. The Contractor's signature on the last page of the Contractor's Proposal (DOT Form 202) supplies the necessary signature for this Certificate.

NONCOLLUSION

I certify that the Contractor submitting this bid has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid.

HISTORY OF DEBARMENT

I certify that, except as noted below, the Contractor submitting this bid and any person associated with this Contractor in the capacity of owner, partner, director, officer, principal, investigator, project director, manager, auditor, or any position involving the administration of federal funds:

1. Are not currently suspended, debarred, voluntarily excluded or disqualified from bidding by any federal or state agency;
2. Have not been suspended, debarred, voluntarily excluded or disqualified from bidding by any federal or state agency within the past three years;
3. Do not have a proposed debarment pending;
4. Within the past three years, have not been convicted or had a civil judgment rendered against them by a court of competent jurisdiction in any matter involving fraud, anti-trust violations, theft, official misconduct, or other offenses indicating a lack of business integrity or business honesty; and
5. Are not currently indicted or otherwise criminally or civilly charged by a federal, state, or local government with fraud, anti-trust violations, theft, official misconduct, or other offenses indicating a lack of business integrity or business honesty; and
6. Have not had one or more federal, state, or local government contracts terminated for cause or default within the past three years.

Answer 'Yes' if there are exceptions to the above described circumstances. Answer 'No' if there are no exceptions.

Yes No

The exceptions, if any, are:

REQUIRED CONTRACT PROVISION - 04-30-82-R07 (Rev. 01/11)**CERTIFICATION - FINANCIAL PREQUALIFICATION AMOUNT**

Select the appropriate response below to indicate whether this Proposal exceeds the Contractor's financial prequalification amount. The Contractor's signature on the last page of the Contractor's Proposal (DOT Form 202) supplies the necessary signature for this Certificate.

I understand that I may be required to identify the outstanding contract and subcontract work of my firm, association or corporation on DOT Form 284 prior to an award of contract. Unless I obtain approval, I understand that the Secretary may reject this Proposal if the dollar value of work on this Contract combined with unearned amounts on our unfinished contract and subcontract work exceeds our prequalification amount.

I certify that the amount of this Proposal plus the total unearned amount of other contracts with the Kansas Department of Transportation plus the unearned amount of all other contracts in this state or other states **exceeds** **does not exceed** the financial prequalification amount of our firm, association or corporation. I also certify that our firm, association or corporation has the financial ability to do the work.

If this Proposal exceeds the financial prequalification amount, I certify that I obtained approval to submit this bid from the KDOT representative I have listed below. (Prior approval to exceed the prequalification limit may be made by telephone or personal contact).

KDOT Approval Granted by:

KDOT Approval Date:

REQUIRED CONTRACT PROVISION - 08-04-92-R03 (Rev. 07/05)

CERTIFICATION - CONTRACTUAL SERVICES WITH A CURRENT

LEGISLATOR OR A CURRENT LEGISLATOR'S FIRM

Select the appropriate response below to indicate whether this contract is with a legislator or a firm in which a legislator is a member. The Contractor's signature on the last page of the Contractor's Proposal (DOT Form 202) supplies the necessary signature for this Certificate.

Kansas Law, K.S.A. 46-239(c), requires this agency to report all contracts entered into with any legislator or any member of a firm of which a legislator is a member, under which the legislator or member of the firm is to perform services for this agency for compensation. The Contractor certifies that:

This Contract **is** **is not** with a legislator or a firm in which a legislator is a member. That Legislator is:

Name:

Address:

City State Zip:

Business Telephone:

REQUIRED CONTRACT PROVISION- 04-26-90-R05 (Rev. 07/13)**DECLARATION****LIMITATIONS ON USE OF FEDERAL FUNDS FOR LOBBYING****PURSUANT TO 31 U.S.C. 1352**

The Contractor's signature on the last page of the Contractor's Proposal (DOT Form 202) supplies the necessary signature for this Certificate.

DEFINITIONS:

1. Designated Entity: an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress.
2. Federal Grant: an award of financial assistance by the Federal government. (Federal Aid Highway Program is considered a grant program.)
3. Influencing (or attempt): making, with the intent to influence, any communication to or appearance before any designated entity in connection with the making of a Federal contract or Federal grant.
4. Person: an individual, corporation, company, association, authority, firm, partnership, society, State or local government.
5. Recipient: all contractors, subcontractors, subgrantees, at any tier, and other persons receiving funds in connection with a Federal grant.

EXPLANATION:

As of December 23, 1989, 31 U.S.C. section 1352 limits the use of appropriated Federal funds to influence Federal contracting. Under this law, recipients of Federal grants shall not use appropriated funds to pay any person for influencing or attempting to influence a designated entity in connection with the making of a Federal grant or the extension, continuation, renewal, amendment or modification of a Federal grant. These restrictions apply to contracts and grants exceeding \$100,000.00. Federal law requires submission of this declaration. If a recipient fails to file the declaration or amend a declaration, the recipient shall be subject to a civil penalty of not less than \$10,000.00 and not more than \$100,000.00 for each failure. If the recipient uses appropriated Federal funds to influence or to attempt to influence a designated entity contrary to this provision, the recipient shall be subject to a civil penalty of not less than \$10,000.00 and not more than \$100,000.00 for each such payment.

CERTIFICATIONS:

I certify that the Contractor recipient (including its owners, partners, directors, officers, or principals) has not paid and will not pay federally appropriated funds to any person for influencing or attempting to influence a designated entity in connection with the making of a Federal grant, or the extension, continuation, renewal, amendment or modification of a Federal grant.

Answer 'Yes' if a person registered under the Lobbying Disclosure Act of 1995 (Registrant) has made lobbying contacts on the Contractor recipient's behalf with respect to this contract. Answer 'No' if no Registrant has lobbied on the Contractor recipient's behalf with respect to this contract.

Yes No

The Registrants, if any, are:

I certify that the Contractor recipient will report payments made to a person for influencing or attempting to influence a designated entity, that come from funds other than appropriated Federal funds. The Contractor recipient shall report such payments on Form LLL "DISCLOSURE FORM TO REPORT LOBBYING" according to the instructions and may obtain Form LLL from the KDOT Bureau of Construction and Materials.

I certify that, if information contained in this DECLARATION changes, the Contractor recipient will amend the DECLARATION within 30 days of the change(s).

I certify that the Contractor recipient will provide to and require subcontractors to sign a like DECLARATION, if the subcontract work exceeds \$100,000.00.

The Contractor recipient understands that this declaration is a material representation of fact and the Secretary will have relied upon this declaration in entering into a contract with the Contractor recipient.

NOTE: This Reporting requirement does not apply to payments made to the recipient's regular employees and contracts, subcontracts, and grants less than \$100,000.00.

REQUIRED CONTRACT PROVISION - 01-01-11-R01 (Rev. 07/13)**TAX CLEARANCE CERTIFICATE**

Answer 'Yes' if the Contractor has a current Tax Clearance Certificate. Answer 'No' if the Contractor does not have a current Tax Clearance Certificate.

Yes No

Insert the Tax Clearance Confirmation Number if available at the time of bidding:

Contractors shall have a current Tax Clearance Certificate from the Kansas Department of Revenue [KDOR] at the time of contract award. The Tax Clearance process is a tax account review by KDOR to determine that the Contractor's account is compliant with Kansas tax laws administered by the Director of Taxation. **The Secretary will reject the Contractor's Proposal as non-responsive if the Contractor does not have a current Tax Clearance Certificate at the time of the contract award.**

To obtain a Tax Clearance Certificate, the Contractor shall complete and submit to KDOR an Application for Tax Clearance obtained from KDOR's website at <http://www.ksrevenue.org/taxclearance.htm>. The Application Form can be completed and submitted on-line, by mail, or by fax. After the Contractor submits the Application, KDOR will provide the Contractor a Transaction ID number. The Contractor shall use the Transaction ID number to retrieve the Tax Clearance Certificate. Decisions on on-line applications are generally available the following business day.

After the Contractor obtains the Tax Clearance Certificate, the Contractor shall insert on this Required Contract Provision the Confirmation Number contained in the Certificate or the Contractor shall submit a copy of the Tax Clearance Certificate to the KDOT Bureau of Construction and Materials by hand delivery, mail, e-mail or fax. Before awarding a contract, the Bureau of Construction and Materials will authenticate the Certificate through the Confirmation Number inserted on this Required Contract Provision or contained on the Certificate submitted.

If the Contractor is unable to retrieve the Tax Clearance Certificate or if KDOR denies the Contractor's Application for Tax Clearance, the Contractor shall call KDOR's Special Projects Team at **785-296-3199** to determine why KDOR failed to issue the certificate.

Tax Clearance Certificates are valid for 90 days after issue. To renew a clearance, submit a new Tax Clearance Application. Information pertaining to a Tax Clearance is subject to change for various reasons, including a state tax audit, federal tax audit, agent actions, hearings, and other legal actions. The Tax Clearance Certificate is not "clearance" for all types of taxes the State of Kansas may assess.

Subcontractors also shall have a current Tax Clearance Certificate from KDOR before the Secretary approves them for subcontract work. The Contractor shall submit to the KDOT Field Office the Subcontractor's Tax Clearance Certificate with KDOT Form 259, Request for Approval of Subcontractor.

Line Number	Item Number	Quantity	Unit	Unit Price	Extension Price
Section 01 COMMON ITEMS					
1	025323	1	LS		
	MOBILIZATION				
2	070626	1	LS		
	MOBILIZATION (DBE)				
3	070580	1.000	HOUR	\$65.000	\$65.00
	FLAGGER (SET PRICE)				
Section 01 Total					\$65.00
Section 02 ROAD ITEMS					
4	012412	833.000	CUYD		
	COMMON EXCAVATION (URB)				
5	012420	567.000	CUYD		
	ROCK EXCAVATION				
6	011927	1755.000	LNFT		
	CONCRETE SAFETY BARRIER (TYPE F3) (TEMPORARY)				
7	011929	610.000	LNFT		
	CONCRETE SAFETY BARRIER (TYPE F3) (TEMPORARY - RELOCATE)				
8	046015	1.000	EACH		
	INERTIAL BARRIER SYSTEM				
9	018154	15.000	EACH		
	REPLACEMENT MODULES (IBS)				
Section 02 Total					
Section 03 BR NO 69-46-8.05(103) REPAIR ITEMS					
10	026204	760.000	SQYD		
	POLYESTER POLYMER CONCRETE OVERLAY (0.75")				
11	025468	120.000	SQYD		
	POLYESTER POLYMER CONCRETE PATCHING				
12	025469	10.000	SQYD		
	POLYESTER POLYMER CONCRETE PATCHING (FULL DEPTH)				
13	014445	760.000	SQYD		
	MACHINE PREPARATION (0.75")				
14	025105	1.000	LBS.	\$2.000	\$2.00
	REINFORCING STEEL (REPAIR) (GRADE 60) (SET PRICE)				
15	014290	292.000	LNFT		
	BRIDGE CURB REPAIR				
16	025470	1.000	CUYD	\$2,400.000	\$2,400.00
	MATERIAL FOR POLYESTER POLYMER CONCRETE OVERLAY (SET PRICE)				
17	013333	684.000	SQYD		
	BRIDGE DECK GROOVING				
Section 03 Total					\$2,402.00

Section 04

CONCRETE SURFACING ITEMS

18	070434	133.000	SQYD		
	CONCRETE PAVEMENT (12" UNIFORM) (AE) (NRDJ)				
19	010170	450.000	SQYD		
	AGGREGATE BASE (AB-3) (10")				
20	013605	310.000	SQYD		
	CONCRETE PAVEMENT (12" UNIFORM) (AE) (BR APP)				
21	025509	47.000	CUYD		
	BRIDGE APPROACH SLAB FOOTING				
22	012700	2.000	EACH		
	ADJUSTMENT OF CATCH BASINS				

Section 04 Total

Section 05

ASHPALT SURFACING ITEMS

23	041003	1564.000	TON		
	HMA-COMMERCIAL GRADE (CLASS A)				
24	010169	20067.000	SQYD		
	AGGREGATE BASE (AB-3) (6")				
25	010107	1.000	MGAL	\$35.000	\$35.00
	WATER (AGGREGATE BASE) (SET PRICE)				

Section 05 Total

\$35.00

Section 06

PAVEMENT MARKING ITEMS

26	023140	2040.000	LNFT		
	PAVEMENT MARKING (MULTI-COMPONENT) (WHITE) (6")				
27	023141	230.000	LNFT		
	PAVEMENT MARKING (MULTI-COMPONENT) (WHITE) (8")				
28	023428	60.000	LNFT		
	PAVEMENT MARKING (MULTI-COMPONENT) (WHITE) (12")				
29	023192	1370.000	LNFT		
	PAVEMENT MARKING (MULTI-COMPONENT) (YELLOW) (6")				

Section 06 Total

Section 07

TRAFFIC CONTROL ITEMS

30	072116	1	LS		
	TRAFFIC CONTROL (INITIAL SETUP)				
31	013019	3680.000	LNFT		
	PAVEMENT MARKING REMOVAL				
32	082002	6.000	EACH		
	WORK ZONE SIGN (SPECIAL) (16.26 SQ.FT. & OVER)				

33	070916	121.800	STAL
	PAVEMENT MARKING (TEMP) 4" SOLID (TYPE I)		
34	070918	10.000	STAL
	PAVEMENT MARKING (TEMP) 4" DOTTED EXTENSION (TYPE I)		
35	025331	540.000	EADA
	WORK ZONE SIGNS (0 TO 9.25 SQ.FT.)		
36	025332	1760.000	EADA
	WORK ZONE SIGNS (9.26 TO 16.25 SQ.FT.)		
37	025333	1080.000	EADA
	WORK ZONE SIGNS (16.26 SQ.FT. & OVER)		
38	025376	270.000	EADA
	WORK ZONE BARRICADES (TYPE 3 - 4 TO 12 LIN. FT.)		
39	011491	2700.000	EADA
	CHANNELIZER (FIXED)		
40	011492	9860.000	EADA
	CHANNELIZER (PORTABLE)		
41	025343	540.000	EADA
	WORK ZONE WARNING LIGHT (TYPE "A" LOW INTENSITY)		
42	025364	140.000	EADA
	ARROW DISPLAY		
43	025365	270.000	EADA
	PORTABLE CHANGEABLE MESSAGE SIGN		

Section 07 Total

Item Total	\$2,502.00
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**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

**KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, EDITION 2015**

COMBINATION, TIED BIDS ON 1R PROJECTS WITH FEDERAL-AID FUNDS

SECTION 102

BIDDING REQUIREMENTS AND CONDITIONS

Page 100-13, subsection 102.5. Delete subsection 102.5a.(2)(f) and replace with the following:

(f) Kansas-funded state projects “tied to” Federal-Aid funded state projects and Kansas-funded state projects “tied with” Federal-Aid funded state projects.

10-10-17 C&M
Oct-17 Letting

**KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, 2015 EDITION**

POLYESTER POLYMER CONCRETE OVERLAY

1.0 DESCRIPTION

Prepare the surface of the existing reinforced concrete bridge decks, patch where necessary with polyester polymer concrete material, and construct a polyester polymer concrete overlay to the dimensions and thickness specified in the Contract Documents.

BID ITEMS

Polyester Polymer Concrete Overlay (*)
Material for Polyester Polymer Concrete Overlay (Set Price)
Polyester Polymer Concrete Patching
Polyester Polymer Concrete Patching (Full Depth)
*Thickness

UNITS

Square Yard
Cubic Yards
Square Yard
Square Yard

2.0 MATERIALS

a. Polyester Polymer Concrete Overlay System. Use KwikBond PPC-1121 polyester polymer concrete system (all components) supplied by:

KwikBond Polymers Inc.
923 Teal Drive
Benicia, California 94510

Contact:
Robert Nielsen
robert@kwikbondpolymers.com
707-330-6436

Provide a certified laboratory report from a qualified laboratory, verifying the materials meet this specification. Include a Fourier Transform Infrared Spectrophotometry (FTIR) spectrum in transmittance mode and a bulk sample of each component tested. All data will be maintained as confidential and used only for QA/QC purposes.

The Engineer will perform additional infrared spectrums on the materials submitted for comparative purposes. The Engineer will take a sample of each component in the field and an infrared spectrum will be performed on the field samples before the application.

b. Primer. Use a pre-promoted or a three-component high molecular weight methacrylate (HMWM) resin with a metal drier and a cumene hydro peroxide combined at a rate in accordance with the Manufacturer's recommendations. **NOTE:** If supplied separately from the resin, at no time should the metal drier be mixed with or allowed to come in direct contact with the peroxide.

Supply a high molecular weight methacrylate (HMWM) resin which complies with the following.

PROPERTY	REQUIREMENTS	TEST METHOD
Volatile Content	30%, maximum	ASTM D 2369
Viscosity	25cps, maximum	ASTM D 2196
Specific Gravity	0.90, minimum.	ASTM D 1475.
Flash point.	180°F, minimum.	ASTM D 3278
Vapor Pressure	1.0 mm Hg, maximum	ASTM D 323
PCC Saturated Surface-Dry Bond Strength, with primer** (at 24 hours and 70 ± 1 °F)	700 psi, minimum	CA Test 551, part 5

**Initiated polyester concrete tested at 12% resin content by weight of the dry aggregates.

c. Polyester Resin Binder. Use a polyester binder comprised of resin and filler aggregate together with a methyl ethyl ketone peroxide (MEKP) catalyst combined in accordance with the manufacturer’s recommendations. Supply an unsaturated isophthalic polyester-styrene co-polymer which complies with the following material properties.

PROPERTY	REQUIREMENTS	TEST METHOD
Viscosity	75 – 200 cps (before initiator)	ASTM D 2196, Brookfield RVT, Spindle No. 1 at 20 RPM
Specific Gravity	1.05 – 1.10 (before initiator)	ASTM D 1475,
Compressive Strength*, 3 hr.	1000 psi, minimum.	ASTM C 109, w/ plastic inserts
Compressive Strength*, 24 hr.	5000 psi, minimum.	ASTM C 109, w/ plastic inserts
Tensile Strength (neat), 7day	2500 psi, minimum	ASTM D 638
Elongation (neat), 7 days	35%, minimum	ASTM D 638
Adhesive Strength, 24 hr.	250 psi. minimum	ACI 503R, Appendix A
Absorption (neat), 24 hr.	1% maximum	ASTM D 570
Silane Coupler	1.0%, by weight	NMR Spectrum
Styrene Content	40 – 50 percent by weight	ASTM D 2369

The Engineer will accept the high molecular weight methacrylate resin and the polyester resin on the basis of the certified laboratory report, and the Infrared Spectrum analysis of the field samples.

d. Filler Aggregate. Supply aggregate that meets **subsection 1102.2c.** which meets the following gradation. Aggregate retained on the #8 sieve shall have a maximum of 45 percent crushed particles tested with AASHTO Test Method T335.

GRADING REQUIREMENTS FOR AGGREGATES FOR POLYESTER CONCRETE							
Percent Retained - Square Mesh Sieves							
3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200
0	15-38	33-55	50-71	64-84	80-95	93-100	97-100

e. Broadcast Aggregate. Supply aggregate for the wearing surface that complies with **subsection 1102.2d.** Supply sand with less than 1% moisture and 95 percent passing the No. 8 sieve and 95 percent retained on the No. 20 sieve.

This gradation is intended to allow the use of commercial-quality blast sands of No. 8/20 or 10/20. The Engineer may approve alternate gradations.

3.0 CONSTRUCTION REQUIREMENTS

Refer to **subsection 731.3** for all requirements related to removal of concrete prior to patching. A bar may be considered bonded by the Engineer even if less than ½ the bar is embedded in concrete. If the top layer of reinforcement remains bonded in sound concrete, no concrete removal below the bar is necessary.

a. Equipment. Equipment is subject to approval of the Engineer and must comply with the following:

(1) Concrete Removal in areas of PPC patching.

- Use only 15-pound class jack hammers or chipping hammers or lighter for partial depth concrete removal.
- 30-pound class jack hammer may be used in full depth patch areas to within 6 inches of the designated boundary of the patch. Use only 15-pound class to remove the remainder of the full depth patch.

(2) Patch and Surface Preparation Equipment.

- Shotblasting or sandblasting equipment capable of producing a surface relief equal to the International Concrete Repair Institute (ICRI) Surface Preparation Level 6 to 7 or ASTM E 965 Pavement Macrotexture Depth of 0.04 to 0.08 inch. Final acceptance is based on testing procedures as outlined in Attachment No. 1.
- Air compressor capable of producing a sufficient amount of oil free and moisture free compressed air to remove all dust and loose material.

(3) **Mixing Equipment.** Mix polymer concrete in mechanical mixers. Initiate and thoroughly mix the resin binder before addition of the aggregate filler. Mix the polymer concrete for a minimum of two (2) minutes before placing. Mixer must be of sufficient power and size for the intended batch size. Mixer shall be approved by the Engineer before work begins.

A continuous mixer employing an auger screw/chute device may be used if it is demonstrated to the Engineer the device is able to consistently produce a completely mixed product. Equip the mixer with a metering device which automatically measures and records the aggregate volumes/weights and corresponding resin volumes. Locate readout gages that can be easily read by the inspector at all times. Record aggregate volumes/weights and resin volumes a minimum of once each five (5) minutes. Recorded information will be furnished to the Inspector at the end of each day's production.

(4) **Finishing Equipment.**

- Self-propelled finishing equipment fitted with vibrators capable of forward and reverse locomotion and capable of consolidating the polyester polymer concrete and striking off the concrete to the final grade, thickness and cross-sections as shown in the Contract Documents.
- Adequate additional hand tools to facilitate the placement of the Polyester Polymer Concrete (PPC) overlay in accordance with this specification and the manufacturer's recommendations.
- Rollers or brushes capable of spreading the primer. Screeds, trowels or other equipment capable of finishing the polymer concrete in accordance with this specification and the manufacturer's recommendations.

(5) **General.** Provide an overall combination of labor and equipment with the capability of proportioning and mixing the methacrylate primer and the polyester polymer concrete components, and placing the concrete materials and broadcast aggregate in accordance with this specification and the manufacturer's recommendations.

(6) Provide the Engineer with a copy of the primer and resin materials manufacturer's recommendations.

(7) Do not use power driven tools heavier than a 15-pound chipping hammer, during deck preparation.

b. Proportioning. Proportion all materials according to the manufacturer's recommendations. The polyester resin binder in the polyester polymer concrete shall be $12 \pm 1\%$ by weight of the dry aggregate.

c. Preparation of Surface. All PPC patches which are placed during the same work shift the overlay is placed only require a minimum 15-minute cure time before application of the resin primer and placement of the PPC overlay and do not require additional surface preparation prior to application of the resin primer.

Any PPC patches which are not placed during the same work shift the overlay is placed require additional (shotblast or sandblast) surface preparation prior to application of the resin primer.

Patch area preparation requires removal only to sound concrete. The requirement to remove concrete beneath the bonded top mat of reinforcement is waived only for partial depth Polyester Polymer Concrete Patching, unless the concrete beneath the reinforcement is deteriorated or unsound.

(1) Remove deteriorated or unsound concrete, prepare the concrete and steel surfaces and repair the area with Polyester Polymer Concrete. Do not debond the reinforcing bars in partial depth preparations. Blast clean the reinforcement for all patching. For all patches use polyester polymer concrete. Strike off patches so they are level with the existing deck and have a rough finish.

(2) As the final preparation for the placement of the overlay, make a complete cleanup by shot blasting and/or other approved means, followed by an air blast with dry, oil free air. Brooming is not acceptable. Remove all loose disintegrated concrete, dirt, grease, rust, paint, oil, asphalt, laitance carbonation and curing materials from patches and other foreign material from the surface of the deck.

(3) Produce a surface relief equal to the International Concrete Repair Institute (ICRI) Surface Preparation Level 6 to 7 or ASTM E 965 Pavement Macrotexture Depth of 0.04 to 0.08 inch. The following test will determine if additional surface preparation is necessary.

(a) Place a PPC Overlay test patch a minimum of 0.5 square yards for each lane or planned completed day's work, whichever is smaller. Submit a sequence plan to the Engineer. The test patch depth shall be as specified for the overlay depth, placed by the normal construction sequence.

(b) Final acceptance will be based on the following results of each test patch outlined in Attachment 1 for each lane or planned completed day's work, whichever is smaller:

- Minimum Tensile Rupture Strength of 250 psi from an average of 3 tests on a test patch regardless of depth of failure (See Attachment 1); **or**
- Failure in the concrete at a depth greater than or equal to ¼ inch over more than 50% of the test area for three of the four tests in the test patch.

(c) If failure in the concrete is at a depth less than ¼ inch and the Minimum Tensile Rupture Strength is less than 250 psi, or the failure in the concrete is less than 50% of the test area, additional surface preparation is necessary.

(d) A failure **in the concrete** below 250 psi and greater than ¼ inch deep indicates weak concrete, not poor overlay bond.

(e) Do not perform tensile adhesion tests when bridge deck temperatures are above 100°F.

(4) Remove any contamination of the prepared deck surface or surface of subsequent courses. Blast contaminated areas to produce an acceptable surface for placement of the primer and overlay.

(5) Protect metal deck drains and areas of the curb or railing above the proposed limits from the blasting operations.

(6) Close deck drains to so the methacrylate primer, polyester concrete and broadcast aggregate will not pass through the drains.

(7) Rain will not necessarily contaminate the surface. However, take care so no contamination has occurred due to runoff from adjacent lanes and no debris has collected on any prepared surfaces.

(8) Visible moisture on the prepared deck at the time of placing the overlay is unacceptable. At the Engineer's request, identify moisture in the deck by taping a plastic sheet to the deck for a minimum of 2 hours (ASTM D4263).

(9) Apply primer by flooding. Uniformly spread to completely cover all surfaces to receive the PPC material, including any adjacent vertical surfaces. Removed excess material causing puddling or distribute to meet the recommended application rate. Place the PPC material after 15 minutes and within 2 hours of placing the primer. Reapply primer to any areas that appear visibly dry prior to PPC placement.

(10) Empty shot blasters and dispose of waste material a minimum of 50 feet from the area of bridge deck being prepared to prevent contamination of the deck by return of the dust to the prepared surface.

(11) Air blast bridge deck surface with dry oil-free air to remove all dust and loose materials from the prepared surface.

(12) The Engineer must approve the use of scarifiers, scrablers, or milling machines.

(13) Wet blasting is not allowed.

(14) No materials, water, or contaminants may fall from blasting, air removal, patching, or PPC application equipment. Attach plastic sheets or tarps as necessary.

d. Placing the Polyester Polymer Concrete Overlay. Place the wearing course according to the grades, thickness and cross-sections as shown in the Contract Documents.

Follow all manufacturer suggested safety precautions while mixing and handling methacrylate and polyester components.

Place the overlay materials at application rates shown in this table:

Course	Material Rate	Broadcast Aggregate Rate
Primer	Not Less Than 0.09 gal./sq yd	N/A
Polyester Concrete	Minimum Thickness of 0.75 in.	1.5 lbs./sq yd

Place the prepared primer immediately after mixing and uniformly at the prescribed rate on the deck with brush, squeegee or broom.

Excess primer is undesirable; minimize primer build up and pooling.

Use a paintbrush or roller to apply the primer on the face of curbs, barriers, and corral rail posts. Apply the primer to the top of the curb face. On bridges with continuous concrete barrier rails apply the primer to the first break in the geometry of the barrier or a minimum of 6 inches. On bridges with a corral rail, apply the primer to the front face and adjacent sides of all posts. This work is subsidiary to the bid item "Polyester Polymer Concrete Overlay."

Consolidate and strike off the polyester polymer concrete overlay to the final grade, thickness and cross-sections as shown in the Contract Documents. The final lift thickness of the PPC overlay shall not vary more than ±20% across the entire surface to receive the overlay. Each overlay lift thickness shall not be less than ¾-inch.

Proportion the resin and initiator following the manufacturer's recommendations to achieve the desired gel and cure times. Accelerators and inhibitors may be required to achieve proper set times. Proportion all materials as recommended by the material supplier. The gel time or set time can be determined as the time elapsed from resin catalyzation until the in-place PPC cannot be deformed by pressing with a finger indicating the resin is no longer in a liquid state.

Place the PPC overlay using a self-propelled, vibratory screed on rigid, preset forms or rigid, preset screed rails or by a self-propelled, slip-form paving machine which is modified or specifically built to effectively place PPC overlays. The self-propelled screed or paving machine shall be able to travel both forward and in reverse. The Engineer will give final approval for the proposed finishing equipment.

The temperature of the bridge deck and all polyester components and broadcast aggregate must be above the minimum temperature specified in the manufacturer's standard product information. For application at temperatures below this, consult the manufacturer and Engineer and obtain written approval from each.

Previous to gelling of the polyester polymer concrete apply the dry broadcast aggregate in such a manner to cover the polyester polymer concrete uniformly and completely at the prescribed rate. After application of the broadcast aggregate, but previous to gelling, give the PPC overlay surface a suitable texture by transverse grooving with a finned float having a single row of fins. Make the grooving approximately 3/16 inch in width on 3/4 inch centers, with a groove depth of approximately 1/8 inch. For bridges having drains, terminate the transverse grooving approximately 2 feet in from the gutter line at the base of the curb. For bridges with over the side drainage, terminate the transverse grooving 6 inches from the face of rail. Use additional broadcast aggregate as needed after grooving. If the bid item "Bridge Deck Grooving" is in the contract, do not texture the plastic PPC with a finned float. For decks with the bid item Bridge Deck Grooving, see **subsection 710.3f.** for grooving requirements.

Remediate any polyester polymer concrete areas that do not receive enough broadcast aggregate or surface texture before gelling of the polyester occurs. The completed overlay surface shall be free of any smooth or glassy areas resulting from excess resin or insufficient broadcast sand. Prepare the deck surface as necessary, chip or sandblast as needed. Prime the deck as necessary. Apply the polyester polymer concrete so as to fill in the repair area and restore a uniform, continuous appearance. Broadcast additional aggregate as needed. Restore the surface texture.

Vacuum, air blast or broom excess broadcast aggregate from the PPC overlay after it has sufficiently cured a minimum of 2 hours or as required by conditions. If damage or tearing occurs, stop brooming or vacuuming.

Locate any phased longitudinal joints along lane lines, or as approved by the Engineer. Keep the joints clear of wheel paths as much as practical.

Produce and place the overlay within the specified limits in a continuous and uniform operation to the final grade, thickness and cross-sections as shown in the Contract Documents.

Taper phased placement edges or interrupted/incomplete placement edges of the PPC overlay. Construct tapered edges longitudinal to the direction of traffic at a 4:1 slope or steeper. Finish tapered edges transverse to the direction of traffic at a 4:1 slope. Coat all tapered edges with HMWM primer prior to continuing the phased placement.

Correct surface variations exceeding 1/8 inch in 10 feet unless directed otherwise by the Engineer.

Finish the exposed edges at the ends of the bridge and at expansion joints in such a way as to minimize bridge deck roughness. Additional deck preparation will be necessary to maintain the PPC overlay thickness.

Apply a bond breaker to all expansion joints prior to PPC placement.

e. Curing. Plan and perform the work in such a way as to provide for the minimum curing times as specified by the material manufacturer. Cure the PPC overlay a minimum of 4 hours (adjust for temperatures according to manufacturer's recommendations) before allowing traffic on the completed surface.

f. Weather Limitations. Do not place the PPC patches or bridge deck overlay when conditions are such that the deck temperature will exceed 100°F.

Do not place the PPC patches or bridge deck overlay if conditions are such that gel time is less than 10 minutes.

Do not place any component of the PPC patches or bridge deck overlay if the air or substrate temperature is at or expected to drop below 40°F during installation without a manufacturer's representative present.

Only place the Polyester Polymer Concrete, or any associated materials, if the ambient air temperature is above 40°F and rising, and is forecast to stabilize or continue to rise throughout the placement of the PPC material.

g. Limitations of Operations. A technical representative of the polyester polymer concrete system manufacturer shall be present on the job site prior to placing PPC patches and during the placement of the PPC at no additional cost to KDOT. The representative is to provide technical expertise to the Contractor and the Engineer

regarding safe handling, mixing, placement and curing of the PPC patches and overlay. The representative will remain on-site a minimum of three days of mixing and placing the PPC material, or until the representative is confident the material is being mixed and placed properly by the contractor's personnel, whichever is longer.

Use no power driven tools heavier than a 15 pound chipping hammer during deck preparation.
Do not open the prime coat to traffic.

h. Correction of Unbonded, Damaged, or Cracked Areas. After the manufacturer recommended curing period the Inspector shall chain the overlay to locate any areas in need of repair. Repair newly overlain areas (discovered to be unbonded by tapping or chaining) and areas of the PPC overlay damaged by the Contractor's operations. Saw cut the unbonded or damaged overlay areas to the top of the deck surface, remove the overlay with small air tools [15 pounds maximum] or sandblasting. Aggressively sandblast the concrete bridge deck surface within the unbonded areas to remove all contaminants. Replace the PPC overlay following the standard placement procedures at no additional cost to KDOT.

If cracking occurs in the overlay after the curing period, fill the cracks with a properly proportioned HMWM primer material at no additional cost to KDOT. Place the HMWM primer at a rate of 0.09 gallons per square yard and spread broadcast aggregate at a rate of 1.5 pounds per square yard.

4.0 MEASUREMENT AND PAYMENT

The Engineer will measure polyester polymer concrete overlay by the square yard.

The Engineer will measure material for polyester concrete overlay (set price) by the cubic yard according to the following:

(1) When approved by District on repair of existing bridges, this pay item will be used to compensate the Contractor for the additional overlay material that will be required to fill the areas greater than the thickness of overlay shown in the Contract Documents. The Contractor is responsible for maintaining adequate quality control of the demolition process to minimize deviations from the plan grades.

(2) The Engineer will keep a running account of the volume of overlay material that is produced and delivered to the deck. When approved, the Contractor will be paid, at the set price per cubic yard, for all overlay material in excess of 110% of the theoretical volume to cover the deck area with the thickness of overlay shown in the Contract Documents.

The Engineer will measure the area prepared for patching by the square yard after the designated thickness of surface has been removed. The measured pay quantity will be those areas sounded by the Engineer and marked as unsound or delaminated concrete.

The Engineer will measure full depth patching prior to placement of the patch material.

The Engineer will measure areas of partial depth patching poured with the overlay before the overlay is placed. Pay quantity for partial depth patching will be the marked areas of unsound or delaminated concrete minus the sum of the partial depth patching poured with the overlay and the full depth patching.

Payment for "Polyester Polymer Concrete Overlay", "Polyester Polymer Concrete Patching" and "Polyester Polymer Concrete Patching (Full Depth)" at the contract unit price is full compensation for the specified work.

Payment for "Material for Polyester Polymer Concrete Overlay" at the contract set price is full compensation for the specified work.

ATTACHMENT NO. 1

TEST METHOD FOR TESTING POLYESTER POLYMER CONCRETE OVERLAY FOR SURFACE PREPARATION AND ADHESION

1. SCOPE.

This method covers the test procedure used to measure the tensile rupture strength between hydraulic cement concrete and polyester polymer concrete overlay. This test procedure may involve hazardous materials, operations, and equipment. Follow all manufacturer suggested safety precautions when performing the test.

2. APPARATUS.

- (a) Dillon dynamometer or other approved adhesion tester.
- (b) A mechanical testing device for pulling a bonded pipe cap in tension as shown in ACI 503R, Appendix A, of the ACI Manual of Concrete Practice
- (c) Core drill with a 2 inch inside diameter diamond tipped core barrel.
- (d) A standard 1½ inch diameter pipe cap, the bottom surface of which has been machined smooth, flat, and shoulder cut to provide a 2 inch diameter bonding surface.
- (e) A rapid curing epoxy compound with a working (pot) life of 3 to 25 minutes.
- (f) Ruler or measuring device,
- (g) Small propane torch (optional).
- (h) Surface and internal thermometers.
- (i) All test measurement equipment must carry a valid calibration certificate.

Note: Test equipment for this procedure is available in other forms and may be used with the approval of the Engineer.

3. PREPARATION OF TEST PATCHES.

(a) Select 1½ foot x 3 foot areas of the bridge deck for the polyester polymer concrete test patches. The test patches should cover typical surface conditions found on the bridge deck (e.g. if the bridge deck surface contains 10 % concrete patching then 10% of the test patches on the bridge deck should be placed on these patches). Place the test patches in the wheel paths, in the area between wheel paths and in other areas which represent the worst surface condition.

(b) Clean test patch areas by the same method to be used to prepare the entire deck. Remove all loose disintegrated concrete, dirt, paint, oil, asphalt, laitance carbonation and curing materials from patches and other foreign material from the surface of the deck that can interfere with the curing or adhesion of the overlay. Cleaning is usually indicated by a significant change in the color of the concrete and exposing coarse aggregate particles.

(c) Form an area 1½ foot x 3 foot. Measure and record the temperatures of the air, deck surface, primer and polyester components and broadcast aggregate.

(d) Mix the polyester components as prescribed by the manufacturer using the same equipment, timing, and sequence of operation as will be used when placing the polyester polymer concrete overlay on the full deck surface.

(e) Collect a 2 ounce sample of the mixed primer and the mixed polyester and measure and record the primer gel time and the polymer gel time. The gel time is the time interval between the initial mixing of the primer or the polyester and the formation of a gelatinous mass in the center of the samples.

(f) Accurately prepare sufficient quantities of the primer and polyester mixtures for each test patch. Place the primer and polyester on each 0.5 square yard prepared test area using the same equipment and procedures as will be used in placing the polyester polymer concrete overlay.

Apply the primer and the polyester coat uniformly without puddling. Apply the dry overlay broadcast aggregate on the test patch at the same rate as specified in the contract documents; apply enough aggregate to completely cover the polyester concrete.

(g) Allow the polyester polymer concrete overlay to cure as required to allow sweeping or vacuuming without damaging the surface (curing time varies according to temperature). Curing of the overlay can be checked by placing thumb on the broadcast aggregate and applying pressure. If the aggregate moves, curing has not been sufficient.

- (h) Sweep or broom each layer of the test patch to remove excess aggregate.
(i) Allow the primer coat and polyester polymer concrete overlay to cure as required to prevent damage from traffic.

4. PROCEDURE.

(a) Using a diamond tipped core barrel, drill through the hardened PPC overlay and into the concrete surface to a depth of ½ inch. A core barrel with dimensions such that the resulting concrete core is 2 inches in diameter is preferred. However, a smaller core is acceptable. Use the formula in 4(g) below to calculate Tensile Rupture Strength. Do not use water for the coring operation.

(b) Vacuum or blow the dust from around the core. Bond a 1½ inch pipe cap that has been machined to have a flat bottom surface of 2 inches in diameter, to the cored overlay disk. If a smaller core is taken size the pipe cap accordingly. The adhesive used to bond the pipe cap to the overlay should be rapid curing with a minimum working life of 3 minutes. Apply a small amount of adhesive to both the pipe cap surface and the cored disk. Do not allow any adhesive to flow over the edge of the cored disk or down into the cored area. If this occurs, do not record the test result, core an alternate area and perform another test. To decrease the curing time of the adhesive heat may be applied to pipe cap by means of a small propane torch. Do not heat the cored disk directly!! Monitor the temperature of the pipe cap. Do not allow the cap temperature to exceed 120°F.

(c) It is of the utmost importance that the tensile rupture equipment and dynamometer be aligned with the extended axis of the pipe cap to give accurate test results. To ensure the apparatus alignment the use of a template is advised.

(d) Screw the lower threaded hook into the cap. Place the testing apparatus over the pipe cap and align with the cored disk.

(e) Attach the dynamometer to the upper and lower hooks. Set the load indicator on the dynamometer to zero. Check the date of calibration on the dynamometer. It must have been calibrated within the last 12 months.

(f) Apply a tensile load at the rate of approximately 100 pounds every 5 seconds.

Record the load at which the pipe cap and connected core is separated from the concrete surface.

Record the type of failure for each pipe cap and percent failure in the concrete over the test area for Type 1 and Type 2 failures.

There are **five** types of failures:

Type 1 - Failure in the concrete at a depth greater than or equal to ¼ inch (6 mm) over more than 50% of the test area.

Type 2 - Failure in the concrete at a depth less than ¼ inch (6 mm) over more than 50% of test area.

Type 3 - Separation of the PPC overlay from the concrete surface.

Type 4 - Failure within the PPC overlay.

Type 5 - Failure of the epoxy test adhesive.

A properly applied PPC overlay on a properly prepared surface typically will result in a failure in the concrete (Type 1).

(g) Perform four pull-off tests on each 1½ foot x 3 foot (0.5 m x 1.0 m) test patch.

Use the 3 highest values to calculate the Tensile Rupture Strength for the test patch as noted below.

For Type 1 failures:

- Tensile Rupture Strengths less than 250 psi (1.7 MPa) will not be used in the average tensile rupture calculation.
- Should one pullout fall below 250 psi (1.7 MPa) the test result will be the average of the two remaining pull-off tests.
- Should two pullouts fall below 250 psi (1.7 MPa) the test result will be the Tensile Rupture Strength of the one remaining test.
- A failure **in the concrete** below 250 psi (1.7 MPa) indicates weak concrete, not poor overlay bond.

For Type 2, 3 or 5 failures use the average of the three highest pull-off values to determine the Tensile Rupture Strength.

Type 4 failures will not be accepted or used in calculations.

Determine the Tensile Rupture Strength using the following equation:

$$\text{TRS} = \frac{P}{A}$$

TRS = Tensile Rupture Strength

P = Load (Dynamometer)

A = Area of cored disc, verify the area previous to performing the calculations.

This value will be recorded as the result for one test patch.

(h) Repair the hole created by the tensile rupture strength test with polyester polymer concrete bridge deck overlay material.