

BRO-B048 (55)

Jackson County
Department of Public Works
303 West Walnut
Independence, MO 64050

REQUEST FOR BID

BID OF

Bidder Name Lehman Construction LLC
Bidder Address 900 Russellville Rd
California, MO 65018

FOR
CONSTRUCTING OR IMPROVING

Bridge No. 4219001; BRO-B048 (55)
On Beach Drive
Over Tarsney Lake Spillway to Brushy Creek
Jackson County, MO

COUNTY PROJECT NO. 3202
COUNTY BID NO. PW 09-2020

FILED
APR 16 2021
MARY JO SPINO
COUNTY CLERK

AUTHORIZATION TO INSERT DATE INTO
CONTRACT BONDS

March 23, 2021

To: Jackson County

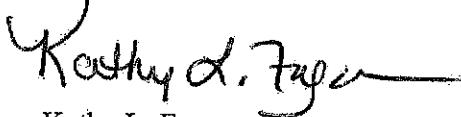
RE: Lehman Construction, LLC
Authority to Date Contract Bonds – Bond No: TXHNSU0796874

To Whom It May Concern:

This letter gives you the authority to date the Contract Bonds attached to match the date that you enter into the Agreement with **Lehman Construction, LLC** for **Bridge 4219001; BRO-B048(55), Beach Drive over Tarsney Lake Spillway to Brushy Creek**. You will also need to date the Power of Attorneys to match the contract date as well as the Contractor Epidemic Bond Rider. When this has been completed, please mail a copy of the signed and dated bond and Power of Attorney to me at the address below and I will then forward to the Surety Company.

I appreciate your assistance in this matter.

Sincerely,



Kathy L. Fagan
Attorney-In-Fact

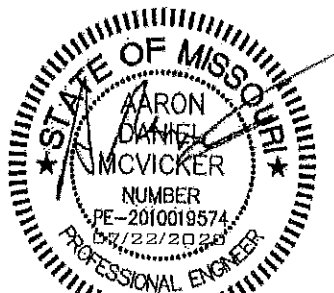
Kathy Fagan
kfagan@powersinsurance.com
Phone: (816) 832-6071 (cell)
Powers Insurance & Risk Management
16 W. 132nd Street
Kansas City, MO 64145

BRO-B048 (55)

Jackson County
Department of Public Works
303 West Walnut
Independence, MO 64050

CONTRACT
AND
BOND
FOR
CONSTRUCTING OR IMPROVING

Bridge No. 4219001; BRO-B048 (55)
On Beach Drive
Over Tarsney Lake Spillway to Brushy Creek
Jackson County, MO
COUNTY PROJECT NO. 3202, COUNTY BID NO. PW 09-2020
July 2020



AARON DANIEL MCVICKER
PE-2010019574

PREPARED BY:
McClure
1700 Swift Ave., Suite 100
North Kansas City, MO 64116
913-307-2588 (Office)

INVITATION TO BID
COUNTY PROJECT NO. 3202, COUNTY BID NO. PW 09-2020
Jackson County Bridge Replacement

Bid documents will be available on December 22, 2020, for the Bridge Replacement BRO-B048 (55) on Tarsney Lake Beach Drive. Bids will be received at: Jackson County Public Works Building, 303 West Walnut, Independence, MO 64050 until 2:00 PM on the 12th day of January, 2021. All bids shall be submitted in the form of a hard copy. Sealed proposals will be opened on January 12, 2021 at 2:05 PM at the same address.

The proposed work includes construction of a Triple Cell (12x5) RCB with drop inlet and spillway along with the removal of emergency spillway structure located on Beach Drive over Tarsney Lake Spillway, Jackson County, MO.

Specifications, and other proposed Contract documents may be secured from the Engineering Division, 303 West Walnut Street, Independence, Missouri 64050, during regular business hours 7:30 AM to 4:00 PM. A fee of \$20.00 will be required for each set of contract documents. Fees are not refundable. For an additional \$15.00 fee, plans can be mailed. Checks, if used for payments of deposits, shall be made in favor of the Manager, of Finance.

Bidders may also view and print contract documents for free on line at <http://www.jacksongov.org/322/Bids-RFPs-RFQs>. This website contains a link to the Public Purchase, a web-based e-Procurement service for posting and receiving Public Works related bids. Any bidder using on-line documents must check the website periodically for Notice of Addendums or call the County's Construction Manager (Ric Johnson, PE) at (816) 881-4499.

All labor used in the construction of this public improvement shall be paid a wage no less than the prevailing hourly rate of wages of work of a similar character in this locality as established by the United States Department of Labor (Federal Wage Rates) and Missouri Department of Labor and Industrial Relations (State Wage Rates), whichever is higher.

The Jackson County Department of Public Works hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, businesses owned and controlled by socially and economically disadvantaged individuals will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, religion, creed, sex, age, ancestry, or national origin in consideration for an award.

All bidders must be on MoDOT's Qualified Contractor List per Section 102.2 of the Missouri Standard Specifications for Highway Construction, 2020 Edition including all revisions. The contractor questionnaire must be on file 7 days prior to bid opening.

Contractors and sub-contractors who sign a contract to work on public works project provide a 10-Hour OSHA construction safety program, or similar program approved by the Department of Labor and Industrial Relations, to be completed by their on-site employees within sixty (60) days of beginning work on the construction project.

A certified or cashier's check or a bid bond in the amount of 5% shall be submitted with each proposal.

The contract, if awarded, will be awarded to the lowest, responsive, responsible bidder complying with the Conditions of the Contract Documents within the Owner's budget. The Bidder to whom the awards are made will be notified at the earliest possible date. The Owner, however, reserves the right to reject any and all Bids and to waive any informality in Bids received whenever such rejection or waiver is in his interest.

The DBE Goal for this project is 12%.

No 2nd tier subcontracting will be allowed on this project.

COUNTY PROJECT NO. 3202, COUNTY BID NO. PW 09-2020
BIDDER CHECKLIST
FINAL CHECKLIST BEFORE SUBMITTING BID

- 1. Submit completed Contractor Questionnaire and/or Contractor Prequalification Questionnaire with attachments not later than seven (7) days prior to the date and hour of the bid opening. See Secs 101-103 of the Standard Specifications, and Rule 7 CSR 10-15.900, "Prequalifications to Bid of Certain Contractors". Questionnaire and Contact information are provided on MoDOT's website. (if applicable – required on highway and bridge projects)
- 2. For submittal of paper bids, the complete set of bidding documents includes all information through the DBE forms (for DBE forms see #7). The Technical Specifications/Job Special Provisions are for the bidder's information only and is not to be returned with the bid.
- 3. If submitting the bid by mail, it is to be completed, executed, and submitted in a sealed envelope addressed to Jackson County – Department of Public Works. **Provide the vendor name, vendor address, vendor number, county, route and federal project number on the outside of the envelope.**
- 4. Please read all items in the bidding document carefully. For paper bids, complete all items in ink or by typing in the information.
- 5. Sign this bidding document properly. If submitted in the name of a firm or corporation, the legal name of the firm or corporation should appear in the space designated, and be signed for by one or more persons legally qualified to execute papers in the name of said firm or corporation. Affix Corporate Seal if the Bidder is a Corporation.
- 6. For paper bids submit a bid bond executed by bidder and surety, or attach cashier's check to the bid bond form.
- 7. Submit the DBE Identification Submittal within 3 business days of the Bid Opening.
- 8. For paper bids, staple addenda to the bid in the appropriate part of the bid. The letter accompanying the addenda should be stapled to the inside of the back cover of the bid and returned. The bidder should retain a duplicate copy.

Below is a list of common mistakes made by bidders leading to non-responsive bids. Please refer to the Standard Specifications for the appropriate procedures for completing and submitting a bid.

- a) Not signing the bid
- b) Not incorporating the addendum into the bidding documents, including attaching the letter to the bid
- c) Not providing a bid bond
- d) Using pencil to fill out the bid
- e) Using white out to make corrections to the itemized bid sheets
- f) Not initialing changes made

All questions concerning the bid document preparation can be directed to Matt Eblen at 913-307-2588.

Special Needs: If you have special needs addressed by the Americans with Disabilities Act, please notify the Jackson County-Department of Public Works, at 816-881-4530 or through Missouri Relay System, TDD 1-800-735-2966, at least five (5) working days prior to the bid opening.

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Bid Bond

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General Provisions (Other Than MoDOT)

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Contract Forms

Contract Agreement

Contract Bond

Contractor's Acknowledgement

COUNTY PROJECT NO. 3202, COUNTY BID NO. PW 09-2020

NOTICE TO CONTRACTORS

Sealed bids, addressed to Jackson County, 303 West Walnut for the proposed work will be received by Jackson County Department of Public Works until 2:00 PM (prevailing local time) on January 12, 2021, at the office of the Jackson County Department of Public Works. Sealed proposal will be opened on January 12, 2021 at 2:05 PM at the same address. Bids should be delivered to:

Jackson County Department of Public Works
303 West Walnut
Independence, MO 64050

(1) **PROPOSED WORK:** The proposed work, hereinafter called the work, includes:

The construction of a Triple Cell (12x5) RCB with drop inlet and spillway along with the removal of emergency spillway structure located on Beach Drive over Tarsney Lake Spillway, Jackson County, MO.

(2) **COMPLIANCE WITH CONTRACT PROVISIONS:** The bidder, having examined and being familiar with the local conditions affecting the work, and with the contract, contract documents, including the current version of the Missouri Highways and Transportation Commission's "Missouri Standard Specifications for Highway Construction," and "Missouri Standard Plans for Highway Construction", their revisions, and the request for bid, including appendices, the special provisions and plans, hereby proposes to furnish all labor, materials, equipment, services, etc., required for the performance and completion of the work. All references are to the Missouri Standard Specifications for Highway Construction, as revised, unless otherwise noted.

The following documents are available on the Missouri Department of Transportation web page at www.modot.mo.gov under "Business with MoDOT" "Standards and Specifications". The effective version shall be determined by the letting date of the project.

APWA Kansas City Chapter Specifications

General Provisions & Supplemental Specifications

Supplemental Revisions to Missouri Standard Plans
For Highway Construction

These supplemental bidding documents contain all current revisions to the bound printed versions and have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

Please note that within the above-listed documents, the term "Commission" shall be replaced with the term, "Jackson County", and the term "Engineer" is a reference to the Engineer of Record from McClure

The contracting authority for this contract is Jackson County

(3) **PERIOD OF PERFORMANCE:** If the bid is accepted, the bidder agrees that work shall be diligently prosecuted at such rate and in such manner as, in the judgment of the engineer, is necessary for the completion of the work within the time specified as follows in accordance with Sec 108:

Working Days: 75 days

(4) **LIQUIDATED DAMAGES:** The bidder agrees that, should the bidder fail to complete the work in the time specified or such additional time as may be allowed by the engineer under the contract, the amount of liquidated damages to be recovered in accordance with Sec 108 shall be as follows:

Liquidated damages per day \$ 950.00

(5) **BID GUARANTY:** The bidder shall submit a Bid Guaranty meeting the requirements of Section 102 of the Missouri Standard Specifications for Highway Construction (if applicable). A sample project bid bond form is included in the bid book. The bidder shall mark the box below to identify the type of Bid Guaranty.

- Paper Bid Bond
 Cashier's Check

(6) **CERTIFICATIONS FOR FEDERAL JOBS:** By signing and submitting this bid, the bidder makes the certifications appearing in Sec. 102.18.1 (regarding affirmative action and equal opportunity), Sec. 102.18.2 (regarding disbarment, eligibility, indictments, convictions, or civil judgments), Sec. 102.18.3 (regarding anti-collusion), and Sec. 102.18.4 (regarding lobbying activities). Any necessary documentation is to accompany the bid submission, as required by these sections. As provided in Sec. 108.13, the contracting authority may terminate the contract for acts of misconduct, which includes but is not limited to fraud, dishonesty, and material misrepresentation or omission of fact within the bid submission.

(7) **ANTIDISCRIMINATION:** The Contracting Authority hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, businesses owned and controlled by socially and economically disadvantaged individuals will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, religion, creed, sex, age, ancestry, or national origin in consideration for an award.

(8) **FEDERAL AND STATE INSPECTION:** The Federal Government is participating in the cost of construction of this project. All applicable Federal laws, and the regulations made pursuant to such laws, shall be observed by the contractor, and the work will be subject to the inspection of the appropriate State or Federal Agency in the same manner as provided in Sec 105.10 of the Missouri Standard Specifications for Highway Construction with all revisions applicable to this bid and contract.

(9) **PREVAILING WAGE (FEDERAL AND STATE):** This contract requires payment of the prevailing hourly rate of wages for each craft or type of work required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations, and requires adherence to a schedule of minimum wages as determined by the United States Department of Labor. For work performed anywhere on this project, the contractor and the contractor's subcontractors shall pay the higher of these two applicable wage rates. The applicable state wage rates for this contract are detailed in "Annual Wage Order No. 27", that is attached to this bidding document. The applicable federal wage rates for this contract are the effective Davis-Bacon federal wage rates posted the tenth day before the bid opening date and are attached herein.

These supplemental bidding documents have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

(10) **WORKER ELIGIBILITY REQUIREMENTS:** Execution of the construction contract for this project is dependent upon the awarded bidder providing an Affidavit of Compliance AND E-Verify Memorandum-of-Understanding (MOU) between the bidder and Department of Homeland Security to the Contracting Authority as required by section 285.530 RSMo. The cover page and signature page of the E-Verify MOU and the Affidavit must be submitted prior to award of this contract.

A sample Affidavit of Compliance can be found at the Missouri Attorney General's website at the following link:

http://ago.mo.gov/forms/Affidavit_of_Compliance.pdf

All bidders must also be enrolled in the E-Verify Program, and include their MOU prior to contract execution. Bidders who are not enrolled will need to go to the following website link and select "Enroll in the Program" to get started. After completing the program, they will receive their E-Verify MOU with Department of Homeland Security. This document will need to be printed out and kept on file so that a copy can be attached to the Affidavit of Compliance.

http://www.dhs.gov/files/programs/gc_1185221678150.shtm

This requirement also applies to subcontractors and contract labor, but this contract only requires submittal of the verification documents for the prime contractor. It is the prime contractor's responsibility to verify the worker eligibility of their subcontractors in order to protect their own company from liability as required by section 285.530 RSMo.

(11) **OSHA TEN HOUR TRAINING REQUIREMENTS:** Missouri Law, 292.675 RSMO, requires any awarded contractor and its subcontractor(s) to provide a ten-hour Occupational Safety and Health Administration (OSHA) Construction Safety Program (or a similar program approved by the Missouri Department of Labor and Industrial Relations as a qualified substitute) for their on-site employees (laborers, workmen, drivers, equipment operators, and craftsmen) who have not previously completed such a program and are directly engaged in actual construction of the improvement (or working at a nearby or adjacent facility used for construction of the improvement). The awarded contractor and its subcontractor(s) shall require all such employees to complete this ten-hour program, pursuant to 292.675 RSMO, unless they hold documentation on their prior completion of said program. Penalties, for Non-Compliance include contractor forfeiture to the Contracting Authority in the amount of \$2,500, plus \$100 per contractor and subcontractor employee for each calendar day such employee is employed beyond the elapsed time period for required program completion under 292.675 RSMO.

(12) **BUY AMERICA REQUIREMENTS:** Construction contracts shall assure compliance with Section 165 of the Surface Transportation Assistance Act of 1982, Section 337 of the Surface Transportation and Uniform Relocation Assistance Act of 1987, and 23 CFR 635.410 regarding Buy America provisions on the procurement of foreign products and materials. On all contracts involving Federal-aid, all products of iron, steel, or a coating of steel which are incorporated into the work must have been manufactured in the United States. The Contracting Authority may allow minimal amounts of these materials from foreign sources, provided the cost does not exceed 0.1 percent of the contract sum or \$2,500, whichever is greater. The Contractor certifies that these materials are of domestic origin. Additional information regarding the "Buy America" requirements can be found at:

<https://www.fhwa.dot.gov/construction/cqit/buyam.cfm>

(13) **ADDENDUM ACKNOWLEDGEMENT:** The undersigned states that the all addenda (if applicable) have been received, acknowledged and incorporated into their bid, prior to submittal. For paper bids, staple addenda to the bid in the appropriate part of the bid.

(14) **SIGNATURE AND IDENTITY OF BIDDER:** The undersigned states that the following provided information is correct and that (if not signing with the intention to bind themselves to become the responsible and sole bidder) they are the agent of, and they are signing and executing this, as the bid of

Lehman Construction LLC, which is the correct LEGAL NAME as stated on the contractor questionnaire (if applicable).

a) The organization submitting this bid is a(n) (1) individual bidder, (2) partnership, (3) joint venturer (whether individuals or corporations, and whether doing business under a fictitious name), or (4) corporation. Indicate by marking the appropriate box below.

sole individual partnership joint venture

corporation, incorporated under laws of state of Missouri.

b) If the bidder is doing business under a fictitious name, indicate below by filling in the fictitious name

Executed by bidder this 12 day of January 2021.

THE BIDDER CERTIFIES THAT THE BIDDER AND ITS OFFICIALS, AGENTS, AND EMPLOYEES HAVE NEITHER DIRECTLY NOR INDIRECTLY ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION, OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THIS BID, AND THAT THE BIDDER INTENDS TO PERFORM THE WORK WITH ITS OWN BONAFIDE EMPLOYEES AND SUBCONTRACTORS, AND DID NOT BID FOR THE BENEFIT OF ANOTHER CONTRACTOR.

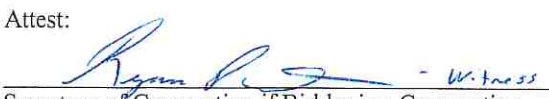
THE BIDDER ACKNOWLEDGES THAT THIS IS AN UNSWORN DECLARATION, EXECUTED UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES AND/OR FALSE DECLARATION UNDER THE LAWS OF MISSOURI, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS. THE FAILURE TO PROVIDE THIS CERTIFICATION IN THIS BID MAY MAKE THIS BID NON-RESPONSIVE, AND CAUSE IT TO BE REJECTED.

THE BIDDER CERTIFIES THAT THE BIDDER'S COMPANY KNOWINGLY EMPLOYS ONLY INDIVIDUALS WHO ARE AUTHORIZED TO WORK IN THE UNITED STATES IN ACCORDANCE WITH APPLICABLE FEDERAL AND STATE LAWS AND ALL PROVISIONS OF MISSOURI EXECUTIVE ORDER NO. 07-13 FOR CONTRACTS WITH THE CONTRACTING AUTHORITY.

Check this box ONLY if the bidder REFUSES to make any or all of these certifications. The bidder may provide an explanation for the refusal(s) with this submittal.


Signature of Bidder's Owner, Officer, Partner or Authorized Agent

KENNY LEHMAN, MANAGING MEMBER
Please print or type name and title of person signing here

Attest:
 - witness
Secretary of Corporation if Bidder is a Corporation

Affix Corporate Seal (If Bidder is a Corporation) NO Seal

NOTE: If bidder is doing business under a fictitious name, the bid shall be executed in the legal name of the individual, partners, joint ventures, or corporation, and registration of fictitious name filed with the secretary of state, as required by sections 417.200 to 417.230 RSMo. If the bidder is a corporation not organized under the laws of Missouri, it shall procure a certificate of authority to do business in Missouri, as required by section 351.572 et seq RSMo. A certified copy of such registration of fictitious name or certificate of authority to do business in Missouri shall be filed with the Missouri Highways and Transportation Commission, as required by the standard specifications.

(15) **TRAINEES:** By submitting this bid, the bidder certifies that the bidder is familiar with the Training Provision in the Missouri Highways and Transportation Commission's "General Provisions and Supplement Specifications" which are available on the Missouri Department of Transportation web page at www.modot.mo.gov under "Business with MoDOT" "Standards and Specifications". The number of trainee hours provided under this contract will be 0 slots at 1000 hours per slot or 0 hours.

(16) **SUBCONTRACTOR DISCLOSURE:** Requirements contained within Sec 102.7.8 of the Missouri Standard Specification for Highway Construction shall be waived for this contract.

(17) **PROJECT AWARD:** This project will be awarded to the lowest, responsive, responsible bidder.

(18) **MATERIALS INSPECTIONS:** All technicians who perform, or are required by the FHWA to witness, such sampling and testing shall be deemed as qualified by virtue of successfully completing the requirements of EPG 106.18 Technician Certification Program, for that specific technical area.

(19) **PRIME CONTRACTOR REQUIREMENTS:** The limitation in Sec 108.1.1 of the Missouri Standard Specifications for Highway Construction that "the contractor's organization shall perform work amounting to not less than 40 percent of the total contract cost" is waived for this contract. Instead, the less restrictive terms of the Federal Highway Administration's rule at Title 23 Code of Federal Regulations (CFR) § 635.116(a) shall apply, so that the contractor must perform project work with its own organization equal to and not less than 30 percent of the total original contract price. Second-tier subcontracting will not be permitted on this contract. All other provisions in Sec 108.1.1 et seq. of the Missouri Standard Specifications for Highway Construction shall remain in full force and effect, and shall continue to govern the contractor and its subcontractors, in accordance with the provisions of Title 23 CFR § 635.116.

(20) **SALES AND USE TAX EXEMPTION:** Jackson County, a tax exempt entity, will furnish a Missouri Project Exemption Certificate as described in Section 144.062 RSMo to the awarded contractor who in turn may use the certificate to purchase materials for a specific project performed for the tax exempt entity. Only the materials and supplies incorporated or consumed during the construction of the project are exempt. The certificate will be issued to the contractor for a specific project for a defined period of time.

(21) (a) **ACCEPTANCE OF PROVISION FOR PRICE ADJUSTMENT FOR FUEL:** Bidders have the option to accept the provision for Price Adjustment for Fuel in accordance with Sec. 109.14 . The bidder must mark the box below for those items of work in which they choose to accept the provision. No price adjustments will be made, due to fuel price changes, for bidders who do not accept this provision.

Excavation Production Asphalt Production Asphalt Hauling
 Concrete Paving Production Concrete Paving Hauling Aggregate Base Hauling

(b) **ACCEPTANCE FOR PROVISION FOR ASPHALT CEMENT PRICE INDEX, SEAL COAT PRICE INDEX, UNDERSEAL PRICE INDEX OR UBAWS MEMBRANE PRICE INDEX:** Bidders have the option to accept the provision for Asphalt Cement Price Index, Seal Coat Price Index, Underseal Price Index and/or UBAWS Membrane Price Index in accordance with the General Provisions. The bidder must mark each box below if they choose to accept the provision. The Asphalt Cement Provision applies only to projects that have a quantity of asphalt wet ton mix pay items or converted square yard quantity over 1,000 tons, the Seal Coat Provision applies only to projects that have a quantity that exceeds 50,000 square yards, the Underseal Provision applies only to any projects that have a quantity that exceeds 10,000 gallons, and the UBAWS Membrane provision applies only to projects that have a quantity that exceeds 5,000 square yards. The above quantity limits apply to an individual project or any number of projects in the contract combination.

Asphalt Cement Seal Coat Underseal UBAWS Membrane

(22) **RETAINAGE:** In accordance with the Missouri Prompt Pay Act (34.057 RSMo), the owner may withhold payment for any of the reasons outlined in RSMo 34.057, or as determined by the engineer and according to Sec 109.9 of the Missouri Standard Specifications for Highway Construction

ITEMIZED BID: The bidder should complete the following section in accordance with Sec 102.7. The bidder proposes to furnish all labor, materials, equipment, services, etc. required for the performance and completion of the work, as follows:

ITEMIZED PROPOSAL

ITEMIZED PROPOSAL
WORK PERFORMED BY THE CONTRACTOR

LINE	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
BID ITEMS						
1	201	Clearing & Grubbing	L.S.	1	15,000 ⁰⁰	15,000 ⁰⁰
2	202.30	Removal of Improvements	L.S.	1	36,000 ⁰⁰	36,000 ⁰⁰
3	203	Embankment in Place	C.Y.	490	18 ⁰⁰	8,820 ⁰⁰
4	206	Cofferdam	L.F.	132	990 ⁰⁰	130,680 ⁰⁰
5	206	Excavation for Structure Class 2 (Bridge Removal)	C.Y.	130	68 ⁰⁰	8,840 ⁰⁰
6	206	Excavation for Structure Class 3 (Storm Water)	C.Y.	37	58 ⁰⁰	2,146 ⁰⁰
7	206	Excavation for Structure Class 4 (Box Culvert)	C.Y.	1019	35 ⁰⁰	35,665 ⁰⁰
8	216.10	Removal of Bridge Structures	L.S.	1	22,500 ⁰⁰	22,500 ⁰⁰
9	303	Rock Base (18" Layer)	S.Y.	680	52 ⁰⁰	35,360 ⁰⁰
10	303	Rock Base (6" Layer)	S.Y.	680	14 ⁰⁰	9,520 ⁰⁰
11	303	Aggregate Base Course (15" Layer of MoDOT Type 5)	S.Y.	186.3	30 ⁰⁰	5,589 ⁰⁰
12	304	Aggregate Base Course (6" Layer of MoDOT Type 5)	S.Y.	634	13.50	8,559 ⁰⁰
13	2200	APWA Asphaltic Concrete Surface (2" Layer of Type 3-01)	S.Y.	634	23 ⁰⁰	14,582 ⁰⁰
14	2200	APWA Asphaltic Concrete Base (7" Layer of Type 1-01)	S.Y.	634	37 ⁰⁰	23,458 ⁰⁰
15	606.10	Type A Guardrail	L.F.	505	81 ⁰⁰	40,905 ⁰⁰
16	606.10	Type A End Section	EACH	8	51 ⁰⁰	408 ⁰⁰
17	611.30	Type 2 Rock Blanket	C.Y.	573	79 ⁰⁰	45,267 ⁰⁰
18	611.50	Light Stone Revetment	S.Y.	284	72 ⁰⁰	20,448 ⁰⁰
19	616	Construction Signs	EACH	22	180 ⁰⁰	3,960 ⁰⁰
20	617.20	Temporary Traffic Barrier	L.F.	240	114 ⁰⁰	27,360 ⁰⁰
21	618	Mobilization	L.S.	1	88,346 ⁰⁰	88,346 ⁰⁰
22	624	Geotextile Fabric	S.Y.	1207	5 ⁰⁰	6,035 ⁰⁰
23	703	12'x5' Triple Cell RCB	L.F.	36	4,200 ⁰⁰	151,200 ⁰⁰
24	703	Class B-1 Concrete	C.Y.	141.5	550 ⁰⁰	77,825 ⁰⁰
25	706	Reinforcing Steel (Grade 60)	LBS	33,000	1.50	49,500 ⁰⁰
26	707	Conduit System on Structure (Electrical Conduit)	L.F.	45	22 ⁰⁰	990 ⁰⁰
27	707	Conduit System on Structure (12" x 12" Pull Box)	EACH	2	1,450 ⁰⁰	2,900 ⁰⁰
28	726	24" Dia. Rigid Pipe	L.F.	50	116 ⁰⁰	5,800 ⁰⁰
29	731	Field Inlet 4' x 4'	EACH	1	5,100 ⁰⁰	5,100 ⁰⁰
30	731	Junction Box 4' x 4'	EACH	1	6,200 ⁰⁰	6,200 ⁰⁰

ITEMIZED PROPOSAL
 WORK PERFORMED BY THE CONTRACTOR

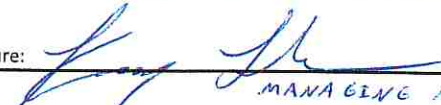
LINE	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
31	805	Seeding, Mulch & Fertilizer	ACRE	0.2	17,700 ⁰⁰	3,540 ⁰⁰
32	806.30	Ditch Check	EACH	1	300 ⁰⁰	300 ⁰⁰
33	806.70	Silt Fence	L.F.	204	6.25	1,275 ⁰⁰
TOTAL CONTRACTOR - BID						\$ 894,078⁰⁰

ACKNOWLEDGEMENT: Each Bidder shall acknowledge receipt of addenda by their signature affixed hereto and addendum noted at the right by number.

Addendum No.(s) 1

Contractor: Lehman Construction LLC

Phone: (573) 796-8101

Signature: 
 MANAGING MEMBER

Date: 1-12-21

Name: KENNY LEHMAN

(please print)

Email: quotes@lehmanconstructionllc.com

(please print)

BID BOND

COUNTY PROJECT NO. 3202, COUNTY BID NO. PW 09-2020

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we Lehman Construction, LLC

as principal and Harco National Insurance Company

as surety, are held and firmly bound unto the Jackson County-Department of Public Works in the penal sum of ***FIVE PERCENT OF TOTAL AMOUNT BID*** Dollars (\$ 5%) to be paid to the commission to be credited to the state road fund, principal and surety binding themselves, their heirs, executors, administrators, successors, and assigns jointly and several, firmly by these presents.

Sealed with our seals and dated this January 12, 2021

THE CONDITION OF THIS OBLIGATION is such that

WHEREAS the principal is submitting herewith a bid to the commission on Tarseny Lake Beach Drive in Jackson County, project Bridge Replacement project BRO-B048(55) for construction or improvement of state highway as set out in said bid:

NOW THEREFORE, if the commission shall accept the bid of the principal and if the principal shall properly execute and deliver to the commission the contract, contract bond, and evidence of insurance coverage in compliance with the requirements of the bid, the specifications, and the provisions of section 227.100 RSMo, to the satisfaction of the commission then this obligation shall be void and of no effect, otherwise to remain in full force and effect.

In the event the said principal shall, in the judgment of the commission fail to comply with any requirement as set forth in the preceding paragraph, the state of Missouri, acting by and through the commission, shall immediately and forthwith be entitled to recover the full sum above set out, together with court costs, attorney's fees and any other expense of recovery.

The principal and surety certify that the document is the original or a verbatim copy of the bid bond form furnished by the Commission, in accordance with Sec 102.9 of the Missouri Standard Specifications for Highway Construction.

SEAL ^{NO SEAL}

SEAL

Lehman Construction, LLC

Principal

By [Signature]

Signature

Harco National Insurance Company

Surety

By [Signature]

Kathy L. Fagan, Attorney-in-Fact

NOTE: This bond must be executed by the principal, and by a corporate surety authorized to conduct surety Business in the state of Missouri.

POWER OF ATTORNEY
HARCO NATIONAL INSURANCE COMPANY
INTERNATIONAL FIDELITY INSURANCE COMPANY

Bond # BID BOND

Member companies of IAT Insurance Group, Headquartered: 702 Oberlin Road, Raleigh, North Carolina 27605

KNOW ALL MEN BY THESE PRESENTS: That **HARCO NATIONAL INSURANCE COMPANY**, a corporation organized and existing under the laws of the State of Illinois, and **INTERNATIONAL FIDELITY INSURANCE COMPANY**, a corporation organized and existing under the laws of the State of New Jersey, and having their principal offices located respectively in the cities of Rolling Meadows, Illinois and Newark, New Jersey, do hereby constitute and appoint

CASEY PARISOFF, KATHY L. FAGAN

St. Louis, MO

their true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise, and the execution of such instrument(s) in pursuance of these presents, shall be as binding upon the said **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY**, as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by their regularly elected officers at their principal offices.

This Power of Attorney is executed, and may be revoked, pursuant to and by authority of the By-Laws of **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY** and is granted under and by authority of the following resolution adopted by the Board of Directors of **INTERNATIONAL FIDELITY INSURANCE COMPANY** at a meeting duly held on the 13th day of December, 2018 and by the Board of Directors of **HARCO NATIONAL INSURANCE COMPANY** at a meeting held on the 13th day of December, 2018.

"RESOLVED, that (1) the Chief Executive Officer, President, Executive Vice President, Senior Vice President, Vice President, or Secretary of the Corporation shall have the power to appoint, and to revoke the appointments of, Attorneys-in-Fact or agents with power and authority as defined or limited in their respective powers of attorney, and to execute on behalf of the Corporation and affix the Corporation's seal thereto, bonds, undertakings, recognizances, contracts of indemnity and other written obligations in the nature thereof or related thereto; and (2) any such Officers of the Corporation may appoint and revoke the appointments of joint-control custodians, agents for acceptance of process, and Attorneys-in-fact with authority to execute waivers and consents on behalf of the Corporation; and (3) the signature of any such Officer of the Corporation and the Corporation's seal may be affixed by facsimile to any power of attorney or certification given for the execution of any bond, undertaking, recognizance, contract of indemnity or other written obligation in the nature thereof or related thereto, such signature and seals when so used whether heretofore or hereafter, being hereby adopted by the Corporation as the original signature of such officer and the original seal of the Corporation, to be valid and binding upon the Corporation with the same force and effect as though manually affixed."

IN WITNESS WHEREOF, **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY** have each executed and attested these presents on this 31st day of December, 2018



STATE OF NEW JERSEY
County of Essex

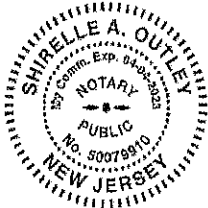
Kenneth Chapman

Executive Vice President, Harco National Insurance Company
and International Fidelity Insurance Company

STATE OF ILLINOIS
County of Cook



On this 31st day of December, 2018, before me came the individual who executed the preceding instrument, to me personally known, and, being by me duly sworn, said he is the therein described and authorized officer of **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY**; that the seals affixed to said instrument are the Corporate Seals of said Companies; that the said Corporate Seals and his signature were duly affixed by order of the Boards of Directors of said Companies.



IN TESTIMONY WHEREOF, I have hereunto set my hand affixed my Official Seal, at the City of Newark, New Jersey the day and year first above written.

Shirelle A. Outley a Notary Public of New Jersey
My Commission Expires April 4, 2023

CERTIFICATION

I, the undersigned officer of **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY** do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit, and the copy of the Sections of the By-Laws of said Companies as set forth in said Power of Attorney, with the originals on file in the home office of said companies, and that the same are correct transcripts thereof, and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect.

IN TESTIMONY WHEREOF, I have hereunto set my hand on this day, January 12, 2021

A02769

Irene Martins, Assistant Secretary



Company ID Number: 191433

THE E-VERIFY PROGRAM FOR EMPLOYMENT VERIFICATION MEMORANDUM OF UNDERSTANDING

ARTICLE I

PURPOSE AND AUTHORITY

This Memorandum of Understanding (MOU) sets forth the points of agreement between the Department of Homeland Security (DHS) and LEHMAN CONSTRUCTION, LLC (Employer) regarding the Employer's participation in the Employment Eligibility Verification Program (E-Verify). This MOU explains certain features of the E-Verify program and enumerates specific responsibilities of DHS, the Social Security Administration (SSA), and the Employer. E-Verify is a program that electronically confirms an employee's eligibility to work in the United States after completion of the Employment Eligibility Verification Form (Form I-9). For covered government contractors, E-Verify is used to verify the employment eligibility of all newly hired employees and all existing employees assigned to Federal contracts.

Authority for the E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note). Authority for use of the E-Verify program by Federal contractors and subcontractors covered by the terms of Subpart 22.18, "Employment Eligibility Verification", of the Federal Acquisition Regulation (FAR) (hereinafter referred to in this MOU as a "Federal contractor") to verify the employment eligibility of certain employees working on Federal contracts is also found in Subpart 22.18 and in Executive Order 12989, as amended.

ARTICLE II

FUNCTIONS TO BE PERFORMED

A. RESPONSIBILITIES OF SSA

1. SSA agrees to provide the Employer with available information that allows the Employer to confirm the accuracy of Social Security Numbers provided by all employees verified under this MOU and the employment authorization of U.S. citizens.
2. SSA agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. SSA agrees to provide the Employer with names, titles, addresses, and telephone numbers of SSA representatives to be contacted during the E-Verify process.
3. SSA agrees to safeguard the information provided by the Employer through the E-Verify program procedures, and to limit access to such information, as is appropriate by law, to individuals responsible for the verification of Social Security Numbers and for evaluation of the E-Verify program or such other persons or entities who may be authorized by SSA as governed by the Privacy Act (5 U.S.C. § 552a), the Social Security Act (42 U.S.C. 1306(a)), and SSA regulations (20 CFR Part 401).



Company ID Number: 191433

To be accepted as a participant in E-Verify, you should only sign the Employer's Section of the signature page. If you have any questions, contact E-Verify at 888-464-4218.

Employer **LEHMAN CONSTRUCTION, LLC**

KENNETH LEHMAN

Name (Please Type or Print)

Title

Electronically Signed

Signature

02/18/2009

Date

Department of Homeland Security – Verification Division

USCIS Verification Division

Name (Please Type or Print)

Title

Electronically Signed

Signature

02/18/2009

Date



900 RUSSELLVILLE RD.
CALIFORNIA, MO 65018
www.lehmanconstructionllc.com

PHONE (573) 796-8101
FAX (573) 796-8293

CAGE/CCR # 5UU77
Duns # 790620756

Bank:

Commerce Bank
209 E. Main St
California, MO 65018

Financial References:

Officer - Brandon Garber or Brad Clay 800-453-2265
We will authorize any information you may need. If further information is needed, such as a full financial statement, one can be provided upon request.

Administrative Management

SUPERVISION AND PROJECT MANAGEMENT

~ Kenny Lehman: 34 years experience in water, utilities, wastewater, concrete paving, concrete structures, and excavation.
~ Ryan Porter: 15 years experience in construction management, inspection, and estimating
~ Brett Hall: 19 years experience in drafting, construction management, inspection, and estimating
~ Bonnie George - 37 years experience of Finance administration, and oversight.
~ Jason Nilges - 24 years experience in Heavy Highway Construction inspection.

Supervisory Personnel Experience

Field Management and Superintendents

~ Robert Lehman: 30 years experience in highway lighting, utility, concrete paving, wastewater treatment plant construction
~ John Kirchhoff: 38 years experience in excavation, utilities, and concrete construction.
~ Clint Bolinger: 13 years Bridge Construction, Carpentry, Concrete paving, concrete structures.
~ Cody Haslag: 6 years Bridge Construction, Earthwork operator, stormwater and concrete construction.
~ Jerome Welburg: 33 years experience in excavation, utilities, and concrete construction
~ Danny Monroe: 21 years experience in concrete paving, and concrete structure construction.
~ Kurt Birdsong: 21 years experience in excavation, utilities, and concrete structure construction.
~ Shane Frank: 17 years experience in Bridge Construction and concrete structure construction.
~ Jason Hall: 27 years experience in Bridge Construction and concrete structure construction.

Insurance

CornerStone Insurance Group (913) 378-1050

Bonding

Powers Insurance & Risk Management
Phone (816) 810-0011
Contact: Casey Parisoff

Trade References

Fischer Concrete Service
2300 Clinton Rd
Sedalia, MO 65302
(660) 826-3122 Fax: 660-826-3124

Construction Anchors, Inc.

13900 E. 350 Hwy
Kansas City, MO 64138
816-525-3640 Fax; 816-525-4533

Boehmer Bros. Utility Supply
PO Box 325
Foristell, MO 63348
636-463-1384 Fax: 636-673-1340

Nu Way Concrete Forms Central, inc.
3100 South Ten Mile Drive
Jefferson City, MO 65109
800-345-9154 Fax: 573-893-8737

James Drew Corp.
1578 Boonville Rd
Sedalia, MO 65301
660-826-2335 Fax: 660-827-6414

COMPANY OWNED EQUIPMENT FOR CONSTRUCTION

- 1 1993 Caterpillar D8N SU BLADE
- 1 2010 Caterpillar D6TXW DOZER
- 1 2011 Caterpillar D6KXW Dozer
- 1 2008 John Deere 650J LGP Dozer
- 1 2006 Bedding Box 7 yard
- 1 2009 Thawzall, Concrete cure machine FUSION 1500
- 1 2017 Hammer and Steel Vibrating Hammer
- 1 2010 Delmag D19-42 Pile Hammer
- 1 2012 Manitowac 11000-1- 110 Hydraulic crawler crane
- 1 2013 Tando Mantls 77T Hydraulic crawler crane
- 1 2014 Zoomlion ZCC1100H - 110 Hydraulic crawler crane
- 1 2016 Manitowoc Model MLC 165 Lattice Hydraulic Crawler Crane (180 ton)
- 1 2014 Komatsu PC 490
- 1 2009 Komatsu PC450 w/ 12,000LB rock break hammer
- 1 2012 Komatsu PC 360LC-10 excavator
- 1 2014 Komatsu PC 360LC-10 excavator
- 1 2010 Komatsu PC360 LC-7 excavator with 7000LB rock break hammer
- 1 2009 Komatsu PC 228 USC-8 without thumb
- 1 2015 Komatsu PC360 LC-10 excavator
- 2 2016 Komatsu PC228USC-8 one with Thumb
- 1 2010 Komatsu PC240 -10 excavator
- 1 2013 Komatsu PC240LC-10 excavator
- 1 2017 Plate Compactor and Bracket Cap for 240
- 1 2016 Komatsu PC308 excavator with 5000LB rock break hammer
- 1 2014 Komatsu PC 138USLC - Excavator with 24" and 36" bucket
- 1 2017 Montabert Plate Compactor and Bracket
- 2 2014 Kubota KX080 with Thumbs mini excavators
- 1 2009 Kubota KX161-3 Mini Excavator
- 1 2008 Kubota KX08003R3 w/ Hammer
- 1 2006 Kubota mini excavator
- 1 2002 Midland Road Widner SPJD
- 1 2014 Multi Gang Slab Rider (EZ Drill)
- 1 2014 CD85 Epoxy machine
- 1 2015 Wirtgin SP94i Concrete Slipform Mainline Paver
- 1 2007 Terex SF 2204 HWW Concrete Variable Width Paver
- 1 2003 Gomaco GT3600 curb machine
- 1 2006 Gomaco C-450x Bridge Deck Paver
- 1 2020 Terex 3600 Bidwell
- 1 1991 Gomaco finish and Cure Machine
- 1 2010 Gomaco RTP500 Concrete Placer
- 1 2005 CMI Placer
- 1 1980 Gomaco Rake and Cure machine
- 1 2003 Gomaco 9000 Grade Trimmer
- 1 2008 Cemco 240 Concrete Plant Central Mix Wet or Dry Batch
- 2 2019 Bay Linx Volumetric Mixer
- 1 2004 35kW 120/230 volt generator skid mount
- 1 2016 Sioux HM 1.7 concrete plant water heater-Portable
- 1 2007 Komatsu WA 250 Loader

- 1 2007 Volvo 3CY Wheel Loader
- 1 2014 Komatsu WA 500 Loader
- 1 2006 Case 580 4x4 super M+ extend-a-hoe
- 2 2007 Case 580 4x4 super M+ extend-a-hoe Anniv edition
- 1 2007 IngersollRand SD 70 vibratory compactor /bolt on padfoot
- 1 2003 IngersollRand SD40 Vibratory compactor /bolt on pad foot
- 1 2001 Caterpillar Roller CS-563DAW (84" Drum) 12 Ton sheep foot roller
- 1 Caterpillar Roller CS-433E
- 1 1998 Bomag 10 ton sheeps foot
- 1 Freightliner Water Truck S/A
- 1 Kenworth 3500 Gal. Tanker Truck T/A
- 5 2014 Kubota Skidsteer SLV90-2H (Rubber Track)
- 1 2016 Kubota Skidsteer SVL95-2s (Rubber Track)
- 2 2007 Broce Ride on Brooms
- 1 Hydro Platform HPT 32 Traller Mounted - Snooper trailer
- 1 2005 Caterpillar 135H Motor Grader
- 1 2010 Caterpillar 953D High-Lift
- 1 2010 Caterpillar 963D High-Lift
- 1 2005 Caterpillar 953C High-Lift
- 1 2009 60' JLG Manlift
- 1 2010 64' JLG Manlift
- 1 2014 Kenworth Road Tractor TR1/A
- 1 2014 Loadking Lowboy Trailer/2014 Loadking Stinger/14FTA/S
- 1 2005 Komatsu HM300-2 Haul Truck
- 1 1996 Kenworth Road Tractor TR1/A
- 1 2007 Kenworth Road Tractor TR1/A
- 1 2006 LOADKING Lowboy Trailer/2006 LOADKING STINGER/14FTA/S
- 2 53FT TRANSCRAFT FLATBED
- 2 53' WABASH VAN TRAILERS
- 2 42 FT FLAT BED CT/A
- 1 2007 TRANSCRAFT STEP DECK T/A/SP
- 1 1988 Ford LTL9000 T/A
- 1 2010 FLATBED GREAT DANE HIBOY CLOSED T/A/
- 1 1964 Moser Tank Trailer
- 2 Water Trucks
- 3 Dump Trucks
- 5 Concrete Mixer Trucks
- 15 Fleet Pick Up Trucks
- 1 2004 20' long Motor Boat
- 1 1988 24' Pontoon boat
- 1 2006 Finn Straw Blower
- 1 2016 Portable Netvision CCTV Traller (Solar powered security)
 - Silt Fence Plow
 - Trailer mount 6" dry prime (diesel powered)
 - Trailer mount 5" pump (gas powered)
 - Portable 3" pump (gas powered)
 - Portable 2" pump (gas powered)
 - (3) portable 2" pump (electric powered submersible)
 - Light Plants 4
 - (5) Air Compressors
 - (7) Welders
- 16' x 8', 16' x 6', and 16' x 4' trench stackable OSHA Approved safety boxes
- Piling and shoring needed for excavation capable of meeting OSHA's safety regulations.

Employee Certification Programs: AWS Welder Certifications, ATSSA Traffic Flagging Certification
MoDOT Advanced Work Zone, NCCCO operator certifications

Achievements:

- * MoDOT Heavy Volume Contractor "Top Achiever" for Quality, Proseccion, and Progress 2012, 2014, and 2015
- * 2015 Missouri/Kansas Chapter, ACPA -Best Portland Cement Concrete Reliever & General Aviation Airport Paving Project "Jefferson City Memorial Airport"

Work History of Company Projects Completed:

Year	Contract Value	Scope of Project	Contact Person
2020	\$542,742	Rte. 65/24 Ditch Flood Repair (2) mile of Ditch	MoDOT

		Restablishment and Shoulder Repair	James Gillespie
2020	\$1,657,926	Rte D Pettis - 69'-3.25" single span bridge	MoDOT
		161'-10.75" (3) span bridge	Reid Riley
2020	\$716,823	108' - 3 span bridge over Evening Shade Creek	MoDOT
		Wright County	Audie Pulliam
2020	\$1,525,911	Rte. 41 Saline County 80' long x 26' wide x 12' tall RCB	MoDOT
		125'-6" (3) span bridge	Reid Riley
2020	\$1,267,149	I-44 Bus. Loop Bridge Rehab (latex overlay)	MoDOT
		over BNSF Railroad	Brad Gripka
2020	\$3,957,709	Rte. 50 @ AA, W, & Z intersection- 37511.6 SY	MoDOT
		Safety Turn arounds PCCP paving	Jacob Wilson
2020	\$2,064,458	Rte. 24-65 Carroll/Chariton County (4) bridge	MoDOT
		rehabs w/ latex Mod Overlays	James Gillespie
2020	\$544,014	Brickey Rd - 80' (2) span Precast slab beam	US Forest Dept
		bridge	Amy Wilson
2020	\$47,590	Cole County Bridge Demolition over	Cole County
		Moniteau Creek	Eric Landwier
2020	\$605,085	Rte 24 - 300' redeck over Salt Fork Creek	Magruder Paving
		Paris, MO	Donnie Mantle
2020	\$536,582	127' long x 24' wide x 17' tall Box Culvert in	Ray County
		Fishing River - Richmond, MO	Shannon Howe
2019	\$3,821,108	David Hoekely Parkway and North Outer Road	City of Wentzville
		Paving and Grading	Anthony Gambaro
2019	\$641,738	143'-8 3/4" (3) span bridge over Pickarel Creek	Brad Gripka
			Springfield MoDOT
2019	\$205,707	McCutchen Drive Roundabout	City of Rolla
			Darin Prior
2019	\$979,969	154' long Redeck on Rte. U over Star Hollow	Joplin Project Office
		Creek and 114' 3 span bridge over Sugar Creek	Marvin Morris
2019	\$1,441,469	St. Maria's Tatandra Subdivision	Mike Woessner
		12,813SY of Concrete pavement, sewer, water, storm sewer	
2018	\$2,195,102	New Concrete Flow Equalization Basin	Scott Vogler - MECO
		243'x134' x20' deep concrete lined basin	
2018	\$2,894,821	Rte. J (4) span 486' bridge over the Little	Chris Graham
		Niangua arm of Lake of the Ozarks	Camdenton Project Office
2019	\$504,331	Rte. 50 HES Pavement Replacement Through	Reid Riley
		town in 20 days	Jefferson City Project Office
2019	\$1,808,564	356'; 3 span bridge w/ 30K CY of fill over	Chris Brownell
		Bourbeuse River	St James Project Office
2019	\$478,170	Rte. E - 270' Redeck over Moreau Creek in	Chris Graham
		Moniteau County	Camdenton Project Office
2019	\$385,026	Rte. 185 - 190' Bridge Redeck over	Chris Brownell
		Frouche-A-Renault creek	St. James Project Office
2019	\$864,331	Rte. ZZ - 213' long 3 span bridge replacement	Christine Redhage
		over Boeuf Creek	Festus Project Office
2019	\$926,469	Rte. 76/160 Roundabout , Forsyth, MO	Johnny Teegardin
			Branson Project office
2019	\$8,819,153	Rte. 76, 1010' (7) span bridge over Bull Shoals	Johnny Teegardin
		Lake (White River arm), Forsyth, MO	Branson Project office
2019	\$156,984	Rte. I-49 Structure Demolition for Future	MoDOT Project office
		Roadway	Joplin Project Office
2019	\$465,218	Rte 69 Riverside, MO Box Extension	MoDOT Project office
		(2) cell 10' wide	Lee Summit Project Office
2019	\$396,789	Rte. M- Auxvasse, MO 165' Redeck over Auxvasse	MoDOT Project office
		Creek and Stringer stiffner	Reid Riley
2018	\$5,297,097	Rte. 72 Hwy Extension, 3000' of 4 lane Highway	Darin Pryor
		and 240' (3) span radius bridge over BNSF RR	City of Rolla
2018	\$1,441,099	Rte. D Bridge over BNSF Railroad, Jerome, MO	Dennis Krenning
		182.5' - 3 span radius bridge/ super elevated curve	MoDOT Project office
2018	\$2,192,596	Rte. 161 Montgomery County 228' (4) span	Rick Domalazski
		bridge over I-70 in Mineola, MO	MoDOT Project office
2018	\$548,891	Rte. DD (95') and Rte. EE (91') Redecks in	Jeff Gander
		Randolph County in Cairo and Moberly, MO	MoDOT Project office
2018	\$777,481	Rte. 21 - 105' (3) span bridge replacement	Darius Dowdy

		over Courtious Creek, Iron County	MoDOT Project office
2018	\$123,075	Lathrop, MO Oak St Box Culvert	Kyle Wirts
		Improvements 61'-4 1/2" x 17'-4"	City of California
2018	\$295,351	California North Street Waterline	Kyle Wirts
		Improvements	City of California
2018	\$385,856	Rte. F Warren County (2) Bridge Rehab Expansion	Rick Domalwski
		Joint Replacement over I-70	MoDOT
2018	\$307,837	Rte C and 24 in Falls/Randolph County	Jeff Gander
		Bridge Expansion Joint Removal/Replacement	MoDOT
2018	\$396,295	Rte. 67 Madlson County Various location	Dartus Dowdy
		slope repairs ~ aprx 5000 ton of rip rap	MoDOT
2018	\$393,721	260' redeck over Tavern Creek Near St.	Chris Graham
		Anthony, MO on Rte. A	MoDOT
2018	\$346,979	Robertson Cedar Ridge Estates Subdivision	Mike Robertson
		Roadway and Utility Const	Owner
2018	\$176,753	45' precast slab beam bridge over Cooper Creek	Lindsey Chaffin
			Great River Engineering
2018	\$311,339	52' single span steel girder bridge on Rangelln	Jeff McCann
		Rd	Boone County
2018	\$4,289,738	468' long 3-span plate girder bridge over	Ron Williams
		Meramac River	Franklin County
2018	\$8,445,195	Bus. 65 Grade Separation over BNSF RR - MSE Wall	MoDOT
		and 80'x419' Bridge	Brad Gripka
2018	\$105,413	Burgers Smokehouse Rd Widening	Allan Schiedt
		450' of 24' Roadway	Burgers Smokehouse
2018	\$337,652	Crawford County Blunt Rd - 100' Precast slab	Jeff Banderet - GRE
		beam bridge over Courtious Creek	Great River Engineering
2018	\$39,903	Cargill Feedmill Parking Lot	Jon Roberts
			Feedmill Supervisor
2017	\$8,875,592	Fulton Wastewater Treatment Plant Improvements	Kyle Bruemmer
		New UV bldg, clarifier, Headworks bldg, etc	City of Fulton
2017	\$752,259	126' - 3 span solid slab bridge on Rte BB	MoDOT
		in Seymour, MO over Finley Creek	Brad Gripka
2017	\$792,094	Rte. H - 391' bridge rehab over Salt Fork	MoDOT
		River near Nelson, MO	Zachary Walker
2017	\$1,485,837	221' - 4 Span Bridge over US 61 in	MoDOT
		Palmyra, MO	Mary Lincoln (573) 581-8320
2017	\$2,868,553	364' long 3 span plate girder bridge over	MoDOT
		Sinking Creek, Eminence, MO	Audie Pulliam
2017	\$2,110,589	Jefferson City Stadium and Jefferson St	City of Jefferson
		Intersection Roundabout Construction	David Bange
2017	\$526,072	140' Precasts Slab Beam Bridge over Cedar	Cedar County Commission
		Creek Near El Dorado Springs	Jeff Banderet - GRE
2017	\$408,798	Sedalia, MO Oak Grove Ln/ Hwy 50 Intersection	City of Sedalia
		Reconstruction and Signal upgrade	Devin Lake
2017	\$1,130,950	Johnson County (4) Redecks: Rte. OO (115')	MoDOT
		Rte. 23 (147'); Rte. 131 (155'); Rte. 131 (125')	Brian Iles
2017	\$4,965,860	Rte. 36 - MU Ag-Expo Overpass in St. Joe, MO	MoDOT
		251' - 4 span bridge and 18,163 SY of PCCP	Greg Stervinou
		7314 SY A2 shldr and storm sewer, etc	
2017	\$539,880	135'; 3 span Bridge Replacement over	Oregon County Commission
		Frederick Creek	Jeff Banderet - GRE
2017	\$1,925,514	Rte. 19- 233'-6"; 3 span bridge over Crooked Creek	MoDOT
		Rte. M- 251'-3"; 3 span bridge over Crooked Creek	Dennis Krenning
2017	\$579,800	California Sewer Improvements 3000' of 8"	City of California
		San. Sewer and Laterals	Kyle Wirts
2017	\$654,476	126' - 3 span bridge over Dry Sac Creek	MoDOT
		Near Fair Grove, MO	Brad Gripka
2017	\$399,544	Bridge Int Bent, Scour Repair in Gasconade	MoDOT
		River, Near Mt. Sterling, MO	Jefferson City, Project Office
2017	\$597,609	Marshall, MO Concrete Lift Station and pumps	Marshall Municipal Utilities
			Lamp Rynerson Eng
2017	\$777,596	Rte. V Pheips County Road Widening -	MoDOT
		Concrete Paving	St James Project Office

2016	\$149,596	Rte. 44 Ourter Rd Culvert Replacements	MoDOT
			St. James Project Office
2017	\$642,168	165' - 3 span precast slab beam on Oscar Talley Rd Over Indian Creek	Great River Engineering
			Spencer Jones
2017	\$606,426	140' long 2-span bridge over Salt Creek	Great River Engineering
		Charlton County - Brunswick	Lindsey Chaffin
2016	\$204,622	Rte W Slide Repair in Linn, MO with Precast Blocks anchored into rock face	MoDOT
			Jefferson City Project Office
2016	\$398,551	Strip Seal Expansion Joint Replacements on (2) Bridges	MoDOT
			Hannibal Project Office
2016	\$716,245	203' - 3span bridge over Crider Creek	MoDOT
			St. James Project Office
2016	\$250,878	Bridge End Bent Remove and Replace Support bridge end during reconstruction	Danny Brown
			Crawford County
2016	\$489,447	Montgomery City Elk Horn Basin Concrete Lining	Mark Gross
			Klingner and Associates
2016	\$413,926	252' Redeck over South Moreau Creek, Rte. 87 Olean, MO	MoDOT
			Camdenton Project Office
2016	\$221,117	Rte. 29 (2) Slide Repairs in Taylor, MO	MoDOT
			Hannibal Project Office
2016	\$485,643	Design Build - 146' long x 18" Form lined Cast in place Retaining Wall (Slide Repair)	MoDOT
			St. James Project Office
2016	\$304,524	180' Redeck on Rte. M over Haw Creek - Stover, MO	MoDOT
			Camdenton Project Office
2016	\$1,302,814	Forum Blvd 10' wide concrete trail and 313' long pedestrian bridge (4) span over Hinkson Creek	City of Columbia
			Dave Fennewald
2016	\$5,658,548	240' (3) span bridge over NFS and 300,000CY Of Embankment for Grade Separation	MoDOT
			Troy Project Office
2016	\$39,778	Burgers Smokehouse Lower Parking Lot 250'x15' w/ 6" Integral curb	Burgers Smokehouse
			Allen Schledt
2016	\$6,181,142	Jefferson City Memorial RW 12-30 Reconstruction 74,900SY of 10" concrete paving and 13,500 SY of 6"	City of Jefferson
			Britt Smith
2016	\$448,797	Sanitary Sewer Manhole Replacements and Point Repairs and Lining in Pilot Grove, MO	City of Pilot Grove
			Scott Vogler - MECO
2016	\$8,090,610	4186 LF Bridge Rehab and bar joint expansion over Stockton Lake on Rt. 219 Stockton, MO	MoDOT
			Clinton Project Office
2016	\$918,181	(3) redecks - (1) 178' on Rte. 169, (1) 104' on Rte. C and (1) 145' on Rte. C Albany, MO	MoDOT
			Maryville, Project Office
2016	\$1,052,209	(1) 180' Bridge replacement over Mound Branch (1) 84' Haunch slab bridge over Mission Branch	MoDOT
			Clinton Project Office
2016	\$13,686,266	Rte. 291 Widening and Diverging Diamond, and 2 bridges over I-49, Harrisonville, MO	MoDOT
			Lee Summit Project Office
2016	\$580,560	Henley Future Meadows Subdivision 2000 LF of 8" San. Sewer, and 5404 Sy of 6" pavement	Larry Henley
			Subdivision Developer
2016	\$58,099	Burgers Smokehouse 6000SF entrance	Kelth Fletcher
			Operations Manager
2015	\$218,258	30' Design Build Bridge Superstructure replacement over Smith Branch and 40' pedestrian bridge	Steve Gohring
			City of Fulton
2015	\$1,205,324	286' 3 span bridge over Big Calumet Creek in Clarksville, MO	MoDOT
			Hannibal Project Office
2015	\$3,359,902	1218' long redeck and substructure bent reconstruction by jacking and falsework construction over Platte River and expansion joint replacement on adjacent bridge	Larry Jacobson
			Maryville, Project Office
2015	\$328,338	27 Manhole replacements, 13 Point repairs on 8", 10", and 12" pipe.	MoDOT
			Danielle Jorgenson
2015	\$375,042	214' Redeck over Pomme De Terre River	Spraycom Utilities
			MoDOT
			Clinton Project Office
2015	\$639,904	Sedalia Phase 1 Pack 4 San. Sewer Improvements in Sedalia Alleys (Point repairs, MH replacements)	Jonathen Hoflander
			Olsson and Associates
2015	\$447,120	115' bridge redeck on Rte. D Lowry City, and 65' bridge replacement on Rte. 18 Henry County	MoDOT
			Clinton Project Office
2015	\$217,508	(7) Storm Drainage Pipe crossings for Asphalt Paving, Subcontract for APAC - Columbia	Phillip Raines
			APAC, MO
2015	\$595,993	(2) Bridge Redecks, (1) 213.5' over Perche Creek (1) 183.5' over Rocky Fork Creek	MoDOT
			Columbia Project Office

2015	\$35,605	8" HES Turn around pavement	John Roberts Cargill
2015	\$675,156	207' - 3 span bridge over Flat Creek on Potters Ford Rd	Morgan County Shafer, Kline & Warren
2015	\$817,367	130' - 2 span box girder bridge over Clarks Fork Prairie Home, MO	Cooper County MECO Engineering
2015	\$8,564,227	Oak Grove Rte. F Reconstruction, widening Stormwater and waterline relocation	MoDOT Marshall Project Office
2015	\$962,228	Approach and ADA Sidewalk Ramp Improvements along Rte. 63 Rolla and 54/5 Camden	MoDOT St. James Project Office
2015	\$322,104	Slide Repair off I-44 in Rolla, MO	MoDOT St. James Project Office
2015	\$115,361	Demolition of abandoned bridge over Dry Auglaize Creek Old Rte V Camden County	MoDOT Camden Project Office
2014	\$155,533	Rte. A Gasconade County Crider Creek Bank Stabilization	MoDOT Terry Imhoff
2014	\$174,120	Emergency Aerial Sewer Repair, 750' of 10" SJ CL52 Ductile 401 Lined Pipe	City of Sedalia Bill Beck
2014	\$6,100	Set a 53000 lb precast restroom at California Proctor Park	Bobby Wooten McCann Precast
2014	\$270,970	52' Single span bridge over Moreau River	Eric Landwehr Cole County Commission
2014	\$2,695,631	1032' Bridge Redeck and steel rehab over Truman Lake on Rte. 13 South of Clinton, MO	MoDOT Clinton Project Office
2014	\$633,567	435' Redeck Hermitage, MO over Pomme De Terre River	MoDOT Clinton Project Office
2014	\$2,219,000	451' Bridge over the Lamine River on Rte. 41	MoDOT Marshall Project Office
2014	\$283,155	127' Bridge Redeck in Barton County	MoDOT Joplin Project Office
2014	\$5,400,000	Overpass Construction at Intersection of Rte. 13 and Hwy 82 in Osceola, MO (Bridge and Paving)	MoDOT Clinton Project Office
2014	\$660,920	1- 267' and 1- 109' Redeck on Rte. M in Jasper County	MoDOT Joplin Project Office
2014	\$269,936	Hickory County 70' single span precast panel bridge	Spencer Jones Great River Engineering
2014	\$209,646	Sedalia Streetscape Phase IIIa San. Sewer 700' with 4MH in Alley 12+ deep	Engineering Surveys and Services
2014	\$584,980	Chariton 2 Span Bridge Replacement 135' Precast Girder Bridge	Spencer Jones Great River Engineering
2014	\$357,619	St. Claire County 2 Span 133.5' steel girder bridge	Spencer Jones Great River Engineering
2014	\$5,182,170	Louisiana Waste Water Treatment Plant Clarifier, Aeration Basin, Etc.	Mark Bross Klingner and Associates
2014	\$779,483	275' Three Span Bridge McDonald County Over Big Sugar Creek	Spencer Jones Great River Engineering
2014	\$320,951	90' Single Span Bridge on Rte. WW Marcelline, MO	MoDOT James Gillespie
2013	\$2,866,966	Rte. B Bridge Rehabilitation - Hydor Demo Latex overlay and overhang replacement	MoDOT Terry Imhoff
2013	\$1,295,663	(2) 240' Redecks over I-44 in Laclede County	MoDOT Dennis Krenning
2013	\$1,182,441	Stoney Gap Sanitary Sewer - 4000' of 8" Sanitary Sewer and Recirculating Sand Filter	Integrity Engineering Terris Cates

2013	\$1,316,508	400' Bridge Construction over Pomme De Terre River, Bolivar, MO	Spencer Jones Great River Engineering
2013	\$879,997	Sidewalk, ADA Ramps, 8" waterline and misc San. Sewer Improvements, City of California	Kyle Wirts City of California
2013	\$770,270	Pedestrian Trail and bridge for Green Briar Trail, Columbia, MO	Dave Bugg City of Columbia
2013	\$658,361	348.5' Bridge Redeck over I-55 in Scott County	Brian Holt MoDOT
2013	\$3,339,613	Concrete Pavement and Grading and Bridge Construction, Rolling Hills Rd, Columbia, MO	Dave Bugg City of Columbia
2013	\$2,873,919	40,000 LF of 8" Wastewater Collection System 5 lift stations, Taos, MO	Ron Shy All State Consultants
2013	\$879,913	594' Bridge Redeck over Stockton Lake Rte. CC Greenfield, MO	Greg Chapman MoDOT
2013	\$10,059,219	Rte. 43 and Zora Overpass, Joplin, MO (1) Bridge over Rte. 43 and (1) over KCSRR	Greg Chapman MoDOT
2013	\$3,514,293	Rte. 160 Complete Bride Removal and Replacement Of overpass over I-44	Brad Griпка MoDOT
2013	\$378,215	Bridge Rehab, Substructure repair and 500' of Pedestrian Rail installation	Roger Clark City of Branson
2013	\$485,922	3500 LF of 8" Sewer Main construction 1 12'-18' deep excavation - Maple Bluffs Sewer	Lindsey Schaffer City of Columbia
2012	\$74,845	Rte. 51 Bridge Rall Replacement over Drainage Ditch	Audie Pulliam MoDOT
2012	\$5,495,167	Hwy 71 Outer Rd Construction with 650' Bridge over Bates Drainage Ditch and 150' bridge	Rany Aulbur MoDOT
2012	\$889,242	180' Triple Span Bridge over Little Sac River Along with Asphalt pavement	Greene County Hwy Commission
2012	\$121,580	Rte. H over Cuivre River Bridge Patch Work	Rick Domalwski MoDOT
2012	\$605,993	203' - 3 Span Concrete Girder Bridge over Big Creek	Jerry Stevenson Harrington and Courtelyou
2012	\$3,739,813	Rte. 54 Safety Crossover Construction, J-turns and paving	Terry Imhoff MoDOT
2012	\$450,532	Single Span Bridge over UPRR, Cooper County	Ed Brickner Cooper County
2012	\$275,417	7500' of Sidewalk along Hwy 50 in Pettis County with ADA Ramps	Brian Iles MoDOT
2012	\$131,798	City of California Sludge Basin Seal Repair	Kyle Wirts City of California
2012	\$588,464	89' bridge on Rte. 85, Installing pipe crossing on Rte. 169	Larry Jacobson MoDOT
2012	\$643,211	Buechter Bridge Rd Replacement, 207' Bridge Over Tavern Creek	Brian Duncan Miller County Comm.
2012	\$143,089	Smith Street Reconstruction, California, MO	Steve Lepage Central Missouri Engineering
2012	\$382,500	Single Span 110' Bridge-Removal and Replacement	Steve Brown Great River Engineering
2011	\$2,988,594	(4) Railroad Bridges-Removal and Replacements	Travis Lynch Army Corp of Engineers
2011	\$130,000	Air Handler and Roof Replacement Jefferson City, MO	Gene Cook Missouri Bankers Assoc.
2011	\$104,000	Street and Sidewalk Enhancements Cole Camp, MO	John Sanders MoDOT
2011	\$487,500	Bridge Replacement over Mouniteau Creek Roacheport, MO	Chuck Sullivan MoDOT
2011	\$730,000	Super Structure Replacement, Rte. 94, over Auxvasse Creek	Chuck Sullivan MoDOT
2011	\$933,500	County House Greenway Trail and Pedestrian Bridges	David Bugg (573) 874-7251 Columbia

2011	\$420,000	Bridge Redeck on Rte. CC Montgomery County	Marty Licoln (573) 581-8320 MoDOT
2011	\$1,385,000	(4) Bridge Redecks, Pike, Rails, and Lincoln County	Jerad Noland MoDOT
2011	\$6,760,000	Bridge Rehab over BNSF Rail Yard on Kansas Expressway	Jonnle Tiegarden MoDOT
2011	\$2,747,798	(3) Remove and Replace Bridge's, Nevada Missouri	Randy Aulber MoDOT
2011	\$1,280,000	(2) Bridge Redecks for Lafayette County (1) over KCSRR	Brian Iles MoDOT
2011	\$4,220,391	WWTP and Sewer construction for City of California	Bob Gilbert Bartlett and West
2011	\$162,378	Precast Bridge over Watkins Ford	Jason Mueller Harms Engineering
2010	\$229,689	90' Bridge over little Moniteau Creek	Gary Strack Shafer, Kline & Warren
2010	\$70,000	Emergency Storm Sewer Improvement	Chuck Sullivan MoDOT 573-999-7350
2010	\$399,911	134' New Bridge in Hermitage	Steve Brown Great River Engineering
2010	\$408,693	Green Meadows Intersection Improvements	David Nichols City of Columbia
2010	\$388,978	Stadium Sidewalk Improvements	David Nichols City of Columbia
2010	\$165,290	East Side Sidewalk Improvments	David Nichols City of Columbia
2010	\$199,748	Cooper County Culvert Repair Restoring Historic Wall and Culvert	Chuck Sullivan MoDOT 573-999-7350
2010	\$3,974,164	Widening Hwy 65 through Lincoln, MO 2miles (2 lanes to 5 lanes)	John Sanders MoDOT
2010	\$1,735,000	Two New bridges (1 over UP railroad and other over Salt Fork Creek)	Lindsey Stufflebean Shafer, Kline & Warren
2010	\$1,799,992	3 Bridge Redecks on Rte. 65 North	John Sanders MoDOT 660-281-1296
2010	\$148,676	Highway 13 Paving	Lee Hardy Phillips Grading
2010	\$156,972	48' Aluminum Box culvert	Gary Strack Shafer, Kline & Warren
2010	\$114,000	Levee Repair on Moreau River	Phillip Burger Burgers Smokehouse
2010	\$348,131	Rte. 54 Sidewalk Improvements	City of Osage Beach Nick Edelman
2010	\$175,241	Rte. AC Bridge Redeck	MoDOT- Marshall Aaron Peck
2009	\$13,923,564	Widening 3 mile stretch of Highway 763 from 2 Lanes to 5 Lanes	MoDOT - Boone County Susan Ball (573) 884-4751
2009	\$339,978	New 115' Bridge, Warrensburg	Josh Seaboldt 816-421-8386
2009	\$1,275,000	Redeck 5 Safe and Sound Bridges, Pettis and Benton Counties	MoDOT-John Sanders 660-281-1296
2009	\$1,280,000	Brown School Road Improvements	City of Columbia David Bugg (573) 874-7251
2009	\$1,657,000	Walnut Acres Road Bridge	Cole County Public Works Eric Landwehr (573) 636-3614
2009	\$560,000	Route I-70 Pavement Replacement	MoDOT - Montgomery County Marty Licoln (573) 581-8320
2009	\$602,600.87	Route 163 Install Barrier Wall & Turn Lane	MoDOT- Boone County Susan Ball (573) 884-4751
2008	\$508,000	East Captial Steet Reconstruction	City of Jefferson Johnny Voss (573) 291-1360
2008	\$253,000	Bahner Quarry Rd 3 Span Bridge	Moniteau County Kim Role (573) 338-1549

2008	\$173,000	Industrial Bridge Box Culvert	City of St. James (573) 265-1144
2008	\$1,050,000	Partnership Parkway Street and Box Culvert	Jeff City Chamber of Commerce (573) 634-3616
2008	\$1,650,000	Route 135 MoDOT Bridge over Lamine River	MoDOT - Pettis County Eric Bruss (660) 530-5583
2008	\$250,000	Jefferson City Pipe Bridge	City of Jefferson Eric Seaman (573) 634-6410
2008	\$191,000	Carroll County Bridge	Carroll County Commission (660) 542-2828
2008	\$125,000	Washington Street Storm Sewer Improvement	City of Warrensburg Bob Crumb (680)-747-9135
2008	\$40,000	Holden Street Storm Sewer	City of Warrensburg Bob Crumb (680)-747-9135
2007	\$500,000	Vaughn Subdivision	Kenny Vaughn
2007	\$1,200,000	Hubbard Park CSO Contract 4 Separation of Storm Sewer and Sanitary Sewer	City of Sedalia Bill Beck (660) 827-3000
2007	\$1,100,000	Slater Storm Drainage	City of Slater (660) 529-2456
2007	\$430,000	MoDOT J5S0521/J5S0858 Bridge	Eric Bruss P.E. (660) 530-5583
2007	\$596,000	MoDOT J3S0488 Bridge	Martin D. Lincoln P.E. (573) 581-8320
2007	\$1,450,000	Columbia Regional Airport Construction of Aviation Apron	Kathy Frerking (573) 442-9770
2007	\$505,000	Northeast Interceptor Sewer Warrensburg, MO	City of Warrensburg (660) 747-9135
2007	\$290,000	Pleasant Hill Road Bridge	Moniteau County Kim Role (573) 338-1549
2007	\$191,000	Pettis County Bridge	Pettis County (660) 827-0052
2007	\$50,000	Southwest Village Drainage	City of Sedalia Bill Beck (660) 827-3000
2007	\$875,000	Business 65 Sanitary Sewer	Cliff Jarvis, Engineering Survey and Services
2007	\$2,300,000	Elkhorn Wastewater Treatment Plant	City of Montgomery, MO Russ Burton (573) 808-3236
2007	\$500,000	Benton County Bridge Replacement (3 Span Concrete Girder	Benton County Gale Denison
2007	\$300,000	Morgan County Bridge Replacement (2 span Steel Girder	Morgan County Brian Orr
2006	\$2,800,000	MoDOT J2P0702 BUS 65 Saline County Road Widening, Sanitary and Storm System Improvements	Kurt Wengert (660) 886-2115 Resident Engineer

		Owner: MoDOT Engineer: MoDOT Scope: Road widening, Sanitary and Storm sewer Improvements for approximately 7,000 of Bus. 65 in Marshall, MO.	
2006	\$500,000	Moniteau County Bridge (3 span Concrete Girder)	Moniteau County Tony Barry
2005	\$1,800,000	Hubbard Park CSO Separation Contract No. 2 Sanitary Sewer Improvements Owner: City of Sedalia Engineer: Burns and McDonnell Engineering Scope: Installation of approx. 7,700 LF of Sanitary Sewer main.	City of Sedalia Bill Beck (660) 827-3000
2005	\$275,000	Street Reconstruction - City of Jefferson	Johnny Voss (573) 291-1360
2005	\$180,000	Bridge Replacement - Osage County Linn, MO	Osage County Commission (573) 897-9964
2005	\$147,000	Bridge Replacement - Gasconade County Hermann, MO	Great River Engineering
2005	\$207,000	MoDOT District 4 Lafayette County Rest area sidewalk replacement	Royce Duffett Project Manager
2004	\$960,000	Willcox East High Street Storm/Sanitary Sewer Improvements Owner: City of Jefferson Engineer: City of Jefferson Engineering Scope: Complete reconstruction of East High Street.	Matt Morash Dept Director Engineer John Voss Inspector (573) 291-1360
2004	\$330,000	City of Jamestown water system improvements	Linda Logan (573) 893-5558
2004	\$320,000	Sunset Lake Road and Stormwater Improvements #32076	Matt Morash (573) 634-6410
2004	\$340,000	Boones Landing foundation subcontract	Terry Johnson (503) 559-7415
2004	\$143,000	Aqua Drive Roadway	(573) 302-2042
2004	\$360,000	Sunset Drive 0B04-004 Roadway Improvements	Eric Hildon Archr Engineers (573) 348-3222
2004	\$66,000	North Hickman Sanitary Sewer Extension	City of Centralia
2003	\$420,000	Hidden Meadows Subdivision 3300 LF of street paving and storm water.	Larry Henley (573) 796-2095
2003	\$126,000	Habitat for Humanity Pike and Oregon Development Storm/Sanitary Sewer	CMPS
2003	\$88,280	Osage Hills Road Embankment Stabilization	Harms Engineering
2000-2003	\$400,000	Cooper County Box Culverts and Low water Crossings (Various contracts)	Cooper County
2002	\$540,000	Clarifier #3 Lake Ozark Osage Beach Joint Treatment Facility	Jerry Harms (573) 392-3312
2002	\$196,000	Rock Lane Road and Water Improvements	Engineering Dept.
2002	\$191,000	2nd Street Reconstruction	All State Consultants Chayd Sayre
2002	\$140,000	Heisinger Pedestrian / Bike Trall	MECO Linda Logan
2001	\$225,000	Dude Ranch/Passover Rd - Chemical Feed Facility	Nick Edleman or Shelly Hall City of Osage Beach
2000	\$60,000	Hwy 100 Water and Sewer Relocation	City of Chamois Trabus, Hansen, and Hinshaw

1999	\$195,000	Cole R-5 WWTP	Eugene, MO ESS David Bennet
1999	\$190,000	Proctor Park Sanitary Sewer Ext and Truck Main	City of California Jerry Harms

\$282,619,517

Work in Progress

Year	Project	Owner	Engineer	Value
Start June 2020	Wentzville, MO I-70 and David Hoekel Parkway interchange 211' bridge over NSRR and 109' over I-70	City of Wentzville	Anthony Gambaro	\$12,237,828
Start July 2021	Rte. 136 Atchison County Missouri River Pier Scour Repair at Brownville NE	MoDOT	Maryville Project Office	\$1,984,649
Start Jan-21	Rte. 41 Saline County 412' redeck over UPRR	MoDOT	Marshall Project Office	\$1,294,337
Start Mar-21	Rte. D Greene County 610' Bridge Rehab with 1.75" Latex Overlay	MoDOT	Springfield Project Office	\$965,609
Start Feb 2019	Fountain Grove Conservation Wetland Intake Pump station along Grand River	Missouri Dept of Conservation	Justin Fessler Project Manager	\$8,309,600
Start Sept 2019	Rte. 58/131 Johnson County ADA Improvements	MoDOT	Higginsville Project Office	\$4,911,151
Start Nov 2019	Rte. D - 87' long redeck 1/2 @ time Rte. C - 198' long redeck over Minnow Brook and Deane Creek	MoDOT	Osage Beach Project Office	\$1,521,901
Start July 2019	Rte. M - 373'-6" 3 span Plate Girder Bridge over Lamine River	MoDOT	Columbia Project Office	\$2,277,860
Start May 2020	Rte. K and DD Cooper County 422' Redeck w/ 4 hinge mods over Blackwater River 189' (3) span bridge	MoDOT	Columbia Project Office Aaron Peck	\$2,119,669
Start September 2019	Rte. 248 - 144.5' (3) span bridge over Rally Creek Rte. 76 616' Precast bridge deck over Table Rock Lake	MoDOT	Branson, MO Project Office	\$3,591,920
Start October 2020	Cameron South Orange Street Road Improvements 140' precast box and 400' road const	City of Cameron	Austin Johnson Bartlett and West	\$497,270
Start Dec 2019	David Hoekel Parkway 5109LF of Concrete Pavement and drainage Interstate Drive 2672 LF of concrete and 203' (2) span bridge over Parique Creek	St. Charles County Commission	Craig E. Tajowski	\$4,466,662
Start Jan 2021	87' Single Span Bridge Vernon County	Vernon County Commission	Great River Engineering	\$345,757
Start Feb 2021	Rte. 81 (1) 260' Redeck 1/2 at time over NFSRR and (1) 198' Redeck 1/2 at time over Bear Creek	MoDOT	Hannibal Project Office	\$1,551,090
Start June 2021	Rte. 39 388' Redeck over Stockton Lake in N. of Greenfield, MO	MoDOT	Clinton Project Office	\$852,597
Start April 2021	849' redeck with Hinge Mod over Truman Lake Rte. 83	MoDOT	Clinton Project Office	\$1,822,782

If you have any questions, please contact Kenny Lehman at our office (573) 796-8101 or on his cell (573) 659-1829. Thank You.

SUBCONTRACTOR REQUEST FORMS

COUNTY PROJECT NO. 3202, COUNTY BID NO. PW 09-2020

REQUEST FOR APPROVAL OF SUBCONTRACT

Federal Project Number: BRO-B048 (55)
Route Tarseny Lake Beach Drive
County/City Jackson County
TO: Jackson County - Department of Public Works
(County/City Representative)

We request County/City approval to sublet the items of work listed on the back of this form to:

Subcontractor: _____
Address: _____
Telephone: _____

The Subcontractor is classified:
 Non-DBE
 DBE

By signing below, I certify that the subcontract agreement with the proposed subcontractor includes provisions to comply with all requirements of the contract identified above, and for Federal-aid projects, Form FHWA-1273 has been physically inserted into the subcontract agreement. This request must include a completed DBE Subcontractor Worksheet (Fig 136.11.5), Subcontractor Certification Regarding Affirmative Action form (Fig 136.11.6) and the name, address, and telephone number of the subcontractor's EEO Officer on the subcontractor's letterhead.

Respectfully submitted,

Lehman Construction LLC
(Contractor)

By [Signature] 1-12-21
Date

This portion to be completed by County/City

PREVIOUSLY APPROVED SUBCONTRACTORS

TYPE OF WORK

1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____
6.	_____	_____
7.	_____	_____
8.	_____	_____
9.	_____	_____
10.	_____	_____
11.	_____	_____
12.	_____	_____
13.	_____	_____
14.	_____	_____
15.	_____	_____

COUNTY/CITY APPROVAL

Approval - County/City Representative _____ Date _____

Distribution after approval:
Contractor, County/City Rep.

Subcontractor Number: _____

COUNTY PROJECT NO. 3202, COUNTY BID NO. PW 09-2020

CONTRACTOR'S INSTRUCTIONS FOR FILLING OUT 'REQUEST FOR APPROVAL OF SUBCONTRACT' FORM

FRONT OF FORM

Fill in Federal Project Number, Route, County/City, County/City Representative's Name, Subcontractor's Name, Address and Telephone, Subcontractor Classification, Contractor Signature Block and Date.

Do not write below the double line.

DBE Subcontract Worksheet (Fig. 136.11.5)

List items in the same order as they appear in the contract.

Quantities on the request may be different than in the contract. Partial quantities are acceptable with an explanation. (Put an * by Quantity and an * with explanation listed below item descriptions.)

The Unit Price on a request may be less than the unit price stated in the contract. (Put an * by unit price and an * with explanation listed below item descriptions.)

Use the following table to determine in what column to place the subcontracted amounts:

	Sublet Amount -----	DBE Allowance -----
<u>Without DBE Requirements in Project:</u>		
Non-DBE sub doing work:	Yes	No
DBE sub doing work:	Yes	No
<u>With DBE Requirements in Project:</u>		
Non-DBE sub doing work:	Yes	No
DBE sub doing work:	No	Yes

Fill in the column Totals, then STOP. Do not write below the double line.

For subcontractors in excess of \$10,000.00, submit the proposed subcontractors completed Certification Regarding Equal Opportunity and Affirmative Action (Fig 136.11.6) in Subcontracting with this request.

Does the proposed subcontractor have the proper insurance submitted? If not, the request cannot be approved.

Ensure that Form FHWA-1273 is physically inserted into every subcontract agreement.

Item No.	Description	Quantity	Unit Price	Amount Sublet	Amount DBE-Allowance
Totals				a.	
This portion to be completed by County/City					
Original Contract Amount = X=\$ _____		<u>Previous Total</u>			
Contract DBE Goal = Y= _____ %		<u>Total to Date</u>		b.	c.
Percent Sublet this Request = $a/X * 100 =$ _____ %		Minimum DBE Allowance = $d = X * Y =$		d.	
Total sublet to Date = $(b + c)/X * 100$					

Fig. 136.11.5

Sub-agreement between Prime Contractor and Subcontractor

The sub-agreement must have the Form FHWA-1273 physically inserted into it.

SUBCONTRACTOR CERTIFICATION REGARDING AFFIRMATIVE ACTION

Project: Bridge Replacement
Job No.: BRO-B048 (55)
Route: Tarsney Lake Beach Drive
County: Jackson County, MO

Certification Regarding Affirmative Action and Equal Opportunity: The bidder (prospective prime contractor) or proposed subcontractor certifies:

1. Affirmative Action Program: That it has developed and has on file at each of its establishments affirmative action programs pursuant to 41 CFR Part 60-2.
2. Equal Opportunity Clause: That it has participated in a previous contract or subcontract subject to the equal opportunity clause set forth in 41 CFR Part 69-1.4 and executive order no. 11246.
3. Compliance Reports: That it has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance Programs and his designate, or the Equal Employment Opportunity Commission, all reports due under the applicable filing requirements contained in 41 CFR Part 60-1.

If the text of the certification above is incorrect, the bidder or subcontractor making the certification shall correct it below:

NOTE: This certification applies to and must be executed by each bidder (prospective prime contractor) or proposed subcontractor if its proposed contract or subcontract on this project will equal or exceed \$10,000 or that contractor or subcontractor has contracts or subcontracts on federally assisted projects in any 12-month period which have or can reasonably be expected to have, an aggregate total value exceeding \$10,000 41 CFR Part 60-1.5(a)(1). It is a duty and contract obligation of the prime contractor to insure that each of its subcontractors, which meet this criterion, executes and submits to the commission this certification also.

Lehman Construction LLC
Company

By: [Signature]

MANAGING MEMBER
Title

Date: 1/12/21

<Sample Letter>

Current Date

Name

Address

City, State Zip

Dear _____

This is to advise you that in addition to other company duties, you have been appointed EEO Officer for this company. You will be expected to enforce the company's policies and to receive any complaints regarding EEO matters.

<Company> gives you the authority to implement the EEO Policy and to take affirmative action as needed.

Sincerely,

Company Official

Notification to EEO Officer

**DBE IDENTIFICATION
SUBMITTAL, FORMS 136.9.9**

DBE Submittal Forms

(6) **DBE Submittal Forms:** This form must be submitted by 4 p.m. three (3) business days after bid opening.

(A) **DBE Contract Goal:** By submitting this bid, the bidder certifies that the bidder is familiar with the DBE Program Requirements in this contract. The contract DBE goal for the amount of work to be awarded is 12% of the total federal project price. The bidder shall also complete the DBE Submittal Form in accordance with the program requirements.

(B) **DBE Participation:** The bidder certifies that it will utilize DBE's as follows:

12 % OF TOTAL FEDERAL CONTRACT

NOTE: Bidder must fill in the above blank. If no percentage is specified, the bidder certifies that it agrees to, and will comply with the contract goal. If a percentage below the contract goal is specified, then the bidder must submit complete documentation of good faith efforts to meet the DBE contract goal, immediately below.

(C) **Certification of Good Faith Efforts to Obtain DBE Participation:** By submitting its signed bid, the bidder certifies under penalty of perjury and other provisions of law, that the bidder took each of the following steps to try to obtain sufficient DBE participation to achieve the Commission's proposed DBE Contract Goal: (Attach additional sheets if necessary).

DBE Identification Submittal Form (For Local Program Agency (LPA) Projects)

Job Number: _____

Route: _____

County: _____

Prime Contractor: _____

Contract Amount: _____

Identification of Participating DBE's: Provide the requested information below for each DBE participating on the project. Submit this information with your bid or to _____ no later than 4:00 p.m. on the 3rd working day after the bid opening. Fax or e-mail transmittal is permitted. The fax number is _____ N/A _____ and the e-mail address for submittal is meblen@mecresults.com. Contact MoDOT's External Civil Rights Division (ECR) at (573) 526-2978 for questions and assistance on completion. **This page of this document must be received for each DBE utilized on the project.**

All information must be provided.

If awarded the contract for this project, the undersigned will use the following DBE to perform or furnish the work, supplies, and/or services as shown below:

DBE Name: _____ Address: _____

(A) Line No.	(B) Dollar Value of DBE Work** (Unit Price x Quantity of the Item in (A), or Lump Sum)	(C) Dollar value applicable to DBE Goal** (100%, 60%)	(D) Dollar amount applicable to DBE Goal (B x C)	(E) Percent of total contract amount for line item (D / total contract amount)	Add or Remove Lines
					- +
					- +
					- +
					- +
					- +
					- +
					- +
					- +
					- +
					- +
DBE Total:				Total %	- +

**Cannot exceed contract amount for given item of work
 Trucking services credited at 100% if the DBE owns the trucks or is leasing from a DBE firm
 Allowed amount of participation will be in accordance with 49 CFR Part 26.
 Brokered services will only receive credit for fees.

Respectfully submitted:

Lehman Construction LLC
 Company Name (Prime Contractor)

KENNY LEHMAN / MANAGING MEMBER
 Name / Title


 Signed (Prime Contractor)

**Instructions for Completing the
DBE Identification Submittal Form
(For Local Program Agency (LPA) Projects)
(ECR-101)**

Submit this form with your bid or as outlined on front of page no later than 4:00 p.m. on the 3rd working day after the bid opening. Only DBE's listed on MoDOT's Missouri Regional Certification Committee (MRCC) directory may be used towards obtaining the DBE goal on the project. DBE firm must be certified with the appropriate North American Industrial Classification System (NAICS) code for the type of work being utilized to perform. The MRCC directory is available at the following link under the MRCC Directory tab: [HTTP://www.modot.org/welcome-external-civil-rights](http://www.modot.org/welcome-external-civil-rights)

- (A) Insert Bid Line Item in the same order as it appears in the bid document.
- (B) Insert the result from multiplying the unit price for the bid line item by the quantities listed in column (A); a lump sum, if applicable, may also be inserted.
- (C) Insert the percentage of column (B) that the DBE will perform. If the DBE is a supplier as that term is defined in 49 CFR Part 26.55, then only 60% of the value in column (B) can be applied towards the contract specific goal. If the DBE is furnishing and installing the line item, then 100% of the value can be applied.
- (D) Insert the result from dividing columns (B) and (C).
- (E) Insert the result from dividing column (D) from the total bid line item amount.

DBE PROVISIONS 136.9.8

**DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM REQUIREMENTS
FOR LOCAL PROGRAMS**

1.0 Disadvantaged Business Enterprise (DBE) Program Requirements. The subsequent Sections will apply only to contracts involving U.S. Department of Transportation (USDOT) federal-aid or federal financial participation. Federal-aid or federal financial participation includes, but is not limited to, any funds directly or indirectly received by MoDOT, or authorized for distribution to or through MoDOT, by the USDOT or any operating administration within the USDOT. These provisions will not apply to Commission contracts funded exclusively with state funds, or state and local funds. Any contractor, subcontractor, supplier, DBE firm, and contract surety involved in the performance of a federal-aid contract shall be aware of and fully understand the terms and conditions of the USDOT DBE Program, as the terms appear in Title 49 CFR Part 26 (as amended), the USDOT DBE Program regulations; Title 7 CSR Division 10, Chapter 8 (as amended), the Commission's DBE Program rules.

2.0 DBE Program Distinguished From Other Affirmative Action Programs. The USDOT DBE Program established by the U.S. Congress is not the same as, and does not involve or utilize, any of the elements or authority of other state or local affirmative action programs, nor does the program rely upon state legislation or gubernatorial executive orders for implementation or authorization, other than the general authority given the Commission in Section 226.150, RSMo. The USDOT DBE Program is implemented by the Commission and MoDOT, through and in conjunction with the FHWA, FTA and FAA, as a "recipient" defined in Title 49 CFR 26.5.

3.0 Policy Regarding DBE Firms. It is the policy of the U. S. Department of Transportation and MoDOT that businesses owned by socially and economically disadvantaged individuals have an opportunity to participate in the performance of contracts financed in whole or in part with federal funds. Consequently, the requirements of 49 CFR Part 26 (as amended) and the Commission's implementing state regulations in Title 7 CSR Division 10, Chapter 8, "Disadvantaged Business Enterprise Program", will apply to any contract with federal funds.

4.0 Opportunity for DBEs to Participate. Each contractor, subcontractor and supplier working on a contract financed in whole or in part with federal funds shall take all necessary and reasonable steps to ensure that DBEs have an opportunity to compete for, and participate in performance on project contracts and subcontracts.

5.0 Required Contract Provision. The federal-aid contract will include the following provision, as mandated by USDOT at Title 49 CFR 26.13(b):

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

In this provision, "contractor" will be defined as the contractor on the contract; "subrecipient" will be defined as any subcontractor performing the work. For the purposes of any federal-aid contract awarded by the Commission, "the recipient" will be defined as either the Commission, or MoDOT, or both. The contractor shall include this same contract provision in every supply contract or subcontract the contractor makes or executes with a subrecipient.

6.0 Bank Services. The contractor, and each subrecipient on a federal-aid contract, is encouraged to use the services of banks owned and controlled by socially and economically disadvantaged individuals. Such banking services, and the fees charged for services, typically will not be eligible for DBE Program contract goal credit. Any questions on this subject should be directed to the MoDOT External Civil Rights Director. See Sec 7.0.

7.0 DBE Program Information. DBE Program information may be obtained from the MoDOT External Civil Rights Director, P.O. Box 270, Jefferson City, Missouri 65102-0270. Phone (573) 751-4309, Fax (573) 526-0558, E-Mail: dbes@modot.mo.gov. It will be the duty of each contractor, for the contractor and for the contractor's subrecipients and surety, to take the steps necessary to determine the legal obligations and limitations under the DBE Program, as an element of responsibility. It will be the duty of each certified DBE firm to know, understand and comply with the DBE firm's legal obligations and limitations under the DBE Program, as a requirement of program participation. A surety providing a bid or contract bond will be bound by those bonds to the duties of the surety's principal.

8.0 DBE Certification, and the Missouri Unified Certification Program. The Missouri Department of Transportation and other certifying agencies within Missouri have partnered to form the Missouri Regional Certification Committee (MRCC) and developed a Unified Certification Program (UCP) pursuant to 49 CFR 26.81 and 7 CSR 10-8.061. Only DBE firms certified by the MRCC are eligible to perform work on a federal-aid contract for DBE contract goal credit. It is the contractor's responsibility to ensure firms identified for participation are approved certified DBE firms.

The MRCC DBE Directory can be found at the following link: http://www.modot.mo.gov/business/contractor_resources/External_Civil_Rights/DBE_program.htm

9.0 DBE Program-Related Certifications Made By Bidders and Contractors. If the bidder makes a written, express disclaimer of one or more certifications or assurances in the bid, the bid will be considered non-responsive. By submitting a bid on any call involving USDOT federal financial participation, and by entering into any contract on the basis of that bid, the contractor makes each of the following DBE Program-related certifications and assurances to USDOT, to the Commission, and to MoDOT:

(a) The bidder certifies that management and bidding officers have reviewed and understand the bidding and project construction and administration obligations of the USDOT DBE Program regulations at Title 49 CFR Part 26 (as amended), the USDOT DBE Program regulations; Title 7 CSR Division 10, Chapter 8 (as amended), and the Commission's DBE Program rules. The bidder further certifies that the contractors management personnel on the

project understand and are familiar with the requirements of these federal and state DBE Program regulations; and if the bidder was not familiar with or did not understand the requirements of these regulations, they have contacted the External Civil Rights Division of MoDOT and have been informed as to their duties and obligations under the DBE Program regulations by MoDOT staff and/or by USDOT DBE Program staff.

(b) The bidder certifies that the bidder has complied with the federal and state DBE Program requirements in submitting the bid, and will comply fully with these requirements in performing any federal-aid contract awarded on the basis of that bid.

(c) The bidder agrees to ensure that certified DBE firms have a full and fair opportunity to participate in the performance of the contract financed in whole or in part with federal funds. The bidder certifies that all necessary and reasonable steps were taken to ensure that DBE firms have an opportunity to compete for, and perform work on the contract. The bidder further certifies that the bidder not discriminate on the basis of race, color, age, national origin or sex in the performance of the contract, or in the award of any subcontract.

(d) The bidder certifies, under penalty of perjury and other applicable penal laws that if awarded the federal-aid contract, the contractor will make a good faith effort to utilize certified DBE firms to perform DBE work at or above the amount or percentage of the dollar value specified in the bidding documents. The bidder further certifies the bidder's understanding that the bidder may not unilaterally terminate, substitute for, or replace any DBE firm that was designated in the executed contract, in whole or in any part, with another DBE, any non-DBE firm or with the contractor's own forces or those of an affiliate of the contractor, without the prior written consent of MoDOT as set out below.

(e) The bidder certifies, under penalty of perjury and other applicable penal laws that a good faith effort was made to obtain DBE participation in the contract, at or above the DBE participation contract goal. The bidder further certifies, under penalty of perjury and other applicable penal laws, that if the bidder is not able to meet the Commission's DBE contract goal, and if the bidder is not able to meet that DBE contract goal by the time the proposed DBE participation information must be submitted, within three business days after bid opening, the bidder has submitted with and as a part of the bid, a true, accurate, complete and detailed written explanation of good faith efforts to meet the DBE Contract Goal.

(f) The bidder understands and agrees that if awarded the contract the contractor is legally responsible to ensure that the contractor and each DBE subcontractor and supplier, comply fully with all regulatory and contractual requirements of the USDOT DBE Program, and that each DBE firm participating in the contract fully perform the designated tasks, with the DBE's own forces and equipment, under the DBE's own direct supervision and management. The bidder certifies, under penalty of perjury and other applicable penal laws, that if it awarded the contract and if MoDOT or the Commission determine that the contractor, a DBE or any other firm retained by the contractor has failed to comply with the DBE Program requirements or federal or state DBE Program regulations, the Commission, through MoDOT, shall have the sole authority and

discretion to determine the extent of the monetary value to which the DBE contract goals have not been met, and to assess against and withhold monetary damages from the contractor in the full amount of that breach. The Commission, through MoDOT, may impose any other remedies available at law or provided in the contract in the event of a contract breach. The bidder further understands and agrees that this clause authorizes the Commission, through MoDOT, to determine and fix the extent of the damages caused by a breach of any contractual or regulatory DBE Program requirement and that the damage assessment will be enforced in addition to, and not in lieu of, any other general liquidated damages clause in the contract. By submitting a bid for a federal-aid contract, and by entering into a contract, the bidder irrevocably agrees to such an assessment of liquidated damages for DBE Program purposes, and authorizes the Commission and MoDOT to make such an assessment of liquidated damages against the contractor, and to collect that assessment from any sums due the contractor under the contract, or any other contract, or by other legal process. The bidder makes this certification, agreement and authorization on behalf of itself, its subcontractors and suppliers, and the bid bond and contract bond sureties, for each federal-aid contract.

(g) The surety upon any bid or contract bond acknowledges the surety is held and firmly bound to the Local Agency for each and every duty of the surety's principal provided in any bid or contract regarding the DBE program.

10.0 Designation of DBE firms to perform on contract The bidder states and certifies, under penalty of perjury or other applicable penal laws, that the DBE participation information submitted in the bid or within the stated time thereafter is true, correct and complete and that the information provided includes the names of all DBE firms that will participate in the contract, the specific line item (s) that each DBE firm will perform, and the creditable dollar amounts of the participation of each DBE. The specific line item must reference the MoDOT line number and item number contained in the proposal. The bidder further states and certifies that the bidder has committed to use each DBE firm listed for the work shown to meet the DBE contract goal and that each DBE firm listed has clearly confirmed that the DBE firm will participate in and perform the work, with the DBE's own forces. Award of the contract will be conditioned upon meeting these and other listed requirements of 49 CFR 26.53.

(a) The bidder certifies the bidder's understanding that as the contractor on a contract funded in whole or in part by USDOT federal funds, the bidder may not unilaterally terminate, substitute for, or replace any DBE firm that was designated in the executed contract, in whole or in any part, with another DBE, any non-DBE firm or with the contractor's own forces or those of an affiliate, without the prior written consent of MoDOT. The bidder understands it must receive approval in writing from MoDOT for the termination of a DBE firm, or the substitution or replacement of a DBE before any substitute or replacement firm may begin work on the project in lieu of the DBE firm participation information listed in the executed contract,

(1) The bidder further certifies understanding, that if a DBE firm listed in the bid or approved in the executed contract documents ceases to be certified at any time during the performance of the contract work, and a contract or subcontract with that firm has not yet been

executed by the prime and subcontractor, the contractor cannot count any work performed by that firm after the date of the firm's loss of eligibility toward meeting the DBE contract goal. However, if the contractor has executed a subcontract with the firm before the DBE lost eligibility and ceased to be a certified DBE, the contractor may continue to receive credit toward the DBE contract goal for that firm's work.

(2) The bidder further certifies understanding, that if a DBE subcontractor is terminated, or fails, refuses or is unable to complete the work on the contract for any reason, the contractor must promptly request authority to substitute or replace that firm. The request shall include written documentation that the DBE firm is unwilling or unable to perform the specified contract work. The contractor shall make good faith efforts to find another DBE subcontractor to substitute or replace the dollar amount of the work that was to have been performed by the DBE firm. The good faith efforts shall be directed at finding another DBE to perform the same, or more, dollar amount of work that the DBE firm that was terminated was to have performed under the executed contract. The substitute or replacement DBE firm may be retained to perform the same or different contract work from that which the terminated firm was to have performed. The contractor shall obtain approval from MoDOT in writing before the replacement or termination of one firm with another before the work will count toward the project DBE goal.

(3) The bidder further certifies the bidder's understanding, that the dollar value of any work completed by a DBE firm prior to approval of the DBE's substitution or replacement, in writing, by MoDOT will not be credited toward meeting the DBE contract goal. The contractor will remain subject to appropriate administrative remedies, including but not limited to, liquidated damages for the full dollar amount that the DBE contract goal is not met. Liquidated damages will also be assessed against the contractor if the original, substitute or replacement DBE firms perform the required contract work, but are not paid in full for some or all of that work by the contractor, including back charges. No credit toward the DBE goal will be given for any amount withheld from payment to the DBE or "back charged" against monies owed to the DBE, regardless of the purpose or asserted debt.

11.0 Good Faith Effort to Secure DBE Services. The bidder shall make a good faith effort to seek DBEs in a reasonable geographic area to where the solicitation for subcontracts and material is made. If the bidder cannot meet the goals using DBEs from that geographic area, the bidder shall, as a part of the effort to meet the goal, expand the search to a wider geographic area.

11.1 Bidding Procedure. The following bidding procedure shall apply to the contract, for DBE program compliance purposes.

11.2 Contract Goal, Good Faith Efforts Specified. The bidder may submit the completed "DBE Identification Submittal" information in the bid documents at the same time as, and within the sealed bid, at the time the bid is submitted. However, if that information is not completed and submitted with the initial sealed bid, then as a matter of responsiveness and responsibility, the apparent low and second low bidder shall file the completed "DBE Identification Submittal" pages to the Local Agency on or before 4:00 p.m. of the third business day after the bid opening date.

The Local Agency may permit telefax transmittal. The complete and signed original documents shall be mailed to the Local Agency no later than the day of the telefax transmission. No extension of time will be allowed for any reason. The means of transmittal and the risk of timely receipt of the information shall be the bidder's.

The bidder is responsible to ensure that all submittals are checked for accuracy. Any and all omissions, deletions, and/or errors that may affect the end result of the bid package are the sole liabilities of the bidders. The bid may be found non-responsive if the submittal is not complete and/or accurate.

11.3 Bid Rejection, Bid Security Disposition. The failure of either the apparent low bidder or the second low bidder to file the completed and executed "DBE Identification Submittal", listing actual, committed DBE participation equal to or greater than the DBE contract goal percentage specified in the bid by 4:00 p.m. on the third business day after the bid opening, will be cause for rejection of that bid, and the bid surety bond or bid guaranty of that bidder will be forfeited to and become the property of the Local Agency upon demand.

(a) Any bidder rejected for failure to submit the completed and executed "DBE Identification Submittal" information in the bidding documents, with full documentation of sufficient DBE participation to satisfy the DBE contract goal cannot submit a bid on the same, or substantially similar, project, when and if the project is re-advertised for bids. By submitting a bid on a federal-aid project, the bidder accepts and agrees to this provision, and the disposition of the bidders bid bond or guaranty, on behalf of the bidder and the bidders bid surety or guaranty.

(b) The surety separately acknowledges the surety to be held and firmly bound to the Local Agency to immediately upon demand pay the face amount of the bid bond.

11.4 Good Faith Efforts Described. Good faith efforts to meet the DBE contract goal may include, but are not limited to, the following:

(a) Attending a pre-bid meeting, if any, scheduled by the department to inform DBEs of contracting and subcontracting opportunities;

(b) Advertising in general circulation trade association and socially and economically disadvantaged business directed media concerning subcontracting opportunities.

(c) Providing written notice to a reasonable number of specific DBEs so that the DBE's interest in the contract are solicited in sufficient time to allow the firm to participate effectively;

(d) Following-up on initial written notice or solicitations of interest by contacting DBEs to determine with certainty whether the DBEs were interested.

(e) Maintaining documentation of responses received in the effort to solicit DBE participation.

(f) Selecting portions of work to be performed by DBEs to increase the likelihood of meeting the DBE goal, including, where appropriate, breaking down contracts into economically feasible units to facilitate DBE participation.

(g) Providing interested DBEs adequate information about plans, specifications and requirements of the contract.

(h) Negotiating in good faith with interested DBEs, not rejecting DBEs as unqualified without sound business reasons based on a thorough investigation of the DBE's capabilities.

(i) Making efforts to assist interested DBEs in obtaining bonding, lines of credit or insurance required by the Local Agency or by the bidder.

(j) Making effective use of available disadvantaged business organizations, minority bidders' groups, local, state and federal disadvantaged business assistance offices, MoDOT and other organizations that provide assistance in the recruitment and placement of DBEs.

11.5 Documentation, and Administrative Reconsideration of the Bidder's Good Faith Efforts. In the bidding documents, the bidder has the opportunity and responsibility to provide certified written documentation as to whether the bidder made a good faith effort to meet the DBE contract goal as proposed by MoDOT. Any bidder that has not met the Commission's proposed DBE contract goal at the time of bid opening must submit the completed "Certification of Good Faith Efforts to Obtain DBE Participation". The certification should be included in the bidding documents, fully and in detail, at the time its sealed bid is submitted, however, if that information is not completed and submitted with the initial sealed bid, the bidder must submit the documentation to the Local Agency on or before 4:00 p.m. of the third business day after the bid opening date. The Local Agency may permit telefax transmittal. The complete and signed original documents shall be mailed to the Local Agency no later than the day of the telefax transmission. No extension of time will be allowed for any reason. The means of transmittal and the risk of timely receipt of the information shall be the bidder's responsibility. The bidder shall attach additional pages to the certification, if necessary, in order to fully detail specific good faith efforts made to obtain certified DBE firm participation in the proposed contract work. If the apparent low bidder appears to have failed to adequately document in the bid that the bidder made a good faith effort to achieve sufficient DBE participation in the contract work, that firm will be offered the opportunity for administrative reconsideration upon written request, before the Local Agency and MoDOT reject that bid as non-responsive. However, regardless of the DBE contract goal participation level proposed by the bidder, or the extent of good faith efforts shown, the apparent low and second low bidders shall each timely and separately file their completed and executed "DBE Identification Submittal" or face potential sanctions and the bid bond or guaranty, as specified in Sec 10.0 of these provisions may become the property of the Local Agency subject to the Local Agency's demand.

12.0 DBE Participation for Contract Goal Credit. DBE participation on the contract will count toward meeting the DBE contract goal as follows:

(a) The applicable percentage of the total dollar value of the contract or subcontract awarded to the DBE will be counted toward meeting the DBE contract goal, only if that firm is certified by the MRCC as a DBE at the time the contract or subcontract is executed, and only for the value of the work, goods or services that are actually performed, or provided, by the DBE firm itself.

(b) When a DBE performs work as a participant in a joint venture, the contractor may count toward the DBE goal only that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the contract work that the DBE has performed with the DBE's own forces. The MoDOT External Civil Rights Director shall be contacted in advance regarding any joint venture involving both a DBE firm and a non-DBE firm to review and approve the contractor's organizational structure and proposed operation. When a DBE subcontracts part of the work of the contract to another firm, the value of that subcontracted work may be counted toward the DBE contract goal only if the DBE's subcontractor at a lower tier is a MoDOT certified DBE. Work that a DBE subcontracts to a non-DBE firm will not count toward the DBE contract goal. The cost of supplies and equipment a DBE subcontractor purchases or leases from the prime contractor or the prime's affiliated firms, or from another non-DBE subcontractor, will not count toward the DBE contract goal.

(c) The contractor may count expenditures to a DBE subrecipient toward the DBE contract goal only if the DBE performs a commercially useful function (CUF) on that contract.

(d) A contractor may not count the participation of a DBE subcontractor toward the contractor's final compliance with the contractor's DBE contract goal obligations until the amount being counted has actually been paid to the DBE. A contractor may count 60 percent of the contractor's expenditures actually paid for material and supplies obtained from a DBE certified by MoDOT as a regular dealer, and 100 percent of such expenditures actually paid for materials and supplies obtained from a certified DBE manufacturer.

(1) A regular dealer will be defined as a firm that owns, operates, or maintains a store, warehouse or other establishment in which the material, supplies, articles or equipment required and used under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the DBE firm shall be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions will not be considered regular dealers.

(2) A DBE firm may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt, without owning, operating or maintaining a place of business where it keeps such items in stock, if the DBE both owns and operates distribution equipment for the products it sells and provides for the contract work. Any supplementation of a regular dealer's own distribution equipment shall be by a long-term lease agreement, and not on an ad hoc or contract-by-contract basis.

(3) If a DBE regular dealer is used for DBE contract goal credit, no additional credit will be given for hauling or delivery to the project site goods or materials sold by that DBE regular

dealer. Those delivery costs shall be deemed included in the price charged for the goods or materials by the regular dealer, who shall be responsible for their distribution.

(4) A manufacturer will be defined as a firm that operates or maintains a factory or establishment that produces on the premises, the material, supplies, articles or equipment required under the contract and of the general character described by the project specifications. A manufacturer will include firms that produce finished goods or products from raw or unfinished material, or that purchases and substantially alters goods and materials to make them suitable for construction use before reselling them.

(e) A contractor may count toward the DBE contract goal the following expenditures to certified DBE firms that are not "regular dealers" or "manufacturers" for DBE program purposes:

(1) The contractor may count toward the DBE contract goal the entire amount of fees or commissions charged by a certified DBE firm for providing a bona fide service, such as professional, technical, consultant or managerial services, or for providing bonds or insurance specifically required for the performance of the federal-aid contract, if the fee is reasonable and not excessive, compared with fees customarily charged for similar services.

(2) The contractor may count toward the DBE contract goal the entire amount of that portion of the construction contract that is performed by the DBE's own forces and equipment, under the DBE's supervision. This includes the cost of supplies and material ordered and paid for by the DBE for contract work, including supplies purchased or equipment leased by the DBE except supplies and equipment a DBE subcontractor purchases or leases from the prime contractor or its affiliates.

(f) A contractor may count toward the DBE contract goal 100 percent of the fees paid to a certified DBE trucker or hauler for delivery of material and supplies required on a job site, but not for the cost of those materials or supplies themselves, or for the removal or relocation of excess material from or at the job site, when the DBE certified trucking company is not also the manufacturer of or a regular dealer in those material and supplies, provided that the trucking or hauling fee is determined by MoDOT to be reasonable as compared with fees customarily charged by non-DBE firms for similar services. The certified DBE trucking firm shall also perform a CUF on the project and not operate merely as a pass through for the purposes of gaining credit toward the contract DBE goal. Prior to submitting a bid, the contractor shall determine, or contact the MoDOT External Civil Rights Director for assistance in determining, whether a DBE trucking firm will meet the criteria for performing a CUF on the project.

(g) The contractor will receive DBE contract goal credit for the fees or commissions charged by and paid to a DBE broker who arranges or expedites sales, leases or other project work or service arrangements, provided that those fees are determined by MoDOT to be reasonable and not excessive, as compared with fees customarily charged by non-DBE firms for similar services. A broker will be defined as a person or firm that does not own or operate the delivery equipment necessary to transport materials, supplies or equipment to or from a job site; a broker typically will not purchase or pay for the material, supplies or equipment, and if the broker does purchase or pay for those items, those costs will be reimbursed in full. In most instances, the broker is merely the

entity making arrangements for delivery of material, supplies, equipment, or arranging project services. To receive DBE contract goal credit, MoDOT must determine that the DBE broker has performed a CUF in providing the contract work or service.

13.0 Performing a Commercially Useful Function (CUF). No credit toward the DBE contract goal will be allowed for contract payments or expenditures to a DBE firm, if that DBE firm does not perform a CUF on that contract. A DBE performs a CUF when the DBE is solely responsible for execution of a distinct element of the contract work, and the DBE actually performs, manages and supervises the work involved with the firm's own forces. To perform a CUF, the DBE alone shall be responsible, and alone must bear the risk, for the material and supplies used on the contract, selecting a supplier or dealer from those available, negotiating price, determining quality and quantity, ordering the material and supplies, installing those materials with the DBE's own forces and equipment and paying for those materials and supplies. The amount the DBE firm is to be paid under the contract shall be commensurate with the work the DBE actually performs and the DBE credit claimed for the DBE's performance.

13.1 Contractor's Obligation to Monitor CUF Performance. It shall be solely the contractor's responsibility to ensure that all DBE firms perform a CUF. Further, the contractor is responsible to, and shall ensure that each DBE firm fully performs the DBE's designated tasks, with the DBE's own forces and equipment, under the DBE's own direct supervision and management. MoDOT is under no obligation to warn the contractor that a DBE's participation may not count toward the goal, other than through official notification with an opportunity for administrative reconsideration at the conclusion of the contract work.

13.2 DBEs Must Perform a Useful and Necessary Role in Contract Completion. A DBE does not perform a commercially useful function if the DBE's role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

13.3 DBEs Must Perform The Contract Work With Their Own Workforces. If a DBE does not perform and exercise responsibility for at least 30 percent of the total cost of the DBE's contract with the DBE's own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, MoDOT will presume that the DBE is not performing a commercially useful function.

13.4 Factors Used to Determine if a DBE Trucking Firm is Performing a CUF. The following factors will be used to determine whether a DBE trucking company is performing a commercially useful function (CUF):

(a) To perform a CUF, the DBE trucking firm shall be completely responsible for the management and supervision of the entire trucking operation that the DBE is being paid for on the contract work. There shall not be contrived arrangement, including but not limited to, any arrangement that would not customarily exist under regular construction project subcontracting practices for the purpose of meeting the DBE contract goal.

(b) The DBE must own and operate at least one fully licensed, insured and operational truck used in performance of the contract work. This does not include a supervisor's pickup truck or a similar vehicle that is not suitable for hauling the necessary materials or supplies.

(c) The DBE receives 100 percent contract goal credit for the total reasonable amount the DBE is paid for the transportation services provided on the contract using trucks the DBE owns, insures and operates, using drivers that the DBE employs.

(d) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE firm that leases trucks from another DBE will receive credit for the total fair market value actually paid for of the transportation services the lessee DBE firm provides on the contract.

(e) The DBE may also lease trucks from a non-DBE firm, including an owner-operator. However, the DBE who leases trucks from a non-DBE is entitled to DBE contract goal credit only for the brokerage fee or commission the DBE receives as a result of the lease arrangement. The DBE will not receive credit for the total value of the transportation services provided by the non-DBE lessee. Furthermore, no DBE contract goal credit will be allowed, even for brokerage fees or commissions, where the DBE leases the trucks from the contractor on the project or a firm owned, controlled by, or affiliated by ownership or control to, the contractor.

(f) For purposes of this section, the lease shall indicate that the DBE firm leasing the truck has exclusive use of and control over the truck. This will not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, provided the lease gives the DBE absolute priority for and control over the use of the leased truck. Leased trucks shall display the name and identification number of the DBE firm that has leased the truck at all times during the life of that lease.

13.5 MoDOT Makes Final Determination On Whether a CUF Is Performed. MoDOT and the Commission will have the final authority to determine whether a DBE firm has performed a CUF on a federal-aid contract. To determine whether a DBE is performing or has performed a CUF, MoDOT will evaluate the amount of work subcontracted by that DBE firm or performed by other firms, and the other firms' forces and equipment. Any DBE work performed by the contractor, or by employees or equipment of the contractor will be subject to disallowance under the DBE Program, unless the independent validity and need is demonstrated.

14.0 Use of Joint Checks

Request for joint checks must be made to MoDOT by the contractor. Prior approval must be given before the use of joint checks is allowed. Contact External Civil Rights Division at 573-751-4309 or dbes@modot.mo.gov to request a Joint Check Request Form.

15.0 Verification of DBE Participation, Liquidated Damages.

15.1 Prior to final payment by the Local Agency, the contractor shall file with the Local Agency a detailed list showing each DBE used on the contract work, and the work performed by each DBE. The list shall show the actual dollar amount paid to each DBE for the creditable work on the contract, less any rebates, kickbacks, deductions, withholdings or other repayments made. The list shall be certified under penalty of perjury, or other law, to be accurate and complete. MoDOT and the Commission will use this certification and other information available to determine if the contractor and the contractor's DBEs satisfied the DBE contract goal percentage specified in the

contract and the extent to which the DBEs were fully paid for that work. The contractor shall acknowledge, by the act of filing the detailed list, that the information is supplied to obtain payment regarding a federal participation contract.

15.2 Failure on the part of the contractor to achieve the DBE participation to which the contractor committed in the contract may result in liquidated damages being imposed on the contractor by the Commission for breach of contract and for non-compliance. If the contract was awarded with less than the original DBE contract goal proposed by the Commission, the revised lower amount shall become the final DBE contract goal, and that goal will be used to determine any liquidated damages to be assessed. Additionally, the Commission or MoDOT may impose any other administrative sanctions or remedies available at law or provided by the contract in the event of breach by the contractor by failing to satisfy the contractor's DBE contract goal commitment. However, no liquidated damages will be assessed, and no other administrative sanctions or remedies will be imposed when, for reasons beyond the control of the contractor and despite the good faith efforts made by the contractor, the final DBE contract goal participation percentage was not achieved. The contractor will be offered the opportunity for administrative reconsideration of any assessment of liquidated damages, upon written request. The administrative reconsideration officer may consider all facts presented, including the legitimacy or business reason for back charges assessed against a DBE firm, in determining the final amount of liquidated damages.

16.0 Prompt Payment Requirements. In accordance with Title 49 CFR 26.29, the contractor shall comply with the prompt payment requirements of that regulation, Section 34.057, RSMo., the provisions of the Commission's rule 7 CSR 10-8.111 and the contract. By bidding on a federal-aid contract, and by accepting and executing that contract, the contractor agrees to assume these contractual obligations, and to bind the contractor's subrecipients contractually to those prompt payment requirements at the contractor's expense.

17.0 Miscellaneous DBE Program Requirements. In accordance with Title 49 CFR Part 26 and the Commission's DBE Program rules in Title 7 CSR Division 10, Chapter 8, the contractor, for both the contractor and for the contractor's subcontractors and suppliers, whether DBE firms or not, shall commit to comply fully with the auditing, record keeping, confidentiality, cooperation and anti-intimidation or retaliation provisions contained in those federal and state DBE Program regulations. By bidding on a federal-aid contract, and by accepting and executing that contract, the contractor agrees to assume these contractual obligations, and to bind the contractor's subrecipients contractually, at the contractor's expense.

BRIDGE REPLACEMENT BRO-B048(55) ON TARSNEY LAKE BEACH DRIVE
COUNTY PROJECT 3202 COUNTY BID NO. PW-09-2020

ADDENDUM NO. 1
Dated January 8, 2021

Each bidder shall note these revisions to the Bidding Documents and incorporate these revisions in their bid. Each bidder shall acknowledge receipt of this addendum in the Bid Form of the Bidding Documents.

This addendum consists of this page and the following revisions:

1. RESPONSE TO BIDDERS QUESTIONS

Phone call questions from bidders relating to the Contract:

1-1. **Question:** *Can recycled material be used in the asphalt mix?*

Answer: The County allows for 30% reclaimed asphalt in the APWA Type 1-01 and APWA Type 3-01 mixes. Shingles and tire crumbs are not allowed.

1-2. **Question:** *Can asphalt work deviate from construction phasing schedule to produce a better product?*

Answer: Deviations in construction phasing plan will be allowed with the approval of the County during construction if it creates efficiencies and/or cost savings.

2. PROJECT MANUAL

2-1. The Itemized Proposal (Sheets 12 and 13) is replaced in its entirety. The change in on the Form is on Line Item 25 Reinforcing Steel (Grade 60).

3. PLANS

3-1. Summary of Quantities (Sheet 8) Line Item 25 "Reinforcing Steel (Grade 60)" change from 14,010 lbs. to 33,000 lbs.

3-2. Vertical, horizontal, and dowel reinforcing in wall sections (Sheet 9) change from 6" spacing to 12" spacing.

The Bidder is reminded to acknowledge the Addenda on Sheet 13.

ADDENDUM 1 Prepared by: Chris Jenkins with Jackson County Public Works

END OF ADDENDUM NO. 1

**ITEMIZED PROPOSAL
WORK PERFORMED BY THE CONTRACTOR**

LINE	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
BID ITEMS						
1	201	Clearing & Grubbing	L.S.	1		
2	202.30	Removal of Improvements	L.S.	1		
3	203	Embankment in Place	C.Y.	490		
4	206	Cofferdam	L.F.	132		
5	206	Excavation for Structure Class 2 (Bridge Removal)	C.Y.	130		
6	206	Excavation for Structure Class 3 (Storm Water)	C.Y.	37		
7	206	Excavation for Structure Class 4 (Box Culvert)	C.Y.	1019		
8	216.10	Removal of Bridge Structures	L.S.	1		
9	303	Rock Base (18" Layer)	S.Y.	680		
10	303	Rock Base (6" Layer)	S.Y.	680		
11	303	Aggregate Base Course (15" Layer of MoDOT Type 5)	S.Y.	186.3		
12	304	Aggregate Base Course (6" Layer of MoDOT Type 5)	S.Y.	634		
13	2200	APWA Asphaltic Concrete Surface (2" Layer of Type 3-01)	S.Y.	634		
14	2200	APWA Asphaltic Concrete Base (7" Layer of Type 1-01)	S.Y.	634		
15	606.10	Type A Guardrail	L.F.	505		
16	606.10	Type A End Section	EACH	8		
17	611.30	Type 2 Rock Blanket	C.Y.	573		
18	611.50	Light Stone Revetment	S.Y.	284		
19	616	Construction Signs	EACH	22		
20	617.20	Temporary Traffic Barrier	L.F.	240		
21	618	Mobilization	L.S.	1		
22	624	Geotextile Fabric	S.Y.	1207		
23	703	12'x5' Triple Cell RCB	L.F.	36		
24	703	Class B-1 Concrete	C.Y.	141.5		
25	706	Reinforcing Steel (Grade 60)	LBS	33,000		
26	707	Conduit System on Structure (Electrical Conduit)	L.F.	45		
27	707	Conduit System on Structure (12" x 12" Pull Box)	EACH	2		
28	726	24" Dia. Rigid Pipe	L.F.	50		
29	731	Field Inlet 4' x 4'	EACH	1		
30	731	Junction Box 4' x 4'	EACH	1		

ITEMIZED PROPOSAL
 WORK PERFORMED BY THE CONTRACTOR

LINE	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
31	805	Seeding, Mulch & Fertilizer	ACRE	0.2		
32	806.30	Ditch Check	EACH	1		
33	806.70	Silt Fence	L.F.	204		
TOTAL CONTRACTOR - BID						

ACKNOWLEDGEMENT: Each Bidder shall acknowledge receipt of addenda by their signature affixed hereto and addendum noted at the right by number.

Addendum No.(s) _____

Contractor: _____

Phone: _____

Signature: _____

Date: _____

Name: _____

(please print)

Email: _____

(please print)

GENERAL NOTES:

DESIGN SPECIFICATION:
 2017—AASHTO 8TH EDITION
 LOAD FACTOR AND RESISTANCE DESIGN
 SEISMIC SITE CLASSIFICATION = CLASS C

* APWA KANSAS CITY METRO CHAPTER SPECIFICATION SECTION 2200 — PAVING (02/201)
 FOR MATERIALS AND CONSTRUCTION PROCEDURES THE CONTRACTOR SHALL FOLLOW THE
 AS STATED IN "MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", 202
 OR SUPPLEMENTED. IN ADDITION, REFER TO THE JOB SPECIAL PROVISIONS WHICH SUPER
 "STANDARD SPECIFICATIONS" FOR VARIOUS ITEMS ON THIS PROJECT.

DESIGN LOADING:

HL-93 MINUS LANE LOAD
 25 PSF FUTURE WEARING SURFACE
 SOIL WT 120 LBS/ CU. FT.
 EQUIVALENT FLUID PRESSURE 45 LBS/ CU. FT.

DESIGN UNIT STRESSES:

CLASS B1 CONCRETE $f_c = 4000$ PSI
 REINFORCING STEEL (GRADE 60) $F_y = 60000$ PSI

REINFORCING STEEL:

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE $1\frac{1}{2}$ ", UNLESS OTHERWISE SHOWN
 MINIMUM LAP LENGTH, UNLESS OTHERWISE SHOWN:
 #4 = 21"
 #5 = 26"
 #6 = 31"

JOINT FILLER:

ALL JOINT FILLER SHALL MEET THE REQUIREMENTS OF MoDOT STD. SPEC. 1057.7.4 EXCE
 A GEOTECHNICAL INVESTIGATION WAS PERFORMED AT THE SITE WITHIN THIS CONTRACT.

ABBREVIATIONS:

BRG = BEARING
 CLR = CLEAR
 CONST = CONSTRUCTION
 DIA = DIAMETER
 EF = END BENT
 ELEV = ELEVATION
 EQ = EQUAL
 FF = FAR FACE
 LF = LINEAR FEET
 MAX = MAXIMUM
 MIN = MINIMUM
 NF = NEAR FACE
 P/S = PRESTRESSED
 SPA = SPACES
 SYMM = SYMMETRICAL
 TYP = TYPICAL

NOTE:

- QUANTITIES SHOWN ON THESE PLANS ARE NOT GUARANTEED BY THE COUNTY COMMISSION SOLELY FOR THE PURPOSE OF COMPARING BIDS AND AWARDING THE CONTRACT, AND MAY REPRESENT THE ACTUAL QUANTITIES ON THE JOB, SEE SPECIFICATIONS.
- ANY ITEMS NOT SHOWN IN BID TAB, SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT FORM 106, TO MISSOURI NATURAL RESOURCES, HISTORIC PRESERVATION PROGRAM FOR ANY BORROW AREAS TO BE PROJECT.
- EMBANKMENT IN PLACE SHALL INCLUDE HAULING AND REMOVING MATERIAL FROM/TO THE ; COMPACTION OF MATERIAL AND EXCAVATION OF DITCHES TO MAKE GRADE SHOWN ON PLAN ONLY BE MADE FOR FILL MATERIAL PLACED PER PLAN REQUIREMENTS.
- EXCAVATION FOR STRUCTURES SHALL INCLUDE ALL CLASSES OF EXCAVATION. NO EXTRA F MADE FOR ROCK EXCAVATION IF ROCK IS ENCOUNTERED.
- PROVIDE $\frac{3}{4}$ CHAMFER AT ALL EXPOSED CONCRETE CORNERS, TYPICAL
- ALL DEBRIS AND EXISTING CONCRETE BLOCKS NOT USED WITHIN LIMITS OF GRADING TO BE PROJECT SITE BY THE CONTRACTOR. CONCRETE BLOCKS & DEBRIS MAY BE BROKEN AND ROCK BLANKET DOWNSTREAM OF NEW BOX CULVERT WHERE SHOWN ON PLANS. ALL EXPOS

SUMMARY OF QUANTITIES			UNIT	QUANTITY
LINE	ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
BID ITEMS				
1	201	Clearing & Grubbing	L.S.	1
2	202.30	Removal of Improvements	L.S.	1
3	203	Embankment in Place	C.Y.	490
4	206	Cofferdam	L.F.	132
5	206	Excavation for Structure Class 2 (Bridge Removal)	C.Y.	130
6	206	Excavation for Structure Class 3 (Storm Water)	C.Y.	37
7	206	Excavation for Structure Class 4 (Box Culvert)	C.Y.	1,019
8	216.10	Removal of Bridge Structures	L.S.	1
9	303	Rock Base (18" Layer)	S.Y.	680
10	303	Rock Base (6" Layer)	S.Y.	680
11	303	Aggregate Base Course (15" Layer of MoDOT Type 5)	S.Y.	186.3
12	304	Aggregate Base Course (6" Layer of MoDOT Type 5)	S.Y.	634
13	2200*	APWA Asphaltic Concrete Surface (2" Layer of Type 3-01)	S.Y.	634
14	2200*	APWA Asphaltic Concrete Base (7" Layer of Type 1-01)	S.Y.	634
15	606.10	Type A Guardrail	L.F.	505
16	606.10	Type A End Section	EACH	8
17	611.30	Type 2 Rock Blanket	C.Y.	573
18	611.50	Light Stone Revetment	S.Y.	284
19	616	Construction Signs	EACH	22
20	617.20	Temporary Traffic Barrier	L.F.	240
21	618	Mobilization	L.S.	1
22	624	Geotextile Fabric	S.Y.	1,207
23	703	12'x5' Triple Cell RCB	L.F.	36
24	703	Class B-1 Concrete	C.Y.	1,415
25	706	Reinforcing Steel (Grade 60)	LBS	33000
26	707	Conduit System on Structure (Electrical Conduit)	L.F.	45
27	707	Conduit System on Structure (12" x 12" Pull Box)	EACH	2
28	726	24" Dia. Rigid Pipe	L.F.	50
29	731	Field Inlet 4' x 4'	EACH	1
30	731	Junction Box 4' x 4'	EACH	1
31	805	Seeding, Mulch & Fertilizer	ACRE	0.2
32	806.30	Ditch Check	EACH	1
33	806.70	Silt Fence	L.F.	204

CLASS B-1 CONCRETE & REINFORCING STEEL SHOWN IN SUMMARY OF QUANTITIES IS FOR CONCRETE DROP INLET & OUTLET (SLABS & WALLS).

ALL CONCRETE & STEEL REINFORCING INSIDE BOX CULVERT BARREL IS INCLUDED IN TABLE OF ESTIMATED QUANTITIES FOR 12'x5' TRIPLE CELL RCB.

ALL REINFORCING STEEL TOTALS ARE ROUNDED TO THE NEAREST 10 LBS.

117'-8 1/2"

5'-0"

3" CLR

EXTENTS OF STABILIZATION FILL

NON-PERMEABLE FILL AROUND DROP BASIN

UNDISTURBED

6"

3 1/2" CLR

A

DROP INI

NOT TO SCALE

C

BOX CULV

NOT TO SCALE

ROADWAY GRADE AT AGGREGATE SHOULDER

BOX CULVERT TOP SLAB

EXTENTS OF STABILIZATION FILL

5'-0"

3" CLR TYP

#5

ELEV=821'

ELEV=820'

RI FV=814'

PLAN

ELEVATION

CONCRETE WALL AT DROP BASIN INLET ONLY, SEE SECTION A FOR STEEL REINFORCING

1'-4" SHOULDER TYPE 5 AGGREGATE

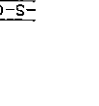
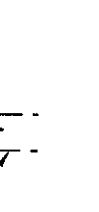
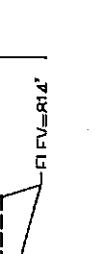
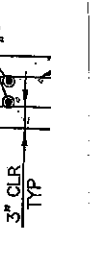
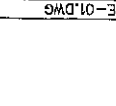
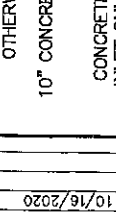
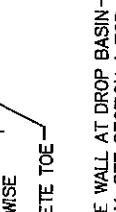
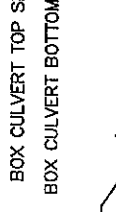
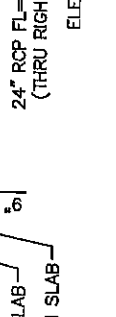
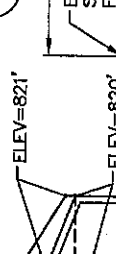
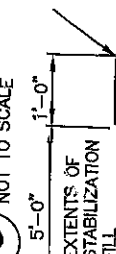
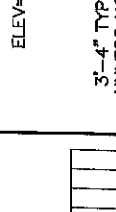
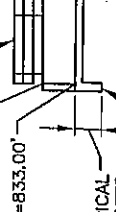
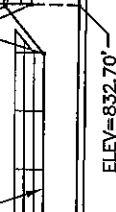
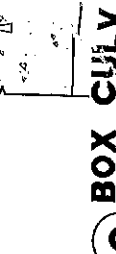
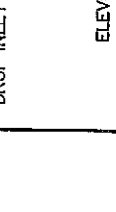
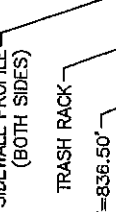
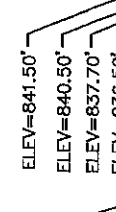
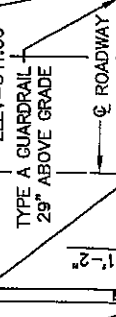
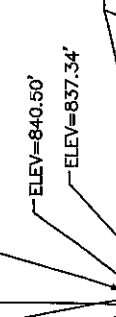
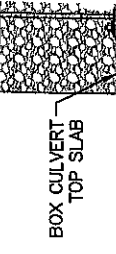
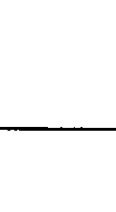
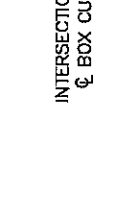
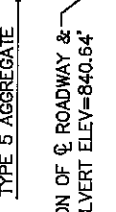
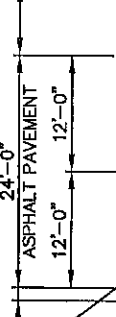
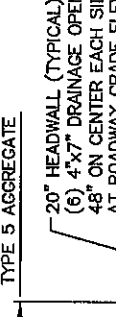
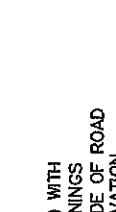
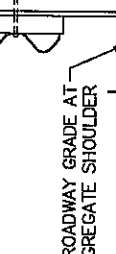
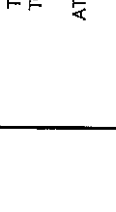
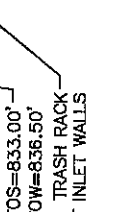
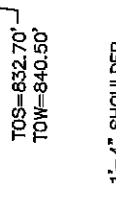
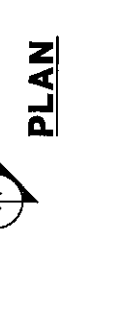
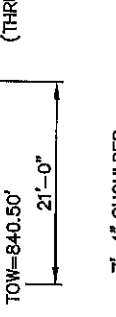
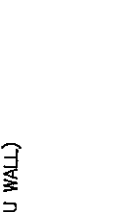
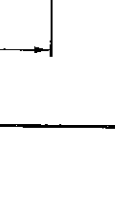
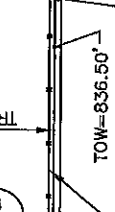
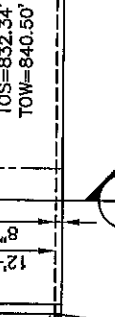
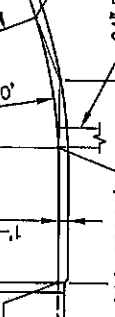
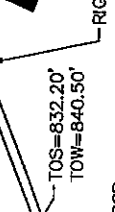
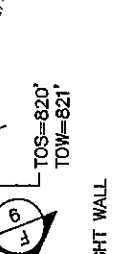
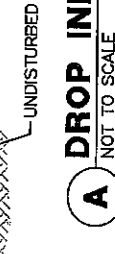
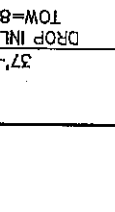
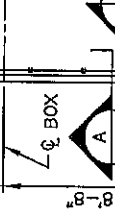
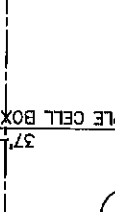
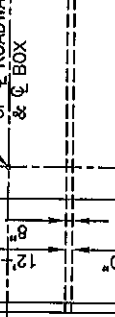
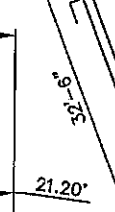
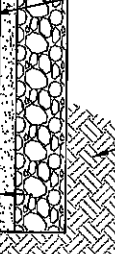
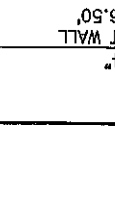
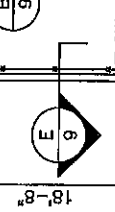
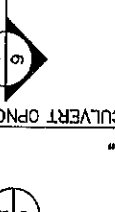
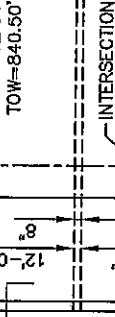
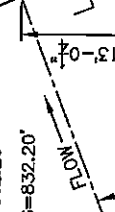
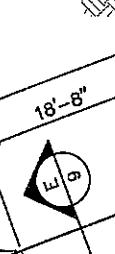
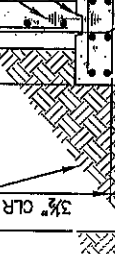
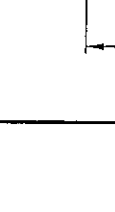
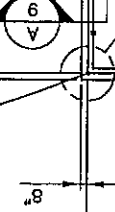
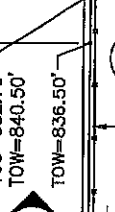
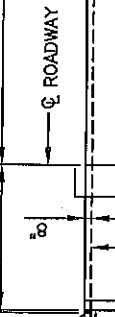
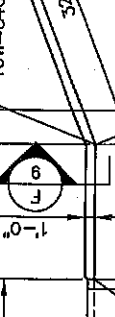
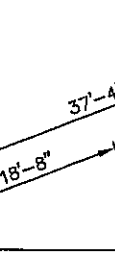
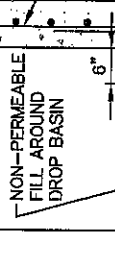
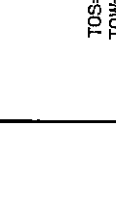
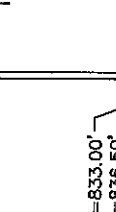
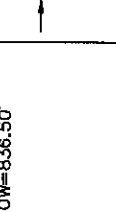
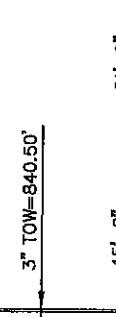
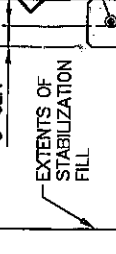
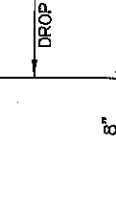
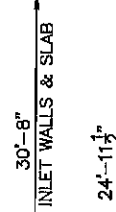
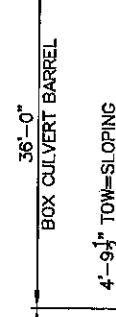
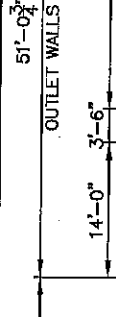
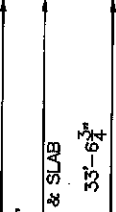
ASPHALT PAVEMENT

24'-0" SHOULDER TYPE 5 AGGREGATE

20" HEADWALL (TYPICAL) WITH (6) 4"x7" DRAINAGE OPENINGS 48" ON CENTER EACH SIDE OF ROAD AT ROADWAY GRADE ELEVATION

10" CONCRETE TOE

3'-4" TYPICAL UNLESS NOTED OTHERWISE



DATE: 10/16/2020

1'-4\"/>

GENERAL PROVISIONS
(Other than MoDOT)

GENERAL PROVISIONS – TABLE OF CONTENTS

	General Special Provisions
105	Control of Work
106	Control of Material
108	Prosecution and Progress
109	Measurement and Payment
201	Clearing and Grubbing
202.30	Removal of Improvement for Roadway Contracts
203	Roadway and Drainage Excavation, Embankment and Compaction
304	Aggregate Base Course
403	Asphaltic Concrete Pavement
501	Concrete
801	Lime and Fertilizer
802	Mulching
805	Seeding
1036	Reinforcing Steel for Concrete

GENERAL SPECIAL PROVISIONS

General

The work of this project shall be performed in accordance with the "Missouri Standard Specifications for Highway Construction" English Edition, dated 2019 as amended or supplemented herein.

Materials will be accepted on the basis of certification of structural steel compliance and substantiating test reports furnished by manufacturers and/or fabricators.

Field testing will be performed by the consultant according to the requirements of the current Local Public Agency Manual, provided by the Missouri Highway & Transportation Commission.

DIVISION 100

GENERAL CONDITIONS OF THE CONTRACT

SECTION 105 - CONTROL OF WORK

105.8 Delete this Section in its entirety and substitute the following.

105.8 Construction Stakes, Lines and Grades.

All construction work shall be done to the lines and grades shown on the plans. The Owner will establish on the site the required bench marks and base lines as shown on the plans. Detailed survey and staking for location and grade of individual structures or other construction, as well as measurements and elevations within structures shall be performed by the Contractor.

Amend Section 105.10 to include the following:

105.10.5.1 Observations and job control tests will generally be made by the engineer on the following items of work. It shall be the responsibility of the contractor to notify the engineer by 12:00 p.m. of the day preceding any operation which affects these items.

- Initial Layout
- Reinforcing Steel Placement
- Removal of each structure
- Storm sewer placement
- All Concrete Operations
- Placement of Geotextile Fabric, Type 2 Rock & Revetment.

If any operation which affects the above mentioned items is to be performed on a Monday, notification must be made to the engineer by 12:00 p.m. of the preceding Friday. The lack of construction observation by the engineer shall not relieve the contractor of the responsibility to construct the project according to the plans and specifications. Any work performed or materials used without notification to and authorization by the engineer, may be ordered removed and replaced at the contractor's expense.

All technicians who perform, or are required by the FHWA to witness, such sampling and testing of materials and products incorporated into the project, shall be deemed as qualified by virtue of successfully completing the requirements of the MoDOT 106.18 Technician Certification Program, for the specific technical area(s) witnessed or sampled.

SECTION 106 - CONTROL OF MATERIAL

Delete Section 106.3 and substitute the following:

106.3 Samples, Tests, and Cited Specification. The contractor shall submit certifications and substantiating test reports, furnished by the supplier or fabricator, certifying that material and manufacturing procedures conform to the specifications. All offsite sampling and testing required by the specifications shall be performed by the supplier in accordance with these specifications, and the results shall be signed, sealed and stamped according to laws related to professional engineers. There shall be no direct charge to the Owner for materials taken as samples, either for field tests or for laboratory tests. If a specification of a recognized national standard agency (ASTM, AASHTO, AWWA, AWS, etc.) is designated, the material may, unless otherwise specified, meet either the designated specification or the latest revision thereof in effect at the time of letting of the contract.

SECTION 108 - PROSECUTION AND PROGRESS

Delete Section 108.4 through Section 108.4.4 and substitute the following:

108.4 Work Schedule. To insure that the work will proceed continuously through the succeeding operations to its completion with the least possible interference to traffic and inconvenience to the public, the contractor shall, at the request of the engineer, submit for approval a complete schedule of the proposed construction procedure, stating the sequence in which various operations of work are to be performed.

SECTION 109 - MEASUREMENT AND PAYMENT

109.6 Delete this section in its entirety and substitute the following:

109.6 Method of Payment. The Contractor shall submit a copy of the payment estimate to the Engineer for review, approval, and forwarding to the County. Once approved by County, the pay estimate will be forwarded to MoDOT and the County is to pay within 2 days of receiving payment from MoDOT. More details regarding payment will be discussed during the preconstruction meeting.

Delete Sec 109.14 in its entirety.

DIVISION 200

GRADING AND REMOVALS

SECTION 201 – CLEARING AND GRUBBING

Delete Section 201.3 in its entirety.

Delete Section 201.4 and substitute with the following:

201.4 Basis of Payment. Payment for this work will be included in the lump sum price for the item, Clearing and Grubbing.

SECTION 202.30 – REMOVAL OF IMPROVEMENTS FOR ROADWAY CONTRACTS.

Delete Sections 202.30.2 and 202.30.3 in their entirety and substitute with the following:

202.30.2 Basis of Measurement and Payment. This work will not be measured for payment, but will be considered a lump sum unit. Payment for this work will be included in the lump sum price for the item, Removal of Existing Improvements.

SECTION 203 – ROADWAY AND DRAINAGE EXCAVATION, EMBANKMENT AND COMPACTION

Construction of all roadway embankments under this contract shall conform to Section 203.6. Method of Measurement shall conform to Section 203.8.1.

Delete Section 203.5.9 in its entirety.

DIVISION 300

BASES AND AGGREGATE SURFACES

SECTION 304 – AGGREGATE BASE COURSE

Delete Section 304.2 in its entirety and substitute the following:

304.2 Material. In lieu of furnishing crushed stone meeting the requirements of the “Missouri Standard Specifications for Highway Construction”, the Contractor shall provide aggregate base course as shown on the plans.

Delete Section 304.6 in its entirety and substitute the following:

304.6 Basis of Payment.

304.6.1 Aggregate Base Course

Payment for accepted quantities of aggregate base course will be paid for in the Per Sq. Yds. Item, “Aggregate Base Course (6” Layer of MoDOT Type 5)” or “Aggregate Base Course (15” Layer of MoDOT Type 5)”

Add the following as Section 304.6.2

304.6.2 Contract quantities shall be used for final payment of aggregate base course except if appreciable errors are found in the itemized proposal, an authorized change order is made, or unauthorized deviations decrease the original quantities.

DIVISION 400

FLEXIBLE PAVEMENTS

SECTION 403 – ASPHALTIC CONCRETE PAVEMENT

Delete Section 403 in its entirety and replace with JSP P.

DIVISION 500

RIGID PAVEMENTS

SECTION 501 - CONCRETE

Delete Section 501.3 in its entirety and substitute the following:

501.3 Mix Design. The contractor shall be responsible for the mix design. The Engineer assumes no responsibility for the volume of concrete produced or furnished for the work.

Actual mix design shall be prepared and submitted by the Contractor to the Engineer for his approval. The design shall be within the applicable limits of the specifications for the class of concrete specified in the contract.

Contractor shall provide certification from the concrete supplier that the plant has been calibrated by the Missouri Department of Transportation.

If certain testing procedures are specified for acceptance of materials in the "Standard Specifications", materials will be accepted for use in this project upon receipt from the supplier of a certification that the product or material meets the requirements of the "Standard Specifications."

Concrete may be accepted on the basis of conventional field sampling and testing for characteristics such as slump and air, where specified, and test cylinders, with only intermittent or random plant inspection as deemed necessary for control by the project engineer. Under this system, arrangements should be made for the producer to state on the delivery ticket accompanying each load of concrete; the class of concrete being furnished, the weights of cement, aggregates and water used in the batch and the time of batching. Only supplier-certified cement may be used.

The testing lab can use sulfur mortar for capping compressive test cylinders or a reusable Neoprene Cap as approved by the Engineer.

Add the following as Section 501.4.1

501.4.1 Unless otherwise specified, all concrete shall be subject to visual inspection, job control tests, and compressive strength tests performed on job control samples. These inspections and job control tests and samples will be performed by the engineer, at no expense to the contractor.

Add the following as Section 501.4.2

501.4.2 The engineer will make at least one strength test for each 100 cubic yards, or fraction thereof, of each mix design of concrete placed in any 1 day. When the total quantity of concrete with a given mix design is less than 50 cubic yards, the strength tests may be waived by the engineer if, in his judgment, adequate evidence of satisfactory strength has been demonstrated for the same kind of concrete supplied by the same concrete plant to the same project.

Add the following as Section 501.8.7

501.8.7 Water may only be added to the concrete mixture on-site if it has been withheld at the plant and the amount of water withheld is shown on the ticket, which may not be exceeded on-site and the water/cement ratio shall not exceed what was pre-approved. The Contractor shall submit for approval an on-site slump adjustment procedure prior to concrete placement.

Delete Section 501.10.2 in its entirety and substitute the following:

501.10.2 Required Air Content. Air-entrained concrete is required for all structural elements of concrete within this project as stated in Section 501.10. The minimum air content shall be 4% and the maximum air content shall be 7%. Any concrete outside of these limits will be rejected and not allowed to be placed. The Contractor shall be responsible for any and all concrete outside these specified limits.

DIVISION 700

STRUCTURES

SECTION 707 – CONDUIT SYSTEM ON STRUCTURE

707.1 Description. This work shall consist of furnishing and placing all material and equipment and performing all work necessary to create a complete conduit system as shown on the plans

707.2 Material. All material shall be in accordance with Division 1000, Material Details, and specifically as follows:

Item	Section
Electrical Conduit	1060
Pull and Junction Boxes	1062

707.3 Construction Requirements.

707.3.1 Conduit systems shall be free from corrosion, restrictions, sharp edges and debris. The ends of conduit runs shall be protected by bushings and shall be temporarily capped if conductor cable is not installed immediately. Conduit shall be rigidly held in place to prevent misalignment during placement of concrete. Reinforcing bars shall not be cut, bent, displaced or otherwise altered unless authorized by the engineer. All joints shall be rigid and waterproof. A 1/2-inch diameter drain hole in all low points of conduits and junction boxes where exposed and a 1/2-inch rigid steel conduit drop from the low point if the conduit and junction boxes are encased in concrete, shall be provided for drainage of water. Exposed ends of such drains shall be covered with either a commercial bronze or a stainless steel insect screen having an open area between 60 percent and 70 percent, held in place with a conduit bushing.

707.3.2 After placing concrete, the conduit around which the concrete is placed shall be tested by the contractor, in the presence of the engineer, for continuity and freedom from obstruction by pulling a steel ball through the entire length. The steel ball shall have a diameter 1/2 inch smaller than the inside diameter of the conduit being tested. Galvanized pullwires shall be installed in conduit for pulling wiring by others.

707.3.3 Junction box covers shall have a waterproof seal securely fastened in place. Junction boxes shall be drilled and tapped for all conduit connections.

Delete Section 707.4 and 707.5 in their entirety and substitute with the following:

707.4 Method of Measurement. Electrical conduit will be measured to the nearest linear foot from end to end of the conduit system. Pull boxes measurement will be made per each.

707.5 Basis of Payment. The accepted electrical conduit and pull box for conduit system on structure will be paid for at the contract unit price.

DIVISION 800

ROADSIDE DEVELOPMENT

SECTION 801 - LIME AND FERTILIZER

As specified in Section 801.2.2, effective calcium shall be applied at the rate of 600 pounds per acre.

As specified in Section 801.2.3, the following commercial fertilizer shall be applied at the rate specified.

Nitrogen	90 lbs. per acre
Phosphoric Acid	180 lbs. per acre
Potash	45 lbs. per acre

As specified in Section 801.6, payment will be included with Seeding.

SECTION 802 - MULCHING

Vegetative mulch shall be used for this project and shall be applied as specified in Section 802.

As specified in Section 802.5, payment will be included with Seeding.

SECTION 805 - SEEDING

As specified in Section 805.2 the following seed mixture shall be applied at the rate specified.

MIXTURE

Kentucky Bluegrass	30%	
Tall Fescue	60%	
White Clover	10%	

	100%	80 lbs. per acre

As specified in Section 805.8, no direct payment will be made for liming, fertilizing or seedbed preparation.

DIVISION 1000

MATERIAL DETAILS

SECTION 1036 – REINFORCING STEEL FOR CONCRETE

Add the following as Section 1036.2.4

If certain testing procedures are specified for acceptance of materials in the “Standard Specifications”, materials will be accepted for use in this project upon receipt from the supplier of a certification that the product or material meets the requirements of the “Standard Specifications”.

JOB SPECIAL PROVISIONS

JOB SPECIAL PROVISIONS – TABLE OF CONTENTS

(Job Special Provisions shall prevail over Specification and/or General Provisions whenever in conflict therewith)

- A. Work Zone Traffic Management Plan
- B. Project Contacts
- C. Emergency Provisions and Incident Management
- D. Utilities
- E. Tree Clearing Restriction
- F. Processing Pay Requests
- G. Certification Regarding Lobbying Activities
- H. Differing Site Conditions, Suspensions of Work and Significant Changes in the Character of Work
- I. Temporary Erosion Control Measures
- J. Rock Blanket
- K. Acceptance of Fabricated Structural Members and Materials
- L. Asbestos Containing Material
- M. Final Payment Documents
- N. LPABuy America Requirements JSP 18-08
 - a. Certificate of Materials Origin Form
- O. Required Clearances for Borrow Areas
- P. Asphaltic Concrete Surface and Base



AARON DANIEL MCVICKER
PE-2010019574

A. WORK ZONE TRAFFIC MANAGEMENT PLAN JSP-02-06A

1.0 Description. Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows.

2.0 Traffic Management Schedule.

2.1 Traffic management schedules shall be submitted to the engineer for review prior to the start of work and prior to any revisions to the traffic management schedule. The traffic management schedule shall include the proposed traffic control measures, hours traffic control will be in place, and work hours.

2.2 The contractor shall notify the engineer prior to lane closures or shifting traffic onto detours.

2.3 The engineer shall be notified as soon as practical of any postponement due to weather, material or other circumstances.

2.4 See Sheet 13 in plans for traffic control phasing.

B. PROJECT CONTACT FOR CONTRACTOR/BIDDER QUESTIONS

All questions concerning this project during the bidding process shall be forwarded to the project contact listed below:

For plans & specifications:

Matt Eblen, P.E.* LEED AP
McClure
1700 Swift Ave., Suite 100
North Kansas City, MO 64116
Phone: 913-307-2588
meblen@mecresults.com

Responsible persons for
County in charge of work:

Eric Johnson
Jackson County Dept. of Public Works
303 West Walnut
Independence, MO 64050
Phone: 816-881-4530
ELJohnson@jacksongov.org

C. EMERGENCY PROVISIONS AND INCIDENT MANAGEMENT JSP-90-11

1.0 The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from the police or other emergency agencies for incident management. In case of traffic accidents or the need for police to direct or restore traffic flow through the job site, the contractor shall notify police or other emergency agencies immediately as needed. The area engineer's office shall also be notified when the contractor requests emergency assistance.

Eric Johnson
Jackson County Dept. of Public Works
303 West Walnut
Independence, MO 64050
Phone: 816-881-4530
ELJohnson@jacksongov.org

Matt Eblen, P.E.* LEED AP
McClure
1700 Swift Ave., Suite 100
North Kansas City, MO 64116
Phone: 913-307-2588
meblen@mecresults.com

2.0 In addition to the 911 emergency telephone number for ambulance, fire or police services, the following agencies may also be notified for accident or emergency situation within the project limits.

No additional for this project.

2.1 This list is not all inclusive. Notification of the need for wrecker or tow truck services will remain the responsibility of the appropriate police agency.

2.2 The contractor shall notify enforcement and emergency agencies before the start of construction to request their cooperation and to provide coordination of services when emergencies arise during the construction at the project site. When the contractor completes this notification with enforcement and emergency agencies, a report shall be furnished to the engineer on the status of incident management.

3.0 No direct pay will be made to the contractor to recover the cost of the communication equipment, labor, materials or time required to fulfill the above provisions.

D. UTILITIES JSP-93-26C

1.0 For informational purposes only, the following is a list of names, addresses, and telephone numbers of the known utility companies in the area of the construction work for this improvement:

<u>Utility Name</u>	<u>Known Required Adjustment</u>	<u>Action</u>
<u>ATT DISTRIBUTION:</u> Ron Gipfert RG7910@ATT.com	No	No facilities on this project
<u>CTLCL- CENTURLINK:</u> Jeff Wallace Office – 661-429-7199 jeffery.m.wallace@centurylink.com Brian Richmond 913-481-5119 brian.s.richmond@gmail.com	Yes	Temporary poles will be set for line to be aerial during construction. Contractor to install 2” conduit per plans, then Centurylink will install line in conduit after construction.
<u>JACKSON COUNTY PWSD 13:</u> Charles Dellario Office – 816-578-2249 Cell – 816-564-6543 cdellario13@gmail.com Secondary - Dennis Boling Office – 816-578-2249 Cell – 816-564-6591 dbolingpwsd13@gmail.com	No	No facilities on this project Primary -

KANSAS CITY POWER & LIGHT:

Yes

Gary Jones
Office – 816-220-5213
Cell - 816-813-1998
gary.jones@kcpl.com

Overhead lines are within project.
No relocation needed per KCPL.
KCPL will cover lines during
construction at contractors' request.

1.1 The existence and approximate location of utility facilities known to exist, as shown on the plans, are based upon the best information available to the Commission at this time. This information is provided by the Commission "as-is" and the Commission expressly disclaims any representation or warranty as to the completeness, accuracy, or suitability of the information for any use. Reliance upon this information is done at the risk and peril of the user, and the Commission shall not be liable for any damages that may arise from any error in the information. It is, therefore, the responsibility of the contractor to verify the above listing information indicating existence, location and status of any facility. Such verification includes direct contact with the listed utilities.

1.2 The contractor agrees that any effects of the presence of the utilities, their relocation, contractor's coordination of work with the utilities and any delay in utility relocation shall not be compensable as a suspension of work, extra work, a change in the work, as a differing site condition or otherwise including but, without limitation, delay, impact, incidental or consequential damages. The contractor's sole remedy for the effects of the presence of utilities, delay in their relocation or any other effects shall be an excusable delay as provided in Section 105.7.3. The contractor waives, for itself, its subcontractors and suppliers the compensability of the presence of utilities, delay in their relocation and any cost to the contractor, it's subcontractors and suppliers in any claim or action arising out of or in relation to the work under the contract.

1.3 The contractor shall be solely responsible and liable for incidental and consequential damage to any utility facilities or interruption of the service caused by it or its subcontractors operation. The contractor shall hold and save harmless the Commission from damages to any utility facilities interruption of service by it or it's subcontractor's operation.

2.0 It shall be noted by the contractor that MoDOT is a member of Missouri One Call (800 Dig Rite). Some work on this project may be in the vicinity of MoDOT utility facilities, which includes but is not limited to traffic signal cables, highway lighting circuits, ITS cables, cathodic protection cables, etc. Prior to beginning work, the contractor shall request locates from Missouri One Call. The contractor shall also complete the Notice of Intent to Perform Work form located at the Missouri Department of Transportation website:

<http://www.modot.mo.gov/asp/intentToWork.shtml>

The contractor shall submit the form over the web (preferred method) or by fax to the numbers on the printed form. The notice must be submitted a minimum of 2 and a maximum of 10 working days prior to excavation just as Missouri One Call requires.

E. TREE CLEARING RESTRICTION JSP-07-05

1.0 Description. The project is within the known breeding range of the federally endangered Indiana bat. To avoid possible impacts to roosting Indiana bats, no tree clearing will be allowed between April 1 and October 31.

2.0 Basis of Payment. No direct pay shall be provided for any labor, equipment, time, or materials necessary to complete this work. The contractor shall have no claim, or basis for any claim or suit whatsoever, resulting from compliance with this provision.

F. PROCESSING PAY REQUESTS

Pay requests will not be processed unless certifications for all materials listed in the pay request have been received by the Engineer.

G. CERTIFICATION REGARDING LOBBYING ACTIVITIES

1.0 Description. In accordance with 31 USC 1352, the bidder shall certify that:

1.1 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.

1.2 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 bidder shall complete and submit Standard Form-LLL, "Disclosure Form to report Lobbying," in accordance with the instructions.

1.3 This certification shall be a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification shall be a prerequisite for making or entering into this transaction imposed by 31 USC 1352. Any person who fails to file the required certification will be subject to a civil penalty of no less than \$10,000 and not more than \$100,000 for each such failure.

1.4 The bidder also agrees by submitting a bid that the bidder shall require that the language of this certification be included in all subcontracts that exceed \$100,000, and that all such sub recipients shall certify and disclose any lobbying activities accordingly.

H. DIFFERING SITE CONDITIONS, SUSPENSIONS OF WORK AND SIGNIFICANT CHANGES IN THE CHARACTER OF WORK

1. Differing site conditions.
 - (a) - During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed.
 - (b) Upon written notification, the engineer will investigate the conditions, and if he/she determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding loss of anticipated profits, will be made and the contract modified in writing accordingly. The engineer will notify the contractor of his/her determination whether or not an adjustment of the contract is warranted.
 - (c) No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice.
 - (d) No contract adjustment will be allowed under this clause for any effects caused on unchanged work.
2. Suspensions of work ordered by the engineer.
 - (a) If the performance of all or any portion of the work is suspended or delayed by the engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.
 - (b) Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The engineer will notify the contractor of his/her determination whether or not an adjustment of the contract is warranted.
 - (c) No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed.

- (d) No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term or condition of this contract.

3. Significant changes in the character of work.

- (a) The engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.
- (b) If the alterations or changes in quantities significantly change the character of the work under the contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable.
- (c) If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the contract.
- (d) The term "significant change" shall be construed to apply only to the following circumstances:
 - (1) When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction
 - Or
 - (2) When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

I. TEMPORARY EROSION CONTROL MEASURES

1.0 Description. Temporary erosion control measures shall be provided for this project as shown on the plans in general conformance with Section 806 of the Standard Specifications to meet, as a minimum, the following requirements for the duration of this project.

2.0 Construction Requirements. The Contractor shall provide temporary erosion control measures which, in general, comply with the devices and generic temporary erosion control plan provided by MoDOT standard plans 806.10H. A copy of each of these 7 plan sheets can be found on the MoDOT website http://www.modot.mo.gov/business/standards_and_specs/currentsec800.htm. The Contractor shall maintain the erosion control devices for the duration of the project to the extent that should

weather conditions and/or construction operations become such that erosion of disturbed soil and/or transportation of sediment by water would otherwise be inevitable, adequate protection against erosion will be provided.

2.1 Ditch checks shall be required in all side ditch flow lines.

2.2 Silt fence shall be required at the edge of embankment fill where the limits of downslope fill meets the existing ground with no ditch flow line between the two.

J. ROCK BLANKET

1.0 Material. All riprap shall be quarried rock, sound durable and angular in shape. No more than 10 percent shall have any elongation greater than 3 to 1 and no stone shall have an elongation greater than 4 to 1. All rock shall be free of cracks, seams or other defects. Shale or rock with shale seams will not be accepted.

1.1 Minimum weight of stone shall be 120 pounds per cubic foot. No more than 6 percent of the stones shall have a weight lighter than 10 pounds.

1.2 For Type 2 Rock Blanket at least 60 percent of the mass shall be stones having a volume of 1 cubic foot or more.

2.0 Construction Requirements. Grade and trim the area to receive riprap or stone blanket to the dimensions and sections shown in the plans. All deleterious material shall be removed from the sub grade area.

2.1 Place Specified thickness riprap as shown in the details on the plans. A trench at the top of the slope shall be excavated to the depth as shown on the plans, or to a depth of 2 feet if not shown.

2.2 Riprap shall be hand or machine placed on prepared foundation in a well graded mass of stone with a minimum percentage of voids. Riprap layer shall be placed to full-course thickness in one operation in such a manner to avoid displacing the underlying material.

2.3 Place riprap so that the surface is uniform and conforms to the lines and contours shown in the plans.

2.4 The Contractor shall place the riprap in such a manner to not tear, puncture or displace the fabric. Riprap shall not be dropped more than 3 feet when being placed on filter fabric. Tears or rips in the filter fabric shall be repaired with fabric lapped a minimum of 18 inches in all directions.

2.5 Dumping riprap into chutes, placing in layers or other methods of placement which cause segregation will not be permitted.

2.6 The larger stones shall be well distributed throughout the riprapped area. The entire riprap area shall conform to the specified gradation. All material shall be placed and distributed so that there are no objectionable accumulations of larger or smaller sized stones.

2.7 Hand placing or rearranging of individual stones by mechanical equipment may be required to the extent necessary to produce fairly compact riprap with all sizes of material placed in their proper proportion.

2.8 Protect other portions of the work from damage or displacement during riprap placement.

3.0 **Certification.** The Contractor shall furnish a manufacturer's certification in triplicate, stating that the material supplied conforms to the requirements of these specifications. The Engineer reserves the right to sample and test any material offered for use. Acceptance will be based on the certification and the result of any tests the Engineer may perform.

K. ACCEPTANCE OF FABRICATED STRUCTURAL MEMBERS AND MATERIALS

1.0 **Acceptance of Structural Steel.** The following procedures have been established for the acceptance of structural steel. Shop drawings shall be submitted to the engineer for review and approval. The approval will cover only the general design features, and in no case shall this approval be considered to cover errors or omissions in the shop drawings. The contractor shall utilize a fabricator who is currently certified for Category III by the American Institute of Steel Construction (AISC). All welding operation, including material and personnel, shall meet the American Welding Society (AWS) specifications. The county or their consultant has the option of inspecting the steel units during fabrication or requiring the fabricator to furnish a certification of contract compliance and substantiating test reports. In addition, the following reports will be required:

- A. Certified mill test reports including results of chemical and physical tests on all structural steel as furnished.
- B. Non-destructive testing reports.

1.1 The county or consultant must verify and document that dimensions of the units were checked at the job and found to be in compliance with the shop drawings.

2.0 **Acceptance of Precast Concrete Members.** The following procedures have been established for the acceptance of precast double T, I-girder, NU-girder, box-girder, slab panels, **reinforced concrete pipes**, and **precast junction boxes**. Shop drawings shall be submitted to the engineer for review and approval. The approval will cover only the general design features, and in no case shall this approval be considered to cover errors or omissions in the shop drawings. The county or their consultant has the option of inspecting the precast units during fabrication or requiring the fabricator to furnish a certification of contract compliance and substantiating test reports. In addition, the following reports will be required:

- A) Certified mill test reports including results of physical tests on the prestressed strands and reinforcement as furnished.
- B) Test reports on concrete cylinder breaks.

2.1 The county or consultant must verify and document that dimensions of the units were checked at the job and found to be in compliance with the shop drawings.

2.0 Acceptance of Materials. If certain testing procedures are specified for acceptance of materials in the "Standard Specifications", materials will be accepted for use in this project upon receipt from the supplier of a certification that the product or material meets the requirements of the "Standard Specifications".

L. LEAD BASED PAINT AND ASBESTOS CONTAINING MATERIAL

1.0 Description. The existing bridge was inspected by Mustardseed Cultural and Environmental Services, LLC for lead based paint and asbestos containing materials (ACM's).

No lead based paint was identified at this project site. Our report has been provided within ENVIRONMENTAL PERMITS & CLEARANCES.

One ACM was identified at this project site. Our report has been provided within ENVIRONMENTAL PERMITS & CLEARANCES.

The Contractor shall send a demolition notice to MDNR. Contractor cannot begin demolition until DNR has issued a permit.

A blank Notification Form 780-1923 is provided within ENVIRONMENTAL PERMITS & CLEARANCES. <https://dnr.mo.gov/forms/780-1923-f.pdf>

M. FINAL PAYMENT DOCUMENTS

1.0 Description. If the final payment documents are not completed and ready for final payment in accordance with Sec 109.8, within 60 calendar days of final acceptance of the project, the Contractor shall pay to the Contracting Authority the amount of \$700 as liquidated damages and as a penalty for each Calendar Day until the final payment documents are completed and ready for final payment. The amount of liquidated damages shall be deducted from any payments due or to become due to the Contractor. Final payment documentation shall include but not be limited to the following:

(a) An affidavit, on the form prescribed by the Contracting Authority, to the effect that all payments have been made and all claims have been released for all material, labor and other items covered by the contract bond.

(b) A Certification, on the form prescribed by the Contracting Authority, showing the actual final DBE participation on the project including name of DBE, type of work and amount paid to each DBE firm.

(c) An affidavit, on the form prescribed by the Contracting Authority, to the effect that all workers have been paid in compliance with prevailing wage requirements within the contract.

N. LPA BUY AMERICA REQUIREMENTS JSP-18-08

106.9 Buy America Requirement. On all federal-aid projects, the contractor's attention is directed to Title 23 CFR 635.410 Buy America Requirements. Where steel or iron products are to be permanently incorporated into the contract work, steel and iron material shall be manufactured in the USA except for "minor usage" as described herein. Furthermore, any coating process of the steel or iron shall be performed in the USA. The use of pig iron and processed, pelletized and reduced iron ore manufactured outside of the USA will be permitted in the domestic manufacturing process for steel or iron material.

106.9.1 Any sources other than the USA as defined will be considered foreign. The required domestic manufacturing process shall include formation of ingots and any subsequent process. Coatings shall include any surface finish that protects or adds value to the product.

106.9.2 "Minor usage" of foreign steel, iron or coating processes will be permitted, provided the cost of such products does not exceed 1/10 of one percent of the total contract cost or \$2,500.00, whichever is greater. If foreign steel, iron or coating processes are used, invoices to document the cost of the foreign portion, as delivered to the project, shall be provided and the engineer's written approval obtained prior to placing the material in any work.

106.9.3 Buy America requirements include a step certification for all fabrication processes of all steel or iron materials that are accepted per Sec 1000.

106.9.3.1 Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and certifications documenting the manufacturing process for all subsequent fabrication, including coatings. The certification shall include language that certifies the following. That all steel and iron materials permanently incorporated in this project was procured and processed domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.

106.9.3.2 Items designated as Category 2 will include all other steel or iron products not in Category 1 and permanently incorporated in the project. Category 2 items shall consist of, but not be limited to items such as fencing, guardrail, signing, lighting and signal supports. The prime contractor is required to submit a material of origin form certification prior to incorporation into the project from the fabricator for each item that the product is domestic. The Certificate of Materials Origin form ([link to certificate form](#)) from the fabricator must show all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements and be signed by a fabricator representative. The Engineer reserves the right to request additional information and documentation to verify that all Buy America requirements have been satisfied. These documents shall be submitted upon request by the Engineer and retained for a period of 3 years after the last reimbursement of the material.

106.9.3.3 Any minor miscellaneous steel or iron items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. Examples of

these items would be bolts for sign posts, anchorage inserts, etc. The certification shall read "I certify that all steel and iron materials permanently incorporated in this project during all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements procured and processed domestically in accordance with CFR Title 23 Section 635.410 Buy America Requirements. Any foreign steel used was submitted and accepted under minor usage". The certification shall be signed by an authorized representative of the prime contractor.

106.9.4 When permitted in the contract, alternate bids may be submitted for foreign steel and iron products. The award of the contract when alternate bids are permitted will be based on the lowest total bid of the contract based on furnishing domestic steel or iron products or 125 percent of the lowest total bid based on furnishing foreign steel or iron products. If foreign steel or iron products are awarded the contract, domestic steel or iron products may be used; however, payment will be at the contract unit price for foreign steel or iron products.

CERTIFICATE OF MATERIALS ORIGIN

PROJECT NUMBER		CONTRACT ID	
ITEM DESCRIPTION		BID ITEM NUMBER	
INVOICE NUMBER		QUANTITY	
DATE RECEIVED		BILL OF LADING No.	

MATERIAL SOURCE (NAME AND ADDRESS) TO INCLUDE EACH SUPPLIER, FABRICATOR, AND MANUFACTURER INCLUDING HEAT/BATCH NUMBERS IF AVAILABLE

MATERIAL DESCRIPTION

DESCRIPTION OF MATERIALS OF UNKNOWN ORIGIN OR FOREIGN MATERIALS DELIVERED TO THE PROJECT

This certification is made for the purpose of establishing the materials acceptance under the Buy America Certification (23CFR 635.410) and the Contract Special Provisions. All iron and steel manufacturing processes, including protective coating for the domestic materials described above occurred in the United States of America. Manufacturer's certificates verify the origin above described in the domestic materials and will be kept on file for three years by the suppliers following final payment.

Copies will be provided to the Missouri Department of Transportation upon request.

I declare under penalty of perjury under the Missouri and Federal Laws that the foregoing is true and correct.

Company Name and Address	Authorized Representative
	Name: Title: Signature: Date:

O. REQUIRED CLEARANCES FOR BORROW AREAS

The necessary clearances for contractor furnished borrow areas shall be obtained prior to using the borrow area for the project. The Contractor is encouraged to consider using material from previously disturbed locations (substantial disturbance) or borrow areas that have previously been cleared, precluding the need to address most, if not all, of the issues described below. The contractor should include the Federal Project Number on all correspondence. The following addresses the primary environmental issues related to clearance of borrow areas:

1. ENDANGERED SPECIES ACT

Missouri Department of Conservation (MDC)
Planning Division
P.O. Box 180
Jefferson City, MO 65102-0180
Telephone Number (573) 751-4115 or FAX (573) 751-4495

Request a search of the Heritage Database to determine if there are any know endangered or sensitive species or communities at the proposed site. All queries must be accompanied by a good quality map illustrating the location of the proposed site.

Should MDC have no records for the proposed site and it is unlikely that sensitive species or important habitat will be damaged by this land disturbance activity, the contractor may proceed. Further coordination with MDC shall be required if the presence of or the likelihood of Federally threatened or endangered species or critical habitat is indicated. Should MDC indicate that only state-listed rare or endangered species will be impacted, the contractor should work to reduce the potential impact to those species. However, state listed species are not protected by state regulations that require measures of protection.

Any impact to habitats with known occurrences of species federally listed as threatened or endangered by the U.S. Fish and Wildlife Service (FWS) is not allowed by the Endangered Species Act without coordination with FWS.

Columbia Field Office
U.S. Fish and Wildlife Service (FWS)
608 East Cherry Street
Columbia, MO 65201
elephone Number (573) 876-1911 or FAX (573) 876-1914

Should concerns be expressed regarding any species in this area, it may be advisable to locate another borrow area.

2. FARMLAND PROTECTION POLICY ACT

Compliance with the Farmland Protection Policy Act, which has the purpose of minimizing Federal programs' contribution to the unnecessary and irreversible conversion of farmland caused by non-agricultural uses, is required.

An aerial map showing the disturbed area and Form AD-1006 need to be submitted to the Natural Resources Conservation Service (NRCS) serving the area. Form AD-1006 may be obtained from the NRCS office. Parts I and III of Form AD-1006 should be completed by the contractor. The form should be sent to the NRCS for completion of Parts II, IV, and V. The NRCS office should be instructed to return the form to:

Missouri Department of Transportation
Environmental Section
Plan Scoping
P.O. Box 270
Jefferson City, MO 65102

Parts VI and VII will be completed by MoDOT and the completed form will be returned to the contractor for documentation of compliance. A copy of the form will be retained by MoDOT.

3. WETLANDS

A Federal Executive Order has decreed a national policy of "no net loss of wetlands". Under this policy, any impact to wetlands must be avoided if at all practical. When a borrow area has an impact on wetlands, the impact must be mitigated by construction or enhancement of a like quantity and quality of new wetlands. Avoiding an impact to wetlands is a primary goal.

To determine if a site occurs in a wetland, the United States Department of Agriculture should be contacted. The NRCS has identified and mapped wetlands as a requirement under the Food Security Act. These maps are available at the local NRCS office. Should wetlands be identified on the Food Security Act Maps, a site visit may be needed to confirm the location of the wetlands. If there is no impact to wetlands, no further action need be taken.

If there are questions regarding the extent of wetlands that cannot be avoided, the U.S. Army Corps of Engineers (COE) should be contacted. A COE 404 Permit must be processed through the Corps office that has jurisdiction over the project area.

4. HAZARDOUS WASTE SITES

Proposed disturbed sites will probably be located in rural areas which have been used for agricultural or similar purposed. Hazardous wastes are most typically associated with commercial or industrial properties, past or present.

Hazardous wastes are unlikely if the proposed disturbed site is basically farmland or pasture and has not been used for any commercial activity or dumping. The contractor should document the historic land use of the parcel and explain how this assessment was obtained. The contractor should provide the following documentation to Missouri Department of Transportation: who was contacted and the results of the contact. If potential problems are identified during the search for information, it would be wise to locate another site.

5. WATER QUALITY/LAND DISTURBANCE

If the project proponent does not have a valid general NPDES permit for storm water runoff and the project will disturb 1 acre or more of land a specific NPDES permit is required. A pollution prevention plan may be required with the NPDES application. Contact MO Department of Natural Resources at (573) 751-1300 for further information.

6. CULTURAL RESOURCES

All projects requiring environmental clearance for cultural resources (archaeological sites and structures) must be reviewed and approved by the Missouri Department of Natural Resources' (DNR) Historic Preservation Program (HPP). To initiate the HPP review and clearance of a disturbed site for Cultural Resources, a "Section 106 Project Information Form" must be completed and submitted to the HPP along with the necessary documents. Copies of the "Section 106 Project Information Form" may be obtained from MoDOT District Offices or the following:

Historic Preservation Program
Department of Natural Resources
Attention: Review & Compliance
P.O. Box 176
Jefferson City, MO 65102
Telephone Number (573) 751-7858

Based on the information submitted, HPP may clear the project or request that the contractor acquire the services of an archaeological consultant to conduct a cultural resource survey of the proposed disturbed site.

After the contractor has obtained all of the above data and clearances, it should be submitted to MoDOT district representative for the project. The transmittal letter must include the County, Route and Job Number of the project for which borrow will be used. A map indicating the location and limits of the borrow area must be included.

No direct payment will be made for obtaining the required clearances for disturbed site. An adjustment in contract time will be considered for any delay caused by receiving the required clearances.

P. ASPHALTIC CONCRETE SURFACE AND BASE

2205.1 Scope

This section governs the furnishing of all labor, materials and equipment for the construction of asphalt concrete base and/or asphalt concrete surface as shown on the Plans and in accordance with the Standard Drawings, the specifications and the Special Provisions.

2205.2 Reference Standards

The following standards are referenced directly in this section. The latest version of these standards shall be used. If conflicting standards are referenced, the more stringent standard shall apply.

ASTM

- C 88 Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
- C 117 Test Method for Materials Finer than 75- um (No. 200) Sieve in Mineral Aggregates by Washing
- C 127 Test Method for Specific Gravity and Absorption of Coarse Aggregate
- C 128 Test Method for Specific Gravity and Absorption of Fine Aggregate
- C 131 Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
- C 136 Test Method for Sieve Analysis of Fine and Coarse Aggregates
- C 142 Test Method for Clay Lumps and Friable Particles in Aggregates
- D 75 Practice for Sampling Aggregates
- D 140 Practice for Sampling Bituminous Materials
- D 979 Practice for Sampling Bituminous Paving Mixtures
- D 1188 Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Paraffin-Coated Specimens
- D 2041 Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures (comparable to AASHTO T209)
- D 2172 Test Methods for Quantitative Extraction of Bitumen From Bituminous Paving Mixtures
- D 2726 Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures
- D 2950 Test Method for Density of Bituminous Concrete in Place by Nuclear Methods
- D 3666 Specification for Minimum Requirements for Agencies Testing and Inspecting Bituminous Paving Materials
- D 4552 Practice for Classifying Hot-Mix Recycling Agents
- D 4791 Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
- D 5444 Test Method for Mechanical Size Analysis of Extracted Aggregate
- D 6307 Test Method for Asphalt Content of Hot-Mix Asphalt by Ignition Method
- D 6373 Specification for Performance Graded Asphalt Binder

AASHTO

- T 166 Standard Method of Test for Bulk Specific Gravity (Gmb) of Compacted Hot Mix Asphalt (HMA) Using Saturated Surface-Dry Specimens
- T 245 Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus
- T 269 Standard Method of Test for Percent Air Voids in Compacted Dense and Open Asphalt Mixtures (ASTM Designation: D 3203/D 3203M-11)
- T 283 Resistance of Compacted Bituminous Mixture to Moisture Induced Damage
- T 312 Standard Method of Test for Preparing and Determining the Density of Asphalt Mixture Specimens by Means of the Superpave Gyrotory Compactor

Asphalt Institute

"Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types", MS-2, latest edition

Kansas Department of Transportation

Standard Specifications for State Road and Bridge Construction, 2015 Edition

Missouri Highways and Transportation Commission

Missouri Standard Specifications for Highway Construction, 2011 Edition

National Institute of Standards and Technology

Handbook #44, "Specifications, Tolerance and other Technical Requirements for Commercial Weighing and Measuring Devices"

2205.3 Materials

No material shall be used until it has been approved by the Engineer. All costs associated with material testing, certification and the preparation of trial mixes to determine the job mix formula shall be the responsibility of the Contractor. Representative samples of all materials proposed for use under these specifications shall be submitted by the Contractor to a properly certified testing laboratory approved by the Owner, at the Contractor's expense, for testing and the preparation of trial mixes to determine the job-mix formula. Tests required by this specification for field verification of the mix shall be the responsibility of the Contractor at the Contractor's expense, unless specified otherwise. The Engineer reserves the right to perform additional testing to verify conformance with the requirements specified herein. These tests will be performed under the supervision of the Engineer without cost to the Contractor, unless specified otherwise in the Contract Documents.

- A. Asphalt: Asphalt cement used in the manufacture of asphalt paving mixtures shall conform to the Performance Graded system. The PG graded material used shall conform to the provincial grade used by the local DOT or as designated by the Engineer. In the Kansas City Metropolitan area, the provincial grade is a PG64-28 but PG 64- 22 is commonly used so either is deemed acceptable.
- B. These general usage guidelines may not address all project conditions. APWA strongly recommends that the Engineer apply sound pavement design principles when designating mix type and selecting asphalt cement

grade based upon individual project conditions. The Federal Highway Administration makes available LTPPBIND software that will assist with asphalt grade selection for specific projects.

The asphalt cement shall conform to ASTM D 6373. Sampling shall be in accordance with ASTM D 140.

The Contractor or asphalt supplier shall submit a temperature-viscosity chart showing the recommended mix and compaction temperatures for non-modified asphalts, and shall provide the specific gravity of the asphalt.

C. Aggregate: The quality of aggregates used in Asphaltic Concrete shall conform to the

following: Coarse Aggregate (Retained on the No. 4 Sieve)

LA Abrasion (ASTM C 131)	40% loss (maximum)
Soundness using Mag. Sulfate (ASTM C 88, 5 cycles)	18% loss (maximum)
Soundness using Sodium Sulfate (ASTM C 88, 5 cycles).....	12% loss (maximum)
Total shale, clay, coal and lignite content (ASTM C 142)	1.0% by weight (max)

Fine Aggregate (Passing the No. 4 Sieve)

Organic content	1% maximum
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The parent material of manufactured sand must also meet the requirements for coarse aggregate shown above.

Sampling shall be in accordance with ASTM D 75. Gradation analysis shall be in accordance with Standard Method of Test for Material Finer than No. 200 (75 um) Sieve in Mineral Aggregates by Washing, ASTM C 117 and Standard Method Test for Sieve Analysis of Fine and Coarse Aggregate, ASTM C 136. All aggregate quality tests must have been run within 12 months of the submission date of a mix design.

D. Commercial Mix: Providing a commercial mix will only be permitted when specified in the Contract Documents or approved in writing by the Engineer. Contractor shall adhere to the most current State Department of Transportation standard specifications governing commercial mix asphalt for the state the work is being performed in. Example: for Kansas, Standard Specifications for State Road and Bridge Construction, 2015 Edition, Section 611, or for Missouri, Missouri Standard Specifications For Highway Construction, 2011 Edition, Division 400.

2205.4 Mixing and Proportioning

A. Composition of the Mix: Asphaltic concrete mixtures shall consist of Mineral Aggregates and Asphalt Cement within the following limits for the type specified.

ASPHALTIC CONCRETE-TYPE

	1-01	2-01	3-01	4-01	5-01	6-01
<u>Percent by Weight of Total Mixture</u>						
Asphalt Cement	4-6	4-7	4-7	5-7.5		
Aggregate - U.S. Standard						
<u>Square Sieve Size Total Percent Passing by Weight</u>						
1 1/2" (37.5 mm)	100	--	--	--	--	--
1" (25.0 mm)	75-100	100	--	--	100	--
3/4" (19.0 mm)	60-85	80-100	100	--	95-100	100
1/2" (12.5 mm)	--	--	85-100	100	--	86-100
3/8" (9.0 mm)	40-65	60-80	70-90	85-100	--	75-100
No. 4 (4.75 mm)	30-50	48-65	50-70	55-75	--	--
No. 8 (2.4 mm)	19-36	35-47	37-47	39-50	28 min	28 min
No. 16 (1.2 mm)	13-26	25-36	26-36	27-38	--	--
No. 30 (0.6 mm)	--	18-30	18-30	19-30	--	--
No. 50 (0.3 mm)	--	12-22	12-22	11-23	--	--
No. 100 (150 μm)	4-12	6-14	6-15	6-16	--	--
No. 200 (75 μm)	2-10	3-10	4-10	4-10	2-6	2-6

In addition to the above limits, the difference between the "Percent Passing Square Mesh Sieve" of successive sieve sizes shall not exceed 25 for types 1-01, 2-01, 3-01, and 4-01.

That fraction of material retained on the No. 4 (4.75-mm) Sieve shall be composed of particles with not less than 75% having two or more fractured faces for asphalt types 1-01, 2-01, 3-01, and 4-01, and not more than 20% by weight of that fraction shall be composed of flat or elongated particles based on a ratio of 5:1 when tested in accordance with ASTM D 4791. For Asphalt Types 5-01 and 6-01 only, the total aggregate (coarse aggregate, fine aggregate, and the material passing the No. 200 sieve (75μm) shall contain not less than 85% crushed material for intermediate course and surface course.

It shall be noted that when the gradation varies appreciably from the single point gradation used in the mix design, the test properties of the mix will be out of specification. This condition can occur even though the gradation meets the tolerances below.

The job-mix formula shall be within the limits specified above. The maximum permissible variation from the job-mix formula, within the specification limits, shall be as follows:

Permissible Gradation Variation from Mix Design Percent by Wt. of Total Mix:

<u>U.S. Standard Sieve Size</u>	<u>Type 1-01, 5-01, 6-01</u>	<u>Type 2-01, 3-01, 4-01</u>
No. 4 and larger	5.0	4.0
No. 8, 16, 30, 50	4.0	3.0
No. 200	2.0	1.0

Permissible Oil Content Variation from Mix Design:

- Type 1-01, 5-01, 6-01 -- 0.5%
- Type 2-01, 3-01, 4-01 -- 0.3%

B. Asphalt Mix General Usage:

	<u>Surface</u>	<u>Base</u>
Arterial	5-01, 6-01	5-01
Collector	5-01, 6-01	5-01
Local/Access	5-01	5-01
Paved Trail	2-01, 3-01, 4-01, 5-01	1-01, 2-01, 5-01
Recreational Surface	4-01	1-01, 2-01, 5-01
Parking Lot	2-01, 3-01, 5-01	1-01, 2-01, 5-01

Generally, mix types 1-01, 2-01, 3-01 and 4-01 are composed of local materials and are appropriate for general use other than roadways. **Unless specified otherwise in the Contract, Plans or Special Provisions, only mixes 5-01 and 6-01 should be used for roadways.** The Contractor may submit a written request to use mix 1-01 for pavement base or mix 3-01 for pavement surface.

Mix type 2-01 is acceptable for surfacing, but is generally more open-graded than the other surface mixes, and may not provide a tightly sealed surface.

Mix type 4-01 is very susceptible to rutting and is only recommended for non-vehicular use.

C. Asphalt Hot-Mix Recycling

1. General: Except as modified herein, Recycled Asphaltic Concrete (RAC) shall be equal to that produced as new material. Reclaimed Asphalt Pavement (RAP), Fractionated Reclaimed Asphalt Pavement (FRAP) and/or Reclaimed Aggregate Materials (RAM) shall represent no more than 30% of the composition for all surface mixtures and no more than 40% of the composition for all base mixtures. However, for base mixtures using FRAP, the composition may be no more than 50%.

Recycled Asphaltic Concrete may contain combinations of FRAP, RAP, RAM, coarse aggregate, fine aggregate, mineral filler, asphalt cement, recycling agent, anti-stripping agent and approved additives to produce an acceptable mixture. Recycled Asphalt Shingles (RAS) are not allowed. Recycled Asphaltic Concretes shall be designated by prefacing the type with "RC," such as "RC Type 1-01".

2. FRAP is defined as having two or more stockpiles, where RAP is processed into coarse and fine fractions. The fine FRAP stockpile will contain only material passing the ¼ inch screen. The coarse FRAP stockpile will contain milled material retained on the ¼ inch screen and passing the ¾ inch screen. FRAP may be comprised of coarse or fine FRAP or a combination thereof. Utilize a separate cold feed bin for each stockpile of FRAP used. Do not blend coarse and fine FRAP either in the stockpile or in a cold feed bin. Add FRAP to the mix through the RAP collar. Sources and types FRAP must be recorded and submitted to the Engineer upon request. The FRAP used in production shall be similar in composition (extracted gradation and asphalt content) to the source used for design.
3. Materials Evaluation: All recycled materials shall have the following tests performed in addition to those required in Section 2205.4.D:
 - a. A sieve analysis shall be performed on FRAP, RAP and/or RAM in accordance with ASTM C 117, "Standard Test Method for Material Finer than No. 200 Sieve (75 um) in Mineral Aggregates by Washing" and ASTM C 136, "Standard Method for Sieve Analysis of Fine and Coarse Aggregates" after extraction of asphalt.
 - b. Asphalt content analysis shall be performed for FRAP or RAP in accordance with

Method "A" of ASTM D 2172, "Standard Test Methods for Quantitative Extraction of Bitumen from Bituminous Paving Mixtures" where the FRAP or RAP content exceeds 30%. For mixtures with FRAP or RAP contents less than 30%, asphalt content may be determined using ASTM D 6307.

- c. The asphalt cement used shall be determined as follows:
 - i. For FRAP or RAP contents of up to 20%, the asphalt grade shall be as specified in the mix design.
 - ii. For FRAP or RAP contents from 20% up to 30%, the asphalt grade shall be decreased one temperature range. For example, a design PG 64-22 would be decreased to a PG 58-28.
 - iii. For FRAP or RAP contents from 30% to 50%, the asphalt grade of the new asphalt shall be determined using the procedures outlined in MS-2, latest edition, Appendix A. This would likely result in a PG 52-34.
- d. All sources of material for use in RAC must be approved by the Engineer prior to use.

4. Material Requirements

- a. New asphalt cements added to the aged asphalt shall meet the requirements of Section 2205.3.
- b. Recycling Agents, if used, shall meet the requirements of ASTM D 4552, "Standard Practice for Classifying Hot Mix Recycling Agents".
- c. The FRAP, RAP and/or RAM stockpiled at the plant site shall be maintained in stockpiles separated into surface and base. The RAP and/or RAM shall be processed such that 100% will pass the 1-1/2 inch (38 mm) sieve and 90% will pass the 1-inch (25.4 mm) sieve.
- d. The final product shall be free of foreign matter (e.g., old planer teeth, ice, wood, soil, broken sewer castings, loop detector wire, protective membranes, rubberized joint filler materials and foil turn lane markers, trash, debris, etc.).

5. Mix Design Requirements: The necessary steps for a final mix design for recycled mixtures shall be done in accordance with the Asphalt Institute's Manual MS-2 latest edition in the appendix entitled "Mix Design Using RAP". If there is a change in the RAP and/or RAM percentage from the original amount of RAP and/or RAM in the mix design, a new mix design must be submitted.

6. Asphalt Plant Requirements: All delivery tickets shall designate the type of recycled mix, (RC-Type 1-01, RC-Type 2-01, RC-Type 3-01, etc.).

D. Mix Design Criteria: Laboratory Test Specimen(s) of mixes 1-01, 2-01, 3-01 and 4-01, combined in proportions of the job-mix formula, shall be prepared and tested in accordance with AASHTO T 245 and the volumetric properties of the compacted paving mixtures as calculated by ASTM procedures using Chapter 4 of the Mix Design Methods for Asphalt Concrete and other Hot-Mix Types (MS-2), latest edition, Asphalt Institute referred hereafter as "MS-2". The Marshall procedure shall be as specified in Chapter 5 of the MS-2.

For mixes 5-01 and 6-01, the procedures outlined in Asphalt Institute's "Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types (MS-2)", latest edition, must be used to prepare the asphalt samples for design and quality control testing. The gyratory values for the SuperGyratory Compactor (SGC) to be used for this purpose are $N_{\text{initial}} = 6$, $N_{\text{design}} = 50$, and $N_{\text{max}} = 75$. At N_{initial} , the specific gravity of the specimen must be 90.5% or less of G_{mm} , at N_{max} the specific gravity of the specimen must be 98.0% or less of G_{mm} . The

Voids in the Mineral Aggregate (VMA) shall be as specified in Chapter 5 of the MS-2.

The material for the theoretical specific gravity (G_{mm} per ASTM D 2041) and the material for the Marshall specimens and Super Gyrotory Compactor specimens (pucks) shall be cured at 285+/-5°F for four hours in a closed oven after the mix is produced in the laboratory. Also, the plant produced mixture shall be tested when the mix is four hours old when preparing a mix design but may be tested when at least two hours old for production testing. The mixture shall be transported to the laboratory in an insulated container and then stored in a laboratory oven at 285 +/-5°F for the remainder of the curing period. This procedure shall be used when the water-absorption as determined by ASTM C 127 and ASTM C 128 of any aggregate in the mixture exceeds 1.25%. The mixture shall be compacted at 285 +/-5°F. If total mix aggregate absorption exceeds 2.0%, the laboratory may use the G_{mm} dryback option within the test method.

Test requirements and criteria for the paving mixes under these specifications shall be as

follows: Marshall Stability: 1500 lbs. (6672 N) minimum (Types 1-01, 2-01, 3-01, and 4-01)

No. of compaction blows: 50 (Types 1-01, 2-01, 3-01, and 4-01)

Flow: 0.08-0.16 inches maximum (Types 1-01, 2-01, 3-01, and 4-01)

Air Voids: Percent

Base & Surface (Types 5-01 & 6-01) 3-5

Base & Surface (Types 1-01, 2-01, 3-01, and 4-01) 2-5

Voids filled with asphalt (VFA) Percent

Types 5-01 & 6-01 65-75

Voids in Mineral Aggregate (VMA) for Types 5-01
(Nominal Max Size as defined in MS-2)

	Percent
3/4" (19 mm)	13
1/2" (12.5 mm)	14
3/8" (9.5 mm)	15

The VMA for Mix Types 5-01 & 6-01 shall be the minimum value allowed. For these mixes, the asphalt content should be just to the left side of the low point on the VMA vs. Asphalt Percent curve, not to the "wet" or right (increasing) side of the curve. Nominal maximum sized as defined in MS-2 means the sieve size where the next smaller sieve size (from Table in Section 2205.4.A) retains at least 10% of the sample.

The VMA requirements shown represent values that may be higher than those obtained in the KC Metropolitan area using locally available materials. The minimum values are values recommended by the Asphalt Institute in MS-2, latest edition, for high quality asphaltic concretes, but may require the use of non-local aggregates. VMA values shown are for 4% air voids and should be used for the design of conventional roadway pavements.

During production, the air voids can be expected to vary plus or minus 1% of the design value of 4%. For Mix Types 1-01, 2-01, 3-01, and 4-01, 3% - 4% air voids may be used for design and production may be allowed to vary plus or minus 1% of the design value.

The ratio of minus 200 (75 um) material to % Effective asphalt cement (P_{eff}) based on the weight of the aggregate shall be between 0.6-1.4 for Mix Types 5-01 and 6-01.

The blend of FRAP, RAP and/or RAM and virgin aggregates or non-recycled asphalts shall be checked for resistance to stripping using AASHTO T 283 to determine if an anti-stripping agent is needed. The index of retained strength shall exceed 75% for Mix Types 1-01, 2-01, 3-01, and 4-01, and 80% for Mix Types 5-01 and 6-01.

- E.** Sampling and Testing of the Mixture: All Mix Types shall be sampled in accordance with ASTM D 979 and tested in accordance with AASHTO T 245, ASTM C 136, ASTM C 117, AASHTO T 312, AASHTO T 269, AASHTO T 166, AASHTO T 283, ASTM D 2041, ASTM D 2726, ASTM D 1188, ASTM D 2950, ASTM C 127 and ASTM C 128, as specified herein. The mixtures will be tested for binder content in accordance with ASTM D 2172 or D 6307. The recovered aggregate will be sieved in accordance with ASTM D 5444.
- F.** Mixture Temperature Requirements: The temperature of the completed mix at the plant and at the paver shall be set by the Contractor/Producer who shall consider hauling and placing conditions, asphalt specifications as set forth in Section 2205.3, and weather limitations set forth in Section 2205.9.B. The temperature of Mix Types 5-01 and 6-01 shall not exceed 315° F at the point of discharge from the asphalt plant.

When the mix is produced in a batch-type plant, the aggregate shall be weighed accurately in the designated proportions to provide the specified batch weight. The temperature of the aggregate at the time of introduction into the mixer shall be determined by the Contractor/Producer, with a tolerance of + or - 25° F. In no case, however, shall the temperature of the mixture exceed the maximum temperature recommended by the manufacturer or supplier of the asphaltic cement (generally 350° F).

- G.** Control of Mixing Time: The Contractor/Producer shall control mixing time to produce asphaltic concrete that is uniformly and thoroughly coated with asphaltic cement.
- H.** Preparation of Asphalt Cement: The asphalt shall be heated so that it can be distributed uniformly throughout the mix. For mixing applications, the specified temperature generally will be such that the asphalt viscosity is within the range of 150-190 centistokes and shall not exceed 350° F. The material shall be sufficiently fluid to produce a complete coating on every particle of aggregate within the specified mixing time.

The Contractor/Producer shall maintain calibrated temperature monitoring equipment at the point of discharge from the asphalt plant and at the asphalt tank, and shall supply temperature records upon request.

- I.** Preparation and Handling of Aggregate: Coarse and fine aggregate shall be stored at the plant in such a manner that the separate sizes will not become intermixed. Cold aggregates shall be carefully fed to the plant in such proportions that surpluses and shortages in the bins will not cause breaks in the continuous operation. When loading aggregate into stockpiles, and into cars, barges, and trucks, the material shall be placed in such a manner as to prevent segregation of aggregate sizes. Stockpiles shall be built in uniform layers not exceeding 5 feet in depth.
1. Samples of coarse and fine aggregate shall be submitted to the Engineer for testing upon request. The Contractor/Producer shall be responsible for the preparation and handling of aggregates to insure that the cold-feed gradations fall within the mix design limits. Cold-feed gradation tests shall be taken as requested by the Engineer.
 2. Drying: The aggregate shall be thoroughly dried and heated to provide a paving mix temperature within a tolerance of + or - 25° F of that specified by the approved mix design. The moisture content of the heated and dried aggregate shall not exceed 0.5%. The quantity of material fed through the dryer shall in all cases be held to an amount which can be thoroughly dried and heated.

J. Inspection and Control of Asphalt Mixing Plant

1. Tests: During production the plant shall have the specified tests performed by an approved laboratory. These may include: asphalt (binder) content, aggregate gradation after removal of asphalt, density, stability, % voids, VMA, VFA, theoretical specific gravity, bulk specific gravity, maximum theoretical density, maximum theoretical specific gravity, tensile strength ratio, etc. Properties of the plant produced mix shall be determined using uncompacted mix sampled behind the paver. Laboratories shall be approved if they are:

- a. Accredited in accordance with ASTM D3666; and/or
 - b. Approved for Superpave asphalt testing by the State Highway Department in the state where the plant is located.
 - i. The individual performing the test must carry a state certification for Superpave testing.
 - ii. The laboratory must have an annual certification by an independent testing agency of all testing equipment used for Superpave mix designs, and must also have the Marshall hammer weight and height of drop certified by that same agency.
2. Availability of test reports: The results of the latest current test report shall be furnished to the Engineer upon request. All test reports shall be kept at the plant, and shall be made available upon request. If the mix is found to be outside of tolerance, or outside the specification limits as specified in Section 2205.4, correction shall be made. Test reports shall be furnished on the appropriate attached "Asphalt Concrete Test" form or a similar form containing equivalent information.
3. Frequency of testing for mixes 1-01 through 4-01: the tests listed in paragraph 1 shall be performed a minimum of once for every 3000 tons of asphalt production (minimum of once per day when the plant has produced at least 200 tons and at discretion of Engineer if less than 200 tons produced) except during initial startup, or whenever the production asphalt fails one of the following conditions at which time they will be tested every 1000 tons until 4 consecutive tests show compliance with the specifications:
- a. Production void content measured at the plant discharge is less than 2% or more than 5%.
 - b. Extracted gradation of the production asphalt exceeds the permissible gradation variation for the mix type being produced.
 - c. Asphalt cement exceeds the content variation for the mix type being produced.
4. Frequency of testing for mixes 5-01 and 6-01: the tests listed in paragraph 1 shall be performed once per day of production, or every 1000 tons, whichever is less frequent except during initial startup (if less than 200 tons produced testing is at discretion of Engineer); or whenever the production fails one of the following conditions at which time they will be tested every 500 tons, or twice per day of production, whichever is less frequent until 4 consecutive tests show compliance with the specifications:
- a. Production void content measured at the plant discharge is less than 3% or more than 5%.
 - b. Extracted gradation of the production asphalt exceeds the permissible gradation variation for the mix type being produced.
 - c. Production VMA measured at the plant discharge is below the design minimum VMA.
 - d. Production VFA measured at the plant discharge is outside the allowable range.
 - e. Production dust to binder ratio is outside the allowable range.
5. Redesign of Asphalt mixes: If four consecutive tests performed as described in paragraph 3 or 4 above show noncompliance with the specifications as enumerated in the subparagraphs of paragraph 3 or 4 above, production of that type of asphalt will immediately cease, and may not be resumed until a new mix design is submitted and approved, or the plant can demonstrate to the Engineer an ability to meet specifications. Resumption of asphalt production after a mix redesign or failure of four consecutive tests to meet specifications will be treated as an initial startup for testing purposes.

MARSHALL ASPHALTIC CONCRETE TEST
(Verified Mix Design) (Types 1-01, 2-01, 3-01, 4-01)

Description:
 APWA Type:
 LAB ID:
 Sample Date:
 Sample ID:
 Supplier:

		LOT	
	Belt		Tons
	Hot Mix		Tons

Sieve Size	Belt Sample	Hot-Mix	Single Point Job- Mix	Job-Mix Formula
1" (25 mm)				
3/4" (19 mm)				
1/2" (12.5 mm)				
3/8" (9.5 mm)				
No. 4 (4.75 mm)				
No. 8 (2.36 mm)				
No. 16 (1.18 mm)				
No. 30 (600 um)				
No. 50 (300 um)				
No. 100 (150 um)				
No. 200 (75 um)				

ASTM C 136,
 C 117, D 5444

*Uncompacted
 Behind Paver
 **total mix basis
 ***total aggregate

EXTRACTION DATA - ASTM D6307 or D	FRAP	Sample	Plant Setting	Recycled AC%
%AC**				
%AC**				

Aggregate Type	%***	Aggregate Type	%***

MARSHALL CHARACTERISTICS (ACCEPTANCE CRITERIA)			
Compaction Blows (average of 3 specimens) = 50			
	Sample*	Specifications*	
Stability, lbs (kg)		Min	AASHTO T 245
Flow, 1/100 in (mm)		Max	AASHTO T 245
% Voids		3-5	
% VFA			
Density, pcf (kg/cu.m)		-----	ASTM D 2950, D 2726,
Max Theoretical Specific Gravity G _{mm}		-----	ASTM D 2041
Bulk Spec. Gr. of total Agg. G _{sb}		-----	ASTM C 127 & C 128
COMMENTS:			

LOT DENSITY SHALL BE TIED TO THE LOT AND DATE (Laboratories shall conform to ASTM D 3666)

SUPERPAVE ASPHALTIC CONCRETE TEST
(Verified Mix Design) (Types 5-01, 6-01)

Description:
 APWA Type:
 LAB ID:
 Sample Date:
 Sample ID:
 Supplier:

		TIME	TONS
	Belt		
	Hot Mix		

Sieve Size	Belt Sample	FRAP/RAP Sample*	Hot-Mix Sample	Master Grade Limits	Cal. Single Point
1" (25 mm)					
3/4" (19 mm)					
1/2" (12.5 mm)					
3/8" (9.5 mm)					
No. 4 (4.75 mm)					
No. 8 (2.36 mm)					
No. 16 (1.18 mm)					
No. 30 (600 um)					
No. 50 (300 um)					
No. 100 (150 um)					
No. 200 (75 um)					

ASTM C 136,
 C 117, D 5444

*Uncompacted
 Behind Paver
 **total mix basis
 ***total aggregate

EXTRACTION DATA - ASTM D6307 or D 2172	FRAP	Sample	Plant Setting	Recycled AC%
%AC**				
%AC**				

Aggregate Type	%***	Aggregate Type	%***

VOLUMETRIC DATA 6" NOMINAL SIZE Gyratory Specimens			
Gyrations (avg. of 2 specimens) @ 280-290 deg F - AASHTO T312			
Ndes = 50 Nini = 6 Nmax = 75			
	Sample*	Specifications*	
Mix bulk specific gravity @ Ndes, Gmb		---	
% Voids @ Ndes		3.0-5.0	AASHTO T 269
% VMA @ Ndes, Gsb basis			
% VFA @ Ndes		9.0-11.0	=%VMA-%Voids
% Gmm @ Nini		85-91	AASHTO T 166
Ratio (-) 75 um (No. 200) to % Eff. Binder		0.6-1.4	
Tensile Strength Ratio, %		80 minimum	AASHTO T 283
Max Theoretical Specific Gravity Gmm		-----	ASTM D 2041
Max Theoretical Density, pcf		-----	
Effective Specific Gravity Agg., Gse		-----	
Bulk Specific Gravity of Total Agg., Gsb		-----	ASTM C 127 & C 128
Specific Gravity of Asphalt, Gb		-----	
COMMENTS:			

2205.5 Asphalt Mixing Plant

Plants used by the Contractor for preparation of the asphalt paving mix shall conform to the following requirements:

- A.** Field Testing Laboratory: The Contractor shall provide a laboratory building or room at the plant site, for the exclusive use of the Engineer for performing tests, keeping records, and making reports at such times as the Engineer is performing those actions.

The Contractor shall also furnish necessary laboratory sieves and a powered shaker device for sieve analysis, scales, ignition oven and supplementary equipment to make aggregate sieve analysis, asphaltic concrete paving mixture analysis, and paving mixture density tests. This equipment shall be in good working condition and properly calibrated.

- B.** The asphalt producer shall establish a quality control plan and shall maintain records. The quality control plan required by the state highway agency is a suggested standard. Upon request by the Engineer, the quality control plan shall be submitted for review and approval.

2205.6 Transportation of Mix

The mix shall be transported to the job site in vehicles with tight metal bottoms, clean of all foreign material which may affect the mix. If a release agent is used, it must comply with State and Federal environmental regulations.

The dispatching of the vehicles shall be so scheduled that all materials delivered may be placed in daylight unless the Engineer approves artificial light. Delivery of the material to the paver shall be at a uniform rate and in an amount within the capacity of the paving and compacting equipment.

Haul trucks shall be provided with covers of sufficient size and weight to completely cover the truck bed to protect the load and to prevent cooling of the upper surface. Failure to have the load completely covered shall be sufficient cause for rejection of the entire load. The load shall remain covered until the truck is next in line to be unloaded. In no case shall a load remain uncovered for more than 10 minutes before starting to use the load. If for any reason there is a delay in completely using a load, the remaining part of the load shall be recovered until it can be used. It shall be the responsibility of the Contractor to inform all truck drivers of these provisions before starting work.

2205.7 Scales and Weighing of Vehicles

The vehicle's tare and gross weight shall be established by weighing the vehicle on a certified scale. The tare weight will be established at least twice each day. The vehicle, when establishing tare, shall be clean, bed empty, fuel tanks filled and shall have all side and back boards in place.

- A.** Measurement by weight: Measurement will be made by weighing each truck load on scales conforming to the requirements of Section 2205.7.B "Vehicle Scales".
- B.** Vehicle Scales: Vehicle scales shall be approved by the Engineer and shall conform to the requirements specified herein. The specifications, tolerances, and other technical requirements for weighing and measuring devices as recommended by the National Conference on Weights and Measures and published in the National Institute of Standards and Technology Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, and supplements thereto or revisions thereof, shall apply to all vehicles scales used.
- C.** Scale acceptance shall be based on one of the following:

1. A valid certification or seal of approval by the Division of Weights and Measures from the state.
2. A certification of calibration from a commercial scale service company showing that the scale meets the requirements of these specifications. The Contractor shall furnish the certification of calibration to the Engineer.

D. Scale Calibration: Scales shall have been calibrated within the nine month period prior to any material being delivered, or at any time the Engineer has cause to question the accuracy of the scale. Scales shall meet the requirements of Accuracy Class III L as defined in Handbook 44 (above).

Verification of a vehicle scale may be required by weighing a hauling unit on another recently calibrated and certified scale.

If equipment to be weighed is of such length that all axles cannot be weighed simultaneously, a level paved surface shall be provided permitting those axles not on the scale platform to be supported by the paved surface. The approach shall be at least as wide as the platform and of sufficient length to insure the level positioning of vehicles during weight determinations. The weighing shall be performed with all brakes released. If equipment to be weighed is equipped with an air bag suspension unit on any axle, the equipment including semi-trailers or pup trailers shall be weighed on vehicle scales of sufficient size to weigh all axles of the combination simultaneously.

All costs incurred in obtaining a certification of calibration or verification shall be borne by the Contractor.

2205.8 Asphalt Paving Equipment

All asphalt paving equipment used by the Contractor shall meet the requirements of this section and shall be maintained in acceptable mechanical condition. Equipment shall be serviced and lubricated away from the paving site. Units that drip fuel, oil, grease or other fluids shall be removed from the project until such leakage is corrected.

A. Pavers and Laydown Machines: Mechanical self-powered pavers shall be capable of spreading the mix within the specified tolerances, true to the line, grade and crown indicated on the Plans.

Pavers shall be in good working condition, equipped with quick and efficient steering devices and shall be capable of traveling both forward and in reverse. They shall be equipped with hoppers and distributing screws that place the mix evenly in front of the adjustable screeds. They shall be equipped with either a vibrating screed or a tamping bar immediately preceding a static screed. There shall be sufficient auxiliary attachments for the paving machine so that it may be operated to lay the necessary width as determined in the field by the Engineer. Vibrating screed or tamp bars shall be provided for the full width of all paving operations.

The screed shall include a strike-off device which is effective on mixes at workable temperatures without tearing, shoving or gouging them, and which produces a finished surface of an even and uniform texture. The screed shall be adjustable as to the height and crown and shall be equipped with a controlled heating device for use when required. However, for irregular width paving, hydraulic extensions without tamping bars or a vibrating screed may be used only along the curb or outer edge of pavement.

1. **Automatic Screed Controls:** The paver shall be equipped with and use an approved system capable of automatically controlling the elevation and transverse slope of the paver screed unless otherwise directed by the Engineer. An erected stringline, traveling stringline or other approved device operating on the roadbed being paved or the surface of the previously placed lane shall be used to establish the grade reference. The grade reference device shall operate on either or both sides of the paver as

required and shall be capable of maintaining the desired transverse slope regardless of changes in the screed elevation.

2. The traveling stringline shall be constructed in such a manner that it does not vibrate or cause the sensor to make erroneous readings during the laydown operation. The length of the beam to be used shall be approved by the Engineer and shall be between 20 feet and 40 feet.
3. The use of the automatic screed control devices on asphalt pavers will not be required for paving small irregular areas, entrances, approaches, or side street connections.
4. Automatic screed control devices will be required for matching the joint with all previously laid strips, except for those areas noted above.

- B.** Rollers: Compaction equipment shall consist of vibratory steel wheel, static steel wheel and pneumatic-tired rollers unless otherwise directed by the Engineer. They shall be self-propelled and equipped with such controls that starting, stopping and reversing direction can be accomplished without displacing the hot asphaltic concrete pavement.

Rollers shall be equipped with adjustable scrapers to keep the wheel surfaces clean and with efficient means of keeping them wet to prevent mixes from sticking. The roller surfaces shall have no flat areas, openings or projections that will mar the surface of the pavement.

1. Steel-Wheeled Rollers: Steel-Wheeled Rollers shall be self-propelled, vibratory two-axle tandem rollers. These rollers shall develop contact pressure of 250 to 350 pounds per inch of width (vibratory mode) or 150 to 180 pounds per inch of width (static). Rollers shall be in good working condition.
2. Pneumatic-Tired Rollers: Heavy pneumatic-tired rollers shall be self-propelled and shall consist of two axles on which are mounted an odd number of pneumatic-tired wheels. The roller shall have at least nine pneumatic-tired wheels mounted in such a manner that the rear group of wheels will not follow in the tracks of the forward group, but shall be spaced to give essentially uniform coverage with each pass. Axles shall be mounted in a rigid frame provided with a loading platform or body suitable for ballast loading. Tires shall be smooth, inflated to 90 psi. Construction of the roller shall be such that each wheel is loaded to a minimum of 2,300 pounds.
3. In lieu of the above requirements, consideration will be given to use other types of equipment that are capable of producing equivalent results consistent with the requirements of the specifications. Any roller not meeting the requirements of paragraphs 1 and 2 above must be approved by the Engineer prior to use.

- C.** Pressure Distributor: The pressure distributor shall meet the requirements of Section 2204.4.A entitled "Pressure Distributor".

- D.** Hand Tools: The Contractor shall provide sufficient lutes, rakes, shovels, and other equipment as required to produce results consistent with the specifications.

2205.9 Construction

- A.** Preparation of the Area to be Paved: The area to be paved shall be true to line and grade, and shall have a properly prepared surface prior to the start of the paving operations. It shall be free from all loose or foreign material.

Where a base is rough or uneven, a leveling course shall be placed and properly compacted before the placing of subsequent courses.

When leveling course is not required, depressions and other irregularities shall be patched or corrected, and the work approved by the Engineer before the paving operation begins.

The area to be paved shall be primed or tacked uniformly in accordance with the provisions of Section 2204 entitled "Prime and Tack Coat".

The surfaces of curbs, gutters, vertical faces of existing pavements and all structures in actual contact with asphalt mixes shall be painted with a thin, complete coating of tack to provide a closely bonded joint.

- B.** Weather Limitations: When the moisture of the aggregate in the stockpile or from the dryer interferes with the quality of mix production, or with normal plant operations, the mixing and placing of hot-mix asphalt will not be permitted without the permission of the Engineer. No mixture shall be placed on wet or frozen surface.

Hot Mix asphalt paving shall not be mixed or placed when the ambient air or base temperature is below the temperatures shown in the following table, or when there is frost in the subgrade or any other time when weather conditions are unsuitable for the type of material being placed without expressed approval of the Engineer.

<u>Paving Course</u>	<u>Thickness (inches)</u>	<u>Air Temperature (Degrees F)</u>	<u>Road Surface Temperature (Degrees F)</u>
Surface	All	50	55
Base	Less than 3	40	45
Base	3 or more	30	35

All bituminous mixtures shall be delivered to the paver at a temperature sufficient to allow the material to be placed and compacted to the specified density and surface tolerance. Minimum allowable temperature for the asphalt mix to be placed into the paver is 235° F. Regardless of the temperature, final acceptance of the asphalt mat shall be based on density determined in accordance with Section 2205.9.E.

- C.** Spreading and Finishing: The spreading and finishing of each course shall be to the thickness, cross slope, and width indicated on the Plans or Special Provisions. The thickness of individual layers shall not exceed the following for the respective type of mixture. The suggested minimum lift thickness shall be three times the nominal maximum size of the mix. Nominal maximum is defined as the first sieve size larger than the sieve which retains at least 10% of the aggregate by weight.

<u>Asphalt Type</u>	<u>Max. Compacted Lift Thickness</u>
Type 1-01	4"
Type 2-01	4"
Type 3-01	3"
Type 4-01	2"
Type 5-01	4"
Type 6-01	3"

Spreading and finishing shall be conducted in the following manner:

1. Mechanical Pavers: The base and surface courses shall be spread and struck-off with a mechanical paving machine meeting the requirements of Section 2205.8.A entitled "Pavers and Laydown

Machines". The paving machine shall be operated so that the material does not accumulate and remain along the sides of the receiving hopper. The wings of the spreader hopper shall not be emptied (flipped) between truck loads.

- a. Equipment which leaves tracks or indented areas which cannot be corrected in normal operation, or which produces other permanent blemishes or fails to produce a satisfactory surface, shall not be used.
 - b. The screed auger shall be operated approximately 3/4 full and the hopper conveyor shall not be allowed to run out of material during the paving operation. Sufficient trucks shall be used to continuously supply asphalt to the paver. Delays in the paving operation shall be kept to a minimum.
 - c. When using pavers in echelon, the second paver shall follow the edge of the material placed by the first paver. The length of each laydown pass shall be limited, depending on weather conditions, to assure a hot joint and obtain proper compaction.
2. Longitudinal joints and edges shall be constructed to true lines. Lines for the paver to follow in placing individual lanes will be established parallel to the centerline of the proposed roadway. The paver shall be positioned; and operated to follow closely the established line. Offset the longitudinal joint in successive courses by 6 to 12 inches. Longitudinal joints in the final surface layer shall be at the lane lines of the traveled way, but shall be offset to prevent lane separation pavement markings from falling on the joint. Any irregularities in alignment left by the paver shall be corrected directly behind the paver, prior to compaction. Distortion of the pavement during this operation shall be avoided. Edges against which additional pavement is to be placed shall be placed on a 30° (2:1) bevel, or as specified by the Engineer.
 3. Transverse joints in succeeding courses shall be offset at least 2 feet.
 4. The Contractor shall make every effort to minimize the number of passes heavy equipment makes over uncompleted roadway sections. The Contractor shall schedule and route his hauling operation to minimize hauling over a final course as much as feasible.
 5. As soon as the first load of material has been spread, the texture of the unrolled surface shall be checked to determine its uniformity. Segregation of materials shall not be permitted. If segregation occurs, the spreading operation shall be immediately suspended until the cause is determined and corrected by the Contractor.
 6. Any irregularities in the surface of the pavement course shall be corrected directly behind the paver. Excess material forming high spots shall be removed by a shovel or lute. Indented areas shall be filled with hot mix and smoothed. Broadcasting of material shall not be permitted.
 7. Hand Spreading: In small areas where the use of mechanical finishing equipment is not practical, the mix may be spread and finished by hand. The material shall be distributed uniformly to avoid segregation of the coarse and fine aggregate. Broadcasting of material shall not be permitted. During the spreading operation, all material shall be thoroughly and uniformly distributed by lutes or rakes. Material that has formed into lumps and does not break down readily shall be removed. Following placing and before rolling, the surface shall be checked with templates and straightedges and all irregularities corrected.

D. Compaction

1. General: The Contractor is responsible for development of a compaction procedure that will obtain the

required density. A minimum of three rollers shall be used for compacting mixes on roadways (2 steel drum and 1 pneumatic tire) unless otherwise approved by the Engineer. For uses other than roadways, a minimum of two rollers shall be used unless otherwise approved by the Engineer. Rollers shall meet the requirements of Section 2205.8.B entitled "Rollers".

Immediately after spreading, each course of the pavement mixture shall be uniformly compacted by rolling. The initial or "breakdown" rolling shall be accomplished with a steel-wheeled vibratory roller and shall take place as closely behind the laydown machine as the temperature and condition of the mat will allow. The pneumatic-tired roller shall be used to knead and compact the pavement mixture following the initial rolling and preceding the final rolling. Care shall be exercised in the use of the pneumatic-tired roller to ensure that the pavement mixture is sufficiently cooled to avoid "picking up" of the mixture on the tires of the roller, and also to ensure that the pneumatic-tired rolling is completed before the mixture becomes too cool to allow satisfactory finish rolling. Final, or finish rolling, shall be done with a steel-wheeled roller in static mode. The sequence of rolling operations may be changed with the approval of the Engineer. Rolling shall be longitudinal, starting near the low or unconfined edge of the pavement, then to the other edge and finally progressing towards the center. Alternate trips of the roller shall be of slightly different lengths.

The motion of the roller shall be slow enough at all times to avoid displacement of the hot mixture (generally 3mph). Any displacement occurring as a result of reversing the direction of the roller, or from any other cause, shall be corrected immediately by the use of rakes and fresh mixture when required. To prevent adhesion of the mixture to the roller, the wheels shall be kept properly moistened, but excess water will not be permitted.

The surface of the mixture after compaction shall be smooth and true to established section and grade. Any surface which is segregated, or is in any way defective, shall be removed and replaced with fresh hot mixture at the Contractor's expense, and shall be immediately compacted to conform to the surrounding area.

2. Rolling Procedure: The Contractor is responsible for determining an acceptable rolling procedure that will provide a product that is uniformly compacted to the required density and true to line and grade. There are many possible variations that may accomplish this but the general order for rolling is:
 - a. Transverse joint
 - b. Longitudinal joint (if in echelon)
 - c. Unconfined or low side edge
 - d. Other edge
 - e. Middle
 - f. Intermediate rolling; same procedure as breakdown rolling but pneumatic roller should stay the thickness of the lift from the free edge
 - g. Finish rolling

When paving in echelon, 2-3 inches of the first mat shall be left unrolled, and rolled when the joint between the lanes is rolled, after the 2nd mat is placed. Edges shall not be exposed more than fifteen minutes without being rolled. Particular attention shall be given to the construction of transverse and longitudinal joints in all courses.

In laying a surface mix adjacent to any finished area, it shall be placed sufficiently high so that, when compacted, the finished surface will be true and uniform. Where the grade is slight a level will be used to insure drainage to the desired outlet.

3. Transverse joints: The Contractor shall use a method of making a transverse construction joint that provides a thorough and continuous bond with acceptable surface texture and meeting the density requirements. The surface elevation should not vary more than 3/16" in 10' when tested across the joint. If the joint has been distorted, it shall be trimmed to a line. The joint face shall be tacked before the fresh material is placed against it.
4. Longitudinal joints: When paving against existing asphalt pavement, the edge to be joined shall be tack coated. The paver screed shall be set to overlap the first mat by 1-2 inches. The elevation of the screed above the surface of the first mat should be equal to the amount of roll-down expected during compaction of the new mat. For large aggregate mixes, the coarse aggregate in the material overlapping the cold joint should be carefully removed and wasted, leaving only the finer portion of the mixture. The overlapping material should be pushed with a lute or rake onto the side of the joint where the new pavement is located prior to compaction.

When paving against existing concrete pavement, curb and gutter or other structure, the edge to be joined shall be tack coated. The elevation of the screed above the surface of the first mat should be equal to the amount of roll-down expected during compaction of the new mat. Where drainage of stormwater will flow from the new mat onto abutting curb and gutter, add an additional 1/8" - 1/4" of thickness to the new mat.

5. Breakdown Rolling: Steel wheel rollers as specified in Section 2205.8.B entitled "Rollers" shall be used for breakdown rolling. Breakdown rolling shall be performed as close behind the paver as necessary to obtain adequate density without causing undue displacement. The breakdown roller shall be operated with the drive wheel nearest the laydown machine. Exceptions may be made by the Engineer when working on steep slopes or super-elevated curves. Breakdown rolling sequencing is to be determined by the Contractor and approved by the Engineer.
6. Intermediate Rolling: Pneumatic-tired rollers as specified in Section 2205.8.B entitled "Rollers" shall be used for intermediate rolling unless otherwise approved by the Engineer. The intermediate rolling shall follow the breakdown rolling as closely as possible and while the paving mix is still of a temperature that will result in maximum density from this operation. Pneumatic-tired rolling shall be continuous after the initial rolling until all of the mix placed has been compacted to the required density. Turning of pneumatic-tired rollers on the hot paving mix which causes displacement shall not be permitted.
7. Finish Rolling: The finish rolling shall be accomplished before the material falls below a temperature of 175° F to allow for the removal of roller marks. All roller marks shall be removed by the finish rolling operation. All rolling operations shall be conducted in close sequence.
8. In places inaccessible for the operation of standard rollers as specified, compaction shall be performed by other means meeting the requirements of Section 2205.8.B entitled "Rollers." The Contractor shall ensure that the material is thoroughly compacted to the satisfaction of the Engineer. If approved by the Engineer, hand tamping, manual or mechanical, may be used in such areas, if the required density is met.

E. Density and Surface Requirements: The completed asphalt concrete paving shall have a density equal to or greater than 95% for Types 1-01 and 5-01 Asphalt Concrete Base and 96% for Types 2-01, 3-01, 4-01, 5-01, and 6-01 Asphalt Concrete Surface. Density is based on the density of laboratory specimens from plant produced mix prepared as specified in Section 2205.4.D entitled "Mix Design Criteria" and made from a sample representing the material being tested. Density testing shall conform to ASTM D 2950, ASTM D 2726, or ASTM D 1188.

If cores are used to determine density, one or more tests (one test equals three cores) will be taken for each tonnage lot and averaged to determine acceptance. The cores will be taken from random locations within the lane being paved, a minimum of 1' from any joint or edge. The Engineer will mark the locations of all cores.

All unsatisfactory work shall be repaired, replaced or corrected. The surface of the final course shall be of a uniform texture and conform to line and grade shown on the Plans. Allowable tolerance for the final surface of roadway pavement shall conform to the requirements of Section 2211 entitled "Smoothness". Tests for Plan grade conformance and surface smoothness shall be performed by the Contractor in the presence of the Engineer. Tests shall be performed at intervals as directed by the Engineer.

2205.10 Method of Measurement

Asphaltic concrete base, asphaltic concrete surface, or asphaltic concrete base and surface may be included in the Contract Documents as separate items, or as a single item, and may be measured by one of the following:

- A. Per square yard or tenth part thereof for the specified depth.

2205.11 Basis of Payment

Asphaltic Concrete Surface, Asphaltic Concrete Base, or Asphaltic Concrete Base and Surface whether used for paving, patching, or leveling courses will be paid for by one of the following:

- A. Contract unit bid price.

FHWA FORM 1273
STD TWO-COLUMN FORMAT
Fig. 136.9.7 FHWA 1273

**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

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.

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.

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 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 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.

FEDERAL AID PROVISIONS

FEDERAL AID PROVISIONS

December 1980

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidders attention is called to the "Equal Opportunity Clause" and the Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth therein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:
3. Construction contractors which are participating in an approved Hometown Plan (see 41 CFR 60-4.5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the area covered by the Hometown Plan. With regard to all their covered construction work, such contractors are required to comply with the following goals:

Goals for Female participation for each trade

AREA COVERED

Goals for women apply nationwide

GOALS AND TIMETABLES

Goals

Timetable	(Percent)
From April 1, 1978 until March 31, 1979	3.1
From April 1, 1979 until March 31, 1980	5.1
From April 1, 1980 until March 31, 1981	6.9

Goals for Minority Participation for Each Trade

County	Goal (Percent)	County	Goal (Percent)
Adair	4	Linn	4
Andrew	3.2	Livingston	10
Atchison	10	McDonald	2.3
Audrain	4	Macon	4
Barry	2.3	Madison	11.4
Barton	2.3	Maries	11.4
Bates	10	Marion	3.1
Benton	10	Mercer	10
Bollinger	11.4	Miller	4
Boone	6.3	Mississippi	11.4
Buchanan	3.2	Moniteau	4
Butler	11.4	Monroe	4
Caldwell	10	Montgomery	11.4
Callaway	4	Morgan	4
Camden	4	New Madrid	26.5
Cape Girardeau	11.4	Newton	2.3
Carroll	10	Nodaway	10

Carter	11.4	Oregon	2.3
Cass	12.7	Osage	4
Cedar	2.3	Ozark	2.3
Chariton	4	Pemiscot	26.5
Christian	2	Perry	11.4
Clark	3.4	Pettis	10
Clay	12.7	Phelps	11.4
Clinton	10	Pike	3.1
Cole	4	Platte	12.7
Cooper	4	Polk	2.3
Crawford	11.4	Pulaski	2.3
Dade	2.3	Putnam	4
Dallas	2.3	Ralls	3.1
Daviness	10	Randolph	4
DeKalb	10	Ray	12.7
Dent	11.4	Reynolds	11.4
Douglas	2.3	Ripley	11.4
Dunklin	26.5	St. Charles	14.7
Franklin	14.7	St. Clair	2.3
Gasconade	11.4	St. Francois	11.4
Gentry	10	Ste. Genevieve	11.4
Greene	2	St. Louis City	14.7
Grundy	10	St. Louis County	14.7
Harrison	10	Saline	10
Henry	10	Schuyler	4
Hickory	2.3	Scotland	4
Holt	10	Scott	11.4
Howard	4	Shannon	2.3
Howell	2.3	Shelby	4
Iron	11.4	Stoddard	11.4
Jackson	12.7	Stone	2.3
Jasper	2.3	Sullivan	4
Jefferson	14.7	Taney	2.3
Johnson	10	Texas	2.3
Knox	4	Vernon	2.3
Laclede	2.3	Warren	11.4
Lafayette	10	Washington	11.4
Lawrence	2.3	Wayne	11.4
Lewis	3.1	Webster	2.3
Lincoln	11.4	Worth	10
		Wright	2.3

These goals are applicable to all of the contractor's construction work (whether or not is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on Its Implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its effort to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority, or female employees or trainees from Contractor to Contractor or from project to project

for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

4. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
5. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" of the county, route and limits described in the proposal for the work.

July 1986

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION
CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation which this contract resulted.
 - b. "Director" mean Director, Office of Federal Contract Compliance Programs, United States Department of labor, or any person to who the Director delegates authority;
 - c. "Employer Identification Number" means the Federal Social Security number used on the Employer's quarterly Federal Tax Return, U.S. Treasury Department Form 941;
 - d. "Minority" includes;
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and pacific islander (all persons having origins in any of the original peoples of the Far East, southeast Asia, the Indian Subcontinent, or the Pacific Islands; and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North American and maintain identifiable affiliations through membership and participation or community identifications.
2. Whenever the Contractor, or any Subcontractor at any tier, subcontractors a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contract is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through the association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with the Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligation under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith

performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractors' failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with who the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours or apprentices and trainees to be counted in meeting the goal, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be used its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and all facilities at which the Contractor's employees are assigned to work. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file or the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred not employed by the contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has as collective bargaining agreement has not referred to the contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and

trainee programs relevant of the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources complied under 7b above.

- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement by publicizing it in the company newspaper, annual report, etc., by specific review of the policy with all management personnel and with all minority and female employees at least one a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as superintendents, General foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, person attending, subject matter discussed, and the disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media and providing written notification to and discussing the contractor's EEO policy with other Contractors and Subcontractors with who the Contractor does or anticipates doing business.
- i. Direct is a recruitment effort, both oral and written, to minority female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance or applicants for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and test to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer vacations employment to minority and female youth both on the site and in other areas or contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc. such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligation under these specifications are being carried out.
- n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations or offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

- p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling anyone or more of its obligations under 7a through 7p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
 9. A single goal for minorities and a separate single goal for women have been established to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the executive order if a specific minority group of women is underutilized).
 10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
 11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contract pursuant to Executive Order 11246.
 12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
 13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Direct shall proceed in accordance with 41 CFR 60-4.8.
 14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status, (e.g. mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
 15. Nothing herein provided shall be constructed as a limitation upon the application of other laws which establish different standard of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Action of 1977 and the Community Development Block Grant Program).

OPERATING POLICY STATEMENT

The contractor shall accept as his operating policy the following statement, or one of equal coverage, which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote the full realization of equal employment opportunity through a positive continuing program.

"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, or national origin. 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."

SUPPLEMENTAL REPORTING REQUIREMENTS

- A. The Contractor will keep such records as are necessary to determine compliance with the contractor's equal employment opportunity obligations. The records kept by the contractor will be designed to indicate the number of minority and non-minority group members and women employed in each work classification on the project.
- B. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State Highway Agency and the Federal Highway Administration.
- C. The contractor and each covered subcontractor will submit to the State Highway Agency, for the month of July, for the duration of the project, a report (Form PR-1391) "Federal-Aid Highway Construction Contractors Annual EEO Report", indicating the number of minority, women and non-minority group employees currently engaged in each work classification required by the contract work.

NONDISCRIMINATION IN EMPLOYMENT

July 1990

The following provisions are added by the State to the Required Contract Provisions of Federal-Aid Contracts.

The contractor is advised that the exemptions referred to in the Required Contract Provisions, Federal-Aid contracts under Section II, Nondiscrimination, Paragraph 3g, with respect to contracts and subcontracts, are substantial and are to be found in Chapter 60, Office of Federal Contract Compliance, Equal Employment Opportunity, Department of Labor (33 Federal Register 7804-7812, May 28, 1968, effective July 1, 1968, Chapter 60, Title 41, Code of Federal Regulations), by which contracts and subcontracts of \$10,000 or less and certain contracts and subcontracts for indefinite quantities are exempt.

The two pertinent exemption clauses are as follows:

60-1.5 Exemptions

- (a) General - (1) Transactions of \$10,000 or under. Contracts and Subcontractors not exceeding \$10,000, other than Government bills of lading, and other than contract and subcontracts with depositories of Federal funds in any amount and with financial institutions which are issuing and paying agents for U.S. savings bonds and savings notes, are exempt from the requirements of the equal opportunity clause. In determining the applicability of this exemption to any federally assisted construction contract, or subcontract thereunder, the amount of such contract or subcontract rather than the amount of the Federal financial assistance shall govern. No agency, contractor, or subcontractor shall procure supplies or services in a manner so as to avoid applicability of the equal opportunity clause: Provided, that where a contractor has contracts or subcontracts with the Government in any 12-month period which have an aggregate total value (or can reasonably be expected to have an aggregate total value) exceeding \$10,000,

the \$10,000 or under exemption does not apply, and the contracts are subject to the order and the regulation issued pursuant thereto regardless of whether any single contracts exceeds \$10,000.

FEDERAL WAGE RATES

"General Decision Number: M020200001 08/14/2020

Superseded General Decision Number: M020190001

State: Missouri

Construction Types: Heavy and Highway

Counties: Missouri Statewide.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020
1	01/24/2020
2	02/07/2020
3	02/14/2020
4	03/13/2020
5	04/03/2020
6	04/24/2020
7	05/08/2020
8	05/15/2020
9	05/29/2020
10	06/05/2020
11	07/03/2020
12	07/24/2020
13	08/07/2020
14	08/14/2020

CARP0002-002 05/01/2019

ST. LOUIS COUNTY AND CITY

	Rates	Fringes
Carpenters.....	\$ 38.02	17.77

CARP0005-006 05/03/2015

CASS (Richards-Gebauer AFB ONLY), CLAY, JACKSON, PLATTE AND RAY COUNTIES

	Rates	Fringes
Carpenters:		
CARPENTERS & LATHERS.....	\$ 36.34	15.55
MILLWRIGHTS & PILEDRIVERS...	\$ 36.34	15.55

 CARP0011-001 05/01/2019

	Rates	Fringes
Carpenter and Piledriver		
ADAIR, AUDRAIN (West of Hwy 19), BOONE, CALLAWAY, CHARITON, COLE, COOPER, HOWARD, KNOX, LINN, MACON, MILLER, MONITEAU, MONROE, OSAGE, PUTNAM, RANDOLPH, SCHUYLER, SHELBY AND SULLIVAN COUNTIES.....	\$ 32.28	17.77
ATCHISON, ANDREW, BATES, CALDWELL, CARROLL, DAVIESS, DEKALB, GENTRY, GRUNDY, HARRISON, HENRY, HOLT, LIVINGSTON, MERCER, NODAWAY, ST. CLAIR, SALINE AND WORTH COUNTIES.....	\$ 30.76	17.77
AUDRAIN (East of Hwy.19), RALLS, MARION, LEWIS, CLARK AND SCOTLAND COUNTIES.	\$ 32.29	17.77
BARRY, BARTON, CAMDEN, CEDAR, CHRISTIAN, DADE, DALLAS, DOUGLAS, GREENE, HICKORY, JASPER, LACLEDE, LAWRENCE, MCDONALD, NEWTON, OZARK, POLK, STONE, TANEY, VERNON, WEBSTER AND WRIGHT COUNTIES.	\$ 30.36	17.77
BENTON, MORGAN AND PETTIS...	\$ 30.81	17.77
BOLLINGER, BUTLER, CAPE GIRARDEAU, DUNKLIN, MISSISSIPPI, NEW MADRID, PEMISCOT, PERRY, STE. GENEVIEVE, SCOTT, STODDARD AND WAYNE COUNTIES.....	\$ 32.14	17.77
BUCHANAN, CLINTON, JOHNSON AND LAFAYETTE COUNTIES.....	\$ 31.49	17.77
CARTER, HOWELL, OREGON AND RIPLEY COUNTIES.....	\$ 31.09	17.77
CRAWFORD, DENT, GASCONADE, IRON, MADISON, MARIES, MONTGOMERY, PHELPS, PULASKI, REYNOLDS, SHANNON AND TEXAS COUNTIES.....	\$ 32.13	17.77
FRANKLIN COUNTY.....	\$ 35.56	17.77
JEFFERSON AND ST. CHARLES COUNTIES.....	\$ 38.02	17.77
LINCOLN COUNTY.....	\$ 34.00	17.77
PIKE, ST. FRANCOIS AND WASHINGTON COUNTIES.....	\$ 32.92	17.77
WARREN COUNTY.....	\$ 34.44	17.77

ELEC0001-002 05/31/2020

BOLLINGER, BUTLER, CAPE GIRARDEAU, CARTER, DUNKLIN, FRANKLIN,
IRON, JEFFERSON, LINCOLN, MADISON, MISSISSIPPI, NEW MADRID,
PEMISCOT, PERRY, REYNOLDS, RIPLEY, ST. CHARLES, ST. FRANCOIS,
ST. LOUIS (City and County), STE. GENEVIEVE, SCOTT, STODDARD,
WARREN, WASHINGTON AND WAYNE COUNTIES

	Rates	Fringes
Electricians.....	\$ 40.61	27.06

ELEC0002-001 09/01/2018

ADAIR, AUDRAIN, BOONE, CALLAWAY, CAMDEN, CARTER, CHARITON,
CLARK, COLE, COOPER, CRAWFORD, DENT, FRANKLIN, GASCONADE,
HOWARD, HOWELL, IRON, JEFFERSON, KNOX, LEWIS, LINCON, LINN,
MACON, MARIES, MARION, MILLER, MONITEAU, MONROE, MONTGOMERY,
MORGAN, OREGON, OSAGE, PERRY, PHELPS, PIKE, PULASKI, PUTNAM,
RALLS, RANDOLPH, REYNOLDS, RIPLEY, ST. CHARLES, ST. FRANCOIS,
ST. LOUIS (City and County), STE. GENEVIEVE, SCHUYLER,
SCOTLAND, SHANNON, SHELBY, SULLIVAN, TEXAS, WARREN AND
WASHINGTON COUNTIES

	Rates	Fringes
Line Construction:		
Equipment Operator.....	\$ 39.50	19.96
Groundman & Truck Driver....	\$ 30.36	16.67
Lineman & Cable Splicer.....	\$ 45.90	22.27

ELEC0053-004 01/01/2020

	Rates	Fringes
Line Construction: (ANDREW, ATCHINSON, BARRY, BARTON, BUCHANAN, CALDWELL, CEDAR, CHRISTIAN, CLINTON, DADE, DALLAS, DAVIES,, DEKALB, DOUGLAS, GENTRY, GREENE, GRUNDY, HARRISON, HICKORY, HOLT, JASPER, LACLEDE, LAWRENCE, LIVINGSTON, MCDONALD, MERCER, NEWTON, NODAWAY, OZARK, POLK, ST. CLAIR, STONE, TANEY, VERNON, WEBSTER, WORTH AND WRIGHT COUNTIES)		
Groundman Powderman.....	\$ 32.27	16.09
Groundman.....	\$ 30.12	15.38
Lineman Operator.....	\$ 43.40	19.30
Lineman.....	\$ 47.30	20.45

Line Construction; (BATES, BENTON, CARROLL, CASS, CLAY, HENRY, JACKSON, JOHNSON, LAFAYETTE, PETTIS, PLATTE, RAY AND SALINE COUNTIES)		
Groundman Powderman.....	\$ 32.27	15.52
Groundman.....	\$ 30.12	14.88
Lineman Operator.....	\$ 43.40	18.80
Lineman.....	\$ 47.30	19.95

ELEC0095-001 06/01/2019

BARRY, BARTON, CEDAR, DADE, JASPER, LAWRENCE, MCDONALD, NEWTON,
ST CLAIR, AND VERNON COUNTIES

Rates Fringes

Electricians:

Cable Splicers.....	\$ 25.40	12.19
Electricians.....	\$ 27.43	14.97

ELEC0124-007 08/26/2019

BATES, BENTON, CARROLL, CASS, CLAY, COOPER, HENRY, JACKSON,
JOHNSON, LAFAYETTE, MORGAN, PETTIS, PLATTE, RAY AND SALINE
COUNTIES:

Rates Fringes

Electricians.....	\$ 40.79	22.92
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ELEC0257-003 03/01/2020

AUDRAIN (Except Cuivre Township), BOONE, CALLAWAY, CAMDEN,
CHARITON, COLE, CRAWFORD, DENT, GASCONADE, HOWARD, MARIES,
MILLER, MONITEAU, OSAGE, PHELPS AND RANDOLPH COUNTIES

Rates Fringes

Electricians:

Cable Splicers.....	\$ 30.42	16.085
Electricians.....	\$ 34.00	18.68

ELEC0350-002 12/01/2019

ADAIR, AUDRAIN (East of Highway 19), CLARK, KNOX, LEWIS, LINN,
MACON, MARION, MONROE, MONTGOMERY, PIKE, PUTNAM, RALLS,
SCHUYLER, SCOTLAND, SHELBY AND SULLIVAN COUNTIES

Rates Fringes

Electricians.....	\$ 32.50	17.65
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ELEC0453-001 09/01/2019

Rates Fringes

Electricians:

CHRISITAN, DALLAS, DOUGLAS, GREENE, HICKORY, HOWELL, LACLEDE, OREGON, OZARK, POLK, SHANNON, WEBSTER and WRIGHT COUNTIES..	\$ 27.88	14.99
PULASKI and TEXAS COUNTIES..	\$ 32.53	15.46
STONE and TANEY COUNTIES....	\$ 23.67	14.17

* ELEC0545-003 06/01/2020

ANDREW, BUCHANAN, CLINTON, DEKALB, ATCHISON, HOLT, MERCER,
GENTRY, HARRISON, DAVIESS, GRUNDY, WORTH, LIVINGSTON, NODAWAY,

AND CALDWELL COUNTIES

	Rates	Fringes
Electricians:.....	\$ 33.00	18.10

ELEC0702-004 12/30/2019

BOLLINGER, BUTLER, CAPE GIRARDEAU, DUNKLIN, MADISON,
MISSISSIPPI, NEW MADRID, PEMISCOT, SCOTT, STODDARD AND WAYNE
COUNTIES

	Rates	Fringes
Line Construction:		
Groundman - Class A.....	\$ 30.31	29% + 7.75
Groundman-Equipment Operator Class II (all other equipment).....	\$ 38.46	29% + 7.75
Heavy-Equipment Operator Class I (all crawler type equipment D-4 and larger)...	\$ 43.88	29% + 7.75
Lineman.....	\$ 53.51	29% + 7.75

ENGI0101-001 05/01/2020

ANDREW, ATCHISON, BATES, BENTON, BUCHANAN, CALDWELL, CARROLL,
CHARITON, CLINTON, COOPER, DAVIESS, DEKALB, GENTRY, GRUNDY,
HARRISON, HENRY, HOLT, HOWARD, JOHNSON, LAFAYETTE, LINN,
LIVINGSTON, MERCER, NODAWAY, PETTIS, SALINE, SULLIVAN AND WORTH
COUNTIES

	Rates	Fringes
Power equipment operators:		
GROUP 1.....	\$ 34.73	18.20
GROUP 2.....	\$ 34.33	18.20
GROUP 3.....	\$ 32.33	18.20

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Asphalt roller operator, finish; asphalt paver and
spreader; asphalt plant operator; auto grader or trimmer or
sub-grader; backhoe; blade operator (all types); boilers -
2; booster pump on dredge; bulldozer operator; boring
machine (truck or crane mounted); clamshell operator;
concrete mixer paver; concrete plant operator; concrete
pump operator; crane operator; derrick or derrick trucks;
ditching machine; dragline operator; dredge engineman;
dredge operator; drill cat with compressor mounted
(self-contained) or similar type self- propelled rotary
drill (not air tract); drilling or boring machine
(rotary-self-propelled); finishing machine operator;
greaser; high loader-fork lift-skid loader (all types);
hoisting engineer (2 active drums); locomotive operator
(standard guage); mechanics and welders (field and plants);
mucking machine operator; pile drive operator; pitman crane
or boom truck (all types); push cat; quad track; scraper
operators (all types); shovel operator; sideboom cats; side
discharge spreader; skimmer scoop operators; slip form
paver operator (CMI, Rex, Gomeco or equal); la tourneau
rooter (all tiller types); tow boat operator; truck crane;

wood and log chippers (all types).

GROUP 2: A-frame truck operator; articulated dump truck; back filler operator; boilers (1); chip spreader; churn drill operator; compressor; concrete mixer operator, skip loader; concrete saws (self-propelled); conveyor operator; crusher operator; distributor operator; elevating grader operator; farm tractor (all attachments); fireman rig; float operator; form grade operator; hoisting engine (one drum); maintenance operator; multiple compactor; pavement breaker, self-propelled hydra-hammer (or similar type); paymill operator; power shield; pumps; roller operator (with or without blades); screening and washing plant; self-propelled street broom or sweeper; siphons and jets; straw blower; stump cutting machine; siphons and jets; tank car heater operator (combination boiler and booster); welding machine; vibrating machine operator (not hand held); welding machine.

GROUP 3: (a) Oiler; (b) Oiler driver (c) Mechanic.

HOURLY PREMIUMS:

THE FOLLOWING CLASSIFICATIONS SHALL RECEIVE (\$.25) ABOVE GROUP 1 RATE: Dragline operator - 3 yds. & over; shovel 3 yds. & over; clamshell 3 yds. & over; Crane, rigs or piledrivers, 100' of boom or over (incl. jib.), hoist - each additional active drum over 2 drums

THE FOLLOWING CLASSIFICATIONS SHALL RECEIVE (\$.50) ABOVE GROUP 1 RATE: Tandem scoop operator; crane, rigs or piledrivers 150' to 200' of boom (incl. jib.)

THE FOLLOWING CLASSIFICATIONS SHALL RECEIVE (\$.75) ABOVE GROUP 1 RATE: Crane rigs, or piledrivers 200 ft. of boom or over (including jib.)

ENGI0101-005 04/01/2020

CASS, CLAY, JACKSON, PLATTE AND RAY COUNTIES

	Rates	Fringes
Power equipment operators:		
GROUP 1.....	\$ 37.02	19.89
GROUP 2.....	\$ 35.98	19.89
GROUP 3.....	\$ 31.51	19.89
GROUP 4.....	\$ 34.86	19.89

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Asphalt roller operator, finish; asphalt paver and spreader; asphalt plant operator; auto grader or trimmer or sub-grader; backhoe; blade operator (all types); boilers-2; booster pump on dredge; boring machine (truck or crane mounted); bulldozer operator; clamshell operator; concrete cleaning decontamination machine operator; concrete mixer paver; concrete plant operator; concrete pump operator; crane operator; derrick or derrick trucks; ditching machine; dragline operator; dredge engineman; dredge operator; drillcat with compressor mounted (self-contained) or similar type self propelled rotary drill (not air tract); drilling or boring machine (rotary -

self-propelled); finishing machine operator; greaser; heavy equipment robotics operator/mechanic; horizontal directional drill operator; horizontal directional drill locator; loader-forklift - skid loader (all types); hoisting engineer (2 active drums); locomotive operator (standard guage); master environmental maintenance mechanic; mechanics and welders (field and plants); mucking machine operator; piledrive operator; pitman crane or boom truck (all types); push cat; quad-track; scraper operators (all types); shovel operator; side discharge spreader; sideboom cats; skimmer scoop operator; slip-form paver (CMI, REX, Gomaco or equal); la tourneau rooter (all tiller types); tow boat operator; truck crane; ultra high perssure waterjet cutting tool system operator/mechanic; vacuum blasting machine operator/mechanic; wood and log chippers (all types)

GROUP 2: "A" Frame truck operator; back filler operator; boilers (1); chip spreader; churn drill operator; concrete mixer operator, skip loader; concrete saws (self-propelled); conveyor operator; crusher operator; distributor operator; elevating grader operator; farm tractor (all attachments); fireman rig; float operator; form grader operator; hoisting engine (1 drum); maintenance operator; multiple compactor; pavement breaker, self-propelled hydra- hammer (or similar type); power shield; paymill operator; pumps; siphons and jets; stump cutting machine; tank car heater operator (combination boiler and booster); compressor; roller operator (with or without blades); screening and washing plant; self-propelled street broom or sweeper; straw blower; tank car heater operator (combination boiler and booster); vibrating machine operator (not hand held)

GROUP 3: Oilers

GROUP 4: Oiler Driver (All Types)

FOOTNOTE:

HOURLY PREMIUMS FOLLOWING CLASSIFICATIONS SHALL RECEIVE (\$1.00) ABOVE GROUP 1 RATE:

Clamshells - 3 yd. capacity or over; Cranes or rigs, 80 ft. of boom or over (including jib); Draglines, 3 yd. capacity or over;

Piledrivers 80 ft. of boom or over (including jib);

Shovels & backhoes, 3 yd. capacity or over.

 ENGI0101-022 05/01/2019

BARRY, BARTON, CAMDEN, CEDAR, CHRISTIAN, DADE, DALLAS, DOUGLAS, GREENE, HICKORY, JASPER, LACLEDE, LAWRENCE, MCDONALD, NEWTON, OZARK, POLK, ST. CLAIR, STONE, TANEY, VERNON, WEBSTER AND WRIGHT COUNTIES and CITY OF SPRINGFIELD

	Rates	Fringes
Power equipment operators:		
GROUP 1.....	\$ 31.72	14.88
GROUP 2.....	\$ 31.37	14.88
GROUP 3.....	\$ 31.17	14.88
GROUP 4.....	\$ 29.12	14.88

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Asphalt finishing machine & trench widening spreader; asphalt plant console operator; autograder; automatic slipform paver; backhoe; blade operator - all types; boat operator - tow; boilers-2; central mix concrete plant operator; clamshell operator; concrete mixer paver; crane operator; derrick or derrick trucks; ditching machine; dozer operator; dragline operator; dredge booster pump; dredge engineman; dredge operator; drill cat with compressor mounted on cat; drilling or boring machine rotary self-propelled; highloader; hoisting engine - 2 active drums; launch hammer wheel; locomotive operator; - standard gauge; mechanic and welders; mucking machine; off-road trucks; piledriver operator; pitman crane operator; push cat operator; quad trac; scoop operator - all types; shovel operator; sideboom cats; skimmer scoop operators; trenching machine operator; truck crane.

GROUP 2: A-frame; asphalt hot-mix silo; asphalt plant fireman (drum or boiler); asphalt plant man; asphalt plant man; asphalt plant mixer operator; asphalt roller operator; backfiller operator; barber-greene loader; boat operator (bridges and dams); chip spreader; concrete mixer operator - skip loader; concrete plant operator; concrete pump operator; crusher operator; dredge oiler; elevating grader operator; fork lift; greaser-fleet; hoisting engine - 1; locomotive operator - narrow gauge; multiple compactor; pavement breaker; powerbroom - self-propelled; power shield; roter; side discharge concrete spreader; slip form finishing machine; stumpcutter machine; throttle man; tractor operator (over 50 h.p.); winch truck.

GROUP 3: Boilers - 1; chip spreader (front man); churn drill operator; clef plane operator; concrete saw operator (self-propelled); curb finishing machine; distributor operator; finishing machine operator; flex plane operator; float operator; form grader operator; pugmill operator; roller operator, other than high type asphalt; screening & washing plant operator; siphons & jets; sub-grading machine operator; spreader box operator, self-propelled (not asphalt); tank car heater operator (combination boiler & booster); tractor operator (50 h.p. or less); Ulmac, Ulric or similar spreader; vibrating machine operator, not hand;

GROUP 4: Grade checker; Oiler; Oiler-Driver

HOURLY PREMIUMS:

The following classifications shall receive \$.25 above GROUP 1 rate:

Clamshells - 3 yds. or over; Cranes - Rigs or Piledrivers, 100 ft. of boom or over (including jib);
 Draglines - 3 yds. or over; Hoists - each additional active drum over 2 drums; Shovels - 3 yds. or over;

The following classifications shall receive \$.50 above GROUP 1 rate:

Tandem scoop operator; Cranes - Rigs or Piledrivers, 150 ft. to 200 ft. of boom (including jib); Tandem scoop.

The following classifications shall receive \$.75 above GROUP 1 rate:

Cranes - Rigs or Piledrivers, 200 ft. of boom or over (including jib.).

 ENGI0513-004 05/06/2019

FRANKLIN, JEFFERSON, LINCOLN, ST CHARLES, AND WARREN COUNTIES

	Rates	Fringes
Power equipment operators:		
GROUP 1.....	\$ 34.36	27.36
GROUP 2.....	\$ 34.36	27.36
GROUP 3.....	\$ 33.06	27.36
GROUP 4.....	\$ 32.61	27.36

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Backhoe, Cable; Backhoe, Hydraulic (2 cu yds bucket and under regardless of attachment, one oiler for 2 or 3, two oilers for 4 through 6); Backhoe, Hydraulic over 2 cu yds; Cableway; Crane, Crawler or Truck; Crane, Hydraulic - Truck or Cruiser mounted, 16 tons and over; Crane, Locomotive; crane with boom including jib over 100 ft from pin to pin; Crane using rock socket tool; Derrick, Steam; Derrick Car and Derrick Boat; Dragline, 7 cu yds and over; Dredge; Gradall, Crawler or tire mounted; Locomotive, Gas, Steam & other powers; Pile Driver, Land or Floating; Scoop, Skimmer; Shovel, Power (Electric, Gas, Steam or other powers); Shovel, Power (7 cu yds and over); Switch Boat; Whirley; Air Tugger with air compressor; Anchor Placing Barge; Asphalt Spreader; Athey Force Feeder Loader, self-propelled; Backfilling Machine; Boat Operator - Push Boat or Tow Boat (job site); Boiler, High Pressure Breaking in Period; Boom Truck, Placing or Erecting; Boring Machine, Footing Foundation; Bullfloat; Cherry Picker; Combination Concrete Hoist and Mixer (such as Mixermobile); Compressor, Two 125 CFM and under; Compressor, Two through Four over 125 CFM; Compressor when operator runs throttle; Concrete Breaker (Truck or Tractor mounted); Concrete Pump (such as Pumpcrete machine); Concrete Saw (self-propelled); Concrete Spreader; Conveyor, Large (not selfpropelled) hoisting or moving brick and concrete into, or into and on floor level, one or both; Crane, Climbing (such as Linden); Crane, Hydraulic - Rough Terrain, self-propelled; Crane, Hydraulic - Truck or Cruiser mounted - under 16 tons; Drilling machine - Self-powered, used for earth or rock drilling or boring (wagon drills and any hand drills obtaining power from other souces including concrete breakers, jackhammers and Barco equipmnet no engineer required); Elevating Grader; Engine Man, Dredge; Excavator or Powerbelt Machine; Finishing Machine, self- propelled oscillating screed; Forklift; Generators, Two through Six 30 KW or over; Grader, Road with power blade; Greaser; Highlift; Hoist, Concrete and Brick (Brick cages or concrete skips operating or on tower, Towermobile, or similar equipment); Hoist, Three or more drums in use; Hoist, Stack; Hydro-Hammer; Lad-A-Vator, hoisting brick or concrete; Loading Machine such as Barber-Greene; Mechanic on job site

GROUP 2: Air Tugger with plant air; Boiler (for power or heating shell of building or temporary enclosures in connection with construction work); Boiler, Temporary; Compressor, One over 125 CFM; Compressor, truck mounted; Conveyor, Large (not self- propelled); Conveyor, Large (not self- propelled) moving brick and concrete (distributing) on floor level; Curb Finishing Machine; Ditch Paving Machine; Elevator (outside); Endless Chain Hoist; Fireman

(as required); Form Grader; Hoist, One Drum regardless of size (except brick or concrete); Lad-A-Vator, other hoisting; Manlift; Mixer, Asphalt, over 8 cu ft capacity; Mixer, one bag capacity or less; Mixer, without side loader, two bag capacity or more; Mixer, with side loader, regardless of size, not Paver; Mud Jack (where mud jack is used in conjunction with an air compressor, operator shall be paid \$.55 per hour in addition to his basic hourly rate for covering both operations); Pug Mill operator; Pump, Sump - self powered, automatic controlled over 2"; Scissor Lift (used for hoisting); Skid Steer Loader; Sweeper, Street; Tractor, small wheel type 50 HP and under with grader blade and similar equipment; Welding Machine, One over 400 amp; Winch, operating from truck

GROUP 3: Boat operator - outboard motor, job site; Conveyors (such as Con-Vay-It) regardless of how used; Elevator (inside); Heater operator, 2 through 6; Sweeper, Floor

GROUP 4: Crane type

HOURLY PREMIUMS:

Backhoe, Hydraulic 2 cu yds or less without oiler - \$2.00;
 Crane, climbing (such as Linden) - \$.50;
 Crane, Pile Driving and Extracting - \$.50
 Crane with boom (including job) over 100 ft from pin to pin - add \$.01 per foot to maximum of \$4.00);
 Crane, using rock socket tool - \$.50;
 Derrick, diesel, gas or electric hoisting material and erecting steel (150 ft or more above ground) - \$.50;
 Dragline, 7 cu yds and over - \$.50;
 Hoist, Three or more drums in use - \$.50;
 Scoop, Tandem - \$.50;
 Shovel, Power - 7 cu yds and over - \$.50;
 Tractor, Tandem Crawler - \$.50;
 Tunnel, man assigned to work in tunnel or tunnel shaft - \$.50;
 Wrecking, when machines are working on second floor or higher - \$.50

 ENGI0513-006 05/01/2019

ADAIR, AUDRAIN, BOLLINGER, BOONE, BUTLER, CALLAWAY, CAPE GIRARDEAU, CARTER, CLARK, COLE, CRAWFORD, DENT, DUNKLIN, GASCONADE, HOWELL, IRON, KNOX, LEWIS, MACON, MADISON, MARIES, MARION, MILLER, MISSISSIPPI, MONITEAU, MONROE, MONTGOMERY, MORGAN, NEW MADRID, OREGON, OSAGE, PEMISCOT, PERRY, PHELPS, PIKE, PULASKI, PUTNAM, RALLS, RANDOLPH, REYNOLDS, RIPLEY, ST. FRANCOIS, STE. GENEVIEVE, SCHUYLER, SCOTLAND, SCOTT, SHANNON, SHELBY, STODDARD, TEXAS, WASHINGTON, AND WAYNE COUNTIES

	Rates	Fringes
Power equipment operators:		
GROUP 1.....	\$ 29.69	27.16
GROUP 2.....	\$ 29.34	27.16
GROUP 3.....	\$ 29.14	27.16
GROUP 4.....	\$ 25.49	27.16

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Asphalt finishing machine & trench widening spreader, asphalt plant console operator; autograder; automatic slipform paver; back hoe; blade operator - all types; boat operator tow; boiler two; central mix concrete plant operator; clam shell operator; concrete mixer paver; crane operator; derrick or derrick trucks; ditching machine; dozer operator; dragline operator; dredge booster pump; dredge engineman; dredge operator; drill cat with compressor mounted on cat; drilling or boring machine rotary self-propelled; highloader; hoisting engine 2 active drums; launchhammer wheel; locomotive operator standrad guage; mechanics and welders; mucking machine; piledriver operator; pitman crane operator; push cat operator; quad-trac; scoop operator; sideboom cats; skimmer scoop operator; trenching machine operator; truck crane, shovel operator.

GROUP 2: A-Frame; asphalt hot-mix silo; asphalt roller operator asphalt plant fireman (drum or boiler); asphalt plant man; asphalt plant mixer operator; backfiller operator; barber-greene loader; boat operator (bridge & dams); chip spreader; concrete mixer operator skip loader; concrete plant operator; concrete pump operator; dredge oiler; elevating graded operator; fork lift; grease fleet; hoisting engine one; locomotive operator narrow guage; multiple compactor; pavement breaker; powerbroom self-propelled; power shield; rooter; slip-form finishing machine; stumpcutter machine; side discharge concrete spreader; throttleman; tractor operator (over 50 hp); winch truck; asphalt roller operator; crusher operator.

GROUP 3: Spreader box operator, self-propelled not asphalt; tractor operator (50 h.p. or less); boilers one; chip spreader (front man); churn drill operator; compressor over 105 CFM 2-3 pumps 4" & over; 2-3 light plant 7.5 KWA or any combination thereof; clef plane operator; compressor maintenance operator 2 or 3; concrete saw operator (self-propelled); curb finishing machine; distributor operator; finishing machine operator; flex plane operator; float operator; form grader operator; pugmill operator; riller operator other than high type asphalt; screening & washing plant operator; siphons & jets; subgrading machine operator; tank car heater (combination boiler & booster); ulmac, ulric or similar spreader; vibrating machine operator; hydrobroom.

GROUP 4: Oiler; grout machine; oiler driver; compressor over 105 CFM one; conveyor operator one; maintenance operator; pump 4" & over one.

FOOTNOTE: HOURLY PREMIUMS

Backhoe hydraulic, 2 cu. yds. or under Without oiler - \$2.00
 Certified Crane Operator - \$1.50;
 Certified Hazardous Material Operator \$1.50;
 Crane, climbing (such as Linden) - \$0.50;
 Crane, pile driving and extracting - \$0.50;
 Crane, with boom (including jib) over 100' from pin to pin add \$0.01 per foot to maximum of \$4.00;
 Crane, using rock socket tool - \$0.50;
 Derrick, diesel, gas or electric, hoisting material and erecting steel (150' or more above the ground) - \$0.50;
 Dragline, 7 cu. yds, and over - \$0.50;
 Hoist, three or more drums in use - \$0.50; Scoop, Tandem - \$0.50;

- Shovel, power - 7 cu. yds. or more - \$0.50;
- Tractor, tandem crawler - \$0.50;
- Tunnel, man assigned to work in tunnel or tunnel shaft - \$0.50;
- Wrecking, when machine is working on second floor or higher - \$0.50;

ENGI0513-007 05/06/2019

ST. LOUIS CITY AND COUNTY

	Rates	Fringes
Power equipment operators:		
GROUP 1.....	\$ 34.36	27.36
GROUP 2.....	\$ 34.36	27.36
GROUP 3.....	\$ 33.06	27.36
GROUP 4.....	\$ 32.61	27.36

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Backhoe, cable or hydraulic; cableway; crane crawler or truck; crane, hydraulic-truck or cruiser mounted 16 tons & over; crane locomotive; derrick, steam; derrick car & derrick boat; dragline; dredge; gradall, crawler or tire mounted; locomotive, gas, steam & other powers; pile driver, land or floating; scoop, skimmer; shovel, power (steam, gas, electric or other powers); switch boat; whirley.

GROUP 2: Air tugger w/air compressor; anchor-placing barge; asphalt spreader; athey force feeder loader (self-propelled); backfilling machine; backhoe-loader; boat operator-push boat or tow boat (job site); boiler, high pressure breaking in period; boom truck, placing or erecting; boring machine, footing foundation; bull- float; cherry picker; combination concrete hoist & mixer (such as mixer mobile); compressor (when operator runs throttle); concrete breaker (truck or tractor mounted); concrete pump, such as pump-crete machine; concrete saw (self-propelled), concrete spreader; conveyor, large (not self-propelled), hoisting or moving brick and concrete into, or into and on floor level, one or both; crane, hydraulic-rough terrain, self-propelled; crane hydraulic-truck or cruiser mounted-under 16 tons; drilling machines, self-powered use for earth or rock drilling or boring (wagon drills nd any hand drills obtaining power from other sources including concrete breakers, jackhammers and barco equipment-no engineer required); elevating grader; engineman, dredge; excavator or powerbelt machine; finishing machine, self-propelled oscillating screed; forklift; grader, road with power blade; highlift. greaser; hoist, stack, hydro-hammer; loading machine (such as barber-greene); machanic, on job site; mixer, pipe wrapping machines; plant asphalt; plant, concrete producing or ready-mix job site; plant heating-job site; plant mixing-job site; plant power, generating-job site; pumps, two through six self-powered over 2"; pumps, electric submersible, two through six, over 4"; quad-track; roller, asphalt, top or sub-grade; scoop, tractor drawn; spreader box; sub-grader; tie tamper; tractor-crawler, or wheel type with or without power unit, power take-offs and attachments regardless of size; trenching machine; tunnel boring machine; vibrating machine automatic, automatic propelled; welding machines (gasoline

or diesel) two through six; well drilling machine

GROUP 3: Conveyor, large (not self-propelled); conveyor, large (not self-propelled) moving brick and concrete distributing) on floor level; mixer two or more mixers of one bag capacity or less; air tugger w/plant air; boiler, for power or heating on construction projects; boiler, temporary; compressor (mounted on truck; curb finishing machine; ditch paving machine; elevator; endless chain hoist; form grader; hoist, one drum regardless of size; lad-a-vator; manlift; mixer, asphalt, over 8 cu. ft. capacity, without side loader, 2 bag capacity or more; mixer, with side loader, regardless of size; pug mill operator; pump, sump-self-powered, automatic controlled over 2" during use in connection with construction work; sweeper, street; welding machine, one over 400 amp.; winch operating from truck; scissor lift (used for hoisting); tractor, small wheel type 50 h.p. & under with grader blade & similar equipment; Oiler on dredge and on truck crane.

GROUP 4: Boat operator-outboard motor (job site); conveyor (such as con-vay-it) regardless of how used; sweeper, floor

HOURLY PREMIUMS:

Backhoe, hydraulic	
2 cu. yds. or under without oiler	\$2.00
Certified Crane Operator	1.50
Certified Hazardous Material Operator	1.50
Crane, climbing (such as Linden)	.50
Crane, pile driving and extracting	.50
Crane, with boom (including jib) over 100' (from pin to pin) add \$.01 per foot to maximum of	4.00
Crane, using rock socket tool	.50
Derrick, diesel, gas or electric, hoisting material and erecting steel (150' or more above ground)	.50
Dragline, 7 cu. yds. and over	.50
Hoist, three (3) or more drums in use	.50
Scoop, Tandem	.50
Shovel, power - 7 cu. yds. or more	.50
Tractor, tandem crawler	.50
Tunnel, man assigned to work in tunnel or tunnel shaft	.50
Wrecking, when machine is working on second floor or higher	.50

IRON0010-012 04/01/2020

Rates Fringes

Ironworkers:

ANDREW, BARTON, BENTON,
CAMDEN, CEDAR, CHARITON,
CHRISTIAN, COOPER, DADE,
DALLAS, DAVIESS, DE KALB,
GENTRY, GREENE, GRUNDY,
HARRISON, HICKORY, HOLT,
HOWARD, LACLEDE, LINN,
LIVINGSTON, MERCER,
MONITEAU, MORGAN, NODAWAY,
POLK, PUTNAM, RANDLOPH,
ST. CLAIR, SULLIVAN,
TANEY, VERNON, WEBSTER,

WRIGHT and WORTH Counties and portions of ADAIR, BOONE, MACON, MILLER and RANDOLPH Counties.....	\$ 31.00	31.24
ANDREW, BARTON, BENTON, CAMDEN, CEDAR, CHARITON, CHRISTIAN, COOPER, DADE, DALLAS, DAVIESS, DE KALB, GENTRY, GREENE, GRUNDY, HARRISON, HICKORY, HOLT, HOWARD, LACLEDE, LINN, LIVINGSTON, MERCER, MONITEAU, MORGAN, NODAWAY, PETTIS, POLK, PUTNAM, RANDLOPH, ST. CLAIR, SULLIVAN, TANEY, VERNON, WEBSTER, WRIGHT and WORTH Counties and portions of ADAIR, BOONE, MACON, MILLER and RANDOLPH Counties.....	\$ 30.55	30.44
ATCHISON, BATES, BUCHANAN, CALDWELL, CARROLL, CASS, CLAY, CLINTON, HENRY, JACKSON, JOHNSON, LAFAYETTE, PETTIS, PLATTE, SALINE, AND RAY COUNTIES....	\$ 34.00	31.24

IRON0321-002 09/01/2019

DOUGLAS, HOWELL and OZARK COUNTIES

	Rates	Fringes
Ironworker.....	\$ 21.10	19.01

IRON0396-004 08/07/2019

ST. LOUIS (City and County), ST. CHARLES, JEFFERSON, IRON,
FRANKLIN, LINCOLN, WARREN, WASHINGTON, ST. FRANCOIS, STE.
GENEVIEVE, and REYNOLDS Counties; and portions of MADISON,
PERRY, BOLLINGER, WAYNE, and CARTER Counties

	Rates	Fringes
Ironworker.....	\$ 34.91	27.36

IRON0396-009 08/07/2019

AUDRAIN, CALLAWAY, COLE, CRAWFORD, DENT, GASCONADE, MARIES,
MONTGOMERY, OSAGE, PHELPS, PIKE, PULASKI, TEXAS and WRIGHT
Counties; and portions of BOONE, CAMDEN, DOUGLAS, HOWELL,
LACLEDE, MILLER, MONROE, OREGON, SHANNON and RALLS Counties

	Rates	Fringes
Ironworker.....	\$ 30.44	27.36

IRON0577-005 06/01/2019

ADAIR, CLARK, KNOX, LEWIS, MACON, MARION, MONROE, RALLS,
SCHUYLER, SCOTLAND, AND SHELBY COUNTIES

	Rates	Fringes
Ironworker.....	\$ 26.60	24.00

IRON0584-004 06/01/2019

BARRY, JASPER, LAWRENCE, MCDONALD, NEWTON AND STONE Counties

	Rates	Fringes
Ironworkers:.....	\$ 26.00	15.35

IRON0782-003 05/01/2019

CAPE GIRARDEAU, MISSISSIPPI, NEW MADRID, SCOTT, & STODDARD
Counties; and portions of BOLLINGER, BUTLER, CARTER, DUNKLIN,
MADISON, PEMISCOT, PERRY, RIPLEY, and WAYNE Counties

	Rates	Fringes
Ironworkers:		
Locks, Dams, Bridges and other major work on the Mississippi and Ohio River only.....	\$ 31.63	24.27
All Other Work.....	\$ 27.38	23.29

LAB00042-003 03/04/2020

ST. LOUIS (City and County)

	Rates	Fringes
LABORER		
Plumber Laborer.....	\$ 34.07	16.07

LAB00042-005 03/04/2020

ST. LOUIS (City and County)

	Rates	Fringes
LABORER		
Dynamiter, Powderman.....	\$ 34.07	16.07
Laborers, Flaggers.....	\$ 34.07	16.07
Wrecking.....	\$ 34.07	16.07

LAB00424-002 05/01/2020

	Rates	Fringes
LABORER		
ADAIR, AUDRAIN, BOONE, CALLAWAY, CHARITON, CLARK, COLE, COOPER, HOWARD, IRON, KNOX, LEWIS, LINN, MACON, MADISON, MARION, MILLER, MONITEAU, MONROE, PERRY, PIKE, PUTNAM, RALLS, RANDOLPH, REYNOLDS, ST. FRANCOIS, STE. GENEVIEVE, SCHUYLER, SCOTLAND, SHELBY AND		

SULLIVAN COUNTIES		
GROUP 1.....	\$ 30.75	14.57
GROUP 2.....	\$ 30.75	14.57
BOLLINGER, BUTLER, CAPE GIRARDEAU, CARTER, CRAWFORD, DENT, DUNKLIN, GASCONADE, HOWELL, MARIES, MISSISSIPPI, NEW MADRID, OREGON, OSAGE, PEMISCOT, PHELPS, PULASKI, RIPLEY, SCOTT, SHANNON, STODDARD, TEXAS, WASHINGTON AND WAYNE COUNTIES		
GROUP 1.....	\$ 30.75	14.57
GROUP 2.....	\$ 30.75	14.57
FRANKLIN COUNTY		
GROUP 1.....	\$ 32.86	14.57
GROUP 2.....	\$ 33.46	14.57
JEFFERSON COUNTY		
GROUP 1.....	\$ 32.91	14.57
GROUP 2.....	\$ 33.51	14.57
LINCOLN, MONTGOMERY AND WARREN COUNTIES		
GROUP 1.....	\$ 34.33	14.57
GROUP 2.....	\$ 34.33	14.57
ST.CHARLES COUNTY		
GROUP 1.....	\$ 34.33	14.57
GROUP 2.....	\$ 34.33	14.57

LABORERS CLASSIFICATIONS

GROUP 1 - General laborer-flagman, carpenter tenders; salamander Tenders; Dump Man; Ticket Takers; loading trucks under bins, hoppers, and conveyors; track man; cement handler; dump man on earth fill; georgie buggy man; material batch hopper man; spreader on asphalt machine; material mixer man (except on manholes); coffer dams; riprap pavers rock, block or brick; scaffolds over ten feet not self-supported from ground up; skip man on concrete paving; wire mesh setters on concrete paving; all work in connection with sewer, water, gas, gasoling, oil, drainage pipe, conduit pipe, tile and duct lines and all other pipe lines; power tool operator; all work in connection with hydraulic or general dredging operations; form setters, puddlers (paving only); straw blower nozzle man; asphalt plant platform man; chuck tender; crusher feeder; men handling creosote ties or creosote materials; men working with and handling epoxy material; topper of standing trees; feeder man on wood pulverizers, board and willow mat weavers and cabelee tiers on river work; deck hands; pile dike and revetment work; all laborers working on underground tunnels less than 25 ft. where compressed air is not used; abutement and pier hole men working six (6) ft. or more below ground; men working in coffer dams for bridge piers and footing in the river; barco tamper; jackson or any other similar tamp; cutting torch man; liners, curb, gutters, ditch lines; hot mastic kettlemen; hot tar applicator; hand blade operator; mortar men or brick or block manholes; rubbing concrete, air tool operator under 65 lbs.; caulker and lead man; chain or concrete saw under 15 h.p.; signal Gan; Guard rail and sign erectors.

GROUP 2 - Skilled laborers - Vibrator man; asphalt raker; head pipe layer on sewer work; batterboard man on pipe and

ditch work; cliff scalers working from bosun's chairs; scaffolds or platforms on dams or power plants over 10 ft. high; air tool operator over 65 lbs.; stringline man on concrete paving; sandblast man; laser beam man; wagon drill; churn drill; air track drill and all other similar type drills, gunite nozzle man; pressure grout man; screed man on asphalt; concrete saw 15 h.p. and over; grade checker; strigline man on electronic grade control; manhole builder; dynamite man; powder man; welder; tunnel man; waterblaster - 1000 psi or over; asbestos and/or hazardous waste removal and/or disposal

LAB00579-005 05/01/2020

	Rates	Fringes
LABORER (ANDREW, ATCHISON, BUCHANAN, CALDWELL, CLINTON, DAVIESS, DEKALB, GENTRY, GRUNDY, HARRISON, HOLT, LIVINGSTON, MERCER, NODAWAY and WORTH COUNTIES.)		
GROUP 1.....	\$ 27.21	15.42
GROUP 2.....	\$ 27.56	15.42
LABORER (BARRY, BARTON, BATES, BENTON, CAMDEN, CARROLL, CEDAR, CHRISTIAN, DADE, DALLAS, DOUGLAS, GREENE, HENRY, HICKORY, JASPER, JOHNSON, LACLEDE, LAWRENCE, MCDONALD, MORGAN, NEWTON, OZARK, PETTIS, POLK, ST. CLAIR, SALINE, STONE, TANEY, VERNON, WEBSTER and WRIGHT COUNTIES)		
GROUP 1.....	\$ 26.21	14.62
GROUP 2.....	\$ 26.76	14.62
LABORER (LAFAYETTE COUNTY)		
GROUP 1.....	\$ 27.76	14.87
GROUP 2.....	\$ 28.11	14.87

LABORERS CLASSIFICATIONS

GROUP 1: General Laborers - Carpenter tenders; salamander tenders; loading trucks under bins; hoppers & conveyors; track men & all other general laborers; air tool operator; cement handler-bulk or sack; dump man on earth fill; georgie buggy man; material batch hopper man; material mixer man (except on manholes); coffer dams; riprap pavers - rock, block or brick; signal man; scaffolds over ten feet not self-supported from ground up; skipman on concrete paving; wire mesh setters on concrete paving; all work in connection with sewer, water, gas, gasoline, oil drainage pipe, conduit pipe, tile and duct lines and all other pipe lines; power tool operator, all work in connection with hydraulic or general dredging operations; puddlers (paving only); straw blower nozzle man; asphalt plant platform man; chuck tender; crusher feeder; men handling creosote ties or creosote materials; men working with and handling epoxy material or materials (where special protection is required); rubbing concrete; topper of standing trees; batter board man on pipe and ditch work; feeder man on wood pulverizers; board and willow mat weavers and cable tiers on river work; deck hands; pile dike and revetment work;

all laborers working on underground tunnels less than 25 feet where compressed air is not used; abutment and pier hole men working six (6) feet or more below ground; men working in coffer dams for bridge piers and footings in the river; ditchliners; pressure groutmen; caulker; chain or concrete saw; cliffscalers working from scaffolds, bosuns' chairs or platforms on dams or power plants over (10) feet above ground; mortarmen on brick or block manholes; toxic and hazardous waste work.

GROUP 2: Skilled Laborers - Head pipe layer on sewer work; laser beam man; Jackson or any other similar tamp; cutting torch man; form setters; liners and stringline men on concrete paving, curb, gutters; hot mastic kettleman; hot tar applicator; sandblasting and gunite nozzlemen; air tool operator in tunnels; screed man on asphalt machine; asphalt raker; barco tamper; churn drills; air track drills and all similar drills; vibrator man; stringline man for electronic grade control; manhole builders-brick or block; dynamite and powder men; grade checker.

LAB00663-002 04/01/2020

CASS, CLAY, JACKSON, PLATTE AND RAY COUNTIES

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 31.28	16.33
GROUP 2.....	\$ 32.49	16.33

LABORERS CLASSIFICATIONS

GROUP 1: General laborers, Carpenter tenders, salamander tenders, loading trucks under bins, hoppers and conveyors, track men and all other general laborers, air tool operator, cement handler (bulk or sack), chain or concrete saw, deck hands, dump man on earth fill, Georgie Buggies man, material batch hopper man, scale man, material mixer man (except on manholes), coffer dams, abutments and pier hole men working below ground, riprap pavers rock, black or brick, signal man, scaffolds over ten feet not self-supported from ground up, skipman on concrete paving, wire mesh setters on concrete paving, all work in connection with sewer, water, gas, gasoling, oil, drainage pipe, conduit pipe, tile and duct lines and all other pipelines, power tool operator, all work in connection with hydraulic or general dredging operations, straw blower nozzleman, asphalt plant platform man, chuck tender, crusher feeder, men handling creosote ties on creosote materials, men working with and handling epoxy material or materials (where special protection is required), topper of standing trees, batter board man on pipe and ditch work, feeder man on wood pulverizers, board and willow mat weavers and cable tiers on river work, deck hands, pile dike and revetment work, all laborers working on underground tunnels less than 25 feet where compressed air is not used, abutment and pier hole men working six (6) feet or more below ground, men working in coffer dams for bridge piers and footings in the river, ditchliners, pressure groutmen, caulker and chain or concrete saw, cliffscalers working from scaffolds, bosuns' chairs or platforms on dams or power plants over (10) feet above ground, mortarmen on brick or block manholes, signal man.

GROUP 2: Skilled Laborer - spreader or screed man on asphalt machine, asphalt raker, grade checker, vibrator man, concrete saw over 5 hp., laser beam man, barco tamper, jackson or any other similar tamp, wagon driller, churn drills, air track drills and other similar drills, cutting torch man, form setters, liners and stringline men on concrete paving, curb, gutters and etc., hot mastic kettleman, hot tar applicator, hand blade operators, mortar men on brick or block manholes, sand blasting and gunnite nozzle men, rubbing concrete, air tool operator in tunnels, head pipe layer on sewer work, manhole builder (brick or block), dynamite and powder men.

PAIN0002-002 09/01/2007

CLARK, FRANKLIN, JEFFERSON, LEWIS, LINCOLN, MARION, PIKE, RALLS, ST. CHARLES, ST. LOUIS (CITY & COUNTY), AND WARREN COUNTIES

	Rates	Fringes
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Painters:

Brush and Roller; Taper.....	\$ 28.61	10.24
High work over 60 feet.....	\$ 29.11	10.24
Lead Abatement.....	\$ 29.36	10.24
Pressure Roller; High work under 60 ft.....	\$ 28.86	10.24
Spray & Abrasive Blasting; Water Blasting (Over 5000 PSI).....	\$ 30.61	10.24
Taper (Ames Tools & Bazooka).....	\$ 30.21	10.24

PAIN0002-006 04/01/2020

ADAIR, AUDRAIN, BOONE, CALLAWAY, CHARITON, COLE, GASCONADE, HOWARD, KNOX, LINN, MACON, MONROE, MONTGOMERY, OSAGE, PUTNAM, RANDOLPH, SCHUYLER, SCOTLAND, SHELBY AND SULLIVAN COUNTIES and the City of Booneville.

	Rates	Fringes
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Painters:

Bridges, Dams, Locks or Powerhouses.....	\$ 26.64	13.98
Brush and Roll; Taping, Paperhanging.....	\$ 24.64	13.98
Epoxy or Any Two Part Coating; Sandblasting; Stage or other Aerial Work - Platforms over 50 feet high; Lead Abatement.....	\$ 25.64	13.98
Spray; Structural Steel (over 50 feet).....	\$ 24.64	13.98
Tapers using Ames or Comparable Tools.....	\$ 25.39	13.98

PAIN0003-004 04/01/2017

CASS, CLAY, CLINTON, JACKSON, JOHNSON, LAFAYETTE, PLATTE & RAY COUNTIES

Rates Fringes

Painters:

Bridgeman; Lead Abatement; Sandblast; Storage Bin & Tanks.....	\$ 31.96	16.96
Brush & Roller.....	\$ 29.34	16.96
Drywall.....	\$ 30.34	16.96
Paper Hanger.....	\$ 29.84	16.96
Stageman; Beltman; Steelman; Elevator Shaft; Bazooka, Boxes and Power Sander; Sprayman; Dipping...	\$ 30.96	16.96
Steeplejack.....	\$ 35.53	16.96

PAIN003-011 04/01/2011

BATES, BENTON, CALDWELL, CARROLL, COOPER, DAVIESS, GRUNDY,
HARRISON, HENRY, LIVINGSTON, MERCER, MONITEAU, MORGAN, PETTIS &
SALINE COUNTIES

Rates Fringes

Painters:

Bridgeman; Lead Abatement; Sandblast; Storage Bin & Tanks.....	\$ 24.06	14.04
Brush & Roller.....	\$ 22.67	14.04
Drywall.....	\$ 22.84	14.04
Paper Hanger.....	\$ 23.07	14.04
Stageman; Beltman; Steelman; Elevator Shaft; Bazooka, Boxes and Power Sander; Sprayman; Dipping...	\$ 23.56	14.04
Steeplejack.....	\$ 26.82	14.04

PAIN0203-001 04/01/2012

BARRY, BARTON, CEDAR, CHRISTIAN, DADE, DALLAS, DOUGLAS, GREENE,
HICKORY, HOWELL, JASPER, LAWRENCE, MCDONALD, NEWTON, OZARK,
POLK, ST. CLAIR, STONE, TANEY, VERNON, WEBSTER, and WRIGHT
COUNTIES

Rates Fringes

Painters:

Finisher.....	\$ 20.18	11.33
Painter.....	\$ 19.75	11.76
Sandblaster, High Man, Spray Man, Vinyl Hanger, Tool Operator.....	\$ 21.18	11.33

PAIN1265-003 07/01/2013

CAMDEN, CRAWFORD, DENT, LACLEDE, MARIES, MILLER, PHELPS,
PULASKI AND TEXAS COUNTIES

Rates Fringes

Painters:

Brush and Roller.....	\$ 25.64	13.27
Floor Work.....	\$ 26.14	13.27
Lead Abatement.....	\$ 27.89	13.27
Spray.....	\$ 27.14	13.27
Structural Steel, Sandblasting and All Tank Work.....	\$ 26.89	13.27
Taping, Paperhanging.....	\$ 26.64	13.27

PAIN1292-002 09/01/2016

BOLLINGER, BUTLER, CAPE GIRARDEAU, CARTER, DUNKLIN,
MISSISSIPPI, NEW MADRID, OREGON, PEMISCOT, PERRY, REYNOLDS,
RIPLEY, SCOTT, SHANNON, STODDARD and WAYNE COUNTIES

Rates Fringes

Painters:

Bridges, Stacks & Tanks.....	\$ 30.85	11.64
Brush & Roller.....	\$ 25.35	11.64
Spray & Abrasive Blasting; Waterblasting (over 5000 PSI).....	\$ 28.95	11.64

Height Rates (All Areas):
Over 60 ft. \$0.50 per hour.
Under 60 ft. \$0.25 per hour.

PAIN1292-003 09/01/2017

IRON, MADISON, ST. FRANCOIS, STE. GENEVIEVE and WASHINGTON
COUNTIES

Rates Fringes

Painters:

Bridges, Stacks & Tanks.....	\$ 31.05	12.74
Brush & Roller.....	\$ 25.70	12.74
Spray & Abrasive Blasting; Waterblasting (Over 5000 PSI).....	\$ 28.70	12.74

Height Rates (All Areas):
Over 60 ft. \$0.50 per hour
Under 60 ft. \$0.25 per hour.

PAIN2012-001 04/01/2019

ANDREW, ATCHISON, BUCHANAN, DE KALB, GENTRY, HOLT, NODAWAY &
WORTH COUNTIES

Rates Fringes

Painters:

Brush & Roller.....	\$ 31.26	17.26
Sandblaster.....	\$ 32.76	17.26
Steeplejack.....	\$ 36.33	17.26

PLAS0518-006 03/01/2020

BARRY, BARTON, CEDAR, CHRISTIAN, DADE, DALLAS, DOUGLAS, GREENE, HICKORY, JASPER, LACLEDE, LAWRENCE, MCDONALD, NEWTON, OZARK, POLK, ST. CLAIR, STONE, TANEY, VERNON, WEBSTER, AND WRIGHT COUNTIES

Rates Fringes

CEMENT MASON/CONCRETE FINISHER...\$ 24.44 12.11

PLAS0518-007 04/01/2020

CASS (Richards-Gebaur AFB only), CLAY, JACKSON, PLATTE AND RAY COUNTIES

Rates Fringes

Cement Masons:.....\$ 32.72 18.30

PLAS0518-011 04/01/2019

ANDREW, ATCHISON, BATES, BUCHANNAN, CLINTON, DEKALB, GENTRY, HENRY, HOLT, JOHNSON, LAFAYETTE, NODAWAY & WORTH COUNTIES

Rates Fringes

CEMENT MASON/CONCRETE FINISHER...\$ 32.00 20.13

PLAS0527-001 04/01/2018

Rates Fringes

CEMENT MASON
FRANKLIN, LINCOLN AND
WARREN COUNTIES.....\$ 30.74 18.07
JEFFERSON, ST. CHARLES
COUNTIES AND ST. LOUIS
(City and County).....\$ 32.66 18.62

PLAS0527-004 06/01/2017

CRAWFORD, DENT, IRON, MADISON, MARION, PHELPS, PIKE, PULASKI, RALLS, REYNOLDS, ST. FRANCOIS, STE. GENEVIEVE, SHANNON, TEXAS, WASHINGTON COUNTIES

Rates Fringes

CEMENT MASON.....\$ 28.10 18.07

PLAS0908-001 05/01/2017

BOLLINGER, BUTLER, CAPE GIRARDEAU, CARTER, DUNKLIN, HOWELL, MISSISSIPPI, NEW MADRID, OREGON, PEMISCOT, PERRY, RIPLEY, SCOTT, STODDARD, AND WAYNE COUNTIES

Rates Fringes

CEMENT MASON.....\$ 27.60 15.73

PLAS0908-005 05/01/2017

BENTON, CALDWELL, CALLAWAY, CAMDEN, CARROLL, COLE, DAVIESS, GASCONADE, GRUNDY, HARRISON, LIVINGSTON, MACON, MARIES, MERCER, MILLER, MONTGOMERY, MORGAN, OSAGE, PETTIS & SALINE COUNTIES

	Rates	Fringes
CEMENT MASON.....	\$ 27.60	15.73

PLUM0008-003 06/01/2020

CASS, CLAY, JACKSON, JOHNSON, AND PLATTE COUNTIES

	Rates	Fringes
Plumbers.....	\$ 48.03	22.84

PLUM0008-017 06/01/2020

BATES, BENTON, CARROLL, HENRY, LAFAYETTE, MORGAN, PETTIS, RAY, ST. CLAIR, SALINE AND VERNON COUNTIES

	Rates	Fringes
Plumbers.....	\$ 48.03	22.84

PLUM0045-003 08/01/2019

ANDREW, ATCHISON, BUCHANAN, CALDWELL, CLINTON, DAVIESS, DEKALB, GENTRY, HARRISON, HOLT, NODAWAY AND WORTH COUNTIES

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 37.75	23.65

PLUM0178-003 11/01/2019

BARRY, CEDAR, CHRISTIAN, DADE, DALLAS, DOUGLAS, GREENE, HICKORY, LACLEDE, LAWRENCE, POLK, STONE, TANEY, WEBSTER AND WRIGHT COUNTIES

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 31.75	15.12

PLUM0178-006 11/01/2019

BARTON, JASPER, MCDONALD AND NEWTON COUNTIES

	Rates	Fringes
Plumbers and Pipefitters		
Projects \$750,000 & under...	\$ 27.93	15.35
Projects over \$750,000.....	\$ 31.75	15.12

PLUM0533-004 06/01/2020

BATES, BENTON, CARROLL, CASS, CLAY, HENRY, HICKORY, JACKSON, JOHNSON, LAFAYETTE, MORGAN, PETTIS, PLATTE, RAY, SALINE, ST. CLAIR AND VERNON COUNTIES

	Rates	Fringes
Pipefitters.....	\$ 48.53	22.55

 PLUM0562-004 07/01/2019

ADAIR, AUDRAIN, BOLLINGER, BOONE, BUTLER, CALLAWAY, CAMDEN, CAPE GIRARDEAU, CARTER, CHARITON, CLARK, COLE, COOPER, CRAWFORD, DENT, DUNKLIN, FRANKLIN, GASCONADE, GRUNDY, HOWARD, HOWELL, IRON, JEFFERSON, KNOX, LEWIS, LINCOLN, LINN, LIVINGSTON, MACON, MADISON, MARIES, MARION, MERCER, MILLER, MISSISSIPPI, MONITEAU, MONROE, MONTGOMERY, NEW MADRID, OREGON, OSAGE, PEMISCOTT, PERRY, PHELPS, PIKE, PULASKI, PUTNAM, RALLS, RANDOLPH, REYNOLDS, RIPLEY, ST. CHARLES, ST. FRANCOIS, STE. GENEVIEVE, ST. LOUIS, SCHUYLER, SCOTLAND, SCOTT, SHANNON, SHELBY, STODDARD, SULLIVAN, TEXAS, WARREN, WASHINGTON, AND WAYNE COUNTIES.

	Rates	Fringes
Plumbers and Pipefitters:		
Mechanical Contracts		
including all piping and		
temperature control work		
\$7.0 million & under.....	\$ 40.41	21.49
Mechanical Contracts		
including all piping and		
temperature control work		
over \$7.0 million.....	\$ 41.85	27.85

 PLUM0562-016 07/01/2019

CAMDEN, COLE, CRAWFORD, FRANKLIN, JEFFERSON, MARIES, MILLER, MONITEAU, OSAGE, PHELPS, PULASKI, ST. CHARLES, ST. LOUIS (City and County), WARREN and WASHINGTON COUNTIES

	Rates	Fringes
Plumbers		
Mechanical Contracts		
including all piping and		
temperature control work		
\$7.0 million & under.....	\$ 40.41	21.49
Mechanical Contracts		
including all piping and		
temperature control work		
over \$7.0 million.....	\$ 41.85	27.85

 TEAM0013-001 05/01/2019

	Rates	Fringes
Truck drivers (ADAIR, BUTLER, CLARK, DUNKIN, HOWELL, KNOX, LEWIS, OREGON, PUTNAM, RIPLEY, SCHUYLER AND SCOTLAND COUNTIES)		
GROUP 1.....	\$ 30.34	13.75
GROUP 2.....	\$ 30.49	13.75
GROUP 3.....	\$ 30.61	13.75
GROUP 4.....	\$ 30.50	13.75

Truck drivers (AUDRAIN, BOLLINGER, BOONE, CALLAWAY, CAPE GIRARDEAU, CARTER, COLE,

CRAWFORD, DENT, GASCONADE,
 IRON, MACON, MADISON, MARIES,
 MARION, MILLER, MISSISSIPPI,
 MONROE, MONTGOMERY, NEW
 MADRID, OSAGE, PEMISCOT,
 PERRY, PHELPS, PIKE, PULASKI,
 RALLS, REYNOLDS, ST.
 FRANCOIS, STE. GENEVIEVE,
 SCOTT, SHANNON, SHELBY,
 STODDARD, TEXAS, WASHINGTON
 AND WAYNE COUNTIES)

GROUP 1.....	\$ 31.07	13.75
GROUP 2.....	\$ 31.22	13.75
GROUP 3.....	\$ 31.34	13.75
GROUP 4.....	\$ 31.23	13.75

Truck drivers (FRANKLIN,
 JEFFERSON and ST. CHARLES
 COUNTIES)

GROUP 1.....	\$ 33.43	13.75
GROUP 2.....	\$ 33.58	13.75
GROUP 3.....	\$ 33.65	13.75
GROUP 4.....	\$ 33.54	13.75

Truck drivers (LINCOLN and
 WARREN COUNTIES)

GROUP 1.....	\$ 32.08	13.75
GROUP 2.....	\$ 33.23	13.75
GROUP 3.....	\$ 32.30	13.75
GROUP 4.....	\$ 32.19	13.75

TRUCK DRIVERS CLASSIFICATIONS:

GROUP 1: Flat Bed Trucks, Single Axle; Station Wagons;
 Pickup Trucks; Material Trucks, Single Axle; Tank Wagon,
 Single Axle

GROUP 2: Agitator and Transit Mix Trucks

GROUP 3: Flat Bed Trucks, Tandem Axle; Articulated Dump
 Trucks; Material Trucks, Tandem Axle; Tank Wagon, Tandem
 Axle

GROUP 4: Semi and/or Pole Trailers; Winch, Fork & Steel
 Trucks; Distributor Drivers and Operators; Tank Wagon,
 Semi-Trailer; Insley Wagons, Dumpsters, Half-Tracks,
 Speedace, Euclids and other similar equipment; A-Frame and
 Derrick Trucks; Float or Low Boy

 TEAM0056-001 05/01/2020

Rates Fringes

Truck drivers (ANDREW,
 BARTON, BATES, BENTON,
 CALDWELL, CAMDEN, CARROLL,
 CEDAR, CHARITON, CHRISTIAN,
 CLINTON, COOPER, DADE,
 DALLAS, DAVIESS, DEKALB,
 DOUGLAS, GREENE, HENRY,
 HICKORY, HOWARD, JASPER,
 LACLEDE, LAWRENCE, LINN,
 LIVINGSTON, MONITEAU, MORGAN,
 NEWTON, PETTIS, POLK,
 RANDOLPH, ST. CLAIR, SALINE,
 VERNON, WEBSTER AND WRIGHT

COUNTIES)

GROUP 1.....	\$ 31.37	14.25
GROUP 2.....	\$ 31.53	14.25
GROUP 3.....	\$ 31.52	14.25
GROUP 4.....	\$ 31.64	14.25

Truck drivers: (ATCHISON, BARRY, GENTRY, GRUNDY, HARRISON, HOLT, MCDONALD, MERCER, NODAWAY, OZARK, STONE, SULLIVAN, TANEY AND WORTH COUNTIES)

GROUP 1.....	\$ 30.64	14.25
GROUP 2.....	\$ 30.80	14.25
GROUP 3.....	\$ 30.79	14.25
GROUP 4.....	\$ 30.91	14.25

Truck drivers; (BUCHANAN, JOHNSON AND LAFAYETTE COUNTIES)

GROUP 1.....	\$ 32.58	14.25
GROUP 2.....	\$ 32.69	14.25
GROUP 3.....	\$ 32.73	14.25
GROUP 4.....	\$ 32.80	14.25

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Flat bed trucks single axle; station wagons; pickup trucks; material trucks single axle; tank wagons single axle.

GROUP 2: Agitator and transit mix-trucks.

GROUP 3: Flat bed trucks tandem axle; articulated dump trucks; material trucks tandem axle; tank wagons tandem axle.

GROUP 4: Semi and/or pole trailers; winch, fork & steel trucks; distributor drivers & operators; tank wagons semi-trailer; insley wagons, dumpsters, half-tracks, speedace, euclids & other similar equipment; A-frames and derrick trucks; float or low boy.

TEAM0245-001 03/26/2012

BARRY, BARTON, CAMDEN, CEDAR, CHRISTIAN, DALLAS, DENT, DOUGLAS, GREENE, HICKORY, HOWELL, JASPER, LACLEDE, LAWRENCE, MCDONALD, MILLER, NEWTON, OZARK, PHELPS, POLK, PULASKI, SHANNON, STONE, TANEY, TEXAS, VERNON, WEBSTER AND WRIGHT COUNTIES

Rates Fringes

Truck drivers:

Traffic Control Service		
Driver.....	\$ 20.45	0.00

PAID HOLIDAYS: New Year's Day, Decoration Day, July 4th, Labor Day, Thanksgiving Day, Christmas Day, employee's birthday and 2 personal days.

TEAM0541-001 04/01/2020

CASS, CLAY, JACKSON, PLATTE AND RAY COUNTIES

	Rates	Fringes
--	-------	---------

Truck drivers:

GROUP 1.....	\$ 33.36	16.25
GROUP 2.....	\$ 32.79	16.25
GROUP 3.....	\$ 32.27	16.25

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Mechanics and Welders, Field; A-Frame Low Boy-Boom
ruck Driver.

GROUP 2: Articulated Dump Truck; Insley Wagons: Dump Trucks,
Excavating, 5 cu yds and over; Dumpsters; Half-Tracks:
Speedace: Euclids & similar excavating equipment Material
trucks, Tandem Two teams; Semi-Trailers; Winch trucks-Fork
trucks; Distributor Drivers and Operators; Agitator and
Transit Mix; Tank Wagon Drivers, Tandem or Semi; One Team;
Station Wagons; Pickup Trucks; Material Trucks, Single
Axle; Tank Wagon Drivers, Single Axle

GROUP 3: Oilers and Greasers - Field

TEAM0682-002 05/01/2017

ST LOUIS CITY AND COUNTY

	Rates	Fringes
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Truck drivers:

GROUP 1.....	\$ 33.30	13.79+a+b+c+d
GROUP 2.....	\$ 33.50	13.79+a+b+c+d
GROUP 3.....	\$ 33.60	13.79+a+b+c+d

a. PENSION: 5/1/2012 - \$182.20 per week.

b. HAZMAT PREMIUM: If Hazmat certification on a job site is
required by a state or federal agency or requested by
project owner or by the employer, employees on that job
site shall receive \$1.50 premium pay.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - Pick-up trucks; forklift, single axle; flatbed
trucks; job site ambulance, and trucks or trailers of a
water level capacity of 11.99 cu. yds. or less

GROUP 2 - Trucks or trailers of a water level capacity of
12.0 cu yds. up to 22.0 cu yds. including euclids, speedace
and similar equipment of same capacity and compressors

GROUP 3 - Trucks or trailers of a water level capacity of
22.0 cu. yds & over including euclids, speedace & all
floats, flatbed trailers, boom trucks, winch trucks,
including small trailers, farm wagons tilt-top trailers,
field offices, tool trailers, concrete pumps, concrete
conveyors & gasoline tank trailers and truck mounted mobile
concrete mixers

FOOTNOTE FOR TRUCK DRIVERS:

c. PAID HOLIDAYS: Christmas Day, Independence Day, Labor
Day, Memorial Day, Veterans Day, New Years Day,
Thanksgiving Day

d. PAID VACATION: 3 days paid vacation for 600 hours of service in any one contract year; 4 days paid vacation for 800 hours of service in any one contract year; 5 days paid vacation for 1,000 hours of service in any one contract year. When such an employee has completed 3 years of continuous employment with the same employer and then works the above required number of hours, he shall receive double the number of days of vacation specified above. When such an employee has completed 10 years of continuous employment with the same employer and then works the above required number of hours, he shall receive triple the number of days of vacation specified above. When such an employee has completed 15 years of continuous employment with the same employer and then works the above required number of hours, he shall receive 4 times the number of days of vacation specified above.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or

"UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on

a wage determination matter

* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====
END OF GENERAL DECISION"

STATE WAGE RATES

Missouri

Division of Labor Standards

WAGE AND HOUR SECTION



MICHAEL L. PARSON, Governor

Annual Wage Order No. 27

Section 048
JACKSON COUNTY

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by

Taylor Burks, Director
Division of Labor Standards

Filed With Secretary of State: _____ **March 10, 2020**

Last Date Objections May Be Filed: **April 9, 2020**

Prepared by Missouri Department of Labor and Industrial Relations

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Asbestos Worker	\$63.92
Boilermaker	*\$33.53
Bricklayer	\$56.71
Carpenter	\$57.23
Lather	
Linoleum Layer	
Millwright	
Pile Driver	
Cement Mason	\$51.50
Plasterer	
Communications Technician	\$57.83
Electrician (Inside Wireman)	\$63.56
Electrician Outside Lineman	\$65.49
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Elevator Constructor	*\$33.53
Glazier	\$54.70
Ironworker	\$63.98
Laborer	\$45.82
General Laborer	
First Semi-Skilled	
Second Semi-Skilled	
Mason	\$51.48
Marble Mason	
Marble Finisher	
Terrazzo Worker	
Terrazzo Finisher	
Tile Setter	
Tile Finisher	
Operating Engineer	\$57.14
Group I	
Group II	
Group III	
Group III-A	
Group IV	
Group V	
Painter	\$49.72
Plumber	\$69.71
Pipe Fitter	
Roofer	\$53.67
Sheet Metal Worker	\$67.20
Sprinkler Fitter	\$59.86
Truck Driver	\$49.82
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

*The Division of Labor Standards received less than 1,000 reportable hours for this occupational title. Public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title.

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Carpenter	\$65.11
Millwright	
Pile Driver	
Electrician (Outside Lineman)	\$65.49
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Laborer	\$48.45
General Laborer	
Skilled Laborer	
Operating Engineer	\$63.12
Group I	
Group II	
Group III	
Group IV	
Truck Driver	\$46.50
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title as shown on the Building Construction Rate Sheet.

*The Division of Labor Standards received less than 1,000 reportable hours for this occupational title. Public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title.

OVERTIME and HOLIDAYS

OVERTIME

For all work performed on a Sunday or a holiday, not less than twice (2x) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work.

For all overtime work performed, not less than one and one-half (1½) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work or contractual obligation. For purposes of this subdivision, "overtime work" shall include work that exceeds ten hours in one day and work in excess of forty hours in one calendar week; and

A thirty-minute lunch period on each calendar day shall be allowed for each worker on a public works project, provided that such time shall not be considered as time worked.

HOLIDAYS

January First;
The last Monday in May;
July Fourth;
The first Monday in September;
November Eleventh;
The fourth Thursday in November; and
December Twenty-Fifth;

If any holiday falls on a Sunday, the following Monday shall be considered a holiday.

**ENVIRONMENTAL AND
CULTURAL PERMITS AND
CLEARANCES**

This RER has been completed, only administrators may edit this document now, they will contact you if any information changes.

Date Completed: 04/01/2019

Completed By: Jo Dent

Request for Environmental Review Form#:2017-06-00191

*Project Information

Prefix:	BRO	Project Number:	B048055	Bridge Number:	4219001
District:	Kansas City	County:	Jackson	Sponsor:	
TIP Number:		Rte/Street:	Tarsney Lake Beach Road		
MoDOT Job Number:		TIGER Grant Funds:		Is this project on or adjacent to MoDOT Right of Way:	No
Location/Stream Crossing :	BEACH RD OVER TARSNEY LAKE SPILLWAY				
TMS Project Description - termini (no stations):	REPAIR THE 7-58"X36" CMAP PIPES THAT FORM THE SPILLWAY FOR TARSNEY LAKE & REPAIRING THE SPILLWAY THAT IS ENDANGERING THE STRUCTURE. ALSO, MODIFY THE EMERGENCY SPILLWAY STRUCTURE TO COMPENSATE FOR THE CAPACITY LOST IN THE REPAIR. BRIDGE #42190010, NBI #23640				
Describe RER project improvements in full detail:	Bridge rehabilitation/replacement for Jackson County Bridge 4219001 - BRO-B048 (55)				
District Liason:	Sean Partain - 816-607-2147	Contact:	None selected		
Contact:	None selected	Contact:	None selected		
Date Desired:	07/30/2017	Submit Date:	06/30/2017		
Desired A-Date:					
Responsible Individual:	Kimberly Koenigs - (6/30/2017 1:55:53 PM) - 913-307-2512	Submitted By:	- (6/30/2017 12:00:00 AM)		
Existing Condition					
ADT:	518	Speed Limit:	25		
Number of Travel Lanes:	1	Lane Width:	14'		
Shoulder Width:	1'	Curb and Gutter:	No		
Bridge width, measured from gutterline to gutterline:	34.5'	Sidewalks:	None		
Proposed Design Improvement					
ADT:	600	Speed Limit:	25	Design Speed:	25
Number of Travel Lanes:	2	Lane Width:	12'		
Shoulder Width:	4'	Curb and Gutter:	No		
Bridge width, measured from gutterline to gutterline:	32'	Sidewalks:	None		
Bridge Length:	45'	Roadway length:	300'		
Railroad Crossing	No	Drainage District (If Applicable):	Choose One...		

Program Year:

Preliminary Engineering: 2017

Right of Way: 2017

Construction: 2018

Has the district documented that the project has: 1. Independent utility, 2. Logical termini, and 3. Does not restrict consideration of alternatives for other reasonably foreseeable transportation improvements?: Yes No

Project breakout from previous or larger project? *If checked explain:*

Acres - From all sources (e.g. donated from public or private entities):

Additional R/W: 0

Temp Easement: 1

Permanent Easement: 1

Is there a possibility that Sponsor will purchase any uneconomic remnants? No

Is ANY Federally-owned land impacted by the project? Yes No

Land Disturbance:

Will project involve 1 acre but less than 5 acres of land disturbance: Yes

Will project involve 5 acres or more of land disturbance: No

Acres of Tree Clearing: .25 acres

Number of Displacements(do not include partial takes that do not displace):

Residential: Yes No

Commercial: Yes No

No. of People:

Residences:

No. of Employees:

Businesses:

Public Hearing/Meeting Information:

Average Daily Traffic:

ADT Construction Year: 600

ADT Design Year: 2038

Traffic Impacts:

Road Closure Planned: Yes No

Bridge Closure Planned: Yes No

Detour Info:

Days/Months Closed:

Bicycle / Pedestrian Consideration

Pedestrian facilities considered: No

Bicycle facilities considered: No

National Flood Insurance Program (NFIP) and Hydraulic Design Data:

Project is in a FEMA-identified zone "subject to 100-year flooding": *If so, what zone?* A

Project is in a FEMA-defined "floodway" No

Project involves land purchased through FEMA Hazard Mitigation Grant Program (Flood buyout property)

If checked, give details:

Is ANY construction taking place on MoDOT owned property under this project?

Yes No

Is highway improvement located within 4 miles of an existing airport?

Known Concerns: Provide information you have about these resources that you have observed in the area.

Parkland: None

Wetland/404 Permit: None

Stormwater/Water Quality: None

Farmland: None

Threatened & Endangered Species: None

Migratory Birds: Are there birds nesting on the structure? Unknown, None

Hazardous Waste: None

Cultural Resources: None

LPA Comments:

Project Attachments:

****NOTE: If making updates to an attachment, please use a different filename than the original.**

****The combined size of attachments in one upload must be less than 100MB**

Attachments:

✖Floodplain Permit -
Received 2019-03-26.pdf

✖Jackson Co. BRO-B048
(55) Farmland Clearance -
Received 2019-01-10.pdf

✖Jackson Co. BRO-B048
(55) Asbestos and Lead
Based Paint Inspection
Report - Received 2018-11-
14.pdf

✖Section 106 - Approved -
Received 2017-11-30.pdf

✖Jackson Co. BRO-B048
(55) MDC Report - T_E -
Natural Heritage Review
Report - Received 2017-11-
13.pdf

✖Jackson Co. BRO-B048
(55) MDC Report - T_E -
Received 2017-10-18.pdf

✖Jackson Co. BRO-B048
(55) IPAC Report - T_E -
Received 2017-10-18.pdf

✖Section 106 - Received
2017-06-27.pdf

✖Archaeological Report -
Received 2017-06-13.pdf

✖Tarseny Lake Beach
Road - Location Map 1.pdf

✖FM29095C0454G.pdf

Required Information to be attached for each RER stage:

- **Loc/Concp.:** Location map (county map) & topographic map or aerial photo showing project limits – pre-plan sheets or other preliminary maps showing alternatives, if available
- **Prel. Plan:** Prel. Plan sheets
- **R/W:** RAW Plan sheets
- **Final Design:** Final Plans (Location map (county map) & topographic map or aerial photo showing project limits if this is first RER submittal)

RER Environmental Screenings

Farmland Impact

Status Information: N/A Pending Cleared Clearance Date: 01/10/2019

Environmental Response: UPDATE: The consultant submitted the completed Farmland Conversion Impact Rating Form AD-1006. NRCS determined the project site does not contain prime, unique, statewide or local important farmland. Initial Screening: According to the U.S. Census Bureau Urban Area Reference Map, the project is located outside of a designated urbanized area. Because the project also requires new right of way, it is subject to the Farmland Protection Policy Act.

LPA Action: COMPLETE: A Farmland Conversion Impact Rating Form AD-1006 must be completed and submitted to the Natural Resources Conservation Service for any new right of way acquisition or permanent easements. Form AD-1006 is located in the EPG manual at Section 136.6.4.11. http://epg.modot.org/index.php?title=136.6_Environmental_and_Cultural_Requirements#136.6.4.11_Farmland_Protection_Policy_Act

Attachments:

Farmland Impact Submitted - Mark submitted when this review is ready to be sent to district staff.

Last Updated: Jo Dent - 1/10/2019 1:08:15 PM

Floodplain/Regulatory Floodway

Status Information: N/A Pending Cleared Clearance Date: 03/25/2019

Environmental Response: UPDATE: 3/28/19 - The consultant submitted the floodplain development permit issued by Jackson County. INITIAL SCREENING: According to the current FEMA flood insurance rate map, the project is located in the 100-year floodplain.

LPA Action: COMPLETE: Obtain a floodplain development permit from the local floodplain administrator and attach to the RER.

Attachments:

Floodplain/Regulatory Floodway Submitted - Mark submitted when this review is ready to be sent to district staff.

Last Updated: Jo Dent - 4/1/2019 1:37:03 PM

Stormwater/Water Quality

Status Information: N/A Possible Issues Noted Clearance Date:

Environmental Response: If the project is in a regulated MS4 area, adhere to the MS4 requirements as defined in the MS4 permit specific to that municipality. Stormwater routed into MoDOT's drainage system (e.g., ditches and stormwater conveyance systems) must be treated for water quality and/or quantity before entering the system. Any project with land disturbance of 1-acre or more requires a NPDES land disturbance permit from MDNR.

LPA Action: If the project will disturb 1-acre or more of land, obtain a NPDES land disturbance permit from DNR. The LPA must also implement best management practices in accordance with that permit and the Clean Water Act.

Attachments:

Stormwater/Water Quality Submitted - Mark submitted when this review is ready to be sent to district staff.

Last Updated: Jo Dent - 11/21/2018 7:20:08 AM

FEMA/SEMA Buyout

Status Information: N/A Pending Cleared Clearance Date:

Environmental Response: According to the TMS FEMA buyout layer, there are no FEMA/SEMA buyout sites in the vicinity of the project area. The project will have no impact on FEMA/SEMA buyout sites.

LPA Action: None

Attachments:

FEMA/SEMA Buyout Submitted - Mark submitted when this review is ready to be sent to district staff.

Last Updated: Jo Dent - 7/5/2017 12:38:53 PM

Socioeconomic Impact

Status Information:

N/A Possible Issues Noted

Clearance Date:

Environmental Response: There will be no significant socioeconomic impacts associated with this project. Impacts will be temporary and limited to traffic disruptions, construction noise, and fugitive dust and emissions in the area of project construction. The project requires new right of way and temporary easements that are subject to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

LPA Action: Provide sufficient public notice of construction activities and traffic management plans consistent with MoDOT and local public involvement policies and procedures. Conduct the acquisition of affected properties in accordance with the procedures established in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Attachments:

Socioeconomic Impact Submitted - *Mark submitted when this review is ready to be sent to district staff.*

Last Updated: Jo Dent - 11/21/2018 7:19:07 AM

Threatened & Endangered Species

Status Information:

No Effect Pending Cleared

Clearance Date:

11/30/2017

Environmental Response:

UPDATE: The USFWS 14-day review period has passed for Programmatic consultation with no further comment from USFWS. This project has Section 7 clearance. The LPA must include the tree clearing restriction for suitable bat habitat in the construction contract. Please inform the sponsor so they can forward to the USACE for the 404 permit, if needed, and remind the sponsor to include the UPDATE: 11/15/2017 - MoDOT's T&E biologist submitted Section 7 ESA consultation for Indiana and Northern long-eared bats to USFWS for a May Affect, but is Not Likely to Adversely Affect determination. The environmental specialist will notify the consultant once the T&E process is complete. UPDATE: 11/3/2017 - MoDOT's T&E specialist reviewed all documentation submitted including the USFWS IPaC official species list (OSL) (Consultation code: 03E14000-2018-SLI-0123, 10/18/17), MDC Natural Heritage Review Level 2 Report (waiting on MDC response), project description, maps and aerial imagery, project plans, photos, and species assessment. MoDOT's biologist also reviewed the MDC Natural Heritage Database (2017) and the MO Speleological Survey cave information (2017) for additional resource information in the project area. According to the IPaC OSL, the following species of concern are listed for the project area: Gray bat, Indiana bat, and Northern long-eared bat. The IPaC indicated there are no federally designated critical habitat areas in or near the project limits. The culverts to be improved do not appear to be suitable for nesting birds. Therefore, there is no conflict with the Migratory Bird Treaty Act. The consultant identified the habitat needs for Gray bats as cave habitat year-round. MoDOT verified there are no known cave resources within 9 miles of the project area, no known Gray bat records within 40 miles, and agrees with the consultant's statement that no caves will be impacted by the project. MoDOT agrees there will be No Effect to Gray bats. The consultant identified the general landscape habitat for Indiana and Northern long-eared bats as including stream corridors with well-developed riparian woods, wood lots within 1-3 miles of rivers and large streams, upland forests in the summer and caves in the winter. However, the consultant did not address whether suitable habitat existing in the project area will be impacted by the project. Specifically, these species may use suitable summer bat roost trees with exfoliating bark, such as dead or damaged trees with bark pulling away from the wood or live trees with shingle-like bark structure. Summer habitat for the threatened Northern long-eared bat overlaps greatly with Indiana bat habitat and includes additional use of trees with splits, crevices, hollow sections, and other damage. According to the photos submitted, 1-2 potentially suitable summer bat roost trees are in the project clearing limits. As the designated non-federal representative for FHWA for USFWS Section 7 ESA consultation, MoDOT has determined this project May Affect, but is Not Likely to Adversely Affect Indiana and Northern long-eared bats. MoDOT verified that all tree clearing is within 100 feet of an existing road and the sponsor has committed to clearing only trees between November 1 and March 31, the non-breeding season for Indiana and Northern long-eared bats. This project qualifies for Programmatic Consultation for bat habitat. MoDOT will submit documentation to USFWS and notify the sponsor when approval is obtained. A Job Special Provision needs to be included in the construction contract for the tree clearing restriction. UPDATE: 10/25/17 - Additional T&E documentation submitted - T&E packet is attached. All documentation received to date was provided to MoDOT's T&E specialist for review and determinations, MDC response is forthcoming. Project plans will be forwarded once available. UPDATE: 10/18/2017 - The consultant submitted the IPaC Official Species List and MDC Natural Heritage Review Level 2 Report. Once remaining T&E documentation is submitted, it will be provided to MoDOT's biologist for review and species determinations. Impacts to threatened and endangered species must be assessed for this project.

LPA Action:

1. Access the US Fish and Wildlife Service (USFWS) IPaC online tool at <http://ecos.fws.gov/ipac/> to obtain the official list of species for your county. 2. Access the MO Department of Conservation (MDC) online Natural Heritage Review website at <https://naturalheritagereview.mdc.mo.gov/> and generate a report. Contact MDC if the report indicates to do so. Submit the report, and MDC response, if required, to MoDOT. 3. Provide the amount, location, and time of year for tree clearing, or indicate there will be no tree clearing. 4. If there will be tree clearing, photograph the trees so that bark characteristics of the main trunk and large branches, along with any cavities, are clearly illustrated. 5. If the project involves bridgework, photograph the undersides of bridges illustrating any bird nests or unusual staining on the substructure or underside of the deck. 6. It is the responsibility of the LPA to make a written determination of their project impacts on each species listed from the IPaC. Further, the LPA must assess effects on any MDC listed species (endangered or species of conservation concern). If no effects are anticipated for a particular species, state the reason(s) why. For example: This project does not involve any tree clearing so there will be no effects on summer roosting habitat for listed bat species or this project does not impact any aquatic habitats so there will be no effects on listed fish or mussel species. 7. Submit the full project limits, easements, access, construction date, and ground disturbance information.

Attachments:

MoDOT Biologist email.pdf

TandE Packet.pdf

Threatened & Endangered Species Submitted - Mark submitted when this review is ready to be sent to district staff.

Last Updated: Jo Dent - 11/30/2017 12:29:18 PM

Migratory Birds

Status Information:

N/A Pending Cleared

Clearance Date:

Environmental Response: UPDATE: 11/3/2017 - MoDOT's T&E specialist reviewed all documentation submitted by the consultant. The culverts to be improved do not appear to be suitable for nesting birds. Therefore, there is no conflict with the Migratory Bird Treaty Act. UPDATE: 10/25/17 - Additional T&E documentation submitted - T&E packet is attached in the T&E section above. All documentation received to date was provided to MoDOT's T&E specialist for review and determinations. MDC response is forthcoming. Project plans will be forwarded once available. UPDATE: 10/18/2017 - The consultant submitted the IPaC Official Species List and MDC Natural Heritage Review Level 2 Report. Once remaining T&E documentation is submitted, it will be provided to MoDOT's biologist for review and species determinations. Swallows and other bird species protected by the Migratory Bird Treaty Act (MBTA) may be nesting under the bridge that will be rehabbed/demolished during this project. To comply with the MBTA, nests of protected species cannot be disturbed when active (eggs or young are present). Generally, nests are active between April 1 and July 31, but active nests can be present outside of these dates.

LPA Action: COMPLETE: Assess for the presence of migratory birds under the bridge prior to rehab/demolition. Take photographs of underneath the bridge and provide an explanation as to whether there are nests and/or unusual staining on the bridge, and submit along with the remaining T&E documentation as instructed under the T&E section of the RER.

Attachments:

Migratory Birds Submitted - Mark submitted when this review is ready to be sent to district staff.

Last Updated: Jo Dent - 11/3/2017 10:48:08 AM

Hazardous Waste Impact

Status Information:

N/A Pending Cleared

Clearance Date:

11/14/2018

Environmental Response: UPDATE: The consultant submitted the lead based paint and asbestos inspection reports completed by Mustardseed Cultural and Environmental Services. Inspections of the Lakeside Drive Bridge were completed on 10/17/18, by a professional currently licensed by the Department of Health and Senior Services as a lead risk assessor and certified through DNR as an asbestos inspector. Six areas of the structure were tested for lead based paint and all six tests tested negative for lead based paint. Approximately 40 LF of black tar concrete was found on the bridge structure, which tested positive for non-friable asbestos - 5% Chrysotile. Attached is the DNR publication on how to categorize, remove, and dispose of asbestos containing debris. DNR requires notification of demolitions and abatement projects involving regulated structures at least 10 working days before crews begin a project. Following is the link to DNR's website, which contains asbestos notifications forms: <https://dnr.mo.gov/env/apcp/asbestos/>. Notifications should be emailed to: AsbestosNotifications@dnr.mo.gov. If there are questions, contact DNR's Asbestos Unit at 800-361-4827 or 573-751-4817. Initial Screening: According to DNR's E-START online mapping system, there are no Hazardous Substance Investigation Sites and no Regulated Petroleum and Hazardous Storage Tank Facilities in the project area. According to EPA's NEPAassist online mapping system, there are no EPA-regulated facilities in the project area. The potential to encounter wastes from sites unknown to the LPA and MoDOT should always be a consideration.

LPA Action: Determine whether improvements to the bridge require an asbestos and lead based paint inspection and notifications to DNR. Any unknown sites that are found during project construction will be addressed by the LPA in accordance with Federal and State Laws and Regulations. If any hazardous waste concerns arise, notify MoDOT's environmental specialist as soon as possible.

Attachments:

DNR Pub_How to Handle Asbestos Containing Debris_2-2014.pdf

Hazardous Waste Impact Submitted - Mark submitted when this review is ready to be sent to district staff.

Last Updated: Jo Dent - 11/21/2018 7:17:29 AM

Wetland Impact (Section 404/401)

Status Information: N/A Pending Cleared Clearance Date: 12/18/2017

Environmental Response: UPDATE: The project is authorized by NWP 14, which is valid until 3/18/2022. In addition to the General Conditions of this permit verification, the LPA/consultant must provide documentation to the USACE prior to the commencement of work that the project was designed by qualified persons with regard to dam safety. Please refer to the attached NWP letter for more information. For questions or if there are changes in the project, contact Colin Smalley, USACE Regulatory Specialist at 816/389-3846, or by email at collin.c.smalley@usace.army.mil. UPDATE: 11/30/17 - The environmental specialist emailed the RER, SHPO letter, and T&E determinations and clearance to Colln Smalley at the USACE for NWP permitting requirements. Initial Screening: According to a review of the USFWS National Wetlands Inventory Mapper and Google Earth, in addition to identifying Tarsney Lake, there is also a blue line stream and a riverine wetland at the east end of the bridge, which flow toward/into the lake. There is the potential to impact wetlands and waters of the U.S.

LPA Action: COMPLETE: Although MoDOT staff conducted a desktop review using the USFWS NWI Mapper, the LPA/consultant should field verify the presence of wetlands and waters of the U.S. within the project area. If temporary or permanent wetland impacts will result, or if fills will be placed within waters of the U.S. then the project will require submittal to the US Army Corps of Engineers (USACE) for a jurisdictional determination and permit approval. If permanent fill is less than 0.5 acre, the project should qualify for a Nationwide Permit (NWP). Most NWPs are automatically certified for 401 Water Quality Certification. These general water quality conditions as well as USACE Nationwide permit regional conditions, and any other conditions, must be followed during project construction. If a USACE Section 404 permit is required, attach to the RER and submit to MoDOT.

Wetland Permit Information:	404 Permit Number	Permit Submitted	Permit Received
	NWK-2017-01882		12/18/2017
	Permit Expiration	Compliance Certification Sent	Compliance Certification Received
	3/18/2022		

Attachments: USACE NWP 14.pdf

Wetland Impact Submitted - Mark submitted when this review is ready to be sent to district staff.
Last Updated: Jo Dent - 12/19/2017 12:31:00 PM

Noise Impact

Status Information: N/A Pending Cleared Clearance Date:

Environmental Response: This is a Type III project and a noise analysis is not required.

LPA Action: None

Attachments:

Noise Impact Submitted - Mark submitted when this review is ready to be sent to district staff.
Last Updated: Jo Dent - 7/5/2017 1:01:26 PM

Cultural Resources Impact (Section 106)

Status Information: Pending Cleared Clearance Date: 06/20/2017

Environmental Response: UPDATE: 7/10/17: The consultant submitted the SHPO letter. The SHPO reviewed the cultural resource survey and concurred there will be No Historic Properties Affected and have no objection to the initiation of project activities. If project plans change, submit information documenting those changes to the SHPO for review. SHPO Project #193-JA-17 for Tarsney Lake Spillway, Jackson County. UPDATE: In June 2017, a cultural resource survey completed by Archaeological Research Center of St. Louis, Inc. (6/2017) was submitted for the project likely at the request of the SHPO. The survey concluded that no cultural resources were located at the site. The project requires a Section 106 Review in consultation with the State Historic Preservation Office (SHPO) for identifying potential cultural resources that may be impacted by the project.

LPA Action: COMPLETE: Submit all SHPO letters related to this project. The LPA should submit the Section 106 Project Information Form, located in the EPG manual at section 136.6.4.1.1, and associated attachments to the SHPO for review and comment. Once the SHPO response letter is received, attach it to the RER and submit to MoDOT.http://epg.modot.org/Index.php?title=136.6_Environmental_and_Cultural_Requirements#136.6.4.13_Noise_Standards_and_Noise_Abatement

Attachments:

Cultural Resources Impact Submitted - Mark submitted when this review is ready to be sent to district staff.
Last Updated: Jo Dent - 11/21/2018 7:21:50 AM

Public Land Impact (Section 4(f))

Status Information: N/A Pending Cleared Clearance Date:

Environmental Response: UPDATE: 9/8/2017 - Based on a telephone call between MoDOT's environmental specialist, and Gary Strack and Kim Koenigs of SKW, it was determined the project will not require new right of way or easements from, and will not restrict access to Tarsney Lake. The project will not impact the recreational uses and values of this resource. Any impacts are related to maintaining access to the bridge for residents to cross the lake. Construction will be completed in phases to accomplish this. Initial Screening: According to Google Earth and ArcMap public lands layers, there are no Section 4(f) or Section 6(f) resources in the vicinity of the project area. However, according to the MO Dept. of Conservation (MDC) website, Tarsney Lake is owned and managed by Jackson County, which would qualify it as a Section 4(f) resource. It is not listed by DNR State Parks as a Section 6(f) resource. MDC indicates the 17-acre lake is used for canoeing, floating, and fishing and contains a boat ramp on the east side off of Beach Drive. See the attached Tarsney Lake MDC site map and site information.

LPA Action: COMPLETE: No Impacts Confirm whether Tarsney Lake is a Section 4(f) resource. If the lake is a Section 4(f) resource, explain if/how project construction will impact/restrict access to the recreational uses of the resource to determine the appropriate Section 4(f) documentation/evaluation required.

Attachments:

- MDC Tarsney Lake Site Info.pdf
- Tarsney Lake MDC Site Map.pdf

Based on the review of the project location and description noted above, there are no identified 4(f) or 6(f) resources affected that would preclude the setting of an A-date.

Checked by: Jo Dent on 09/08/2017

Public Land Impact Submitted - Mark submitted when this review is ready to be sent to district staff.
Last Updated: Jo Dent - 9/8/2017 7:46:07 AM

NEPA Classification

NEPA Right-Of-Way Permission: Can Proceed to Buy R/W as determined or approved by: JOANN.DENT@MODOT.MO.GOV

NEPA Approval/Proceed to A-date Request: 07/05/2017

NEPA Classification: PCE

This project qualifies for the programmatic categorical exclusion under Item#: 17 All Environmental Issues Cleared: 03/28/2019

Comments To District: If there are any changes in the scope of the project, the Environmental Section should review those changes. The sponsor is ultimately responsible for complying with all applicable state and federal laws. The LPA/consultant should review all sections above including those marked as clear/green.

Attachments:

Last Submitted: 04/01/2019 by Jo Dent

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FLOODPLAIN DEVELOPMENT PERMIT/APPLICATION

Application No. FP-2019-02 50-2019-0011 Date: 3-25-19

TO THE ADMINISTRATOR: The undersigned hereby makes application for a permit to develop in a floodplain. The work to be performed, including flood protection works, is as described below and in attachments hereto. The undersigned agrees that all such work shall be in accordance with the requirements of the Floodplain Management Ordinance and with all other applicable county/city ordinances, federal programs, and the laws and regulations of the State of Missouri.

Jackson County
Owner or Agent Date Builder Date
303 West Walnut, Independence MO 65050
Address
816-881-4530
Phone

SITE DATA

1. Location: SE 1/4; SE 1/4; Section 22; Township 48N; Range 30W
Street Address: Tarsney Lake Beach Road
2. Type of Development: Filling X Grading X Excavation X Minimum Improvement
Routine Maintenance Substantial Improvement New Construction X Other
3. Description of Development: Replacement of existing structure with a three cell RCB using 12' x 5' cells, spillway improvements including concrete slope and walls, rip-rap placement, and all disturbed areas will be seeded and mulched on Tarsney Lake Beach Road in Jackson County, MO. This project is the replacement of bridge 4210091.
4. Premises: Structure Size 38.67 ft. By 36.00 ft. Area of Site 21,728 Sq Ft
Principal Use Stream Crossing Accessory Uses (storage, parking, etc.) N/A
5. Value of Improvement (fair market) \$ Pre-Improvement/Assessed Value of Structure \$ Unknown
6. Property Located in a Designated FLOODWAY? Yes No X

IF ANSWERED YES, CERTIFICATION MUST BE PROVIDED PRIOR TO THE ISSUANCE OF A PERMIT TO DEVELOP, THAT THE PROPOSED DEVELOPMENT WILL RESULT IN NO INCREASE IN THE BASE (100-YEAR) FLOOD ELEVATIONS.

7. Property Located in a Designated Floodplain FRINGE? Yes X No
8. Elevation of the 100-Year Flood (ID source) 839.65 NGVD/NAVD
9. Elevation of the Proposed Development Site 840.80 NGVD/NAVD
10. Local Ordinance Elevation/Floodproofing Requirement NGVD/NAVD
11. Other Floodplain Elevation Information (ID and describe source)

12. Other Permits Required?
Corps of Engineer 404 Permit: Yes X No Provided
State Department of Natural Resources 401 Permit: Yes X No Provided
Environmental Protection Agency NPDES Permit: Yes No X Provided

All Provisions of Ordinance Number 4755, the "Floodplain Management Ordinance", shall be in Compliance.

PERMIT APPROVAL/DENIAL

Plans and Specifications Approved/Denied this 25th Day of March, 2019
Signature of Developer/Owner
Authorizing Official: RANDY NIENL FLOOD PLAN ADMINISTRATOR
Print Name and Title

THIS PERMIT IS ISSUED WITH THE CONDITION THAT THE LOWEST FLOOR (INCLUDING BASEMENT FLOOR) OF ANY NEW OR SUBSTANTIALLY IMPROVED RESIDENTIAL BUILDING WILL BE ELEVATED FOOT/FEET ABOVE THE BASE FLOOD ELEVATION. IF THE PROPOSED DEVELOPMENT IS A NON-RESIDENTIAL-BUILDING, THIS PERMIT IS ISSUED WITH THE CONDITION THAT THE LOWEST FLOOR (INCLUDING BASEMENT) OF A NEW OR SUBSTANTIALLY IMPROVED NON-RESIDENTIAL BUILDING WILL BE ELEVATED OR FLOODPROOFED FOOT/FEET ABOVE THE BASE FLOOD ELEVATION.

THIS PERMIT IS USED WITH THE CONDITION THAT THE DEVELOPER/OWNER WILL PROVIDE CERTIFICATION BY A REGISTERED ENGINEER, ARCHITECT, OR LAND SURVEYOR OF THE "AS-BUILT" LOWEST FLOOR (INCLUDING BASEMENT) ELEVATION OF ANY NEW OR SUBSTANTIALLY IMPROVED BUILDING COVERED BY THIS PERMIT.



Planning and Zoning Division
Public Works Department
Jackson County, Missouri
Application for Special Use Permit

Date Printed:
03/25/2019

Application #: SU20190011 Application Date: 03/25/2019 Project ID No.: PR20190056

Permission is hereby requested by
To perform the following described work on:

Type of Work: Floodplain Dev Permit Work Sub Type: Floodplain Dev Permit

Street Address: Lot: Subdivision:

Section: Township: Range:

General Location: Tarsney Spillway
Permit Fee Received

Signature of Owner

Signature of Agent / Contractor

(This is an Application, NOT a Permit. Work cannot start until a Permit has been RECEIVED.)

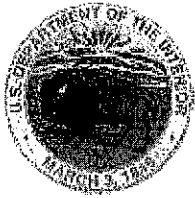
Owner: JACKSON COUNTY PUB
ENGINEERING DIVISION
303 W WALNUT
INDPENDEANCE, MO 64050
816-881-4499 Office

Agent: JACKSON COUNTY PU
ENGINEERING DIVISION
303 W WALNUT
INDPENDEANCE, MO 64050
816-881-4499 Office

Contractor:

DO NOT START ANY CONSTRUCTION
UNTIL YOU RECEIVE YOUR PERMIT.

- 1: The permit will state the minimum allowable size culvert pipe to be used.
2: It will be mailed to address given on the application.
3: If a concrete drive is installed, inspection will need to be conducted prior to the concrete being poured.
4: Gravel and asphalt drive inspection will be conducted when drive is complete.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Missouri Ecological Services Field Office
101 Park Deville Drive
Suite A
Columbia, MO 65203-0057
Phone: (573) 234-2132 Fax: (573) 234-2181

In Reply Refer To:

October 18, 2017

Consultation Code: 03E14000-2018-SLI-0123

Event Code: 03E14000-2018-E-00261

Project Name: Jackson Co. BRO-B048 (55) - Bridge 4219001

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.).

Threatened and Endangered Species

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. **Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days.** The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance

Refer to the Midwest Region [S7 Technical Assistance](#) website for step-by-step instructions for making species determinations and for specific guidance on the following types of projects: projects in developed areas, HUD, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

Federally Listed Bat Species

Indiana bats, gray bats, and northern long-eared bats occur throughout Missouri and the information below may help in determining if your project may affect these species.

Gray bats - Gray bats roost in caves or mines year-round and use water features and forested riparian corridors for foraging and travel. If your project will impact caves, mines, associated riparian areas, or will involve tree removal around these features particularly within stream corridors, riparian areas, or associated upland woodlots gray bats could be affected.

Indiana and northern long-eared bats - These species hibernate in caves or mines only during the winter. In Missouri the hibernation season is considered to be November 1 to March 31. During the active season in Missouri (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags 5 inches diameter at breast height (dbh) for Indiana bat, and 3 inches dbh for northern long-eared bat, that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Tree species often include, but are not limited to, shellbark or shagbark hickory, white oak, cottonwood, and maple. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, Indiana bats or northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas;
- Trees found in highly-developed urban areas (e.g., street trees, downtown areas);
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees; and
- A stand of eastern red cedar shrubby vegetation with no potential roost trees.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of "There are no listed species found within the vicinity of the project," then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example "No Effect" document also can be found on the S7 Technical Assistance website.

2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project other than bats (see #3 below) then project proponents can conclude the proposed activities **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain Life History Information for Listed and Candidate Species through the S7 Technical Assistance website.

3. If IPaC returns a result that one or more federally listed bat species (Indiana bat, northern long-eared bat, or gray bat) are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** these bat species **IF** one or more of the following activities are proposed:

- a. Clearing or disturbing suitable roosting habitat, as defined above, at any time of year;
- b. Any activity in or near the entrance to a cave or mine;
- c. Mining, deep excavation, or underground work within 0.25 miles of a cave or mine;
- d. Construction of one or more wind turbines; or
- e. Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on listed bat species. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example "No Effect" document also can be found on the S7 Technical Assistance website.

If any of the above activities are proposed in areas where one or more bat species may be present, project proponents can conclude the proposed activities **may affect** one or more bat species. We recommend coordinating with the Service as early as possible during project planning. If your project will involve removal of over 5 acres of suitable forest or woodland habitat, we recommend you complete a Summer Habitat Assessment prior to contacting our office to expedite the consultation process. The Summer Habitat Assessment Form is available in Appendix A of the most recent version of the Range-wide Indiana Bat Summer Survey Guidelines.

Other Trust Resources and Activities

Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act

and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed voluntary guidelines for minimizing impacts.

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to guidelines developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's Wind Energy Guidelines. In addition, please refer to the Service's Eagle Conservation Plan Guidance, which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

Next Steps

Should you determine that project activities **may affect** any federally listed species or trust resources described herein, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

If you have not already done so, please contact the Missouri Department of Conservation (Policy Coordination, P. O. Box 180, Jefferson City, MO 65102) for information concerning Missouri Natural Communities and Species of Conservation Concern.

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Karen Herrington

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Missouri Ecological Services Field Office

101 Park Deville Drive

Suite A

Columbia, MO 65203-0057

(573) 234-2132

Project Summary

Consultation Code: 03E14000-2018-SLI-0123

Event Code: 03E14000-2018-E-00261

Project Name: Jackson Co. BRO-B048 (55) - Bridge 4219001

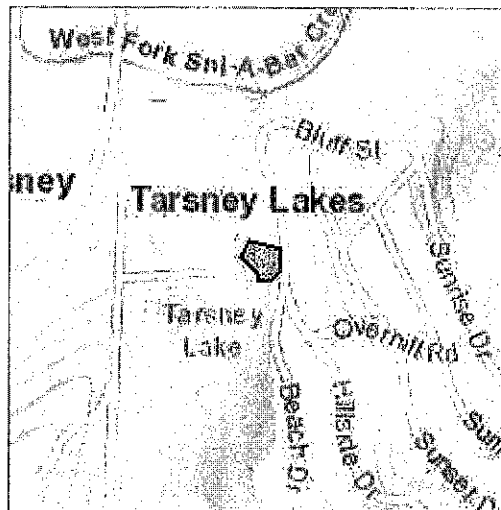
Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: Jackson Co. on Tarsney Lake Beach Road S27/22, T48N R30W

Project Location:

Approximate location of the project can be viewed in Google Maps:

<https://www.google.com/maps/place/38.95114282645242N94.20757155575322W>



Counties: Jackson, MO

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Mammals

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

There are no critical habitats within your project area under this office's jurisdiction.

USFWS National Wildlife Refuges And Fish Hatcheries

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuges or fish hatcheries within your project area.

Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.



Missouri Department of Conservation
Natural Heritage Review Report

November 13, 2017 -- Page 1 of 2

Resource Science Division
 P. O. Box 180
 Jefferson City, MO 65102
 Prepared by: Brittne Brauner
 Brittne.Brauner@mdc.mo.gov
 (573) 522 - 4115 ext. 3182

KIMBERLY KOENIGS
 SHAFER, KLINE & WARREN
 11250 CORPORATE AVE.
 LENEXA, KS 66219

Project type:	BRIDGE
Location/Scope:	T48N R30W S27 & 22
County:	JACKSON
Query reference:	BRO-048 (55) BRIDGE 4219001
Query received:	10/25/2017

This NATURAL HERITAGE REVIEW is not a site clearance letter. Rather, it identifies public lands and sensitive resources known to have been located close to and/or potentially affected by the proposed project. On-site verification is the responsibility of the project. Natural Heritage records were identified at some date and location. This report considers records near but not necessarily at the project site. Animals move and, over time, so do plant communities. To say "there is a record" does not mean the species/habitat is still there. To say that "there is no record" does not mean a protected species will not be encountered. These records only provide one reference and other information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Look for additional information about the biological and habitat needs of records listed in order to avoid or minimize impacts. More information is at <http://mdc.mo.gov/discover-nature/places-go/natural-areas> and mdc4.mdc.mo.gov/applications/mofwis/mofwis_search1.aspx.

Level 3 issues: Records of federal-listed (these are also state-listed) species or critical habitats near the project site:

Natural Heritage records identify no wildlife preserves, no designated wilderness areas or critical habitats, and no federal-listed species records within the project area, or in the public land survey section listed above or sections adjacent.

FEDERAL LIST species/habitats are protected under the Federal Endangered Species Act. Contact the U.S. Fish and Wildlife Service (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; 573-234-2132) for Endangered Species Act coordination and concurrence information.

Level 2 issues: Records of state-listed (not federal-listed) endangered species AND / OR state-ranked (not state-listed endangered) species and natural communities of conservation concern. The Department tracks these species and natural communities due to population declines and/or apparent vulnerability.

Natural Heritage records identify the project occurs downstream from Tarsney Lake, which is owned and operated by Jackson County. If project activities will impact the lake, please contact the county.

See <https://nature.mdc.mo.gov/sites/default/files/downloads/2017-SOCC.pdf> for a complete list of species and communities of conservation concern.

STATE ENDANGERED species are listed in and protected under the Wildlife Code of Missouri (3CSR10-4.111).

General recommendations related to this project or site, or based on information about the historic range of species (unrelated to any specific Natural Heritage records):

- Indiana bats (*Myotis sodalis*, federal and state-listed endangered) and Northern long-eared bats (*Myotis septentrionalis*, federal-listed threatened) hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana bats or Northern long-eared bats, especially from September to April. **If any trees need to be removed by your project, please contact the U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132 Ext. 100 for Ecological Services) for further coordination under the Endangered Species Act.**

- Jackson County has known karst geologic features (e.g. caves, springs, and sinkholes, all characterized by subterranean water movement). Few karst features are recorded in Natural Heritage records, and ones not noted here may be encountered at the project site or affected by the project. Cave fauna (many of which are species of conservation concern) are influenced by changes to water quality, so check your project site for any karst features and make every effort to protect groundwater in the project area.
- Streams in the area should be protected from soil erosion, water pollution and in-stream activities that modify or diminish aquatic habitats. See link regarding *Management Recommendations for Construction Projects Affecting Missouri Streams and Rivers*.
 - ◆ Avoid disturbance to stream banks and riparian areas. Channel modification, flow interruption or bank modification should occur only in compliance with conditions established in permits required under the federal Clean Water Act.
 - ◆ Grade and seed disturbed areas as soon as possible to minimize erosion. Native grasses and wildflowers are recommended for plantings compatible with the local native landscape and wildlife needs. Annuals like ryegrass may be combined with native perennials for quicker green-up. Avoid aggressive exotic perennials such as crown vetch and sericea lespedeza.
 - ◆ All temporary in-channel fills that could impound water should be culverted. Culverts should (a) maintain at least six inches of water and (b) not create water velocities in excess of two feet per second during average annual discharges. A drop between the downstream end of the culverts and the downstream water surface should not occur at any time. Conditions provided within the USACE Clean Water Act Section 404 permit, if required (<http://www.nwk.usace.army.mil/Portals/29/docs/regulatory/moregoffices.pdf>), should help minimize impacts to the aquatic organisms within the area.
 - ◆ Avoid work in the channel from March 15 until June 15, a time when many fish are spawning and eggs need minimal disturbance.
- Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment, so inspect and clean equipment thoroughly before moving between project sites.
 - ◆ Remove any mud, soil, trash, plants or animals from equipment before leaving any water body or work area.
 - ◆ Drain water from boats and machinery that have operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
 - ◆ When possible, wash and rinse equipment thoroughly with hard spray or HOT water ($\geq 140^{\circ}$ F, typically available at do-it-yourself carwash sites), and dry in the hot sun before using again.

These recommendations are ones project managers might prudently consider based on a general understanding of species needs and landscape conditions. Natural Heritage records largely reflect sites visited by specialists in the last 30 years. Many privately owned tracts have not been surveyed and could host remnants of species once but no longer common.

November 14, 2018

Matt Eblen
McClure Engineering Company
11250 Corporate Avenue
Lenexa, Kansas 66219

RE: Lead and Asbestos Inspection of the Lakeside Drive Bridge 4219001-BRO-B048(55), Jackson County, MO.

Dear Mr. Eblen:

Mustardseed Cultural and Environmental Services, LLC (MCE) was contracted by McClure Engineering Company (MEC) to perform an asbestos inspection and lead based paint of the Lakeside Drive bridge in Jackson County, Missouri. The inspection took place October 17, 2018.

The purpose of the inspection was to identify and quantify asbestos-containing materials (ACM) and lead-based paint (LBP) that could be impacted during work on the subject structures. The asbestos survey of the subject property was performed utilizing the NESHAPS and ASTM assessment, sampling, and analytical protocol. The LBP inspection was conducted in accordance with all applicable local and State regulations. Radiation safety procedures as required by the U.S. Nuclear Regulatory Commission and applicable State and Local regulations were followed when using an XRF. This report letter should only be used for the purposes of interpreting the presence of lead-based (LBP) at the aforementioned structures and should not be used for any lead-related risk assessment purposes. No lead-based paint was found on the structure, however asbestos was present on surfacing material. Appendix A contains inspector certification for Mr. Joseph Taylor.

ASBESTOS INSPECTION

The asbestos inspection and sampling followed all applicable State of Missouri, USEPA and ASTM regulations and guidelines and was performed by a State of Missouri licensed asbestos inspector. Asbestos containing materials contain asbestos greater than 1 percent (>1%). ACM is characterized as friable or nonfriable asbestos. Friable asbestos is any material that can be crumbled, pulverized, or reduced to a powder by hand pressure when dry.

Common sources of ACM in bridges were inspected: coatings on concrete, mastic, transite pipe, felt/fiberboard bearing material, rail post isolator pads, coatings on wood and timber, and caulk. **One suspect ACM** was found on the steel & concrete bridge structure. The black tar concrete filler sample was analyzed by QuantEM Laboratories a NVLAP accredited (polarized light microscopy) PLM laboratory. **The sample was positive for non-friable chrysotile asbestos.** The laboratory report and chain of custody is found in Appendix B. Approximately 40 Linear feet of the rubbery flexible material, like street crack filler, is present.

In the event that other suspect materials (i.e., thermal system pipe insulation, mudded fittings, etc.) are discovered during construction or demolition activities, the suspect material should be assumed ACM or bulk samples should be collected to determine the presence of asbestos.

In the event that suspect asbestos containing materials (i.e., coatings on concrete, mastic, transite pipe, felt/fiberboard bearing material, rail post isolator pads, coatings on wood and timber, and caulk, etc.) are discovered in previously inaccessible areas during demolition/construction activities, bulk samples should be collected to determine the presence of asbestos.

LEAD BASED PAINT INSPECTION

Upon arriving on-site, the LBP inspector conducted the initial and final calibration procedures for the XRF instrument, using a National Institute of Standards and Technology (NIST) LBP calibration paint film, standardized to 1.02 mg/cm². The results of the initial calibration indicated that the instrument was functioning within the 0.3 mg/cm² calibration check variation tolerance limits. The XRF readings below the action level of 1.0 mg/cm² are considered negative and readings at and above the action level are considered positive. A table of the XRF reading results is in Appendix C. Following completing the initial calibration, a total of six (6) individual tests (assays) were performed. **All 6 assays were found to be negative for lead.** All accessible areas were tested during the inspection. Although an attempt is made to find all lead hazards, it is impossible to test all locations within a house and additional lead-based paint may still be present at any and all untested areas. A photographic log is located in Appendix D.

Please be cautioned that painted surfaces with detectable levels of lead below the regulatory limit of 1.0 mg/cm² could create lead dust or lead-contaminated soil hazards when these painted surfaces are turned into dust by abrasion, scraping, or sanding. There was detectable levels of lead on all surfaces tested. Any and all surfaces, substrates, and components not specifically tested should be assumed to contain lead-based-paint unless tested and proven otherwise.

Please refer to the attached Lead-Based Paint Evaluation Results spreadsheet for the specific locations where bridge components have been tested for lead in paint. Be cautioned that surface coatings tested during this survey contained detectable levels of lead. OSHA regulations (29 CFR 1926.62) for lead should be followed for worker protection.

MCE also recommends that a copy of this report be provided to contractors that may conduct work on the bridges.

GENERAL COMMENTS

The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during MCE's survey of the structure, Lakeside Drive steel and concrete bridge in Jackson County, MO. The information contained in this report is relevant to the date on which these surveys were performed, and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by MEC for specific application to their project as discussed. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. MCE does not warrant the work of regulatory agencies, laboratories or other third parties supplying information that may have been used in the preparation of this report. No warranty, expressed or implied is made.



Respectfully,

Timberlyn Smith

Timberlyn Smith, CHMM
Project Manager

Joseph Taylor

Joseph Taylor
Inspector

**APPENDIX
A
CERTIFICATIONS**

STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES

LEAD OCCUPATION LICENSE REGISTRATION

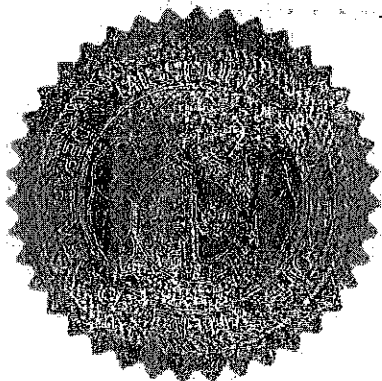
Issued to:

Joseph E. Taylor

The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

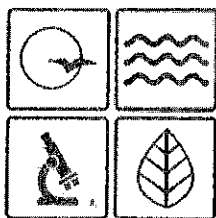
Lead Risk Assessor
Category of License

Issuance Date: 3/14/2018
Expiration Date: 3/14/2020
License Number: 160314-300004925



Handwritten signature of Randall W. Williams in black ink.

Randall W. Williams, MD, FACOG
Director
Department of Health and Senior Services



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

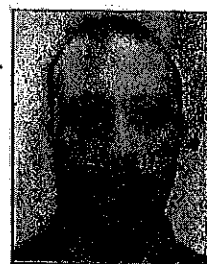
Carol S. Comer, Director

August 27, 2018

Joseph E Taylor
1878 Kingbird Lane
Liberty, MO 64068

CERTIFICATION NUMBER:
7001081618MOIR18869

THIS CERTIFIES
Joseph E Taylor
HAS COMPLETED THE CERTIFICATION
REQUIREMENTS FOR
Inspector



APPROVED: **08/28/2018**
EXPIRES: **08/28/2019**

TRAINING DATE: **08/16/2018**

Director of Air Pollution Control Program

RE: **Missouri Asbestos Occupation Certification Card**

Enclosed is your certification card for Asbestos Inspector, as issued by the Asbestos Unit of the Missouri Department of Natural Resources' Air Pollution Control Program.

Missouri Certification Number: 7001081618MOIR18869
Course Training Date: August 16, 2018
Missouri Certification Approval Date: August 28, 2018
Missouri Certification Expiration Date: August 28, 2019

Note:

- All Missouri-certified asbestos personnel must comply with the following statutes and regulations:
 - Sections 643.225 to 643.225, RSMo;
 - 10 CSR 10-6.241 *Asbestos Projects-Registration, Abatement, Notification, Inspection, Demolition, and Performance Requirements; and*
 - 10 CSR 10-6.250 *Asbestos Projects-Certification, Accreditation and Business Exemption Requirements.*
- To keep your occupation certification up-to-date, you must complete an annual refresher course and submit a renewal application each year.
- In order to be eligible to renew your certification, you must successfully complete a refresher course with a Missouri-accredited training provider within 12 months of the expiration date of your current training certificate. If you exceed this grace period, you will be required to retake a Missouri-accredited initial course in order to be eligible for Missouri certification.

To obtain a copy of the certification renewal application, or review regulations and requirements, please visit our website at <http://dnr.mo.gov/env/apcp/asbestos/index.htm>.

If you have any questions please call the Air Pollution Control Program at 573-751-4817.

AIR POLLUTION CONTROL PROGRAM

Director of Air Pollution Control Program



Certificate of Training

JOSEPH TAYLOR

Has completed the Heuresis Corporation training materials presented on the topic of Instrument Operator Training, Pb200i, with regards to the materials licensed by the Commonwealth of Massachusetts and the Nuclear Regulatory Commission.

**Instrument Operator Training
Heuresis Corporation, Pb200i**

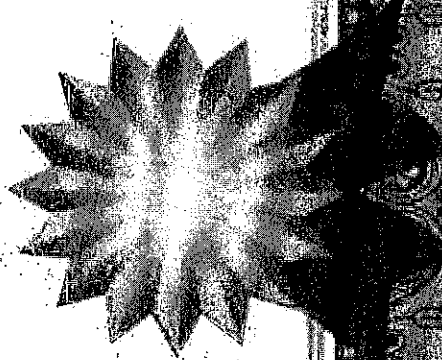
I confirm that the above named individual has received the training listed on this certificate.

James R. Paquette 1-15-16
Name Title Date

PRESIDENT - AST
Title

I certify that I have received the stated training and understand the content presented. I understand that I can follow up this training with questions from Heuresis Corporation.

J. E. A. 1-15-16
Name Date



**APPENDIX
B**

**ASBESTOS CONTAINING
MATERIAL LABORATORY
RESULTS**



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 300949	Client: Mustardseed Cultural & Environmental Services, LLC
Account Number: B979	Timberlyn Smith
Date Received: 10/18/2018	222 W. Gregory Blvd., Ste. 211
Received By: Taylor Hooper	Kansas City, MO 64114-1127
Date Analyzed: 10/25/2018	Project: Lakeside Dr. Bridge 4219001
Analyzed By: Cassie Sanborn	Project Location: Jackson County, MO
Methodology: EPA/600/R-93/116	Project Number: 160515-010

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	CF1-1	Homogeneous	Black Concrete Filler	Asbestos Present Chrysotile 5	NA	Tar

Cassie Sanborn

Cassie Sanborn, Analyst

10/25/2018

Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Quantem is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



ASBESTOS CHAIN OF CUSTODY
2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 822-1650 • (405) 755-7272 • Fax: (405) 755-2058

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

Contact Information Company: Mustardseed Cultural & Env. Svcs. Contact: Timberlyn Smith Account #: B979 SAAMPLED BY: Name: Joseph Taylor		Contact Information Phone: (816) 333-2424 Call Phone: (816) 804-2700 E-mail: tsrsmith@m-c-e-services.net Date: 10/17/18		Project Information Project Name: Lakeside Dr. Bridge 4219001 Project Location: Jackson County, MO Project ID: 160515-010 P.O. Number:	
Report Results <input type="checkbox"/> (one box)		Quantem Website <input type="checkbox"/>		Email <input checked="" type="checkbox"/> smth@mc-e-services.net	
Accept <input checked="" type="checkbox"/>		Reject <input type="checkbox"/>		Other _____	

REQUISITIONED BY 	DATE & TIME 4:00pm 10/17	VIA	RECEIVED BY 	DATE & TIME 10-18-18 9:30
-----------------------------	--	------------	------------------------	---

REQUESTED SERVICES (Please check the Appropriate Boxes)

PLM	PLM	PLM	TEM	TEM	TEM	TURN AROUND TIME
<input checked="" type="checkbox"/> Bulk Analysis (EPA 600/R-93/116)	<input type="checkbox"/> Vermiculite Attic Insulation (EPA 600/R-04/004)	<input type="checkbox"/> Air-AHERA	<input type="checkbox"/> Bulk- Presence / Absence EPA600/R-93/116	<input type="checkbox"/> Bulk- Quantitative [weight%]- Chatfield	<input type="checkbox"/> Rush	
<input type="checkbox"/> 400 Point Count	<input type="checkbox"/> Other	<input type="checkbox"/> Air-NIOSH 7402	<input type="checkbox"/> Bulk- Quantitative [weight%]- Chatfield	<input type="checkbox"/> Dust- Presence / Absence	<input type="checkbox"/> Same Day	
<input type="checkbox"/> 1000 Point Count	<input type="checkbox"/> PCM	<input type="checkbox"/> Air- ISO 10312	<input type="checkbox"/> Dust- Presence / Absence	<input type="checkbox"/> Dust- Quantitative [fibers/sq.cm]- ASTM D5755	<input type="checkbox"/> 24 - Hour	
<input type="checkbox"/> Gravimetric Preparation	<input type="checkbox"/> NIOSH 7400	<input type="checkbox"/> Drinking Water- EPA 100.2	<input type="checkbox"/> Other		<input type="checkbox"/> 3 - Day	
<input type="checkbox"/> Particle ID		<input type="checkbox"/> Waste Water- EPA 600/4-83-043			<input checked="" type="checkbox"/> 5 - Day	

No.	Sample ID (10 Characters Max)	To Be Analyzed	Description	Volume / Area (as applicable)	Comments / Notes
1	CF1-1	<input checked="" type="checkbox"/>	Concrete Filler - Black Tar	40 lin ft	
2		<input type="checkbox"/>			
3		<input type="checkbox"/>			
4		<input type="checkbox"/>			
5		<input type="checkbox"/>			
6		<input type="checkbox"/>			
7		<input type="checkbox"/>			
8		<input type="checkbox"/>			
9		<input type="checkbox"/>			
10		<input type="checkbox"/>			

SATURDAY FEDEX SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517 • Mark Package "Hold for Saturday Pickup"
Please Note - UPS and USPS are NOT available for Saturday Delivery

**APPENDIX
C**

**LEAD-BASED PAINT SURVEY
RESULTS**

Mustardseed Cultural & Environmental Services, LLC

222 W. Gregory Blvd. #211
 Kansas City, Missouri 64114
LEAD-BASED PAINT SURVEY RESULTS
 XRF: Heuresis Pb 200i Series, S/N: 1056
 INSPECTOR: Joseph Taylor
 KANSAS RADIATION LICENSE #: 22-B1028

Client: McClure Engineering Company
 11250 Corporate Avenue
 Lenexa, Kansas 66219
 Project No. 160515-010

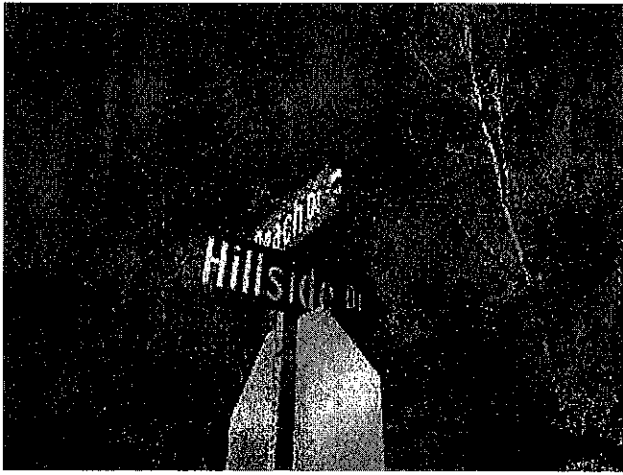
Survey Location: Lakeside Dr. Bridge
 Jackson County, MO

SURVEY DATE: 10/17/2018

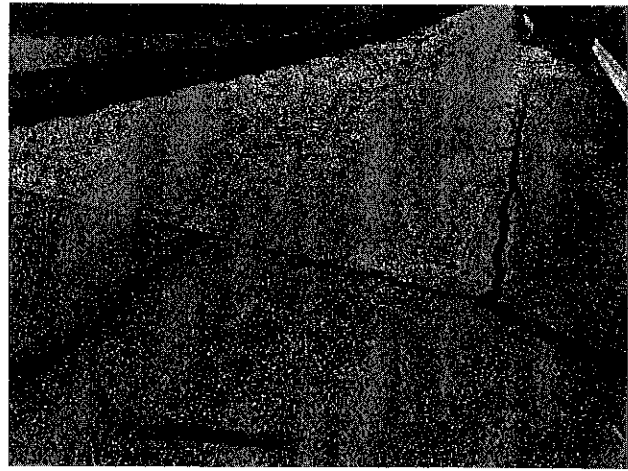
Bridge Construction Date (approx.): 1960s

SAMP #	BUILDING LOCATION	SIDE	COMPONENT	SUBSTRATE	COLOR	COND.	XRF Reading (mg/cm ²)	Lead-based
1	Calibration						1.0	
2	Calibration						1.1	
3	Calibration						1.0	
4	Lakeside Dr. Bridge	D	North Guard Rail	Metal	Gray	Intact	0.2	Negative
5	Lakeside Dr. Bridge	D	North Drainage Pipe	Metal	Gray	Poor	0.4	Negative
6	Lakeside Dr. Bridge	D	North Foundation	Concrete	Gray	Intact	0.2	Negative
7	Lakeside Dr. Bridge	B	South Guard Rail	Metal	Gray	Intact	0.2	Negative
8	Lakeside Dr. Bridge	B	South Drainage Pipe	Metal	Gray	Intact	0.2	Negative
9	Lakeside Dr. Bridge	B	South Foundation	Concrete	Gray	Intact	0.5	Negative
10	Calibration						1.0	
11	Calibration						1.0	
12	Calibration						1.0	

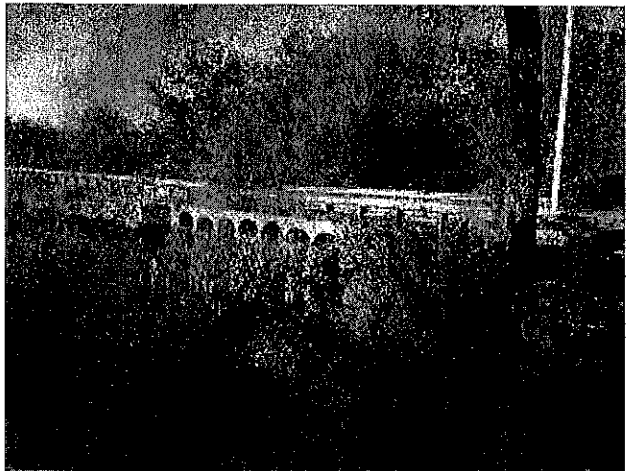
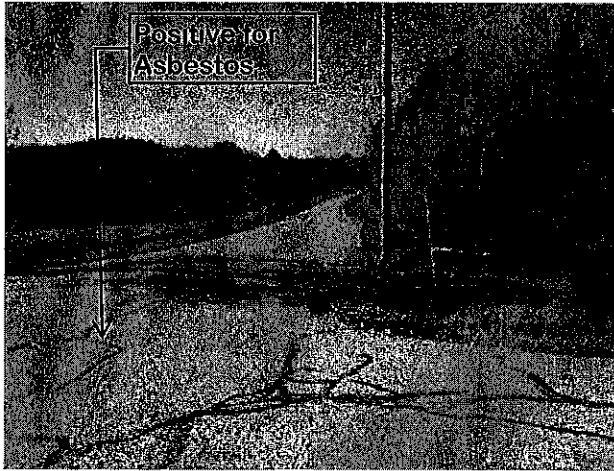
APPENDIX D
PHOTOGRAPHIC LOG
and
SKETECH



Address Verification



Bridge Overview 1



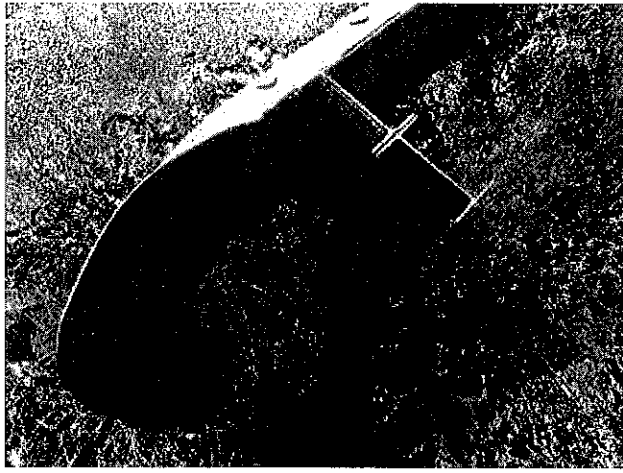
Bridge Overview 2



North Drainage Pipe



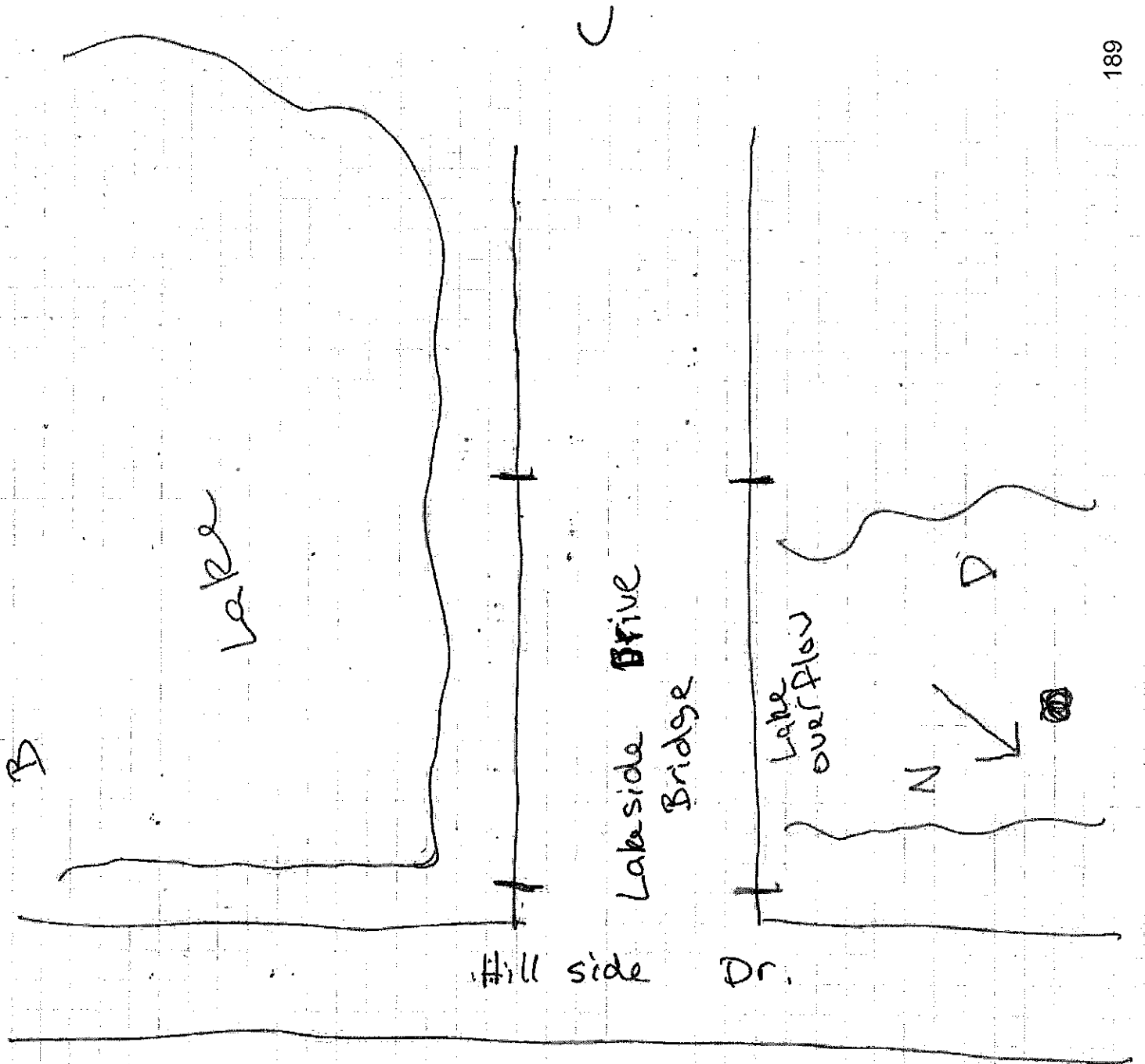
South Drainage Pipe

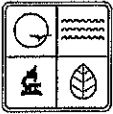


Guardrail



Drainage Pipe





STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

ASBESTOS NESHAP NOTIFICATION OF DEMOLITION AND RENOVATION

OPERATOR PROJECT NO.	POSTMARK	DATE RECEIVED	NOTIFICATION NUMBER
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I. TYPE OF NOTIFICATION

O - ORIGINAL C - CANCELLED R - REVISION, WRITE REVISION NUMBER _____

II. FACILITY INFORMATION (IDENTIFY OWNER, REMOVAL CONTRACTOR, AND OTHER OPERATOR)

OWNER NAME	ADDRESS		
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CITY	COUNTY	STATE	ZIP CODE
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CONTACT	TELEPHONE NUMBER WITH AREA CODE
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ASBESTOS REMOVAL CONTRACTOR	ADDRESS		
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CITY	STATE	ZIP CODE
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CONTACT	TELEPHONE NUMBER WITH AREA CODE	TITLE
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DEMOLITION CONTRACTOR	ADDRESS		
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CITY	STATE	ZIP CODE
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CONTACT	TELEPHONE NUMBER WITH AREA CODE	TITLE
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III. TYPE OF OPERATION

D - DEMO O - ORDERED DEMO R - RENOVATION E - EMERGENCY RENOVATION

IV. IS ASBESTOS PRESENT

YES NO LIST TYPE OF ASBESTOS MATERIAL(S) TO BE REMOVED _____

V. FACILITY DESCRIPTION (INCLUDE BUILDING NAME, NUMBER AND FLOOR OR ROOM NUMBER)

BUILDING NAME

ADDRESS

CITY	COUNTY	STATE	ZIP CODE
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SITE LOCATION

BUILDING SIZE	NUMBER OF FLOORS	AGE IN YEARS
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PRESENT USE	PRIOR USE
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VI. PROCEDURE, INCLUDING ANALYTICAL METHOD, IF APPROPRIATE, USED TO DETECT THE PRESENCE OF ASBESTOS MATERIAL. INCLUDE A COPY OF THE ASBESTOS INSPECTION.

PROCEDURE USED

VII. APPROXIMATE AMOUNT OF ASBESTOS, INCLUDING:

	RACM TO BE REMOVED	NONFRIABLE ASBESTOS MATERIAL TO BE REMOVED		NONFRIABLE ASBESTOS MATERIAL NOT TO BE REMOVED	
		CAT I	CAT II	CAT I	CAT II
PIPES (LINEAR FEET)					
SURFACE AREA (SQUARE FEET)					
VOL. RACM OFF FACILITY COMPONENT (CUBIC FEET)					

VIII. SCHEDULED DATES DEMO/RENOVATION (MM/DD/YY)

START: _____ COMPLETE: _____

IX. SCHEDULED DATES ASBESTOS REMOVAL (MM/DD/YY)

START: _____ COMPLETE: _____ WEEKDAYS WORK HOURS _____ WEEKEND WORK HOURS _____

X. DESCRIPTION OF PLANNED DEMOLITION OR RENOVATION WORK, AND METHOD(S) TO BE USED

XI. DESCRIPTION OF WORK PRACTICES AND ENGINEERING CONTROLS TO BE USED TO PREVENT EMISSIONS OF ASBESTOS AT THE DEMOLITION AND RENOVATION SITE.

XII. WASTE TRANSPORTER

NAME _____ ADDRESS _____
CITY _____ STATE _____ ZIP CODE _____
CONTACT PERSON _____ TELEPHONE NUMBER WITH AREA CODE _____

XIII. WASTE DISPOSAL SITE

NAME _____
LOCATION _____
CITY _____ STATE _____ ZIP CODE _____
TELEPHONE NUMBER WITH AREA CODE _____

XIV. IF DEMOLITION ORDERED BY A GOVERNMENT AGENCY, PLEASE IDENTIFY THE AGENCY BELOW

NAME _____ TITLE _____
AUTHORITY _____
DATE OF ORDER (MM/DD/YY) INCLUDE A COPY OF THE ORDER. _____ DATE ORDERED TO BEGIN (MM/DD/YY) _____

XV. FOR EMERGENCY RENOVATIONS

A. DATE AND HOUR OF EMERGENCY (MM/DD/YY) _____
B. DESCRIPTION OF THE SUDDEN, UNEXPECTED EVENT _____
C. EXPLANATION OF HOW THE EVENT CAUSED UNSAFE CONDITIONS OR WOULD CAUSE EQUIPMENT DAMAGE OR AN UNREASONABLE FINANCIAL BURDEN _____

XVI. DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUS NONFRIABLE ASBESTOS MATERIAL BECOMES CRUMBLER, PULVERIZED, OR REDUCED TO POWDER.

XVII. I CERTIFY THAT AN INDIVIDUAL TRAINED IN THE PROVISIONS OF THIS REGULATION (40 CFR PART 61, SUBPART M) WILL BE ON-SITE DURING THE DEMOLITION OR RENOVATION AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE FOR INSPECTION DURING NORMAL BUSINESS HOURS (REQUIRED 1 YEAR AFTER PROMULGATION).

SIGNATURE OF OWNER/OPERATOR _____ DATE _____

XVIII. I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT.

SIGNATURE OF OWNER/OPERATOR _____ DATE _____



December 18, 2017

Regulatory Branch
(NWK-2017-01882)
(Jackson, MO, NWP 14)

Mr. Matt Eblen
Shafer, Kline, & Warren, Inc.
11250 Corporate Avenue
Lenexa, Kansas 66219

Dear Mr. Eblen:

This letter pertains to an application you submitted, on behalf of Jackson County, Missouri, for a Department of the Army (DA) permit. It was received on November 7, 2017. The proposed work concerns the proposed Jackson County Bridge No. 4219001 bridge replacement project (Federal Aid project BRO-B048(55)), which will involve the placement of fill material within an unnamed tributary to West Fork Sni-A-Bar Creek and its impoundment (Tarsney Lake). The project is located in Section 22, Township 48 North, Range 30 West, Jackson County, Missouri.

The Corps of Engineers has jurisdiction over all waters of the United States. Discharges of dredged or fill material in waters of the United States, including wetlands, require prior authorization from the Corps under Section 404 of the Clean Water Act (33 USC 1344). The implementing regulation for this Act is found at 33 CFR 320-332.

We have reviewed the information furnished and have determined that your project is authorized by nationwide permit (NWP) 14, provided you ensure that the conditions listed in the enclosed copy of excerpts from the January 6, 2017 Federal Register, Issuance of Nationwide Permits, are met. You must also comply with the Kansas City District Regional NWP Conditions posted at:
<http://www.nwk.usace.army.mil/Missions/RegulatoryBranch/NationWidePermits.aspx>

The Missouri Department of Natural Resources has certified that this NWP will not violate existing state water quality standards provided you comply with the conditions included in their attached certification document. All conditions included in the water quality certification become conditions of the NWP authorization. Please review all conditions associated with this NWP. If you have any questions concerning state water quality standards or compliance issues with the associated certification conditions, please contact the Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102-0176. You may also contact the office at 573-526-3589 or by email at wpsc401cert@dnr.mo.gov.

General condition 30 requires you to sign and submit the enclosed "Compliance Certification" within 30 days of completing the authorized activity or the completion of the implementation of any required compensatory mitigation.

This NWP verification is valid until March 18, 2022. Should your project plans change or if your activity is not complete within the specified verification term, you must contact this office for another permit determination. Although the Corps has verified your project would meet the terms and conditions of a nationwide permit, other Federal, state and/or local permits may be required. You should verify this yourself.

In addition to the general conditions of this permit verification, the following special condition applies to this permit:

You must provide documentation, **prior to commencement of work within the Corps of Engineers' regulatory jurisdiction**, that this project was designed by qualified persons with regard to dam safety. In submitting this documentation, you must also state whether the design has been independently reviewed by similarly qualified persons, and if it has been, you must provide the outcome of this review, including any modifications made to the design in order to ensure safety of the proposed work.

We are interested in your thoughts and opinions concerning your experience with the Kansas City District, Corps of Engineers Regulatory Program. Please feel free to complete our Customer Service Survey form on our website at: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. You may also call and request a paper copy of the survey which you may complete and return to us by mail.

Mr. Colin C. Smalley, Regulatory Specialist, reviewed the information furnished and made this determination. If you have any questions concerning this matter, please feel free to contact Mr. Smalley at 816-389-3846 or by email at colin.c.smalley@usace.army.mil. Please reference Permit No. NWK-2017-01882 in all comments and/or inquiries relating to this project.

Enclosures

cc (electronically w/o enclosures):

Environmental Protection Agency,
Watershed Planning and Implementation Branch
U.S. Fish and Wildlife Service, Columbia, Missouri
Missouri Department of Natural Resources,
Water Protection Program
State Historic Preservation Office
Missouri Department of Conservation
Missouri Department of Transportation

COMPLIANCE CERTIFICATION

General condition 30 of this Nationwide Permit requires that you submit a signed certification regarding the completed work and any required mitigation. This certification page satisfies this condition if it is provided to the Kansas City District at the address shown at the bottom of this page within 30 days of completing the authorized activity or the completion of the implementation of any required compensatory mitigation.

APPLICATION NUMBER: NWK-2017-01882

APPLICANT: Jackson County Public Works
303 West Walnut Street
Independence, Missouri

PROJECT LOCATION: In an unnamed tributary to West Fork Sni-A-Bar Creek and its impoundment (Tarsney Lake) in Section 22, Township 48 North, Range 30 West, Jackson County, Missouri.

- a. I certify that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions.
- b. I certify that any required mitigation was completed in accordance with the permit conditions.
- c. Your signature below, as permittee, indicates that you have completed the authorized project as certified in paragraphs a and b above.

(PERMITTEE)

(DATE)

Return this certification to:

U.S. Army Corps of Engineers
Kansas City District, ODR
601 East 12th Street, Suite 402
Kansas City, MO 64106-2824

Excerpts from the January 6, 2017 Federal Register Nationwide Permit General Conditions

1. Navigation.

(a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements.

No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas.

Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas.

Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds.

No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material.

No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes.

No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments.

If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows.

To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains.

The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment.

Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls.

Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high-tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Fills.

Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance.

Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project.

The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers.

(a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: <http://www.rivers.gov/>.

17. Tribal Rights.

No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

18. Endangered Species.

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate

documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWP's.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA

section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.nmfs.noaa.gov/pr/species/esa/> respectively.

19. Migratory Birds and Bald and Golden Eagles.

The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties.

(a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include

background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed.

(d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts.

If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or

remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters.

Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation.

The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures.

To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality.

Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to

ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management.

In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions.

The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits.

The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications.

If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

(Transferee)

(Date)

30. Compliance Certification.

Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States.

If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission is not authorized by NWP until the appropriate Corps office issues the section 408 permission to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification.

(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided

results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form

must clearly indicate that it is an NWP PCN and must include all of the applicable information required in paragraphs (b)(1) through (10) of this general condition. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed; (iii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iv) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

D. District Engineer's Decision

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the individual crossings of waters of the United States to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects. For those NWPs that have a waivable 300 linear foot limit for losses of intermittent and ephemeral stream bed and a 1/2-acre limit (i.e., NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52), the loss of intermittent and ephemeral stream bed, plus any other losses of jurisdictional waters and wetlands, cannot exceed 1/2-acre.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

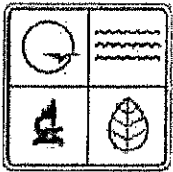
3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters (e.g., streams). The district

engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31, or to evaluate PCNs for activities authorized by NWPs 21, 49, and 50), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

E. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).



Missouri Department of Natural Resources

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION 2017 GENERAL AND SPECIFIC CONDITIONS

Water Protection Program

03/2017

Division of Environmental Quality Acting Director: Steve Feeler

PUB02235

Consistent with Section 401 of the Clean Water Act, these precertified conditions are designed to ensure activities carried out under Nationwide Permits (NWP) authorized by the U.S. Army Corps of Engineers (USACE) do not violate Missouri Water Quality Standards at 10 CSR 20-7.031, resulting in permanent damage to habitat, increased turbidity, reduced bank and channel stability or impacts to the biological and chemical integrity of the waters. Where applicable, these conditions are in addition to, not a replacement for, any federal requirements or conditions.

The conditions outlined in this document apply to those authorized projects where the applicant has chosen to accept these conditions instead of pursuing an individual Clean Water Act Section 401 Water Quality Certification (WQC) for the following NWPs:

- Only General Conditions apply to projects authorized by NWPs 5, 7, 15, 18, 23, 25, 27, 29, 30, 31, 36, 39, 40, 43, 45, and 46.
- Both General and Specific Conditions apply to projects authorized by NWPs 3, 4, 6, 7, 12, 13, 14, 16, 19, 20, 22, 33, 41, 42, 53 and 54.

Alternatively, an applicant may apply for individual WQC if they do not wish to accept the conditions outlined in this document.

Projects authorized by NWPs 17, 21, 32, 34, 37, 38, 44, 48, 49, 50, 51 and 52 require individual WQC by the Department of Natural Resources.

NWPs 1, 2, 8, 9, 10, 11, 28 and 35 authorize projects under Section 10 of the Rivers and Harbors Act of 1899 only. An activity needing only a Section 10 permit may require a WQC if that activity can reasonably be expected to result in any discharge either during construction or operation of the facility. Thus, if the agency determines the activity is likely to result in a discharge during construction or operation, the Department of Natural Resources has the discretion to require a WQC for a Section 10 activity. The USACE will advise a Section 10 permit applicant that they may need a WQC if there is a reasonable expectation that a discharge will occur either during the construction or operation of the project.

Pursuant to Chapter 644.037, RSMo, the Department of Natural Resources shall certify without conditions NWPs as they apply to impacts on wetlands in Missouri.

Pursuant to Chapter 644.038, RSMo, the Department of Natural Resources certifies all NWPs for impacts in all waters of the state without the above-stated or any other conditions for the construction of highways and bridges approved by the Missouri Highway and Transportation Commission. The Memorandum of Understanding of 2016 and any subsequent modifications between the two agencies outline the requirements by which the Missouri Department of Transportation will design and construct projects in order to protect the water quality of waters of the state.

GENERAL CONDITIONS

1. NWPs shall not allow the filling of jurisdictional springs such as those associated with a water body's point of origin or located in a streambed.
2. Acquisition of NWPs and the attendant WQCs shall not be construed or interpreted to imply the requirements for other permits are replaced or superseded, including Clean Water Act Section 402 National Pollutant Discharge Elimination System Permits for land disturbance or return water from material deposition. Permits or any other requirements shall remain in effect. Applicants with questions are encouraged to contact the Department of Natural Resources' regional office in the project area. A regional office map with contact information can be located at www.dnr.mo.gov/regions/regions.htm.

3. Care shall be taken to keep machinery out of the water way as much as possible. If work in the water way is unavoidable, it shall be performed in a way that minimizes the duration and amount of any disturbance to banks, substrate and vegetation to prevent increases in turbidity. Fuel, oil and other petroleum products, equipment, construction materials and any solid waste shall not be stored below the ordinary high water mark at any time or in the adjacent flood-prone areas beyond normal working hours. All precautions shall be taken to avoid the release of wastes or fuel to streams and other adjacent waters as a result of this operation.
 4. Petroleum products spilled into any water or on the banks where the material may enter waters of the state shall be immediately cleaned up and disposed of properly. Any such spills of petroleum shall be reported as soon as possible, but no later than 24 hours after discovery to the Department of Natural Resources' Environmental Emergency Response number at 573-634-2436 or website at <http://dnr.mo.gov/env/esp/esp-eer.htm>.
 5. Only clean, nonpolluting fill shall be used. The following materials are not suitable where contact with water is expected such as for bank stabilization, and shall not be used due to their potential to cause violations of the general and numeric criteria of the Water Quality Standards:
 - a. Earthen fill, gravel, broken concrete where the material does not meet the specifications stated in the "Missouri Nationwide Permit Regional Conditions" (updated link based on 2017 regional condition revisions) and fragmented asphalt, since these materials are usually not substantial enough to withstand erosive flows.
 - b. Concrete with exposed rebar.
 - c. Tires, vehicles or vehicle bodies, construction or demolition debris are solid waste and are excluded from placement in the waters of the state.
 - d. Liquid concrete, including grouted riprap, if not placed as part of an engineered structure.
 - e. Any material containing chemicals that would result in violation of water quality standards.
 6. Clearing of vegetation and trees shall be the minimum necessary to accomplish the activity except for the removal of invasive or noxious species and placement of ecologically beneficial practices. A vegetated riparian buffer strip shall be maintained during all stages of the project, including post-construction, from the high bank on either side of the jurisdictional channel to protect water quality and to provide for long-term stability of the stream channel, unless physical barriers prevent such a corridor. For purposes of these NWP's, lack of ownership or control of any portion of the riparian buffer strip may be considered a legitimate and discretionary cause to waive this requirement on that portion.
 7. An individual WQC is required for any NWP issued on a water that is:
 - a. Listed for a sediment-related impairment, aquatic habitat alteration or unknown impairment as listed in the most current Water Quality Report (Section 305(b) Report) at <http://dnr.mo.gov/env/wpp/waterquality/303d/303d.htm>; or
 - b. Located in or occur within two miles upstream of a designated outstanding state or national resource water as found in 10 CSR 20-7.031, Tables D and E at <http://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-7a.pdf>.
- The Department of Natural Resources' geospatial data is available upon request, and all published data is available on the Missouri Spatial Data Information Services website at msdis.missouri.edu/. Additional information to identify the project location, including stream reaches with listed impairments or special water designations, may be obtained from the Department of Natural Resources' Water Protection Program at 573-522-4502.
8. Discharge to designated metropolitan no-discharge streams is prohibited, except as specifically permitted under the Water Quality Standards, 10 CSR 20-7.031, and non-contaminated stormwater flows. No water contaminant except uncontaminated cooling water, permitted stormwater discharges in compliance with permit conditions, and excess wet-weather bypass discharges not interfering with beneficial uses should be discharged to the watersheds of streams listed in 10 CSR 20-7.031, Table F at <http://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-7a.pdf>.
 9. A stream's pattern, profile and dimension, including but not limited to sinuosity, slope and channel width, shall be maintained as much as practicable. Streambed gradient shall not be adversely impacted during project construction. No project shall accelerate bed or bank erosion.
 10. NWP's authorized by the USACE for which the district engineer waives the impact limit related to linear feet (LF) or width shall require notification to the Department of Natural Resources. The Department of Natural Resources shall respond within 15 calendar days whether or not individual WQC would be required. This is applicable to NWP's 13, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52 and 54.

11. Proposed projects authorized by the USACE and containing a waiver of any "Missouri Nationwide Permit Regional Condition," except Regional Conditions 2, 3 and 7, shall require an individual WQC by the state.
12. Representatives from the Department of Natural Resources shall be allowed upon request on the project property, which includes the site(s) where the authorized activity takes place and any associated compensatory mitigation site(s), to inspect the authorized activity and mitigation efforts as deemed necessary by the Department of Natural Resources to ensure compliance with WQC conditions and water quality standards. The applicant or their consultant shall submit any requested information deemed necessary by the Department of Natural Resources to ensure compliance with WQC conditions.
13. After avoidance and minimization for the project, all unavoidable, adverse impacts shall be mitigated appropriately based on type and extent of impact.
 - a. Mitigation for loss of aquatic resources shall be in conformance with the currently approved "Missouri Stream Mitigation Method" and/or other mitigation guidance approved for use in Missouri. Mitigation guidance documents can be located online at www.nwk.usace.army.mil/Missions/RegulatoryBranch/StateofMissouri.
 - b. Mitigation shall be within the state of Missouri.
 - c. The applicant shall comply with the higher value of compensatory mitigation required by either the Department of Natural Resources or the USACE, but not both unless explicitly noted.
 - d. Stream impacts shall require compensatory mitigation with only in-stream or riparian corridor credits, unless the Department of Natural Resources agrees to an alternative.
14. Antidegradation requirements dictate all appropriate and reasonable Best Management Practices related to erosion and sediment control, project stabilization and prevention of water quality degradation are applied and maintained; for example, preserving vegetation, streambank stability and basic drainage. Best Management Practices shall be properly installed prior to conducting authorized activities and maintained, repaired and/or replaced as needed during all phases of the project to limit the amount of discharge of water contaminants to waters of the state. The project shall not involve more than normal stormwater or incidental loading of sediment caused by project activities so as to comply with Missouri's general water quality criteria [10 CSR 20-7.031(4); Page 15 at <http://www.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-7a.pdf>].
15. Channelization of streams is not allowed under this precertification:
 - a. Channelization includes but is not limited to reducing the length of the channel, widening the channel for increased water storage or flow, and/or construction of hard structures which concentrate flow.
 - b. Bank stabilization activities along one bank of a stream are permitted, including but not limited to, bank sloping and riprapping.
 - c. The redirection of flow by excavation of the opposite bank or a streambed is considered a channel modification and is prohibited.
16. No new or expanded wet stormwater retention basins or similar impoundment structures may be constructed unless they are located off-channel. In-channel dry stormwater detention basins are allowable if the stream channel is either temporarily or not adversely affected by the basin.
17. Any waste concrete or concrete rinsate shall be disposed of in a manner that does not result in any discharge to the jurisdictional waterways.

SPECIFIC CONDITIONS

18. Nationwide Permit 3 Maintenance
 - a. Silt, sediment and debris removal shall be limited to a maximum of 100 LF upstream and 100 LF downstream of structures.
 - b. During dewatering, water shall not be returned directly to the water way but shall be pumped upland and filtered through an appropriate treatment device as prescribed in any existing separate permit authorizing the discharge of return water. If, however, instream flow is 1 cubic foot per second (cfs) or greater and the return rate is set at 1 cfs or less, return may be made directly to the stream.
19. Nationwide Permit 4 Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities
Any inorganic or extraneous debris such as may be found on Christmas trees shall be removed to qualify as clean, nonpolluting fill.

20. Nationwide Permit 6 Survey Activities
Water, fines and excavated materials displaced by activities such as borings, shall not be returned directly to the water way, but shall be pumped upland and filtered through an appropriate treatment device as prescribed in any existing separate permit authorizing the discharge of return water.
21. Nationwide Permit 7. Outfall Structures and Associated Intake Structures
WQC does not replace or negate the need to obtain any required state permits under the Missouri Clean Water Law (Chapter 644, RSMo) for construction of wastewater treatment facility components including outfall structures; permits to release wastewater effluents; or for the construction of components related to public water supplies including intake structures as may be required by the Missouri Safe Drinking Water Law (Chapter 640, RSMo).
22. Nationwide Permit 12 Utility Line Activities
- For utility crossings that must disturb a water body, work shall be conducted in such a manner as to seal off the work area from flow and minimize sediment transport.
 - Material resulting from activity may not be temporarily side-cast into waters of the state for more than one month.
 - Directional boring to avoid impacts to waters of the state is recommended.
 - Drilling mud and/or other materials shall not be discharged into waters of the state. Best Management Practices shall be implemented to prevent possible discharges from reaching waters of the state. In the event materials are inadvertently discharged to waters of the state, notification to the Department of Natural Resources is required within 24 hours by calling 573-522-4502. Restoration of the impacted water(s) may be required.
 - Utility line crossings shall be placed as close to perpendicular as possible, and be limited to a maximum crossing length of no more than one and one-half times the width of the stream.
 - New utilities lines, when considering the project as a whole, which (1) Cross more than one jurisdictional water resulting in greater than 500 LF and/or 0.50 acre of impact to jurisdictional waters as a project total, and (2) Travel through more than two county jurisdictions or more than one state jurisdiction shall be viewed as a whole project in the WQC process and require individual WQC of all crossings, except crossings utilizing directional boring.
23. Nationwide Permit 13 Bank Stabilization
Innovative stabilization approaches require consultation with the Department of Natural Resources prior to approval and may require an individual WQC. The permittee shall invite the USACE and the Department of Natural Resources as well as the other state and federal resource agencies to examine innovative approaches.
24. Nationwide Permit 14 Linear Transportation Projects
- The permittee must propose and employ measures to mitigate the removal of impounded sediment (e.g., sand, gravel) in the unstable area upstream of a proposed project to prevent it from being transported downstream and/or construct a notched weir to slow the release of impounded sediment from upstream of the proposed project. Accumulated gravel may be allowed to naturally deposit into downstream plunge pool voids. Consultation with a hydrologist or other scientist is recommended if the amount of accumulated unconsolidated gravel exceeds the volume of plunge pool voids.
 - Where this NWP is used to authorize bridge and culvert structures, stream channel work is limited to a maximum of 100 feet upstream and a maximum of 100 feet downstream of the bridge or culvert. For purposes of this condition, a channel modification is any activity that alters the width, depth, length and/or sinuosity of a water way.
25. Nationwide Permit 16 Return Water from Upland Contained Disposal Areas
These activities could have specific tasks or processes involved which may require the acquisition of separate general or site specific permits. All applicants shall contact the Department of Natural Resources' Water Protection Program at 573-522-4502 to determine any specific requirements which may or may not require an individual WQC.
26. Nationwide Permit 19 Minor Dredging
These activities could have specific tasks or processes involved which may require the acquisition of separate general or site specific permits. All applicants shall contact the Department of Natural Resources' Water Protection Program at 573-522-4502 to determine any specific requirements which may or may not require an individual WQC.
27. Nationwide Permit 20 Response Operations for Oil and Hazardous Substances
- These activities could have specific tasks or processes involved which may require the acquisition of separate general or site specific permits. All applicants shall contact the Department of Natural Resources' Water Protection Program at 573-522-4502 to determine any specific requirements which may or may not require an individual WQC.
 - Oil and hazardous substance releases are to be reported to the Department of Natural Resources' Environmental Emergency Response number at 573-634-2436. Continue to report updates with regard to the containment and cleanup of releases.

28. Nationwide Permit 22 Removal of Vessels
Use of this NWP in Missouri is limited to removal actions only and shall not be used for any disposal of vessel.
29. Nationwide Permit 33 Temporary Construction, Access and Dewatering
- The use of this NWP shall be limited to impacts of six months or less in duration.
 - Any removal of accumulated sediment (e.g., sand, gravel) upstream of a proposed project shall be limited to the quantity necessary to relieve any obstruction or to protect downstream habitat. The permittee must propose and employ measures to mitigate the removal of impounded sediment in the unstable area upstream of a proposed project to prevent it from being transported downstream and/or construct a notched weir to slow the release of impounded sediment from upstream of the proposed project.
30. Nationwide Permit 41 Reshaping Existing Drainage Ditches
- Material from the reshaping activities shall not be side-cast into any jurisdictional waters.
 - Removal of vegetation shall be the minimum necessary to conduct approved activity except for the removal of invasive or noxious species. The Department of Natural Resources encourages deep-rooted vegetation to be maintained on at least one side of the water way to protect water quality; for example, leaving trees on the west side to prevent temperature exceedances in the water way.
31. Nationwide Permit 42 Recreational Facilities
The vegetated riparian buffer strip to be maintained from the high bank on either side of the jurisdictional channel may be used in part for the construction of public recreational trails, including those constructed to standards set by the Americans with Disabilities Act (ADA).
32. Nationwide Permit 53 Removal of Low-Head Dams
- The permittee must propose and employ measures to mitigate the removal of impounded sediment (e.g., sand, gravel) in the unstable area upstream of a proposed project to prevent it from being transported downstream and/or construct a notched weir to slow the release of impounded sediment from upstream of the proposed project. Accumulated gravel may be allowed to naturally deposit into downstream plunge pool voids. Consultation with a hydrologist or other scientist is recommended if the amount of accumulated unconsolidated gravel exceeds the volume of plunge pool voids.
 - Stream channel work is limited to a maximum of 100 feet upstream and a maximum of 100 feet downstream of the dam.
 - Restoration of the stream channel to its former, natural state is authorized. Individual WQC is required for non-natural channel modifications. For purposes of this condition, a channel modification is any activity that alters the width, depth, length and/or sinuosity of a water way.
33. Nationwide Permit 54 Living Shorelines
Innovative stabilization approaches require consultation with the Department of Natural Resources prior to approval and may require an individual WQC. Invite the USACE and the Department of Natural Resources as well as the other state and federal resource agencies to examine innovative approaches.

Applications for WQC should be sent to the Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176, or electronically to wpsc401cert@dnr.mo.gov. A complete application consists of the application submitted to the USACE as well as additional information necessary for a complete review of the project. This may include but is not limited to topographical maps, locational maps, engineering plans, project diagrams and where applicable mitigation plans [Section 644.026.26, RSMo and 10 CSR 20-6.060(5)].

An issued WQC becomes part of and expires with the Section 404 and/or Section 10 permit unless explicitly stated in the WQC. Consultation with the Department of Natural Resources is required should the permit require modification. Not all permit modifications require the WQC to be modified or reissued. For example when a permit expiration date is extended or the permit is reissued and there are no changes to the original project or water quality standards, the WQC may remain valid for that project.

The Department of Natural Resources encourages, but does not require the permittee to consider environmentally-friendly design techniques to include stormwater management strategies that maintain or restore the original site hydrology through infiltration, evaporation or reuse of stormwater. Designs might include creating vegetated swales or rain gardens, or using porous pavement. More information can be found at these websites: www.epa.gov/owow/NPS/lid/ and www.lid-stormwater.net/lid_techniques.htm.

The Department of Natural Resources encourages the use of native vegetation to protect impacted areas from future water quality concerns. Native vegetation has evolved with Missouri's geology, climate and wildlife to occur within a region as a result of natural processes rather than human intervention. For areas where direct impacts to streams are to be avoided, the Department of Natural Resources recommends a minimum riparian buffer strip width of 50 feet as measured from top of bank.

The following publication provides guidance on how to protect water quality through Best Management Practices on project sites. For more information, please read: "Protecting Water Quality: A field guide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas" dated January 2011 and located online at <http://dnr.mo.gov/env/wpp/wpcp-guide.htm>.

To help determine if a proposed activity could encounter species or sites of conservation concern within or near a project, including those that have not been recorded, the applicant is encouraged to visit:

- Missouri Department of Conservation's "Natural Heritage Review" website at <https://naturalheritagereview.mdc.mo.gov/>, and
- U.S. Fish and Wildlife Service's "Information, Planning and Conservation" website at <http://ecos.fws.gov/ipac/>.

If the proposed project encounters and will potentially affect a species of concern, please report it to the Missouri Department of Conservation and the U.S. Fish and Wildlife Service:

For more information
Missouri Department of Natural Resources
Water Protection Program
P.O. Box 176
Jefferson City, MO 65102-0176
wpsc401cert@dnr.mo.gov
800-361-4827 or 573-522-4502
<http://www.dnr.mo.gov/env/wpp>

**CULTURAL RESOURCE ASSESSMENT
Section 106 Review**

CONTACT PERSON/ADDRESS

C:

Mr. Matt Eblen
Shafer, Kline & Warren, Inc.
11250 Corporate Avenue
Lenexa, KS 66219

Ms. Raegan Ball, FHWA
Mr. Michael Meinkoth, MoDOT

PROJECT:

Tavern Creek Road Bridge Project BRO-B048(55)

FEDERAL AGENCY

FHWA

COUNTY:

JACKSON

The State Historic Preservation Office has reviewed the information submitted on the above referenced project. Based on this review, we have made the following determination:

After review of initial submission, the project area has a low potential for the occurrence of cultural resources. A cultural resource survey, therefore, is not warranted.

Adequate documentation has been provided (36 CFR Section 800.11). There will be "no historic properties affected" by the current project.

An adequate cultural resource survey of the project area has been previously conducted. It has been determined that for the proposed undertaking there will be "no historic properties affected".

For the above checked reason, the State Historic Preservation Office has no objection to the initiation of project activities. PLEASE BE ADVISED THAT, IF THE CURRENT PROJECT AREA OR SCOPE OF WORK ARE CHANGED, A BORROW AREA IS INCLUDED IN THE PROJECT, OR CULTURAL MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, APPROPRIATE INFORMATION MUST BE PROVIDED TO THIS OFFICE FOR FURTHER REVIEW AND COMMENT. Please retain this documentation as evidence of compliance with Section 106 of the National Historic Preservation Act, as amended.

By: *Toni M. Prawl*

Toni M. Prawl, Ph.D., Deputy State Historic Preservation Officer

November 20, 2017

Date

MISSOURI DEPARTMENT OF NATURAL RESOURCES
STATE HISTORIC PRESERVATION OFFICE
P.O. Box 176, Jefferson City, Missouri 65102

For additional information, please contact Judith Deel, (573) 751-7862. Please be sure to refer to the project number:
034-JA-18

GEOTECHNICAL REPORT

GEO SOURCE

Your Source for Geotechnical and Materials Engineering

October 31, 2017

Mr. Mike Stein, P.E.
Shafer, Kline & Warren, Inc.
11250 Corporate Avenue
Lenexa, Kansas 66219

**Subject: Geotechnical Engineering Report
Tarsney Lake Bridge No. 4219001
SE ¼ of Section 22, T48N, R30W
Jackson County, Missouri
Project No. D17G1981**

Dear Mr. Stein:


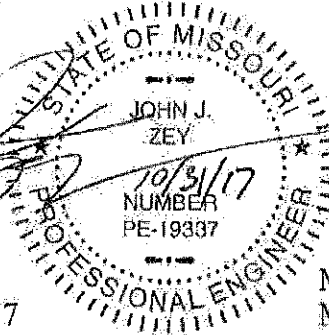
We have completed the subsurface exploration and geotechnical engineering evaluation for the above referenced project. The purpose of the geotechnical study was to explore and evaluate the subsurface conditions at the proposed bridge site and, based on this information to provide geotechnical engineering recommendations for design and construction of foundations for the proposed bridge.

In summary, the boring encountered naturally deposited clay soils underlain by shale bedrock that continued to the depth explored. Alternate recommendations for support of the proposed bridge structure on either a mat foundation or on driven H-Piling are presented in the following report.

This report completes our current scope of services for this project. The enclosed report describes our exploration procedures and presents the results of the testing and evaluation along with design and construction recommendations for this project. We appreciate the opportunity to work with you on this project and are prepared to provide the recommended construction services.

Respectfully submitted,

GeoSource, LLC



John J. Zey, P.E.
Missouri: PE-19337


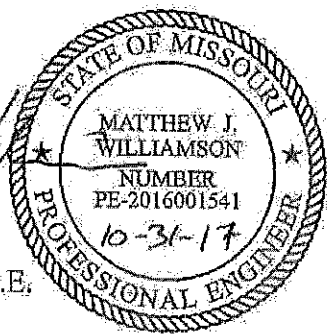


Matthew J. Williamson, Ph.D., P.E.
Missouri: PE-2016001541

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APPENDIX

- Figure 1: Boring Location Sketch
- Boring Log
- General Notes and Terms
- Boring Log Symbols

GEOTECHNICAL ENGINEERING REPORT
TARSNEY LAKE BRIDGE NO. 4219001
SE ¼ OF SECTION 22, T48N, R30W
JACKSON COUNTY, MISSOURI

Project No. D17G1981
October 31, 2017

INTRODUCTION

GeoSource has completed the subsurface exploration and geotechnical engineering evaluation for Tarsney Lake Bridge No. 4219001, which will replace the existing bridge located on Lakeside Drive, just west of Beach Drive in Jackson County, Missouri. Our services for this project were provided in general accordance with our January 12, 2017 proposal. Gary Strack, with Shafer, Kline & Warren, Inc., authorized the exploration work on May 30, 2017 by signing our proposal/contract.

PROJECT DESCRIPTION

We understand that the proposed replacement bridge will be a three cell, reinforced concrete box culvert (RCB) structure. The plan and profile drawing that was provided to GeoSource indicated that the proposed RCB will have a length of about 35 feet, a width of about 40 feet, and a bottom elevation at about 832 feet, USGS datum. A mat foundation is normally used to support most RCB structures. Foundation loads for the proposed RCB structure were not known at the time our report was prepared. We have assumed that the contact pressure on a mat foundation for the RCB structure will be on the order of 1,500 to 2,000 psf.

The plan and profile drawing indicated that the proposed box culvert (RCB) structure will coincide with the alignment of the existing bridge. Grade modifications for the new structure will require about 3 feet of new fill. No other specific information was known about the proposed bridge structure at the time our report was prepared.

The scope of the exploration and engineering evaluation for this study, as well as the conclusions and recommendations presented in this report, were based on our understanding of the project as described

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above. If pertinent details of the project have changed or otherwise differ from our descriptions, we must be notified and engaged to review the changes and modify our recommendations, if needed.

DRILLING AND SAMPLING PROCEDURES

The field work for this project was performed on October 26, 2017. One exploratory test boring was drilled for this project. We had originally planned to drill two borings, but the boring in the west abutment had to be eliminated because Lakeside Drive had to remain open to traffic and overhead utility lines on both sides of the road prevented the boring from being drilled in the shoulder area. Figure 1 in the Appendix of this report shows the approximate location of the boring with reference to the proposed bridge lines and existing roads. The boring location was established by the drill crew. The distance from the existing site features to the boring location was measured using a cloth tape. Right angles for locating the boring were estimated. The coordinates shown on the boring log are approximate and were estimated from Google Earth in the vicinity of the boring location. The actual coordinates may be significantly different.

The ground surface elevation shown on the boring log is approximate and was determined using an engineer's level and rod. The elevation was referenced to Bench Mark No. 1, which was described as a chiseled cut square in the top of the concrete drainage pipe located northwest of the intersection of Lakeside Drive and Beach Drive. The elevation of this temporary bench mark was given as 842.68 feet by Shafer, Klein & Warren personnel. The location and elevation of the boring should be considered accurate only to the degree implied by the methods used to make these measurements.

The boring was performed with a truck-mounted, CME-55 rotary drill rig, using 4-inch diameter continuous flight augers equipped with carbide cutting teeth to advance the borehole. Representative samples of the overburden soils and bedrock units were obtained at selected intervals using both the Shelby tube and split-barrel sampling procedures as outlined in ASTM Specifications D-1587 and D-1586, respectively. The Shelby tube sampling procedure utilizes a thin-walled, steel tube with a sharp cutting edge that is pushed hydraulically into the bottom of the boring to obtain relatively undisturbed

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samples of cohesive or moderately cohesive soils. The samples were sealed and returned to our laboratory for further examination, classification and testing.

The split-barrel sampling procedure utilizes a standard 2-inch O.D. split-barrel sampler that is driven into the bottom of the boring with an automatic hammer. The number of blows required to advance the sampler the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Resistance Value (N). These "N" values are indicated on the boring logs at their depth of occurrence and provide an indication of the consistency of cohesive and moderately cohesive soils, the relative density of sands, and the relative hardness of weathered bedrock units. A higher efficiency is achieved with the automatic hammer compared to the conventional safety hammer operated with a cathead and rope. This higher efficiency has an appreciable effect on the Standard Penetration Resistance Values (N). The effect of the automatic hammer's efficiency has been considered in the interpretation and analysis of the subsurface information for this report.

A boring log is included in the Appendix of this report and presents such data as soil and bedrock descriptions, consistency and relative hardness evaluations, depths, sampling intervals and observed groundwater conditions at the time the boring was performed. The conditions encountered in the boring were monitored and recorded by the drill crew. A field log was prepared by the drill crew that included visual classification of the materials encountered during drilling, as well as drilling characteristics. Our final boring log represents the geotechnical engineer's interpretation of the field log combined with laboratory observation and testing of the samples. The stratification boundaries indicated on the boring log were based on observations during our field work, an extrapolation of information obtained by examining samples from the boring and comparisons of soils and/or bedrock types with similar engineering characteristics. The locations of these boundaries are approximate, and the transitions between soil and bedrock types may be more gradational in nature rather than clearly defined.

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LABORATORY TESTING PROGRAM

Laboratory tests were performed on representative samples of the onsite soil and bedrock units to evaluate pertinent engineering properties of these materials. Laboratory tests were performed in general accordance with ASTM and other applicable standards. Representative portions of the relatively undisturbed samples obtained with the Shelby tube sampler were tested to determine the water content, dry density and unconfined compressive strength of the soil. Moisture content determinations were also performed on samples obtained using the split-barrel sampler. The results of the laboratory tests are shown on the boring log in the Appendix of this report.

As part of the testing program, the soil samples were classified by a geotechnical engineer using visual and manual procedures outlined in ASTM D-2487 and D-2488. The descriptions of the soils indicated on the boring log are in accordance with the enclosed General Notes and Terms and the Unified Soil Classification System. Estimated group symbols according to the Unified Soil Classification System are shown on the boring log. A brief description of this classification system is included in the Appendix of this report.

The bedrock units encountered in the boring were described on the basis of visual classification of disturbed auger cuttings, split-barrel samples, core samples and drilling characteristics. Core samples may reveal other rock types.

SITE CONDITIONS

The proposed Tarsney Lake bridge is located on Lakeside Drive, just west of the intersection with Beach drive in Jackson County, Kansas. The proposed structure is located at the east end of the Tarsney Lake Dam and the structure will also serve as the primary spillway for the lake. There were a number of existing residential structures located within 300 feet of the proposed structure. The area

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on the north side of Lakeside Drive was wooded and Tarsney Lake was located on the south side of the existing bridge.

SUBSURFACE CONDITIONS

The following presents a general summary of the major strata encountered during our subsurface exploration and includes a discussion of the results of field and laboratory tests conducted. Specific subsurface conditions encountered at the boring location are presented on the boring log in the Appendix of this report. The stratification lines shown on the boring log represent the approximate boundaries between soil and bedrock types; in-situ, the transition between materials may vary or be more gradual.

Boring B-1 was located approximately 30 feet north of Lakeside Drive at about Station 18+30, about 38 feet left on the centerline of the existing roadway. At this location, the boring encountered about 8 inches of topsoil. The topsoil was underlain by a layer of very stiff, brown fat clay (CH) that continued to a depth of about 6 feet. The fat clay was underlain by a layer of medium stiff, light brown to brown lean clay (CL) that continued to a depth of 14 feet. Laboratory tests performed on samples of the onsite clay soils indicated moisture contents of 23.0 to 23.7 percent, with dry densities of 94 to 103 pcf and unconfined compressive strengths and/or hand penetrometer readings of 1,500 to 5,010.psf.

The natural clay soils at the bridge site were underlain by shale bedrock that continued to the depth explored, 49 feet. The shale bedrock at this site is thought to part of the Wea Shale Member of the Cherryvale Formation of the Pennsylvanian Age Kansas City Group. The weathered top of the shale was encountered in the boring at a depth of about 14 feet (elevation 825.8 feet) and weathered shale continued to a depth of about 21 ± feet (elevation 818.8 feet). Beneath the weathered zone, the shale was comprised of hard, very thin-bedded to laminated shale that was light gray in color. Standard Penetration Test performed in the shale indicated "N" values in the range of 64 to 90 blows for one

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foot of penetration or less. Published geologic reports indicate that the Wea Shale Member has a thickness of up to 30 feet in Jackson County.

GROUNDWATER OBSERVATIONS

Groundwater observations were made both during and after completion of drilling operations. The boring remained dry during drilling and sampling operations. A slight amount of groundwater seepage was observed at the depth of about 13.5 feet near the contact between the soil mantle and bedrock, just prior to backfilling of the borehole with bentonite chips. The materials encountered in the test borings have relatively low permeabilities and observations over an extended period of time through use of piezometers or cased borings would be required to better define current groundwater conditions.

Fluctuations of groundwater levels can occur due to seasonal variations in the amount of rainfall, runoff, the creek level, and other factors not evident at the time the borings were performed. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our evaluation, it is our professional opinion that the proposed project site could be developed for the proposed RCB structure bridge using conventional grading and foundation construction techniques. The alluvial soils encountered below the planned bottom elevation (832 feet) of the proposed RCB structure consisted of lower consistency clay soils that were relatively compressible and there was little or no improvement in the consistency of these soils until the weathered shale bedrock is encountered at a depth of about 14 feet. The alluvial soils are generally poor bearing materials and would generally support mat foundations that are designed for allowable bearing pressures of only about 1,000 to 1,200 psf at this site. Because of this, stabilization of the lower consistency alluvial clay soils with large size rock has been recommended for support of the

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RCB foundation. Specific recommendations for stabilization below the RCB foundation are presented in the follow sections of our report.

As an alternative, the proposed bridge structure could be supported on steel H-Piling that are driven to practical refusal in the moderately hard to hard weathered shale bedrock that underlies the bridge site. Recommendations for design and construction of driven H-piling are presented in the following sections of our report.

The recommendations submitted herein are based, in part, upon data obtained from our subsurface exploration. The nature and extent of subsurface variations that may exist at the proposed project site will not become evident until construction. If variations appear evident, then the recommendations presented in this report should be evaluated. In the event that any changes in the nature, design, location or depth of the proposed bridge are planned, the conclusions and recommendations contained in this report will not be considered valid unless the changes are reviewed and our recommendations modified in writing.

STABILIZATION BELOW FOUNDATIONS

As previously discussed, the alluvial soils encountered in the boring below the planned foundation bearing level of the proposed structure consisted of lower consistency clay soils that were relatively compressible. These soils are considered to be poor bearing materials and would generally support only lightly loaded foundation elements. In order to develop sufficient bearing capacity for support of the proposed bridge foundations, it will be necessary to stabilize the lower consistency alluvial clays with large size rock and to develop a zone of relatively high strength bearing material that will reduce the loads on the alluvial soils to levels that can be safely tolerated without causing either a bearing failure or undue settlement.

The construction procedure for a crushed limestone mat consists of over-excavating to a minimum depth of 2 feet below the planned bearing levels of the proposed bridge foundations. The crushed rock mat

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should also extend at least 5 feet laterally beyond the proposed foundation lines to increase the effective size of the foundations. Following completion of the initial excavation, large size crushed rock should be spread over the bottom of the excavations and worked into the soft alluvial soils using a track-loader, bulldozer, or similar equipment approved by the geotechnical engineer. Additional rock should then be added until the bottom of the foundation excavation is firm enough to support the construction equipment. After the base is stabilized, additional rock would be added and compacted in lifts to the planned bearing level of the bridge foundation. Minimum compaction requirement will depend on the size and gradation of the crushed rock that is being used. The intent is to stabilize the soft alluvial soils and to develop a dense, tight mat of crushed limestone aggregate below the foundation elements.

The stabilization rock should initially consist of large size crushed limestone, having a nominal size of 8 to 12 inches. Larger size rock may be required in areas where soft soils are encountered. The stabilization rock should be relatively free of fines, similar to the crushed rock used as ditch liner material. Once the bottoms of the excavations have been stabilized, the contractor could reduce the nominal size of the crushed rock on successive lifts to a nominal size of about 1 to 3 inches, with addition of fines to fill the voids between the larger particles. After the crushed rock mat has been completed, it should be capped with a "mud mat" of lean concrete in order to provide a firm, level working surface for placement of the precast bridge foundation elements.

During the stabilization process, temporary ditches will likely be required to divert the water flowing in the outlet channel away from the foundation excavations. The lower consistency alluvial clays encountered below elevation 832 ± feet would generally be classified as Type C soils, under Part 1926 of the OSHA regulations pertaining to open excavations. Temporary sheeting and dewatering may be required during the stabilization process and construction of the crushed limestone aggregate mat in order to maintain the integrity of the sides of the excavations.

Foundations supported on a properly constructed mat of compacted crushed limestone, as previously outlined, may be designed and proportioned using an allowable bearing pressure of 1,500 psf. If a higher bearing pressure is required, the thickness of the crushed rock mat would need to be increased.

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An allowable bearing pressure of 2,000 psf could be used if the thickness of the crushed rock mat is increased to at least 4 feet. The recommended allowable bearing pressures include a safety factor of 3 against a bearing failure.

Settlement of bridge foundations that are founded on a properly constructed mat of crushed limestone aggregate should on the order of 1 to 1-½ inches. Most of the settlement will likely occur within 2 to 3 months of completion of the bridge.

DRIVEN H-PILING

As an alternative to the stabilization discussed in the previous sections, the proposed bridge structure could be supported by structural steel H-Piling (ASTM A-50) that are driven to practical refusal in the moderately hard to hard, shale bedrock that underlie the bridge site. Based on previous experience, it is anticipated that driven piling in the abutments will most likely penetrate about 5 to 6 feet into the weathered shale bedrock before encountering practical refusal at depths of about 20 to 21 feet below the existing ground surface (elevation 818 ± feet). Greater penetration into the bedrock may occur, due to local variations in the depth to bedrock and/or weathering characteristics of the bedrock.

H-piling driven to practical refusal in the underlying moderately hard to hard, shale bedrock may be designed using an allowable pile capacity equal to 12.5 ksi multiplied by the cross sectional area of the web and flange of the steel H-pile section. It is recommended that pile installation be monitored by the engineer to assess that adequate driving resistance has been achieved. For the proposed steel HP 10 x 42 piling, it should be feasible to obtain allowable design capacities of about 77 tons per pile. Larger section piling could also be used for this project. If HP 12 x 53 piling are used, the maximum allowable loading for individual H-piling could be increased to about 97 tons per pile.

It is recommended that all piling be installed in accordance with the latest version of the Missouri Standard Specifications for Highway Construction. For the type and size of piling that are being

Tarsney Lake Bridge No. 4219001
 Project No. D17G1981
 Page 10

considered for this project, we normally recommend that the driving hammer have a minimum rated energy of 12,500 foot-pounds.

Pile driving resistance should be closely monitored and pile capacity should be assessed based on applicable dynamic formula or wave equation analysis (WEAP) for the actual pile type and hammer size used to install the piling. It is important that the final set during driving not exceed 20 blows per inch, in order to avoid damaging the piling during installation.

SEISMIC HAZARDS DETERMINATION

Earthquake hazard evaluation is a complex task. Seismic sources must be identified and characterized, path effects evaluated (i.e., selection of appropriate attenuation relationships), and ground motions must be completed. Finally, an analysis of the motion with respect to the proposed construction must be made. In addition to the multi-discipline nature of this process, there is substantial parameter and modeling uncertainty associated with each of the steps. Typically, code based approaches are used for seismic hazard analyses. Our seismic hazard evaluation follows the IBC 2012/2015 procedures.

Seismic Soil Classification. Table 1 presents the following spectral acceleration parameters and accelerations from the United States Geological Survey (USGS) Design Maps website for this project location. From the USGS data in Table 1, the site geotechnical conditions are best characterized by a "Class C" seismic design category according to the 2012/2015 International Building Code.

Table 1 - Seismic Parameters

Seismic Parameters	Value
S _s	0.114g
S ₁	0.068g
S _{MS}	0.137g
S _{MI}	0.116g
S _{DS}	0.091g
S _{D1}	0.077g

Tarsney Lake Bridge No. 4219001

Project No. D17G1981

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ABUTMENT EMBANKMENTS

Construction of the proposed replacement bridge will require placement of less than 3 feet new fill. Site preparation for the abutment fills should commence with stripping of all vegetation and topsoil from the abutment areas. Special attention should be paid to existing ditch areas, where organic rich soils and slope wash materials may have accumulated. An average stripping depth of 12 to 18 inches would not be unusual for ditches and other areas outside the existing roadway area. Stripping depths required will likely vary and should be adjusted to remove all vegetation and root systems. An experienced engineering technician should observe the stripping operations to evaluate that all unsuitable materials have been removed. Soils removed during site stripping operations could be used for final site grading on completed embankments and other fill sections, outside structure and pavement areas. Care should be exercised to separate these materials to avoid incorporation of the organic matter in structural fill sections.

All fill placed within the new roadway and embankment areas should consist of approved materials that are free of organic matter and debris. Fill should be placed in lifts having a maximum loose lift thickness of 8 inches. All fill should be compacted to a minimum of 95 percent of the material's maximum dry density as determined by ASTM D-698 (Standard Proctor compaction). The moisture content of the fill at time of compaction should be within a range of 0 to 4 percent above optimum moisture content as defined by the Standard Proctor compaction procedure.

Immediately following stripping of the fill areas, it is recommended that the exposed subgrade be proofrolled. Unsuitable areas identified by the proofrolling operation should be undercut and replaced with controlled structural fill. If soft or unstable conditions are encountered during the proofrolling operation, stabilization of the soils may be required prior to placement of the embankment fill section. Large size crushed rock, having a particle diameter of 8 to 12 inches, could be used to stabilize the subgrade prior to placement of structural fill. After initial undercutting, the large rock would be spread over the unstable subgrade and worked into the soft soils by close tracking with a bulldozer or

Tarsney Lake Bridge No. 4219001

Project No. D17G1981

Page 12

other suitable construction equipment. Additional rock should be added until the subgrade becomes firm enough to support construction equipment.

Where the new abutments intersect existing slopes and the existing grade is steeper than 5(H) to 1(V), it is recommended that benches be established at regular intervals to provide a proper base for the new fill section. Benching of the slope provides interlocking between the new fill section and existing embankment and/or natural soils and facilitates compaction of the fill. Benches should be cut as the fill progresses and should have a maximum bench height of 2 feet.

Embankment settlement is a function of the change in embankment height and the thickness of the compressible alluvial soils that underlie the new embankment section. The plans that were provided indicated that the change in height of the abutments will generally be less than 3 feet. Based on this, it is estimated that maximum settlement of the embankments will be on the order of 1 inch or less. Most of the settlement should occur within 3 to 4 months of completion of the embankment fill.

LATERAL EARTH PRESSURES

Based on our experience with soils similar to those encountered at the site, it is recommended that all abutment walls and/or other below grade walls, that are subject to an unbalanced lateral earth pressure, be designed using an equivalent fluid pressure of 45 pcf. This lateral earth pressure assumes an active stress distribution condition; i.e., slight rotation is allowed. For walls that are fixed at the top and unable to rotate, the equivalent fluid pressure should be increased to 60 pcf. Neither of the previous load distributions includes a factor of safety or take into account the influence of any hydrostatic loading of the wall. The recommended stress distributions do not include the influence of a sloping backfill or any foundations that may be located in or adjacent to wall backfill. Drainage should be provided to prevent hydrostatic loading of the walls.

The recommended lateral earth pressures given above represent the design stresses acting on the walls as a result of the soil backfill and would not include lateral stresses that could develop if movement

Tarsney Lake Bridge No. 4219001
Project No. D17G1981
Page 13

of the slopes occurred. Thorough site preparation and control of fill placement is recommended to increase global stability, thereby reducing the potential for lateral loading on the abutment walls.

PLANS AND SPECIFICATIONS REVIEW

It is recommended that the geotechnical engineer be provided the opportunity to review the plans and specifications so that comments can be made regarding the interpretation and implementation of our geotechnical engineering recommendations in the design and specifications. In the event that GeoSource is not given the opportunity to perform this recommended review, we will assume no responsibility for misinterpretation of our geotechnical engineering recommendations.

CONSTRUCTION OBSERVATION AND TESTING

To effectively achieve the intent of the geotechnical recommendations presented in this report and to maintain continuity from design through construction, GeoSource should be retained to provide observation and testing services during the construction phase of the project. This will provide the geotechnical engineer with the opportunity to observe the subsurface conditions encountered during construction, evaluate the applicability of the geotechnical recommendations presented in our report as they relate to the soil and bedrock conditions encountered, and to provide follow up recommendations if conditions differ from those described in our report.

LIMITATIONS

The analysis and recommendations submitted in this report are based in part upon the subsurface information obtained from the boring performed at the indicated location and our present knowledge of the proposed construction as outlined in the Project Description. Subsurface conditions may vary between the across the proposed bridge site and our report does not reflect any variations which may occur. The nature and extent of such variations may not become evident until construction. If subsurface conditions are encountered during construction that differ from those described in this

Tarsney Lake Bridge No. 4219001

Project No. D17G1981

Page 14

report, GeoSource should be notified immediately so that a review may be made and any supplemental recommendations provided. If the scope of the proposed construction, including the proposed loads, floor slab elevations or locations, changes from that described in this report, our recommendations should also be reviewed and the recommendations modified accordingly.

This report has been prepared in accordance with the generally accepted geotechnical engineering practice as it exists in the area at the time of our study. No warranty is expressed or implied. The recommendations provided in this report are based on the assumption that an adequate program of observation and testing will be conducted during the construction phase in order to evaluate compliance with our recommendations. Our scope of services did not include any environmental assessment or exploration for the presence of hazardous or toxic materials in the soil, surface water, groundwater or air, on, below or around this site.

This report has been prepared for the exclusive use of our client for specific application to the project discussed. Any party other than the client who wishes to use this report shall notify GeoSource in writing of such intended use. Additional work may be required before an updated report can be issued. Non-compliance with any of these requirements will release GeoSource from any liability resulting from the use of this report by any unauthorized party and client agrees to defend, indemnify and hold harmless GeoSource from any claim or liability associated with such unauthorized or non-compliance.

APPENDIX

**FIGURE 1: BORING LOCATION SKETCH
BORING LOG
GENERAL NOTES AND TERMS
BORING LOG SYMBOLS**

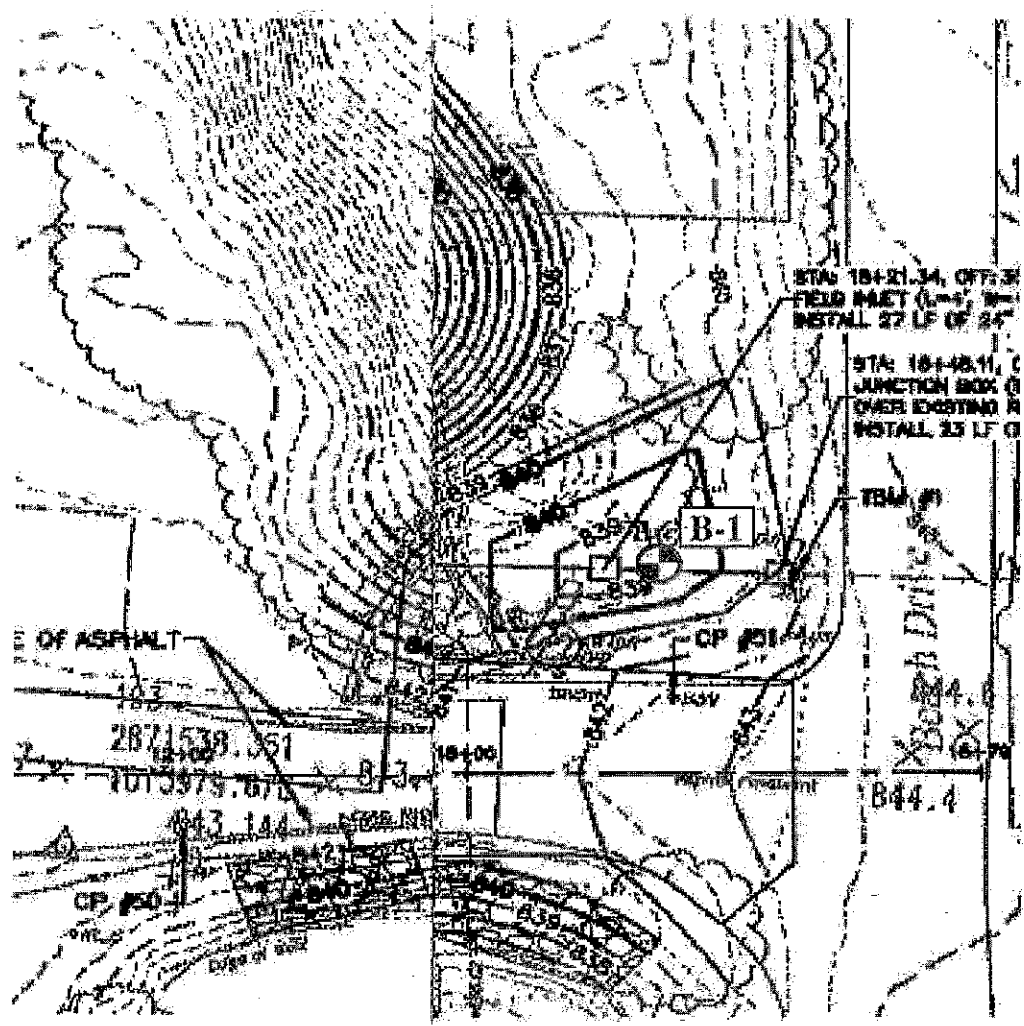


Figure 1

GEO SOURCE
Your Source for Geotechnical and Materials Engineering

BOREHOLE INFORMATION

LOG OF BORING NO. B-1

STATION 18+30 OFFSET 38' Lt.
 NORTHING 1,013,990.0 EASTING 2,871,935.0
 DRILLING COMPANY GeoSource, LLC
 METHOD 4-inch Flight Augers HAMMER: Auto

PROJECT NAME Tarsney Lake Bridge No. 4219001
 SITE LOCATION SE ¼ of Section 22, T48N, R30W
 Jackson County, Missouri
 OWNER / ENGINEER Jackson County / Shafer, Kline & Warren

SAMPLE NO.	SAMPLE TYPE	RECOVERY	STANDARD PENETRATION BLOWS/FT.	UNCONFINED STRENGTH PSF	DRY DENSITY PCF	MOISTURE CONTENT, %	UNIFIED SOIL SYMBOL	GRAPHIC LOG	DEPTH, Feet	MATERIAL DESCRIPTION
										Approx. Surface Elevation: 839.8
	PA								0.8	Topsoil, dark brown (9") 839.1
1	ST	22		5010	103	23.0	CH		5	FAT CLAY , very stiff, brown
	PA								6.0	833.8
2	ST	16		*1500	94	23.7	CL		10	LEAN CLAY , medium stiff, light brown to brown, trace fine sand
	PA								14.0	825.8
3	SS	18	64			21.1			15	**SHALE , weathered, mod. hard to hard, gray brown
	PA								20	
4	SS	7	7 1/7"			14.4			21.0	818.8

WOH - Weight of Hammer * Calibrated Penetrometer

The stratification lines represent the approximate boundary lines between soil and rock types. In-situ the transition may be more gradational in nature.

WATER LEVEL OBSERVATIONS

Dry While Drilling
 13.5 feet Upon Completion

Backfilled with Bentonite Chips



BORING STARTED: 10-26-17
 BORING COMPLETED: 10-26-17
 RIG: CME-55 DRILLER: AT
 APPROVED: JJZ JOB #: D17G1981

BOREHOLE INFORMATION

LOG OF BORING NO. B-1

STATION 18+30 OFFSET 38' Lt.
 NORTHING 1,013,990.0 EASTING 2,871,935.0
 DRILLING COMPANY **GeoSource, LLC**
 METHOD 4-inch Flight Augers HAMMER Auto

PROJECT NAME **Tarsney Lake Bridge No. 4219001**
 SITE LOCATION **SE ¼ of Section 22, T48N, R30W
 Jackson County, Missouri**
 OWNER / ENGINEER **Jackson County / Shafer, Kline & Warren**

SAMPLE NO.	SAMPLE TYPE	RECOVERY	STANDARD PENETRATION BLOWS/FT.	UNCONFINED STRENGTH PSF	DRY DENSITY PCF	MOISTURE CONTENT, %	UNIFIED SOIL SYMBOL	GRAPHIC LOG	DEPTH, Feet.	MATERIAL DESCRIPTION
	PA									**SHALE, hard, gray
5	SS	9	90/9"			5.0			25	
	PA									
6	SS	10	80/10"			9.7			30	
	PA									
7	SS	4	50/4"			7.2			35	
	PA									
8	SS	3	50/3"			6.4			40	
	PA									

WOH - Weight of Hammer * Calibrated Penelrometer

The stratification lines represent the approximate boundary lines between soil and rock types. In-situ the transition may be more gradational in nature.

WATER LEVEL OBSERVATIONS

Dry While Drilling
 13.5 feet Upon Completion
 Backfilled with Bentonite Chips






BORING STARTED **10-26-17**
 BORING COMPLETED **10-26-17**
 RIG **CME-55** DRILLER **AT**
 APPROVED **JJZ** JOB # **D17G1981**

BOREHOLE INFORMATION

LOG OF BORING NO. B-1

STATION 18+30 OFFSET 38' Lt.
 NORTHING 1,013,990.0 EASTING 2,871,935.0
 DRILLING COMPANY: **GeoSource, LLC**
 METHOD 4-inch Flight Augers HAMMER: Auto

PROJECT NAME **Tarsney Lake Bridge No. 4219001**
 SITE LOCATION **SE ¼ of Section 22, T48N, R30W
 Jackson County, Missouri**
 OWNER/ENGINEER **Jackson County / Shafer, Kline & Warren**

SAMPLE NO.	SAMPLE TYPE	RECOVERY	STANDARD PENETRATION BLOWS/FT.	UNCONFINED STRENGTH PSF	DRY DENSITY PCF	MOISTURE CONTENT %	UNIFIED SOIL SYMBOL	GRAPHIC LOG	DEPTH, Feet	MATERIAL DESCRIPTION
9	SS	3	50/3"			13.9			45	**SHALE, hard, gray
	PA									
10	SS	4	50/4"			16.9			49.0	790.8
									50	BOTTOM OF BORING **Rock classification is based on drilling characteristics and visual observation of disturbed samples. Core samples may reveal other rock types.

WOH - Weight of Hammer *Calibrated Penetrometer

The stratification lines represent the approximate boundary lines between soil and rock types. In-situ the transition may be more gradational in nature.

WATER LEVEL OBSERVATIONS

Dry While Drilling
 13.5 feet Upon Completion
 Backfilled with Bentonite Chips



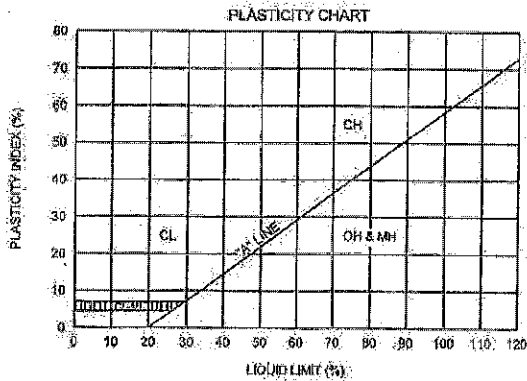
BORING STARTED	10-26-17
BORING COMPLETED	10-26-17
RIG CME-55	DRILLER AT
APPROVED JJZ	JOB# D17G1981

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-98)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS >50% RETAINED ON NO. 200 SIEVE	GRAVELS >50% OF COARSE FRACTION RETAINED ON NO. 4. SIEVE	CLEAN GRAVELS <5% FINES	Cu>4 AND 1<Cc<3	GW	WELL-GRADED GRAVEL
			Cu>4 AND 1>Cc>3	GP	POORLY-GRADED GRAVEL
		GRAVELS WITH FINES >12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL
	SANDS >50% OF COARSE FRACTION PASSES ON NO. 4. SIEVE	CLEAN SANDS <5% FINES	Cu>6 AND 1<Cc<3	SW	WELL-GRADED SAND
			Cu>6 AND 1>Cc>3	SP	POORLY-GRADED SAND
		SANDS AND FINES >12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND
FINE-GRAINED SOILS >50% PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT<50	INORGANIC	P<7 AND PLOTS >'A' LINE	CL	LEAN CLAY
			P<4 AND PLOTS <'A' LINE	ML	SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT>50	INORGANIC	P<7 PLOTS >'A' LINE	CH	FAT CLAY
			P<7 PLOTS <'A' LINE	MH	ELASTIC SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OH	ORGANIC CLAY OR SILT
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK IN COLOR, AND ORGANIC ODOR		PT	PEAT

BEDROCK AND OTHER MATERIAL SYMBOLS	
Weathered Shale	Topsoil
Shale	Asphaltic Concrete
Searily Limestone	Concrete
Joint or Void	Fill
Limestone	Rubble or Debris Fill
Weathered Sandstone	Boulders and Cobble
Sandstone	Granular Baserock
Coal	Lean to Fat Clay

BEDROCK PROPERTIES & DESCRIPTIONS																													
ROCK QUALITY DESIGNATION <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DESCRIPTION</th> <th>ROQ (%)</th> </tr> </thead> <tbody> <tr> <td>Very Poor</td> <td>0 - 25</td> </tr> <tr> <td>Poor</td> <td>25 - 50</td> </tr> <tr> <td>Fair</td> <td>50 - 75</td> </tr> <tr> <td>Good</td> <td>75 - 90</td> </tr> <tr> <td>Excellent</td> <td>90 - 100</td> </tr> </tbody> </table>	DESCRIPTION	ROQ (%)	Very Poor	0 - 25	Poor	25 - 50	Fair	50 - 75	Good	75 - 90	Excellent	90 - 100	BEDDING CHARACTERISTICS <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>TERM</th> <th>THICKNESS (inches)</th> </tr> </thead> <tbody> <tr> <td>Massive</td> <td>> 60</td> </tr> <tr> <td>Very Thick Bedded</td> <td>36 - 60</td> </tr> <tr> <td>Thick Bedded</td> <td>12 - 36</td> </tr> <tr> <td>Medium Bedded</td> <td>4 - 12</td> </tr> <tr> <td>Thin Bedded</td> <td>1 - 4</td> </tr> <tr> <td>Very Thin Bedded</td> <td>0.4 - 1</td> </tr> <tr> <td>Laminated</td> <td>< 0.4</td> </tr> </tbody> </table>	TERM	THICKNESS (inches)	Massive	> 60	Very Thick Bedded	36 - 60	Thick Bedded	12 - 36	Medium Bedded	4 - 12	Thin Bedded	1 - 4	Very Thin Bedded	0.4 - 1	Laminated	< 0.4
DESCRIPTION	ROQ (%)																												
Very Poor	0 - 25																												
Poor	25 - 50																												
Fair	50 - 75																												
Good	75 - 90																												
Excellent	90 - 100																												
TERM	THICKNESS (inches)																												
Massive	> 60																												
Very Thick Bedded	36 - 60																												
Thick Bedded	12 - 36																												
Medium Bedded	4 - 12																												
Thin Bedded	1 - 4																												
Very Thin Bedded	0.4 - 1																												
Laminated	< 0.4																												
DEGREE OF WEATHERING Slightly Weathered - Slight decomposition of Parent material in joints and seams. Weathered - Well-developed and decomposed joints and seams. Highly Weathered - Rock highly decomposed, may be extremely broken.																													
BEDROCK DISCONTINUITIES Bedding Planes - Planes dividing the individual layers, beds or strata of rocks; Joints - Fractures in rock, generally more or less vertical to the bedding. Seams - Applies to bedding planes with an unspecified degree of weathering.																													



PENETRATION RESISTANCE (RECORDED AS BLOWS / 0.5 FT)				
SAND & GRAVEL		SILT & CLAY		
RELATIVE DENSITY	BLOWS/FOOT*	CONSISTENCY	BLOWS/FOOT*	COMPRESSIVE STRENGTH (TSF)
VERY LOOSE	0-4	VERY SOFT	0-2	0-0.25
LOOSE	4-10	SOFT	2-4	0.25-0.50
MEDIUM DENSE	10-30	MEDIUM STIFF	4-8	0.50-1.0
DENSE	30-60	STIFF	8-15	1.0-2.0
VERY DENSE	OVER 60	VERY STIFF	15-30	2.0-4.0
		HARD	OVER 30	OVER 4.0

* NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1-3/8 INCH I.D.) SPLIT-BARREL SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE (ASTM 1586 STANDARD PENETRATION TEST).

GEO SOURCE

Your Source for Geotechnical and Materials Engineering

General Notes and Terms

BORING LOG SYMBOLS

SURFACE MATERIALS



TOPSOIL



FILL MATERIAL



ASPHALTIC CONCRETE



CONCRETE



GRANULAR BASE

COHESIVE SOILS



SILT



CLAYEY SILT



LEAN CLAY



LEAN TO FAT CLAY



FAT CLAY

LARGE GRANULAR SOILS



CLAYEY GRAVEL



SILTY GRAVEL



POORLY GRADED GRAVEL



WELL GRADED GRAVEL



COBBLES & BOULDERS

GRANULAR SOILS



SANDY SILT



SILTY SAND



FINE SAND



POORLY GRADED SAND



WELL GRADED SAND



GRAVELLY SAND

BEDROCK UNITS



SHALE



FISSILE SHALE



SANDSTONE



LIMESTONE



COAL

WEATHERED BEDROCK



JOINT OR VOID



WEATHERED SHALE



WEATHERED SANDSTONE



WEATHERED LIMESTONE

CONTRACT FORMS

CONTRACT AGREEMENT

THIS AGREEMENT made and entered into by and between the JACKSON COUNTY, (hereinafter referred to as the Owner), and Lehmann Construction, LLC of California, MO, (hereinafter referred to as the Contractor):

WITNESSETH: That for and in consideration of the acceptance of Contractor's bid and the award of this contract to said Contractor by the Owner and in further consideration of the agreements of the parties herein contained to be well and truly observed and faithfully kept by them, and each of them, it is agreed between the parties as follows, to wit:

The Contractor at his own expense hereby agrees to do or furnish all labor, materials and equipment called for in the proposal designated and marked:

JACKSON COUNTY, MO

BRIDGE 4219001; BRO-B048 (55)

BEACH DRIVE OVER TARSNEY LAKE SPILLWAY TO BRUSHY CREEK

and agrees to perform all the work required by the contract as shown on the plans and specifications. The "Notice to Contractor:", "Plans", "Proposal", "Contract Bond", "Acknowledgment", "Notice to Proceed" and all change orders are made a part hereof as fully as if set out herein.

It is understood and agreed that, except as may be otherwise provided for by "Special Provisions, Job and General", included in the Proposal, the work shall be done in accordance with the Missouri Highway and Transportation Commission Standard Specifications, "Missouri Standard Specifications For Highway Construction", 2019 English Edition." Said Standard Specifications are part and parcel of this contract, and are incorporated in this contract as fully and effectively as if set forth in detail herein.

The Contractor further agrees that he is fully informed regarding all of the conditions affecting the work to be done, and labor and materials to be furnished for the completion of this contract, and that his information was secured by personal investigation and research and not from any estimates of the Owner; and that he will make no claim against the Owner by reason of estimates, tests or representation of any officer, agent or employees of the Owner.

The said Contractor agrees further to begin work not later than the authorization date in the Notice to Proceed, and to complete the work within the time specified in the proposal or such additional time as may be allowed by the Engineer under the contract.

The work shall be done to the complete satisfaction of the Engineer of the Owner and, in the case the Federal Government or any agency thereof is participating in the payment of the cost of construction of the work, the work shall also be subject to inspection and approval at all times by the proper agent or agents of such government agency.

The parties hereto agree that this contract in all things shall be governed by the laws of the State of Missouri.

IN WITNESS WHEREOF, _____ and _____ hereto have hereunto set their hands and affixed their seals
this _____.

JACKSON COUNTY through the JACKSON COUNTY-DEPARTMENT OF
PUBLIC WORKS

NO DATE
PLEASE

ATTEST: (SEAL)

BY _____
JACKSON COUNTY

COUNTY CLERK

Lehman Construction LLC
CONTRACTOR

BY [Signature]
MANAGING MEMBER

BY [Signature]

ATTEST: (SEAL) ← No Seal



**SEE NEXT SHEET
FOR JACKSON COUNTY SIGN SHEET**

IN WITNESS WHEREOF, Jackson County, Missouri has caused by Ordinance No. 5492
of April 16, 2021, these presents to be executed in its behalf by its duly
authorized agent, and the said Party of the Second Part has hereunto set its hand and seal.

Recommended by:



Brian Gaddie, P.E.
Director of Public Works
Date 4.12.21

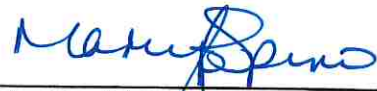


Frank White, Jr.
County Executive
Date 4/12/2021

Approved to form this 16th day of April, 2021



County Counselor

ATTEST: 

Clerk of Legislature



Director of Finance and Purchasing

FILED
APR 16 2021
MARY JO SPINO
COUNTY CLERK

O. 5492

REVENUE CERTIFICATE

There is a balance otherwise unencumbered to the credit of the appropriation to which the expenditure is chargeable and there is a cash balance otherwise unencumbered in the treasury to the credit of the fund from which payment is to be made each sufficient to provide for the obligation hereby authorized.

4-13-2021
Date



Director of Finance and Purchasing
Account No. 010 1566 58055
\$894,078.00

PC 156621001 ML

CONTRACT BOND

KNOW ALL MEN BY THESE PRESENTS: That we Lehman Construction, LLC

as principal, and Harco National Insurance Company

as surety, are held firmly bound unto the County of JACKSON

in the penal sum of Eight Hundred Ninety-Four Thousand Seventy-Eight & No/100

_____ Dollars (\$ 894,078.00), lawful

money of the United States, to be paid to said County of JACKSON of its certain agents,

attorneys, assigns or to the JACKSON County Commission, for which sums of money, well

and truly to be paid, we bind ourselves, our heirs, successors, assigns, executors, and administrators,

jointly and SEALED with our seals and dated _____, 20____.

The condition of this obligations is such that

WHEREAS, the said bounden principal has entered into a certain contract with the County of JACKSON acting by and through the JACKSON COUNTY, said being marked

" BRIDGE 4219001; BRO-B048 (55)
BEACH DRIVE OVER TARSNEY LAKE SPILLWAY TO BRUSHY CREEK,
JACKSON

County", a copy of said contract being hereto attached and made a part hereof and bearing a date of _____, 20__.

NOW THEREFORE, if said principal shall comply with and fulfill all the conditions of said contract, including those under principal agrees to pay the prevailing hourly rates of wages for each craft or type of workman required to execute the contract in the loyalty as determined by State and Federal authority, as applicable or by final judicial determination, and properly and promptly complete the work in accordance with the provisions of said contract, plans, and specifications without any hidden defects, and furnish all the labor and materials required by said contract, and any and all changes in, or additions to said contract, which may hereafter be made, and shall perform all the undertakings stipulated by said bounden principal to be performed and within the time mentioned in said contract or within any additional time granted by the Jackson County-Department of Public Works, which may be granted without notice to or consent from the surety, and shall pay for all materials, lubricants, fuel, coal and coke, repairs on machinery, groceries and foodstuff, equipment and tools consumed or used in connection with the construction of such work, and all insurance premiums, both compensation, and all other kinds of insurance, on said work, and for all labor performed in such work, whether by subcontractor or claimant in person or by his employee, agent, servant, bailee, or bailor, then this to be void; otherwise it shall be and remain in full force and effect.

ATTEST: (SEAL) ^{No Seal}

Lehman Construction LLC

Principal

BY: [Signature]

BY: MANAGING MEMBER
(Title)

Secretary

[Signature] - witness

Harco National Insurance Company

(Surety)

BY: Kathy L. Fagan

BY: Kathy L. Fagan Attorney-in-Fact
(Title)

ATTEST: (SEAL) [Signature]
CASEY M. PARISOFF

16 W. 132nd Street, Kansas City, MO 64145
Address - Missouri Agent

Jackson
County

Name and Address of the Agent to Whom all Correspondence Should be Directed Relating to the Contract and Bond.

Powers Insurance & Risk Management
Name

6825 Clayton Ave. Ste. 200
Street

St. Louis, MO 63139
City, State

CONTRACTOR'S ACKNOWLEDGEMENT

3. Form to be used if Contractor is a corporation

State of _____)
County of _____) ss.

On this _____ day of _____, 20_____, before me personally appeared _____, to me personally known, who being by me duly sworn, did say that he/she is the

_____ of _____

(the Contractor) and that the seal affixed to the foregoing agreement and contract bond is the corporate seal of said corporation, and that the foregoing proposal, contract agreement, and contract bond were signed and sealed in behalf of said corporation by authority of its board of directors, and he/she acknowledges said instruments to be the free act and deed of said corporation.

Witness my hand and seal at _____, _____, the day and year first above written.

(SEAL)

Notary Public

My commission expires _____, 20_____.

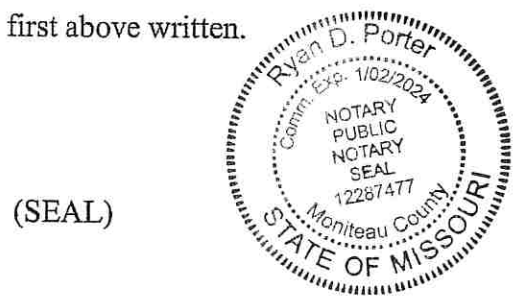
CONTRACTOR'S ACKNOWLEDGEMENT

2. Form to be used if Contractor is a partnership or unincorporated company.

State of Missouri)
) ss.
County of Moniteau)

On this 29 day of March, 20 21, before me personally appeared Kenny Lehman, to me known to be the person described in and who executed the foregoing proposal, contract agreement, and bond, and being first duly sworn, acknowledged that he/she executed the same as the free act and deed of the partnership or company, and stated that all of the members of the partnership or company are correctly shown in the proposal.

Witness my hand and seal at California, Missouri, the day and year first above written.



Ryan D. Porter
Notary Public

My commission expires January 02, 20 24.

CONTRACTOR'S ACKNOWLEDGEMENT

1. Form to be used if Contractor is an individual.

State of _____)
County of _____) ss.

On this _____ day of _____, 20_____, before me personally appeared _____, to me known to be the person described in and who executed the foregoing proposal, contract agreement, and bond, and being first duly sworn, acknowledged that he/she executed the same as his/her free act and deed.

Witness my hand and seal at _____, _____, the day and year first above written.

(SEAL)

Notary Public

My commission expires _____, 20_____.

POWER OF ATTORNEY
HARCO NATIONAL INSURANCE COMPANY
INTERNATIONAL FIDELITY INSURANCE COMPANY

Bond # TXHNSU0796873

Member companies of IAT Insurance Group, Headquartered: 702 Oberlin Road, Raleigh, North Carolina 27605

KNOW ALL MEN BY THESE PRESENTS: That **HARCO NATIONAL INSURANCE COMPANY**, a corporation organized and existing under the laws of the State of Illinois, and **INTERNATIONAL FIDELITY INSURANCE COMPANY**, a corporation organized and existing under the laws of the State of New Jersey, and having their principal offices located respectively in the cities of Rolling Meadows, Illinois and Newark, New Jersey, do hereby constitute and appoint

CASEY PARISOFF, KATHY L. FAGAN

St. Louis, MO

their true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise, and the execution of such instrument(s) in pursuance of these presents, shall be as binding upon the said **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY**, as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by their regularly elected officers at their principal offices.

This Power of Attorney is executed, and may be revoked, pursuant to and by authority of the By-Laws of **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY** and is granted under and by authority of the following resolution adopted by the Board of Directors of **INTERNATIONAL FIDELITY INSURANCE COMPANY** at a meeting duly held on the 13th day of December, 2018 and by the Board of Directors of **HARCO NATIONAL INSURANCE COMPANY** at a meeting held on the 13th day of December, 2018.

"RESOLVED, that (1) the Chief Executive Officer, President, Executive Vice President, Senior Vice President, Vice President, or Secretary of the Corporation shall have the power to appoint, and to revoke the appointments of, Attorneys-in-Fact or agents with power and authority as defined or limited in their respective powers of attorney, and to execute on behalf of the Corporation and affix the Corporation's seal thereto, bonds, undertakings, recognizances, contracts of indemnity and other written obligations in the nature thereof or related thereto; and (2) any such Officers of the Corporation may appoint and revoke the appointments of joint-control custodians, agents for acceptance of process, and Attorneys-in-fact with authority to execute waivers and consents on behalf of the Corporation; and (3) the signature of any such Officer of the Corporation and the Corporation's seal may be affixed by facsimile to any power of attorney or certification given for the execution of any bond, undertaking, recognizance, contract of indemnity or other written obligation in the nature thereof or related thereto, such signature and seals when so used whether heretofore or hereafter, being hereby adopted by the Corporation as the original signature of such officer and the original seal of the Corporation, to be valid and binding upon the Corporation with the same force and effect as though manually affixed."

IN WITNESS WHEREOF, **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY** have each executed and attested these presents on this 31st day of December, 2018



STATE OF NEW JERSEY
County of Essex

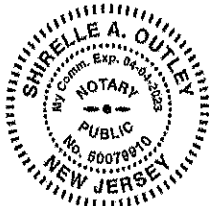
Kenneth Chapman

Executive Vice President, Harco National Insurance Company
and International Fidelity Insurance Company

STATE OF ILLINOIS
County of Cook



On this 31st day of December, 2018, before me came the individual who executed the preceding instrument, to me personally known, and, being by me duly sworn, said he is the therein described and authorized officer of **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY**; that the seals affixed to said instrument are the Corporate Seals of said Companies; that the said Corporate Seals and his signature were duly affixed by order of the Boards of Directors of said Companies.



IN TESTIMONY WHEREOF, I have hereunto set my hand affixed my Official Seal, at the City of Newark, New Jersey the day and year first above written.

Shirelle A. Outley a Notary Public of New Jersey
My Commission Expires April 4, 2023

CERTIFICATION

I, the undersigned officer of **HARCO NATIONAL INSURANCE COMPANY** and **INTERNATIONAL FIDELITY INSURANCE COMPANY** do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit, and the copy of the Sections of the By-Laws of said Companies as set forth in said Power of Attorney, with the originals on file in the home office of said companies, and that the same are correct transcripts thereof, and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect.

IN TESTIMONY WHEREOF, I have hereunto set my hand on this day,

A02769

Irene Martins, Assistant Secretary

CONTRACT BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____

as principal, and _____

as surety, are held firmly bound unto the County of JACKSON

in the penal sum of _____

_____ Dollars (\$ _____), lawful

money of the United States, to be paid to said County of JACKSON of its certain agents,

attorneys, assigns or to the JACKSON County Commission, for which sums of money, well

and truly to be paid, we bind ourselves, our heirs, successors, assigns, executors, and administrators,

jointly and SEALED with our seals and dated _____

**NO DATE
PLEASE**

The condition of this obligations is such that

WHEREAS, the said bounden principal has entered into a certain contract with the County of JACKSON acting by and through the JACKSON COUNTY, said being marked

" BRIDGE 4219001; BRO-B048 (55)
BEACH DRIVE OVER TARSNEY LAKE SPILLWAY TO BRUSHY CREEK,
JACKSON

County", a copy of said contract being hereto attached and made a part hereof and bearing a date of _____

cont craft Feder the hidd said principal shall comply with and fulfill all the conditions of said principal agrees to pay the prevailing hourly rates of wages for each to execute the contract in the loyalty as determined by State and by final judicial determination, and properly and promptly complete the provisions of said contract, plans, and specifications without any labor and materials required by said contract, and any and all changes in, or additions to said contract, which may hereafter be made, and shall perform all the undertakings stipulated by said bounden principal to be performed and within the time mentioned in said contract or within any additional time granted by the Jackson County-Department of Public Works, which may be granted without notice to or consent from the surety, and shall pay for all materials, lubricants, fuel, coal and coke, repairs on machinery, groceries and foodstuff, equipment and tools consumed or used in connection with the construction of such work, and all insurance premiums, both compensation, and all other kinds of insurance, on said work, and for all labor performed in such work, whether by subcontractor or claimant in person or by his employee, agent, servant, bailee, or bailor, then this to be void; otherwise it shall be and remain in full force and effect.

NO DATE
PLEASE

ATTEST: (SEAL)

Principal

Secretary

BY: _____

BY: _____
(Title)

(Surety)

BY: _____

ATTEST: (SEAL)

BY: _____
(Title)

Address - Missouri Agent

County

Name and Address of the Agent to
Whom all Correspondence Should be
Directed Relating to the Contract
and Bond.

Name

Street

City, State



CONTRACTOR'S ACKNOWLEDGEMENT

Complete
 Appropriate
 Acknowledgement

1. Form to be used if Contractor is an individual.

State of _____)
) ss.
 County of _____)

On this _____ day of _____, 20_____, before me personally appeared _____, to me known to be the person described in and who executed the foregoing proposal, contract agreement, and bond, and being first duly sworn, acknowledged that he/she executed the same as his/her free act and deed.

Witness my hand and seal at _____, _____, the day and year first above written.

(SEAL)

 Notary Public

My commission expires _____, 20 _____.

CONTRACTOR'S ACKNOWLEDGEMENT

2. *Form to be used if Contractor is a partnership or unincorporated company.*

State of _____)
County of _____) ss.

On this _____ day of _____, 20_____, before me personally appeared _____, to me known to be the person described in and who executed the foregoing proposal, contract agreement, and bond, and being first duly sworn, acknowledged that he/she executed the same as the free act and deed of the partnership or company, and stated that all of the members of the partnership or company are correctly shown in the proposal.

Witness my hand and seal at _____, _____, the day and year first above written.

(SEAL)

Notary Public

My commission expires _____, 20_____.

CONTRACTOR'S ACKNOWLEDGEMENT

3. Form to be used if Contractor is a corporation

State of _____)
County of _____) ss.

On this _____ day of _____, 20_____, before me personally appeared _____, to me personally known, who being by me duly sworn, did say that he/she is the _____ of _____

(the Contractor) and that the seal affixed to the foregoing agreement and contract bond is the corporate seal of said corporation, and that the foregoing proposal, contract agreement, and contract bond were signed and sealed in behalf of said corporation by authority of its board of directors, and he/she acknowledges said instruments to be the free act and deed of said corporation.

Witness my hand and seal at _____, _____, the day and year first above written.

(SEAL)

Notary Public

My commission expires _____, 20_____.