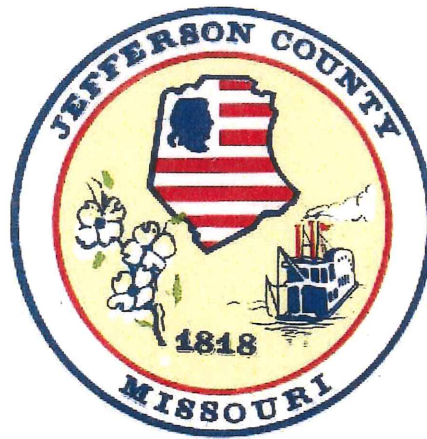


PROJECT SPECIFICATIONS FOR:

HEADS CREEK ROAD STRUCTURE REPLACEMENT

PW19135BXC



Jefferson County

Dennis Gannon
County Executive

DEPARTMENT OF PUBLIC WORKS

Jason Jonas, P.E. - Director

P.O. BOX 100

HILLSBORO, MO 63050

Telephone: 636-797-5340

Fax: 636-797-5565

Web Address: www.jeffcomo.org



APPROVED FOR CONSTRUCTION

BY: _____

(County Engineer)

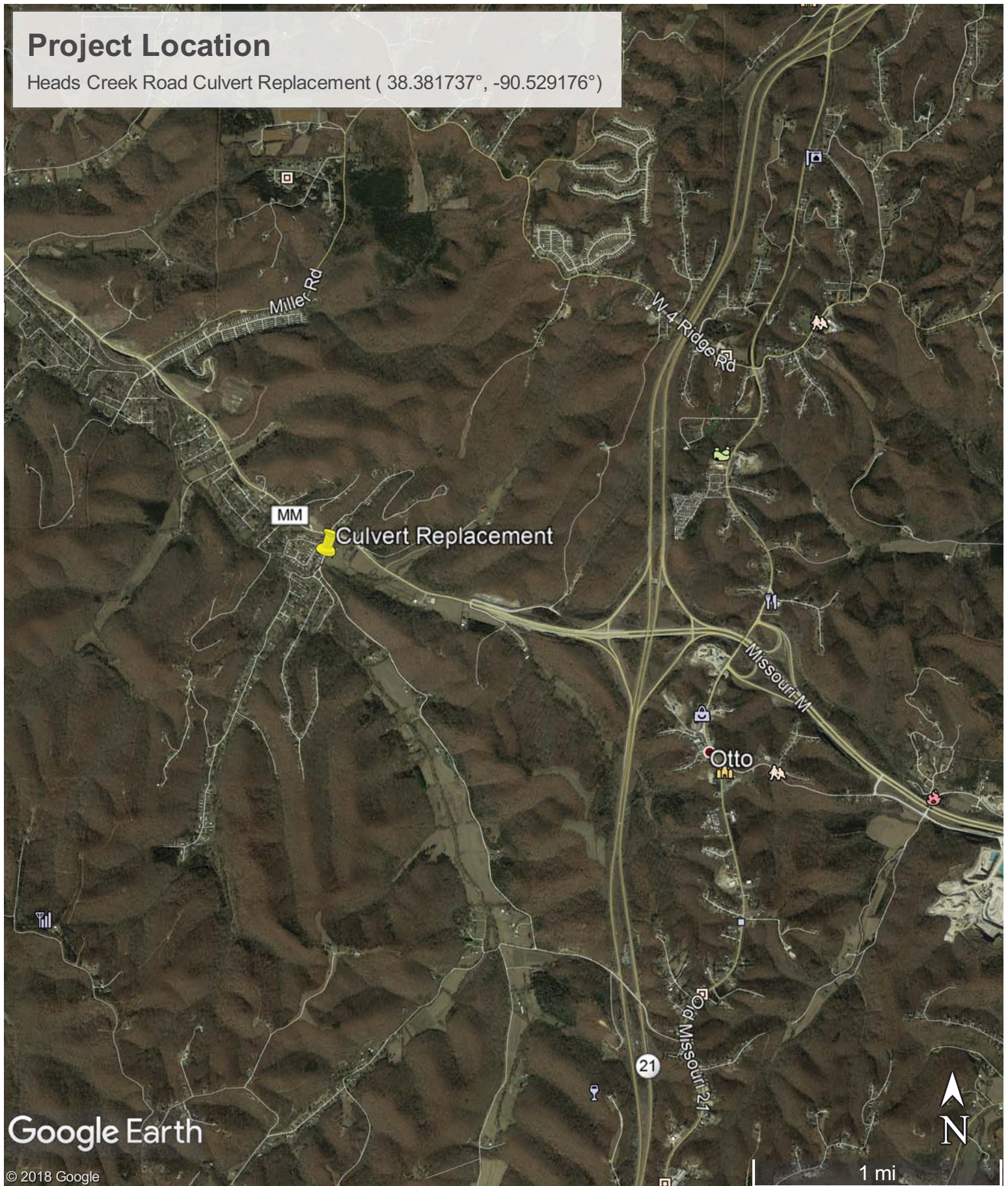
DATE: 2-5-2019

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Project Location

Heads Creek Road Culvert Replacement (38.381737°, -90.529176°)



BID NOTICE

Sealed bids for HEADS CREEK ROAD STRUCTURE REPLACEMENT PW19135BXC will be received at the office of The Department of the County Clerk, Jefferson County Administration Center, 729 Maple Street, Hillsboro, Missouri until 2:00 o'clock P.M. CST on, March 5th, 2019, and at that time will be publicly opened and read. All bids shall be submitted in triplicate in an opaque sealed envelope, marked with the Project title, name and address of the Bidder, and accompanied by the other required documents. Bids submitted via fax or electronically will be rejected. Late Bids will not be accepted and will be returned to the sender, unopened.

The proposed work includes: Removal and replacement of existing structure and approach pavement on Heads Creek Road. The work in general will consist of the installation of a new concrete box culvert, bituminous pavement installation, guardrail installation, stream bank stabilization, and rock blanket installation. The total length of the project is approximately 140 feet (0.02 miles).

Work shall be in accordance with the provided Specifications, Job Special Provisions, and Plans. Where not specifically covered by the Specifications, or Job Special Provisions or Plans, the Contractor shall adhere to the currently effective 2018 Edition of the "Missouri Standard Specifications for Highway Construction", and the currently effective "MoDOT Standard Plans for Highway Construction." The contractor shall have a maximum of forty (40) working days to complete the project.

Plans and specifications for this project will be available, at no-cost, as downloadable files from the Jefferson County website (<http://www.jeffcomo.org/PublicWorksProjects.aspx?nodeID=Purchasing>), beginning Friday, February 8th, 2019. The bidder will be responsible for checking the County's website for addendum(s) regarding this project prior to bid opening. All potential bidders must complete the "Plan Holder Contact Information" form and submit this form to Public Works at pwprojects@jeffcomo.org and request placement on the bidder's list.

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 State of Missouri's "Annual Wage Order" that is currently effective 10 calendar days prior to bid opening.

Jefferson County, Missouri 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, 2018 Edition. **The contractor questionnaire must be on file 7 days prior to bid opening.**

Contractors and sub-contractors who sign a contract to work on any public works project must provide a minimum 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. **A certificate of insurance shall be submitted with each proposal.**

All bids shall be made on the forms provided. Three (3) copies of the bid must be submitted, one (1) being original inked. Jefferson County, Missouri reserves the right to reject any or all bids, to waive any informality in the bids received, and to award the contract to the lowest, responsive, responsible bidder.

END BID NOTICE



Jefferson County

Dennis Gannon
County Executive

DEPARTMENT OF PUBLIC WORKS

Jason Jonas, P.E. - Director

Telephone: 636-797-5340 · Fax:
636-797-5565 Web Address:
www.jeffcomo.org

BID SUBMITTAL

HEADS CREEK ROAD STRUCTURE REPLACEMENT

PROJECT NUMBER: PW19135BXC

FUNDING SOURCE: ROAD/BRIDGE

ROUTE: HEADS CREEK ROAD

PROJECT
MANAGER: JESSE MESEY

STRUCTURE NO.: 1350001

636.797.5428
JMESEY@jeffcomo.org

BID SUBMITTAL DEADLINE: March 5th, 2019 2:00 P.M. CST

BIDDER'S NAME: _____

IN ORDER TO BE CONSIDERED A RESPONSIVE, RESPONSIBLE BIDDER, THE CONTRACTOR MUST READ, UNDERSTAND, COMPLETE AND SUBMIT 3 COPIES (1 ORIGINAL) OF ALL FORMS WITHIN THIS BID SUBMITTAL PACKAGE (THIS COVER AND ALL SHEETS WITH THE BID SUBMITTAL BORDER), ALONG WITH OTHER SUBMITTAL REQUIREMENTS AS STATED ON THE BIDDER CHECKLIST.

The County does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete Bidding Documents.

PLAN HOLDER CONTACT INFORMATION

All potential bidders **must** complete this form and submit it to the Jefferson County email address listed below in order to provide contact information as required. All other plan holders may submit this form at their own option. Addendums will be posted on the county website. In the event of disruption of website services, all such information will be communicated to all registered plan holders.

Project: Plans &
Specifications:
Cost:

PW19135BXC HEADS CREEK ROAD STRUCTURE REPLACEMENT

\$0.00 AVAILABLE ONLINE

Bid Opening Date:
Estimate:

March 5th, 2019 2:00 P.M. CST

\$445,000.00

Company Name*:

Address*:

City, State, Zip*:

Phone*:

Email*:

*required information

Email this
completed form to:

pwprojects@jeffcomo.org

BIDDER CHECKLIST

- ☐ Completion of item a), and submittal of 3 collated copies of items b) thru l), encompasses a complete bid submittal
 - a) Complete and Submit "Plan Holder's Contact Information" Form prior to bid submittal (email before bid opening)
 - b) Bid Submittal Cover Sheet with bidder's name printed or typed
 - c) Instructions and Notices to Contractors initialed on each page, all spaces filled, signed.
 - d) Balanced, complete, signed, and embossed (if corporation) Bid Form, **addenda acknowledged and 1st sheet attached**
 - e) Bid Guaranty/Bid Bond (Assurance Company's form is valid to substitute to generic form herein)
 - f) Bidder's Acknowledgement completed and signed
 - g) Affidavit of Federal Employment Authorization (Annual Worker Eligibility Verification Affidavit)
 - h) Certification Regarding Anti-collusion (see notice 12)
 - i) Bid to be submitted in ink with proper signatures with no white out
 - j) 3 copies of the complete bid, only one need be original ink.
 - k) Bid submitted in opaque envelope with appropriate information on outside of envelope
 - l) **Enclose Certificate of Insurance**
- ☐ 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, "Prequalification to Bid of Certain Contractors". Questionnaire and Contact information are provided on MoDOT's website (required on highway and bridge projects)
- ☐ If submitting the bid by mail, it is to be completed, executed, and submitted in a sealed envelope addressed to Jefferson County, Missouri. Provide the vendor name, vendor address, vendor number, county, route and federal project number on the outside of the envelope (if applicable).
- ☐ Please read all items in the bidding document carefully. Complete all items in **ink** or by **typing** in the information.
- ☐ 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.
- ☐ Bid Bond shall be executed by bidder and surety, or attach cashier's check to the bid bond form.
- ☐ Common Mistakes:
 - a) Not signing the bid
 - b) Not acknowledging all addenda
 - 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
 - g) Not Providing Proof of Insurance

All questions concerning the bid document preparation can be directed to the Jefferson County Public Works Department
Project Manager:

JESSE MESEY

636.797.5428

JMESEY@jeffcomo.org

Special Needs: If you have special needs addressed by the Americans with Disabilities Act, please notify Jefferson County Public Works Department, at 636-797-6126 or through Missouri Relay System, TDD 1-800-735-2966, at least five (5) working days prior to the bid opening.

INSTRUCTIONS AND NOTICES TO CONTRACTORS

BIDDER SHALL INITIAL EACH SHEET ACKNOWLEDGING UNDERSTANDING AND ACCEPTANCE

Sealed bids for the proposed work will be addressed and delivered to the office of The County Clerk, 729 Maple Street, Jefferson County Administration Center, Hillsboro, Missouri until 2:00 o'clock P.M. CST on March 5th, 2019, and at that time will be publicly opened. All bids shall be submitted in triplicate in an opaque sealed envelope, marked with the Project title, name and address of the Bidder, and accompanied by the other required documents. Bids submitted via fax or electronic will be rejected. Late Bids will not be accepted and will be returned to the sender, unopened. The prime contractor must be on MoDOT's approved contractor listing at least 7 days before the day of the bid opening in order for Jefferson County to concur with the award of this project. Jefferson County will only concur with awarding the contract to a responsible bidder who has submitted the lowest, responsive bid. A responsive bid is one that meets all requirements of the advertisement and proposal, and "responsible" is defined as one who is physically organized and equipped with the financial wherewithal to undertake and complete the contract.

(1) PROPOSED WORK:

The proposed work includes: Removal and replacement of existing structure and approach pavement on Heads Creek Road. The work in general will consist of the installation of a new concrete box culvert, bituminous pavement installation, guardrail installation, stream bank stabilization, and rock blanket installation. The total length of the project is approximately 140 feet (0.02

(2) PLANS AND SPECIFICATIONS: Plans (if applicable) and specifications for this project are available through the Jefferson County, Missouri Government website (Jeffcomo.org) under the "Invitation for Bids/Request for Proposals" tab in the "Quick Links" box in the upper right corner of the homepage. It is the bidder's responsibility to obtain these documents from the provided source, including copies for use in construction. Paper copies of any documents will require advance notice and are subject to administrative fees for labor and material costs. Plans, specifications, and any other project documents are made available only for the purposes of obtaining bids, and as a resource to the awarded contractor. These documents do not confer a license or grant for any other use.

(3) CONTRACT DOCUMENTS AND SITE CONDITIONS: Before submitting a Bid, each Bidder must (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the Work, (c) familiarize himself with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; and (d) study and carefully correlate Bidder's observations with the Contract Documents. Each bidder will, at his own expense, make such investigations and tests as the bidder may deem necessary to determine his Bid for the performance of the Work in accordance with the time, price and other terms and conditions of the Contract Documents. On request, the County will provide each bidder access to the site to conduct such investigations and tests, as each bidder deems necessary for submission of his Bid. The lands upon which the Work is to be performed rights - of - way for access thereto and other lands designated for use by the Contractor in performing the work are identified in the projects specifications or plans.

(4) 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 Missouri Highways and Transportation Commission's "Missouri Standard Specifications for Highway Construction, 2018," and "Missouri Standard Plans for Highway Construction, 2018" and Supplemental Revisions (if applicable), their revisions, and the request for bid, including appendices, special provisions and plans, hereby proposes to furnish all labor, materials, equipment, services, etc., required for the performance and completion of the work. All specifications published by Missouri Department of Transportation may be obtained from the webpage www.modot.org. By submitting this bid, the contractor acknowledges that all specifications, including those that are referenced in the bid documents, shall be specifications of the contract. 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. All questions about the meaning or intent of the Contract Documents shall be submitted to the county project manager as stated on the "Bidder Checklist." Replies will be issued by Addenda, mailed, or electronically delivered to all parties recorded by the County Engineer as having received the Bidding Documents. Oral and other interpretations or clarifications will be without legal effect. The bidder must have completed and submitted the Plan Holder's Contact form to be recorded as having received the Bidding Documents. In all documents published by others, the term "Commission" shall be replaced with the term, Jefferson County and the term "Engineer" shall be replaced with "Director of Public Works/County Engineer." The contracting authority for this contract is Jefferson County Public Works.

(5) PRIME CONTRACTOR REQUIREMENTS: The prime contractor must be on MoDOT's approved contractor listing at least 7 days before the day of the bid opening in order for MoDOT to concur with the award of this project. 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.

BIDDER'S INITIALS INDICATING UNDERSTANDING AND ACCEPTANCE _____

- (6) **SUBCONTRACTORS:** No subcontract may be awarded by the prime contractor under this contract to anyone without approval of the County. In order for such approval to be obtained the Contractor shall submit a request to subcontract. This is not required for bid submittal. The proposed subcontractor must also submit, through the Contractor, the following documents in an acceptable form:
- Copy of any subcontracts, if requested
 - Certification by proposed subcontractor regarding equal employment opportunity;
 - Certification by proposed subcontractor concerning labor standards and prevailing wage requirements;
 - Any such other documents and evidence as the County may reasonably request to show that the subcontractor has fully complied with any reporting requirements to which it is or was subject.
 - Affidavit of Federal Employment Authorization to be completed and turned in by proposed subcontractors.
 - Subcontractor shall have a certificate of insurance with the same limits as the prime contractor listing Jefferson County Public Works as Additional Insured and as a certified holder. The endorsement is also required.
 - E-verify MOU in its entirety.

- (7) **SUBCONTRACTOR DISCLOSURE:** Requirements contained within Sec 102.7.12 of the Missouri Standard Specification for Highway Construction shall be waived for this contract. The documents by proposed subcontractors are not required to be attached to the Contractor's Bid.

- (8) **SALES AND USE TAX EXEMPTION:** Jefferson 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.

- (9) **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:

40 WORKING DAYS

- (10) **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:

\$ 500 .00

FIVE HUNDRED U.S. DOLLARS/DAY

- (11) **BID GUARANTY:** The bidder shall submit a Bid Guaranty. The 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

Bid Guaranty shall be made payable to the Owner, in the amount of five percent of the Bidder's maximum Bid price and in the form of a certified or bank check or a Bid Bond (on the form attached, if a form is prescribed) issued by a Surety. The Bid security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required Contract Security within 15 days of the Notice of Award. Failure to do so may result in the annulment of the Notice of Award and forfeiture of the Bid Security. The Bid Security of any Bidder whom the Owner believes to have a reasonable chance of receiving the award may be retained by the Owner until the earlier of the seventh day after the "effective date of the Agreement" (which is the date the agreement has been executed by all parties) by Owner to Contractor and the required Contract Security is furnished or the sixty-first day after the Bid opening. Bid Security of other Bidders will be returned within seven days of the Bid opening.

- (12) **SUBSTITUTE MATERIALS, EQUIPMENT, AND VALUE ENGINEERING:** The Contract, if awarded, will be on the basis of material and equipment specified in the Drawings or Supplemental Specifications without consideration of possible substitute "or equal" items. Whenever it is indicated in the Drawings or Supplemental Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by a Contractor, it must first be proven to be acceptable by the county. Proposals to alter the project design or specifications, otherwise known as "Value Engineering" must also be proposed and accepted. Application for such acceptance will not be considered by County Engineer until after the "effective date of the Agreement". Bidders should assume that no modifications to the contract or design will be allowed for it is not guaranteed that a modification will be allowed. Bid on the plans and Specifications "As-Is", including any issued addendum during the bidding phase.

- (13) **MATERIALS INSPECTION:** All technicians who perform or witness such sampling and testing shall be deemed as qualified by successfully completing the requirements of EPG 106.18 Technician Certification Program, for that specific technical area.

(14) MISSOURI DOMESTIC PRODUCT PROCUREMENT ACT: Bidder represents that the goods provided comply with Sections 34.350 to 34.359, RSMo, known as the Domestic Product Procurement Act. The Act encourages the purchase of products manufactured or produced in the United States, State of Missouri, and Jefferson County, Missouri. Bidder shall include proof of compliance with the Act with the bid when requested.

(15) PREVAILING WAGE: 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. For work performed anywhere within this contract, the contractor, and their subcontractors shall pay their employees the applicable state wages as detailed in the Missouri "Annual Wage Order" that is included in these specifications. The contractor will forfeit a penalty to the contracting public body of \$100 per day (or a portion of a day) for each worker that is paid less than the prevailing rate for any work done under the contract by the contractor or by any subcontractor. 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.

(16) 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 with the bid.** A sample Affidavit of Compliance can be found at the Missouri Attorney General's website at the following link:

https://labor.mo.gov/sites/labor/files/pubs_forms/PW-4-AI.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. This requirement also applies to subcontractors and contracted labor. 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.

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

(17) 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.

(18) 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 section 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 section 292.675 RSMO. See General Provision 43 for further details.

(19) TRAINEES: On-The-Job-Training is not a requirement of this contract

(20) ADDENDUM ACKNOWLEDGMENT: An addendum, if issued, will be posted on the County's website (Jeffcomo.org in the same location as these specifications), and will be emailed to the provided contact on the "Plan Holder Information Request" form. Bidder must submit the plan holder contact form, with a valid email contact, to receive any addenda notifications. By submitting a bid, the bidder acknowledges he or she was afforded equal opportunity to gain access and knowledge of any addenda. The County shall not be held liable for a bidder's failure to provide proper contact information leading to the failure of acknowledging any contract modifications. The undersigned states that all addenda (if applicable) have been received, acknowledged and incorporated into their bid, prior to submittal. Acknowledgment of addenda shall be completed in the appropriate section of the "Bid Form", after the bid line items. If no addendum issued, the bidder shall note this within the same section of the "Bid Form" Bidder shall also staple the first sheet (the cover page that has the engineer's seal) of the addendum to the back side of the first sheet of the bid submittal package.

BIDDER'S INITIALS INDICATING UNDERSTANDING AND ACCEPTANCE _____

(21) 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 _____, 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 venture (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 the state of _____.

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

Executed by bidder this _____ day of _____ 20 ____.

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

Please print or type name and title of person signing here

Attest:

Secretary of Corporation if Bidder is a Corporation

Affix Corporate Seal (If Bidder is a Corporation)

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.

(22) MODIFICATION AND WITHDRAWAL OF BIDS: Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids. If within twenty-four hours after Bids are opened, any Bidder files a duly signed written notice with the County and promptly thereafter demonstrates, to the reasonable satisfaction of the County, that there was a material and substantial mistake in the preparation of his or her Bid, that Bidder may withdraw their bid. Thereafter, that Bidder will be disqualified from further bidding on the proposed contract, or any future contracts related to the original.

- (23) OPENING OF BIDS:** Bids will be opened publicly. All Bids shall remain open for sixty days after the day of the Bid opening. The County may, at their sole discretion, release any Bid, and return the Bid Security prior to that date. The County reserves the right to reject any and all bids, to waive any or all informalities, and to reject any non-responsive bids. In evaluating Bids, the County shall require Bidders to be on MoDOT's approved contractor list at least 7 days before the day of the bid opening. The County retains sole authority to determine whether the Bid meets all requirements of the advertisement and proposal, and any alternates, and all unit prices requested in the Bid forms are provided in an acceptable manner.
- (24) AWARD OF CONTRACT:** This project will be awarded to the lowest, responsive, responsible bidder. Per Section 130.060; Part A(3) of the Jefferson County Code of Ordinances, the County Council reserves the right to give preference and award the contract to a contractor based within Jefferson County when the difference in the delivered price is negligible. The Public Works Department define the term 'negligible' in this section of the Code of Ordinance to mean less than a one-percent (1%) difference in the total bidding price. The County may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the work as to which the identity of Subcontractors and other persons and organizations must be submitted as provided. Operating costs, maintenance considerations, performance data and guarantees of materials and equipment may also be considered by the County. The County may conduct such investigations as they deem necessary to assist in the evaluation of whether any Bid is responsive in accordance with the Contract Documents to the County's satisfaction within the prescribed time. If the contract is to be awarded, the County will give the Successful Bidder a Notice of Award within sixty days after the date of the Bid opening. Section 39 of the General Provisions set forth the County's requirements as to performance and other Bonds. When the Successful Bidder delivers the executed Agreement to the County it shall be accompanied by the required Contract Security. When the County gives a Notice of Award to the Successful Bidder, it will be accompanied by at least four unsigned counterparts of the Agreement and all other Contract Documents. Within fifteen days thereafter Contractor shall sign and deliver at least four counterparts of the Agreement to the County with all other Contract Documents attached. The County will return one executed Contract Agreement to the Contractor.
- (25) FAILURE TO EXECUTE AGREEMENT:** Failure to execute the agreement and to file the acceptable contract bonds within 15 days after the unexecuted agreement has been mailed to the bidder, shall be just cause for the cancellation of the award and the forfeiture of the bid guaranty. A bidder failing to file an acceptable bid or contract bond from an approved surety, or failing to execute the agreement within the time provided, shall result in a cancellation of the award to that bidder, and disqualify that bidder, and any other firm having common ownership or control with that bidder, from performing any work on the County project or projects which are the subject of that bid, as a prime contractor, a subcontractor or a supplier.
- (26) ITEMIZED BID:** The Bidder shall indicate, in U.S. Dollar figures, a unit price for each item on the form, the product of the respective quantities and unit prices in the column provided, the subtotal for each item group, and the gross sum (Total Bid). In the case of discrepancy between the gross sum shown on the bid and that obtained by adding the products of the quantities of work and the unit prices, the bidder agrees that the unit prices shall govern, and any errors found in said products and gross sum may be corrected by the County. Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature. Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature. The bid shall also satisfy all of the following requirements:
- Bid Forms must be completed in ink or by typed font. Corrections shall be crossed out and initialed in ink
 - 3 (Three) copies of the entire bid document shall be included with the submittal. Only one required to be original ink.
 - Bids submitted in person shall be enclosed in an opaque, sealed envelope, and the Project Title, Project Number, Name and address of the bidder, and a contact name and phone number, shall be noted on the outside of the envelope. The bid shall be delivered to the office of the County Clerk, 725 Maple Street, Hillsboro, MO 63050. Bids submitted by mail or delivery system shall include all of the aforementioned notation, with the sealed envelope placed within an outer envelope for mailing. The outer envelope shall have the notation "BID ENCLOSED". Bids must be stamped as received by the county clerk's office prior to the deadline stated in the Bid Notice, or as noted in any addenda that modifies the bid submittal deadline.
 - The bid shall contain an acknowledgment of receipt of all or no Addenda (shall be completed on the Bid Form).
 - The address, phone number, and email, to which communications regarding the Bid are to be directed, must be shown.
 - Failure to submit the following required documents prior to the bid opening will make the bid nonresponsive and not eligible for award consideration:
 - Complete and Submit Plan Holder's List Form prior to bid submittal (email before bid opening)
 - Bid Submittal Cover Sheet with bidder's name printed or typed
 - Instructions and Notices to Contractors initialed on each page, all spaces filled, signed.
 - Balanced Bid Form, complete, signed, and embossed (if corporation), **addenda acknowledged and 1st sheet attached.**
 - Bid Guaranty/Bid Bond (Assurance Company's form is valid to substitute to generic form herein)
 - Bidder's Acknowledgement completed and signed
 - Affidavit of Federal Employment Authorization (Annual Worker Eligibility Verification Affidavit)
 - Enclose Certificate of Insurance

The County does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

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:

BIDDER'S INITIALS INDICATING UNDERSTANDING AND ACCEPTANCE _____

BID FORM

TO: JEFFERSON COUNTY, MISSOURI
BID FOR: HEADS CREEK ROAD STRUCTURE REPLACEMENT
PROJECT NO. : PW19135BXC

1. The undersigned BIDDER proposes and agrees, if this BID is accepted, to enter into an Agreement with the County in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.
2. BIDDER accepts all of the terms and conditions of the Instructions to Bidders. This Bid will remain open for sixty days after the day of Bid opening. BIDDER will sign the Agreement and submit all documents required within fifteen (15) days after the COUNTY'S Notice of Award.
3. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:
 - (a) BIDDER has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules, and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as BIDDER deems necessary; and
 - (b) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or a corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for himself any advantage over any other Bidder or over the County.
4. Bidder will complete the project for the following unit prices. It is understood that the quantities given for the following bid items are not guaranteed by the Jefferson County Public Works Department and are used solely for the purpose of comparing bids and awarding the contract, and may or may not represent the actual quantities encountered on the job, and that the sum of quantities listed below, multiplied by the unit price shall constitute the gross sum bid.

Bidder will complete the project for the following unit prices. It is understood that the quantities given for the following bid items are not guaranteed by the Jefferson County Public Works Department and are used solely for the purpose of comparing bids and awarding the contract, and may or may not represent the actual quantities encountered on the job, and that the sum of quantities listed below, multiplied by the unit price shall constitute the gross sum bid.

(Enter Unit Prices Beginning on Next Sheet)

BID ITEMS:**HEADS CREEK STRUCTURE REPLACEMENT - PW19135BXC****ROADWAY ITEMS:**

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
2013000	Clearing and Grubbing	AC	0.5		
2022010	Removal of Improvements	LS	1		
2022019	Sawcutting	LF	47		
2035000	Unclassified Excavation	CY	454		
2035500	Embankment in Place	CY	110		
2036000	Compacting Embankment	CY	110		
3040504	Type 5 Aggregate for Base (4"Thick) (Roadway)	SY	191		
3040514	Type 5 Aggregate for Base (14" Thick) (Shoulders)	SY	44		
4011209	Bituminous Pavement Mixture PG64-22, (BP-1) (Roadway & Shoulders)	TON	30.6		
4013000	Bituminous Pavement Mixture PG64-22, (Base) (Roadway & Shoulders)	TON	123.6		
4071005	Tack Coat	Gal	10		
6061060	MGS Guardrail	LF	75		
6063015	Crashworthy End Terminal (50' System Length)	EA	2		
6066610	End Anchor (End Shoe Guardrail) (12.5' System Length)	EA	2		
JSP 1	Furnishing Rock Backfill, R18	CY	153		
JSP 2	Placing Rock Backfill, R18	CY	153		
JSP 3	Furnishing Rock Boulders, B36 (30"-42")	CY	703		
JSP 4	Placing Rock Boulders, B36 (30"-42")	CY	703		
JSP 5	12" Flexible Storm Pipe & Banding	LF	20		
6161097	Traffic Control (All Inclusive)	LS	1		
6181000	Mobilization	LS	1		
6274000	Contractor Furnished Surveying and Staking (MoDOT Spec.)	LS	1		
8051000A	Seeding & Mulching	AC	0.2		
8061019	Silt Fence	LF	371		
8065599	SWPPP Design, Installation, Maintenance, & Removal	LS	1		
8080099	Restoration	LS	1		
ROADWAY ITEMS				=	

BRIDGE ITEMS:

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
2063300	Class 4 Excavation	CY	350		
2064099	Granular Backfill	CY	61		
2160500	Removal of Bridges	LS	1		
7034009	Class B-1 Concrete (Retaining Walls)	CY	28.1		
7034040	Class B-1 Concrete (Culverts-Bridge)	CY	131.4		
7061020	Reinforcing Steel (Culverts-Bridge)	LBS	12430		
7061040	Reinforcing Steel (Retaining Walls)	LBS	5520		
7101000	Reinforcing Steel (Epoxy Coated)	LBS	8830		
7133000	Bridge Guardrail (W-Beam)	EA	40		
BRIDGE ITEMS				=	

NOTICE TO BIDDER- Bidders must complete the submitted section in its entirety.

5. BIDDER agrees that the work will be completed within **40 Working Days** or the CONTRACTOR shall pay the COUNTY, not as a penalty but as **liquidated damages**, a sum equal to **FIVE HUNDRED USD \$ 500.00** for each day, as defined by Sec 108 of the **2018** Edition of the "Missouri Standard Specifications for Highway Construction", elapsing between the expiration of such time limit plus such extensions as may be necessary to cover contingencies beyond the CONTRACTOR'S control and the date of the full completion.
6. The County reserves the right to negotiate additional terms for the time of completion with the successful bidder.
7. The terms used in this Bid which are defined in the General Provisions of the Construction Contract included as part of the Contract Documents have the meanings assigned to them in the General Provisions.
8. BIDDER has examined copies of all the Contract Documents including but not limited to the Bidder's Checklist, Bid Notice, Instructions and Notices to Contractors, and the following Addenda, if applicable. Bidder must acknowledge all addenda to be considered responsive.

NO.	Date Released	Bidder's Initials	
1	/ /20		
2	/ /20		*Initial Above if No Addenda is Acknowledged
3	/ /20		
4	/ /20		

COMPLETE BID SUBMITTED on _____, 20____

By _____
(Corporation Name)

(State of Incorporation)

(dba Name if Applicable)

By _____
(Typed Name of Person Authorized to Sign)

x _____
(Signature of Authorized Person)

(Title)

(Affix Corporate Seal)

Attest _____
(Typed Name of Secretary)

x _____
(Signature of Secretary)

Business Address:

Business Phone: () - _____

BID BOND

Suitable bid security in the amount of:

(\$ _____) Dollars and equal to five (5%) percent as called for in the advertisement for bids which accompanies this proposal. This sum is to be forfeited to Jefferson County if the party or parties making the proposal fail to enter into a contract with the approved securities within fifteen (15) days after the Notice of Award has been made. The undersigned has examined the Plans and Specifications for the work to be done and has satisfied himself as to the work to be done and the conditions under which it must be carried out.

The Contractor shall commence work within three (3) days after the date of a written Notice to Proceed from the County and shall fully complete all work under this proposal within the scheduled time established by the Contract Documents. This proposal shall be equally binding to all heirs, administrators, executors, successors and assigns.

FIRM NAME _____

BY _____

TITLE _____

ATTEST _____

TITLE _____

ADDRESS _____

TELEPHONE _____

BIDDER'S ACKNOWLEDGMENT

(Complete and fill out all parts applicable, and strike out all parts not applicable)

STATE OF _____)
) SS.
COUNTY OF _____)

On this _____ day of _____ 20____, before me appeared _____ to me personally known, who, being by me first duly sworn, did say that he executed the foregoing Proposal with full knowledge and understanding of all its terms and provisions and of the plans and specifications; that the correct legal name and address of the Bidder (including those of all partners or joint ventures) is fully and correctly set out above; that all statements made therein by or for the Bidder are true; and

(if a sole individual) acknowledged that he executed the same as his free act and deed.

(if a partnership or joint venture) acknowledged that he executed the same, with written authority from, and as the free act and deed of, all said partners or joint venturers.

(if a corporation) that he is the _____
(President or other agent)

Of _____; that the above Proposal was signed and sealed in behalf of said corporation by authority of its board of directors, and he acknowledged said proposal 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____

ANNUAL WORKER ELIGIBILITY VERIFICATION AFFIDAVIT

(for joint ventures, a separate affidavit is required for each business entity)

STATE OF _____)
) ss

COUNTY OF _____)

On the ____ day of _____, 20____, before me appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be a person whose name is subscribed to this affidavit, who being by me duly sworn, stated as follows:

• I, the Affiant, am of sound mind, capable of making this affidavit, and personally certify the facts herein stated, as required by Section 285.530, RSMo, to enter into any contract agreement with the state to perform any job, task, employment, labor, personal services, or any other activity for which compensation is provided, expected, or due, including but not limited to all activities conducted by business entities.

• I, the Affiant, am the _____ of _____, and I am duly authorized, directed, and/or empowered to act officially and properly on behalf of this business entity.

• I, the Affiant, hereby affirm and warrant that the aforementioned business entity is enrolled in a federal work authorization program operated by the United States Department of Homeland Security, and the aforementioned business entity shall participate in said program to verify the employment eligibility of newly hired employees working in connection with any services contracted by the Jefferson County. I have attached documentation to this affidavit to evidence enrollment/participation by the aforementioned business entity in a federal work authorization program, as required by Section 285.530, RSMo.

• I, the Affiant, also hereby affirm and warrant that the aforementioned business entity does not and shall not knowingly employ, in connection with any services contracted by Jefferson County, any alien who does not have the legal right or authorization under federal law to work in the United States, as defined in 8 U.S.C. § 1324a(h)(3).

• I, the Affiant, am aware and recognize that, unless certain contract and affidavit conditions are satisfied pursuant to Section 285.530, RSMo, the aforementioned business entity may be held liable under Sections 285.525 through 285.550, RSMo, for subcontractors that knowingly employ or continue to employ any unauthorized alien to work within the state of Missouri.

• I, the Affiant, acknowledge that I am signing this affidavit as a free act and deed of the aforementioned business entity and not under duress.

Affiant Signature

Subscribed and sworn to before me in _____, _____, the day and year first above-written.
city (or county) state

Public Notary

My commission expires:

[documentation of enrollment/participation in a federal work authorization program attached]

AGREEMENT FORM

THIS AGREEMENT is dated as of _____, in the year ____ by and between JEFFERSON COUNTY, MISSOURI (hereinafter called _____ OWNER OR COUNTY) and _____ (hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth and in the amount of _____, agree as follows:

ARTICLE 1. WORK

CONTRACTOR shall complete all work as specified or indicated in the Contract Documents for the **HEADS CREEK ROAD STRUCTURE REPLACEMENT**, Project No. **PW19135BXC**

The proposed work includes:

The proposed work includes: Removal and replacement of existing structure and approach pavement on Heads Creek Road. The work in general will consist of the installation of a new concrete box culvert, bituminous pavement installation, guardrail installation, stream bank stabilization, and rock blanket installation. The total length of the project is approximately 140 feet (0.02 miles).

ARTICLE 2. ENGINEER

The County has designated the Director of Public Works, who is hereinafter called ENGINEER and who has the authority assigned to OWNER in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 3. CONTRACT TIME

3.1 The work will be completed and ready for final payment in accordance with Section 30 of the General Provisions within **40 Working Days** after the date when the Contract Time commences running. Allowances will be made for weather conditions and other occurrences beyond the control of the CONTRACTOR.

If the CONTRACTOR is unable to begin work as required, the ENGINEER shall be notified in writing. Unless the ENGINEER gives written approval for a delay in beginning the work, calendar days will begin to be counted for liquidated damages. The count will continue until the CONTRACTOR begins full operation. The count will resume when work is suspended, or full operation is not maintained.

3.2 Liquidated Damages. The Contractor agrees that should he fail to complete work in the time specified or such additional time as may be allowed by the Engineer under this contract, the Contractor shall pay the County, not as a penalty but as **liquidated damages**, a sum equal to **FIVE HUNDRED USD (\$ 500.00)** for each day, as defined by Section 108 of the **2018** Edition of the "Missouri Standard Specifications for Highway Construction", elapsing between the expiration of such time limit plus such extensions as may be necessary to cover contingencies beyond the CONTRACTOR'S control and the date of the full completion.

ARTICLE 4. CONTRACT PRICE

4.1 Owner shall pay Contractor for performance of the work in accordance with the contract documents in current funds

BID ITEMS:**HEADS CREEK STRUCTURE REPLACEMENT - PW19135BXC****ROADWAY ITEMS:**

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
2013000	Clearing and Grubbing	AC	0.5		
2022010	Removal of Improvements	LS	1		
2022019	Sawcutting	LF	47		
2035000	Unclassified Excavation	CY	454		
2035500	Embankment in Place	CY	110		
2036000	Compacting Embankment	CY	110		
3040504	Type 5 Aggregate for Base (4"Thick) (Roadway)	SY	191		
3040514	Type 5 Aggregate for Base (14" Thick) (Shoulders)	SY	44		
4011209	Bituminous Pavement Mixture PG64-22, (BP-1) (Roadway & Shoulders)	TON	30.6		
4013000	Bituminous Pavement Mixture PG64-22, (Base) (Roadway & Shoulders)	TON	123.6		
4071005	Tack Coat	Gal	10		
6061060	MGS Guardrail	LF	75		
6063015	Crashworthy End Terminal (50' System Length)	EA	2		
6066610	End Anchor (End Shoe Guardrail) (12.5' System Length)	EA	2		
JSP 1	Furnishing Rock Backfill, R18	CY	153		
JSP 2	Placing Rock Backfill, R18	CY	153		
JSP 3	Furnishing Rock Boulders, B36 (30"-42")	CY	703		
JSP 4	Placing Rock Boulders, B36 (30"-42")	CY	703		
JSP 5	12" Flexible Storm Pipe & Banding	LF	20		
6161097	Traffic Control (All Inclusive)	LS	1		
6181000	Mobilization	LS	1		
6274000	Contractor Furnished Surveying and Staking (MoDOT Spec.)	LS	1		
8051000A	Seeding & Mulching	AC	0.2		
8061019	Silt Fence	LF	371		
8065599	SWPPP Design, Installation, Maintenance, & Removal	LS	1		
8080099	Restoration	LS	1		
ROADWAY ITEMS				=	

BRIDGE ITEMS:

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
2063300	Class 4 Excavation	CY	350		
2064099	Granular Backfill	CY	61		
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7034040	Class B-1 Concrete (Culverts-Bridge)	CY	131.4		
7061020	Reinforcing Steel (Culverts-Bridge)	LBS	12430		
7061040	Reinforcing Steel (Retaining Walls)	LBS	5520		
7101000	Reinforcing Steel (Epoxy Coated)	LBS	8830		
7133000	Bridge Guardrail (W-Beam)	EA	40		
BRIDGE ITEMS				=	

ARTICLE 5. PAYMENT PROCEDURES

Contractor shall submit Application for Payment in accordance with Section 32 of the General Provisions. The Engineer, as provided in the General Provisions, will process the application for Payment.

5.1 Progress Payment. Owner will make progress payments per the Contract Bid Price on the basis of the Contractor's Application for Payment as recommended by the Engineer, on or about the First day of each month during the construction as provided below. All progress payments will be on the basis of the Work measured on the job site according to unit of measurement as shown within the job special provisions or Missouri Standard Specifications.

5.1.1 The Engineer may initiate withholding of retainage as provided by Section 109.9 of the Missouri Standard Specifications for Highway Construction. The release of any retained percentage shall be as provided by Section 109.9.

5.1.2 When the Contractor receives any payment from the Engineer, the Contractor shall make prompt payment to subcontractors and suppliers as provided by Section 109.13 of the Missouri Standard Specifications for Highway Construction.

5.2 Final Payment. Upon final completion and acceptance of the Work in accordance with Section 33 of the General Provisions, Owner shall pay the remainder of the Contract Price as recommended by the ENGINEER.

ARTICLE 6. CONTRACTOR'S REPRESENTATIONS

In order to induce the County to enter into this Agreement CONTRACTOR makes the following representations:

6.1 CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and federal laws, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.

6.2 CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site of otherwise affecting cost, progress or performance of the Work which were relied upon by the ENGINEER in the preparation of the Drawings and Specifications. When the information is available it will either be included in the bid documents or made available at the Jefferson County Public Works Department for the Contractor's review.

6.3 CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data in addition to those referred to in Article 9 as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract documents; and no additional examinations, investigations, tests, reports or similar data will be required by CONTRACTOR for such purposes.

6.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.

6.5 CONTRACTOR has given ENGINEER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

ARTICLE 7. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR are attached to this Agreement, made a part hereof and consists of the following:

- 7.1 This Agreement
- 7.2 Exhibits to this Agreement (if any)
- 7.3 Contract Performance and Payment and Materials Bonds, consisting of 3 pages.
- 7.4 Notice of Award
- 7.5 General Provisions (Pages GP-1 to GP-11, inclusive).
- 7.6 Specifications bearing the title PROJECT SPECIFICATIONS FOR:
HEADS CREEK ROAD STRUCTURE REPLACEMENT, Project No.: **PW19135BXC**
and consisting of all pages as listed in the table of contents thereof.
- 7.7 Addenda numbers ___ to ___ , inclusive.
- 7.8 CONTRACTOR'S Bid and all attachments
- 7.9 Documentation submitted by CONTRACTOR prior to Notice of Award
- 7.10 Any Modification, including Change Orders, duly delivered after execution of the agreement.

There are no Contract Documents other than those listed above in this Article 7. The Contract Documents may only be altered, amended or repealed by a Modification (as defined in Section 35 of the General Provisions).

ARTICLE 8. MISCELLANEOUS

- 8.1 Terms used in this Agreement which are defined in Section 1 of the General Provisions shall have the meanings indicated in the General Provisions.
- 8.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 8.3 The County and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

ARTICLE 9. OTHER PROVISIONS

- 9.1 Access to records. In connection with this Contract, the County shall have access to any books, documents, papers, and records of the CONTRACTOR, which are directly pertinent to this project for the purpose of making an audit, examination, excerpts, and transcriptions.
- 9.2 Applicable Laws and Regulations. The CONTRACTOR expressly agrees to comply with all applicable rules and regulations as set forth in the Contract Documents or as may be required by law, and further agrees to submit all certifications, notices, and affirmative action plans as may now or hereafter be required, and to place such conditions and provisions in any and all subcontracts as may be required.
- 9.3 Conflict of Interest. The CONTRACTOR covenants that he or she presently has no interest of any kind and shall not acquire any type of interest, direct or indirect, in the program or any property therein, which would conflict in any manner or degree with the performance of his or her services and obligation hereunder. The CONTRACTOR further covenants that in the performance of this contract, no person known to have any conflicting interest shall be knowingly employed in the performance of this Contract.

ARTICLE 10. VENUE

- 10.1 It is agreed by the parties that any action at law, suit in equity, or other judicial proceeding to enforce or construe this Agreement, or regarding its alleged breach, shall be instituted only in the Circuit Court of Jefferson County, Missouri.

(THIS SPACE INTENTIONALLY LEFT BLANK)

IN WITNESS WHEREOF, the parties hereto have signed this agreement in quadruplicate. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by ENGINEER on their behalf.

FOR: JEFFERSON COUNTY, MISSOURI

BY: _____ Date: _____
COUNTY EXECUTIVE

ATTEST: _____
COUNTY CLERK DEPUTY CLERK

FOR: _____

BY: _____ Date: _____
CONTRACTOR

ATTEST: _____

I hereby certify under section 50.660 RSMo there is either: (1) a balance of funds, otherwise unencumbered, to the credit of the appropriation to which the obligation contained herein is chargeable, and a cash balance otherwise unencumbered, in the treasury, to the credit of the funds from which payment is to be made, each sufficient to meet the obligation contained herein; or (2) bonds or taxes have been authorized by vote of the people and there is a sufficient unencumbered amount of the bonds yet to be sold or of the taxes levied and yet to be collected to meet the obligation in case there is not a sufficient unencumbered cash balance in the treasury.

COUNTY AUDITOR

APPROVED AS TO FORM

CARL W YATES III
COUNTY COUNSELOR

CONTRACT PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the Undersigned _____

of _____
(firm)

*a (corporation) duly authorized by law to do business as a construction contractor in the
(partnership)

State of _____ (hereinafter called the "Contractor"), and _____

_____ (hereinafter called the "Surety"), a corporation duly

authorized to do a Surety business under the laws of the State of Missouri, are held firmly bound

unto Jefferson County, (hereinafter called the "County"), in the penal sum of _____

Dollars (\$ _____), lawful money of the United States, for the payment of which to be made

unto said County; we bind ourselves, our heirs, executors, administrators, successors and assigns,

jointly and severally, firmly by these presents as follows:

The conditions of this obligation are such that, whereas on the ____ day
of _____, 20____, the said Principal entered into a written Agreement, which
Agreement is hereby made a part hereof, with the said County for the construction of

_____.

NOW, THEREFORE, if the said Principal shall faithfully and properly perform the
foregoing Contract according to all the terms thereof, and shall, as soon as the work
contemplated by said contract is completed, pay to the proper parties all amounts due for all
labor and material required by this contract in the construction work, and all insurance
premiums for both compensation and all other kinds of insurance on said work, and for
all labor performed in such work whether by a subcontractor or otherwise, then this obligation
shall be void, otherwise it shall remain in full force and effect, and may be sued on for the

use and benefit by any person furnishing material or performing labor, either as an individual or as a subcontractor, for any contractor in the name of said County.

Every Surety on this bond shall be deemed held, any contract to the contrary notwithstanding, to consent without notice.

- a) To the extension of time to the Contractor in which to perform the contract.
- b) To changes in the plans, specifications, the amount of work or contract.

IN TESTIMONY WHEREOF, the Parties hereunto have caused the execution hereof in _____ original counterparts as of the _____ day of _____, 20____.

(SEAL)

Attest:

_____ By _____

(SEAL)

Attest:

_____ By _____

PAYMENT AND MATERIALS BOND

KNOW ALL MEN BY THESE PRESENT, that we, _____
Principal and Address

_____, as Principal, and _____,
Surety and Address

as Surety, are held and firmly bound unto Jefferson County, Missouri, hereinafter called Obligee,
in the amount of \$_____, for the payment of which we jointly and severally bind ourselves,
our heirs, executors, administrators, successors, trustees, and assigns firmly by these presents.

WHEREAS, the Principal has entered into a contract with Obligee for
_____; and
describe briefly

WHEREAS, the Obligee requires that the Principal enter into a surety bond satisfying the terms of
Section 107.170 R.S.Mo.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such, that if the Principal shall pay,
or cause to be paid in full, the claims of all persons performing labor upon, or furnishing materials to
be used in, or furnishing appliances, equipment or power contributing to such work under said
contract, then this obligation shall be void; otherwise to remain in full force and effect. The total
amount of surety's liability under this bond shall in no event exceed the amount hereof, and in no event
shall the undertaking hereby be construed to impose liability on the surety beyond that
required by the terms of Section 107.170 R.S.Mo.

Signed and sealed this _____ day of _____, 20____.

PRINCIPAL

By _____

SURETY

By _____

(ACKNOWLEDGMENT FOR PRINCIPAL)
(ACKNOWLEDGMENT AND POWER OF ATTORNEY FOR SURETY)

GENERAL PROVISIONS

- 1) **DEFINITIONS:** The following terms as used in these Contract Documents are respectively defined as follows:
- a) “Owner” - A person, firm, corporation, municipality or Government agency, by which the Contract will be awarded. Where ever the Owner is specified, it shall also be construed to mean his authorized representative.
 - b) “Engineer” – County Engineer, Director of Public Works, or any appointed Project Manager.
 - c) “Consultant” - The Engineering firm responsible for the preparation of construction plans.
 - d) “Contractor” - The person, firm, or corporation to whom the contract is awarded.
 - e) “Subcontractor” - A person, firm, or corporation, performing any part of the Contractor’s obligations hereunder at the site of work excluding, however, the furnishing of standard materials, such as cement, lumber, and other materials not worked to a special design under the plans and specifications for the work.
 - f) “Contract Documents” - The agreement subscribed by the parties, the Invitation to Bidders, Information for Bidders, the Proposal, and the Plans and Specifications.
 - g) “Work” - The furnishing of all labor, materials, equipment and other incidentals necessary or convenient to the successful completion and carrying out of all duties and obligations of the Contractor under the Contract Documents.
 - h) “Days” - Except where otherwise specifically provided in the Contract Documents, calendar days including Sundays and Holidays.
- 2) **NOTICE:** Unless otherwise specified herein, any notice required under the Contract Documents shall be deemed given if deposited in the United States mail, first class postage prepaid. Notice may also be given by hand delivery to the authorized representative
- 3) **INTENT OF THE CONTRACT DOCUMENTS:** The intention of the Contract Documents is to include in the contract price the cost of all labor and materials, water, fuel, tools, plant, equipment, light, transportation and all other expense as may be necessary for the proper execution of the work.

In interpreting the Contract Documents, words describing materials of work which have a well-known technical or trade meaning, unless otherwise specifically defined in the Contract Documents, shall be construed in accordance with such well-known meaning recognized by architects, engineers, and the trade.

The work shall be executed in strict conformity with the plans and specifications.

The Contract Documents are complementary and what is called for by any one shall be as binding as if called for by all. Anything stated in the specifications and not shown in the drawings, or shown in the drawings and not stated in the specifications, shall be of like effect as if shown or stated in both.

- 4) **PLANS / PROJECT SPECIFICATIONS:** Unless otherwise provided in the Contract Documents, the Plans, Project Specifications and subsequent addendums are available; free of charge, as a downloadable file from the Jefferson County website (<http://www.jeffcomo.org/PublicWorksProjects.aspx?nodeID=Purchasing>). The Contractor will be responsible for reproducing the plans necessary to carry out all the work.

In the case of discrepancy in the plans, the matter shall be immediately submitted to the Consultant or Owner without whose decision said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense.

- 5) **SUPERVISION AND PERSONNEL:** The Contractor shall have at the work site at all times a job supervisor. That individual shall be capable of reading and understanding the project plans and specifications, have authority to order materials and equipment and have authority to execute work as directed by the Owner. The Contractor shall provide the name and phone numbers of the person appointed as job supervisor prior to issuance of notice to proceed.

All workers shall have sufficient skill and experience to properly perform the work assigned to them. The owner may demand the dismissal of any person employed by the contractor in, about or upon the work who engages in misconduct, is incompetent or negligent in the due and proper performance of assigned duties, or who neglects or refuses to comply with any proper directions given. Such person shall not again be employed thereon without the written consent of the owner. Should the contractor continue to employ or re-employ any such person, the owner may suspend the work until the contractor complies with such orders.

- 6) **COMPLIANCE WITH LAWS:** The Contractor shall comply with all laws, ordinances, rules and regulations bearing in the conduct of the work and shall obtain, at his expense, all permits and licenses necessary for the prosecution of the work. Unless provided for in the contract, or granted a waiver, permits required from other departments of the county shall be obtained by the contractor.

The Contractor shall be responsible for the payment of all Federal, State, municipal or local taxes, including but not limited to sales and use taxes, applicable to the performance of the contract, and shall indemnify and hold harmless the Owner, from the consequences of his failure to pay such taxes. **Before award, the lowest bidder shall prove that delinquent property taxes are not owed to Jefferson County, MO, by submitting receipt of payment for last 3 years, or a notarized affidavit, on company letterhead, stating that the bidder does not own any real estate or personal property in Jefferson County.** Past receipts can be obtained from <http://jeffersonmo.devnetwedge.com>. The engineer may require proof that any or all tax liabilities of the contractor are not in a state of delinquency.

A sales tax exemption for construction materials is allowed by RSMo Section 144.062 RSMo, which applies to contractors for the County. If applicable to this contract, Jefferson County will issue an exemption certificate to the contractors, subcontractors, and suppliers for the purchase of materials used in construction.

- 7) **USE OF JOB SITE:** The Contractor shall confine his equipment, apparatus, the storage of materials and operations of his workmen to limits indicated by law, ordinance, permits, easements or plans and shall not encumber the premises with his materials. The Contractor shall not load or permit any part of any structure to be loaded to the extent that its safety may be endangered.
- 8) **SANITARY PROVISIONS:** The Contractor shall provide and maintain a neat, sanitary job site, and accommodations for the use of his employees as may be necessary to comply with the sanitary requirements of laws or ordinances.
- 9) **SURVEYS:** The Contractor shall provide all surveys necessary to the performance of his work. All work shall be done to the lines, grades, and elevations shown on the plans. Any improperly located items, horizontally or vertically, may be subject to removal and replacement at the Contractor's expense. The Owner or Consultant may, in his sole discretion, check from time to time the reference marks, lines, grades, and measurements established by the Contractor but his exercise or failure to exercise such right shall not relieve the Contractor of his obligation as stated herein.
- 10) **CONDITIONS AT THE SITE:** The Contractor shall make such investigations of conditions above or below the surface of the ground, as he may deem necessary for the proper and timely performance of his work, including but not limited to the making of borings. No oral representations by any persons respecting such conditions shall in any manner be binding upon the Owner or the Consultant.

The Owner may have, for its own use, made borings at or near the site of the work. The boring data, if collected, will be made available to the Contractor, for his own convenience, if he desires to examine it.

Any interpretations or conclusions drawn by the Contractor from such data shall be his own and the Owner makes no representation or guaranty concerning the accuracy or completeness of such data.

- 11) **UTILITIES AND OTHER OBSTRUCTIONS:** It shall be the sole responsibility of the Contractor in the performance of the contract to locate and avoid all utilities, other structures, and obstructions whether located below or above the surface of the ground. For that purpose, he shall employ all necessary precautions and methods to prevent damage to utilities, other structures, and obstructions. In the event such damage does occur, the Contractor shall be solely liable therefore and he shall notify the affected utility and Owner immediately, make or have made all necessary repairs and bear the expense thereof and all damage caused thereby.

If the Contractor finds he cannot safely work at a location designated in the plans and specifications, either because of utilities, other structures or obstructions that may be damaged, he shall notify the Owner immediately.

Certain information relating to piping and underground utilities and structures, such as gas mains, water mains, and electric duct lines, has been gathered by the Consultant for its purposes and has been shown on the plans for the convenience of the Contractor and for such use as he may, at his own risk, desire to make of it. Any interpretations or conclusions drawn by the Contractor from such data on the plans shall be his own and the Owner and the Consultant makes no representations or guaranty concerning the accuracy or completeness of such data.

- 12) **STRUCTURES ENCOUNTERED AND PROTECTION OF LIFE AND PROPERTY:** The Contractor shall, at his own expense, support and protect all buildings, bridges, conduits, wires, water pipes, sewers, pavements, curbing, sidewalks, equipment and fixtures of all kinds and all other public or private property that may be encountered or endangered in the execution of the work herein contemplated. He shall replace, repair or to otherwise make good any damage caused to any such property to the satisfaction of the Owner thereof. In the event the Contractor does not perform his obligations under this provision, the Owner reserves the right, at its election, to make good any damage to public or private property caused by the work of the Contractor and the cost thereof shall be borne by the Contractor. In the event the Contractor refuses or fails to pay bills therefore upon presentation, the Owner may pursue any remedies available to it or may deduct the amount thereof from any money that may be due to the Contractor hereunder from time to time.

Throughout the performance of the work, the Contractor shall construct and adequately maintain suitable and safe crossings over the trenches, and such detours as are necessary to care for the public and private traffic. The material excavated from trenches shall be deposited in such manner as shall give as little inconvenience as possible to the traveling public, to adjoining property owners, to other contractors or to the Owner.

All disturbed areas, material stockpiles, and equipment staging areas, shall be protected from erosion. All receiving streams and waterways shall be protected from siltation, pollutants, or any other material considered to be hazardous by any governmental regulator of streams and waterways. Crossings shall be installed for the passage of equipment across any stream or waterway, and allow free passage of water and aquatic life beneath the crossing. The crossing type shall be approved by the engineer prior to installation. Unless otherwise listed as a bid item or incidental to another bid item, the contractor shall satisfy this requirement at his own expense.

The Contractor at his own expense shall provide the necessary watchmen and sufficient warning lights and barricades and take such other precautions as are necessary to protect life and property. The Contractor shall provide watchmen or additional watchmen at any point where they may be requested by the proper official of any municipality or governmental body affected.

Nothing in this section shall be construed as requiring the Contractor to provide a road patrol.

- 13) **PROTECTION OF WORK:** The Contractor shall provide proper facilities, take all necessary precautions and assume the entire cost of protecting the work against adverse weather conditions and for handling all storm and flood water, sewage, seepage, ice or snow that may be encountered during the performance of the contract and the manner for providing for such contingencies and for carrying on the work in freezing weather shall meet with the approval of the Owner. If the Contractor shall fail to provide such protection or in the event of emergencies, the Owner may provide such protection at the Contractor's expense.

The contractor assumes all risk of damage to or destruction of the work covered by this contract until the work is completed and accepted by the Owner and shall repair or replace at his expense any work damaged or destroyed prior to such completion and acceptance regardless of cause.

- 14) **ACCIDENT PREVENTION:** Precaution shall be exercised at all times for the protection of persons (including employees) and property. The safety provisions of applicable laws and building and construction codes shall be observed. All persons on the site shall have completed, and have the ability to present proof of, a minimum of 10 hour OSHA construction safety training, or another comparable program. See General Provision 43
- 15) **BLASTING:** The Contractor shall comply with all Federal, State, County and municipal laws, rules, and regulations applicable to the transportation, storage or use of explosives. The Contractor shall assume all responsibility for any injury or damage that may be done during the transportation, storage or use of any explosives.
- 16) **OTHER CONTRACTS:** The Owner may award other contracts for additional work, and the Contractor shall fully cooperate with such other contractors, and carefully schedule and fit his own work to that work provided under the other contract. The Contractor shall not commit or permit any act, which will interfere with the performance of work by any other contractor. It shall be at the sole discretion, and not to be assumed as a guarantee to the contractor, for the engineer to determine if conflicting, overlapping, or neighboring activities, was the sole cause of an unintended delay in the contractor's work schedule.

- 17) **CUTTING AND PATCHING:** The Contractor shall do all cutting, fitting, or patching of his work that may be required to make its several parts connect with the work of other contractors shown upon, or reasonably implied by the plans and specifications. The Contractor shall not endanger any work by cutting, digging, or otherwise, and shall not cut or alter the work of any other contractor.
- 18) **CLEANING UP:** The Contractor shall at all times keep the premises free from accumulation of waste material of rubbish and at the completion of the work shall remove from and about the site all his rubbish, tools, equipment, scaffolding and surplus materials and shall leave his work clean and ready for use.
- 19) **SURVEILLANCE AND INSPECTION:** The Contractor shall provide safe, sufficient and proper facilities at all times for the surveillance of work by the Consultant, the Owner, or any other governmental agency that has the right of entry.

The Contractor shall, within 24 hours after receiving written notice from the Owner, proceed to remove all materials rejected by the Owner, whether worked or unworked, and take down all portions of the work, which shall be considered as unsound or improper, or in any way failing to conform to the plans and specifications.

Should it be considered necessary or advisable by the Owner at any time before acceptance of the entire work to make an examination of work already completed by removing or tearing out same, the Contractor shall, on written request, promptly furnish all necessary facilities, labor, and material for that purpose. If such work is found to be defective or nonconforming in any material respect, due to the fault of the Contractor or his subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, an equitable adjustment shall be made in the contract price to compensate the Contractor for the additional services involved in such examination and reconstruction and, if completion of the work has been delayed thereby, he shall, in addition, be granted a suitable extension of time.

Unless otherwise provided in this contract, acceptance by the Owner will be made as promptly as practicable after completion of all work required by this contract. Acceptance shall be final and conclusive except as regards latent defects, fraud, or gross mistakes as may amount to fraud, or as regards the Owner's rights under any warranty or guarantee. Acceptance by the Owner may be contingent upon the acceptance by other governmental bodies.

- 20) **MATERIALS AND WORKMANSHIP:** Unless otherwise stipulated in the specifications, all workmanship, equipment, materials and articles incorporated in the work covered by this contract are to be new and of the best grade of their respective kinds for the purpose. When required by the plans and specifications, the Contractor shall furnish the Owner or Consultant, for approval, certified copies of test results made of the materials or articles, which he contemplates incorporating in the work. Shop Drawings and/or samples of materials shall be submitted for approval when so directed. Machinery, equipment, materials and articles installed or used without such approval shall be at the risk of subsequent rejection. If not otherwise provided, material or work called for in this contract shall be furnished and performed in accordance with established practice and standards recognized by engineers and state transportation officials.
- 21) **COOPERATION WITH UTILITIES:** All utility facilities and appurtenances, within the project limits, shall be located, or relocated, by the utility owner, unless otherwise specified. Locations of these utilities will be provided by the utility owners, or their provided third party, and may not be exact, particularly with regard to underground installations. The contractor shall use the Missouri One-Call System to satisfy this requirement.

The contractor shall lead the efforts to coordinate with utility owners and the engineer in the location and relocation of utility facilities, to minimize effects of the contractor's work, interruption to utility service, or duplication of work by the utility owners. Facilities or appurtenances that are to remain in place during construction shall be accounted for, and protected by the contractor's work procedures.

In the event, utility services are interrupted, and as a result of damage within the project limits, the contractor shall notify the appropriate utility authorities immediately, and cooperate with the utility owners until service has been restored. Work shall not begin around fire hydrants until provisions for continued service have been made and approved by the local fire authority. When the failure of the owners of utility facilities to cooperate and coordinate their work with that of the contractor results in actual delay to the contractor in the overall completion of the contractor's work, such delay will be considered in the count of working days or date specified for completion as contractor's sole compensation from the County, provided the contractor notified the engineer in writing of the delay at the time the delay occurred.

The contractor shall use every precaution to prevent damage to all public and private utilities. Repairs to damaged utilities caused by negligent or wrongful acts or omissions on the part of the contractor shall be corrected at the

contractor's expense. Damaged facilities shall be restored to a condition similar or equal to that existing before the damage occurred. The utility will designate who shall repair the damaged facility and the contractor shall not make repairs without utility approval.

Should there be located, within the right of way any public or private utility, facilities that are to remain in place, and which will interfere with the contractor's proposed methods of operation, the contractor, in cooperation with the engineer, shall make all necessary arrangements with the owner for any temporary or permanent removal or relocation of such facilities desired for the contractor's convenience. Any cost involved shall be at the contractor's expense.

If utility facilities or appurtenances are found that are not noted in the contract documents and could not be discovered in accordance with [Sec 102.5 of the Missouri Standard Specifications](#), the engineer shall be notified in writing as soon as possible of the conflict and will determine whether relocation of the utility is necessary to accommodate construction. If relocation is necessary, the contractor will make the necessary arrangements with the utility owner. Compensation for the relocation of utilities will be worked out between the County and the utility owner prior to the relocation of any utility. No compensation will be provided to the contractor for coordinating the location and/or relocation of utilities.

- 22) **"OR EQUAL CLAUSE":** Whenever, in these specifications or in any of the Contract Documents, any article, appliance, device or material is designated by a manufacturer's or vendor's or proprietary or trade name and such words are not followed by the condition "or equal", it shall be deemed that the words "or equal" do follow such designation unless the text clearly requires a contrary interpretation. Any article or material equaling the standards fixed may be used in place of that specifically mentioned by the specifications, provided that the material proposed is first submitted to and approved by the Owner or Consultant. If by reason of the unavailability of material or equipment, a substitute item of material or equipment is approved by the Owner or Consultant, the Owner shall receive the benefit of any economy resulting from the substitution.
- 23) **SUBLETTING OR ASSIGNING THE CONTRACT:** The bidder is specifically advised that any person, firm, or another party, to whom it is proposed to award a subcontract under this contract, must be acceptable to the County. Second tier subcontracting will not be permitted on this project. It will be the responsibility of the Contractor to ensure that his subcontractors do not, in turn, subcontract any portion of the work.

The Contractor shall furnish to the County a signed copy of all subcontracts at or before the pre-construction meeting. This applies to Federal and local projects.

The Prime Contractor must be on MoDOT's approved Contractor Listing unless otherwise stipulated in the contract. The Prime Contractor must also perform with its own organization, contract work amounting to not less than 30% of the total original contract price. This applies to Federal and local projects.

- 24) **WARRANTIES AND GUARANTEES:** Clauses that require the contractor to guarantee materials and workmanship and otherwise maintain the work for a specified period after satisfactory completion and final acceptance will not be approved. This is not even permissible as a non-participating bid item.

Routine warranties or guarantees provided by a manufacturer are valid. Contractors' warranties or guarantees providing for satisfactory in-service operation of mechanical and electrical equipment and relates components for a period not to exceed six (6) months following project acceptance are permissible

- 25) **MATERIAL TESTING:** All project sampling and testing of materials shall be performed by the County or by a consultant employed by the County. The Contractor shall assure that representatives of the County, consultants employed by the County, or MoDOT, has the opportunity to sample and test materials used on this project. Acceptance testing specified to be conducted by LPA or Consultant hired by LPA. Inspector must be MoDOT Certified (EPG 136.11.17.1 and EPG 106.18). Costs associated with providing the sample materials shall be incidental to the cost of the project.
- 26) **TRAFFIC CONTROL:** All contractor operations, whether within the contract or incidental, shall adhere to the Federal Highway Administration's Manual On Uniform Traffic Control Devices (MUTCD 2009 including revision 1 and 2, May 2012). Unless otherwise listed as a bid item or incidental to another bid item, the contractor shall satisfy this requirement at his own expense.

- 27) **STORM WATER POLLUTION PREVENTION PLAN (SWPPP):** The County's Storm Water Pollution Prevention Plan shall be the "Erosion and Sediment Control/Stormwater Management Design Manual" Chapter 505, Jefferson County Code of Ordinances. The ordinance can be found at the web address <https://www.ecode360.com/JE3328>.

For projects without a drawing showing erosion and sediment control measures, the Engineer or his representative will direct what measures are to be used and where they will be placed. Any measures not covered by a pay item or not specifically addressed in the Plans or Specifications as incidental will be by negotiated price.

Concrete wash down pits shall be utilized for the washing of all concrete trucks. The pits shall be of adequate size to handle all wash down water. The pits shall be lined with a plastic liner (10 mil minimum) to prevent the seepage of the water into the adjoining ground. Berms may be necessary to prevent the migration of any splash water into the streams. The hardened waste from the wash down pits shall be removed and broken into pieces no larger than one cubic foot. The waste concrete pieces may be used as revetment, but will not be considered in measurement for payment. The cost of the wash down pits, berms, and disposal shall be incidental to the cost of the concrete.

Contractors shall provide the proper equipment, materials, and labor to perform dewatering measures for all drilling, saw cutting, or any other activity that can result in the creation of drilling "Slurry." Contractors shall submit a dewatering plan at the request of the engineer. Dewatering activity costs shall be incidental to other items in the contract.

Any spillage of hazardous waste shall be cleaned up by the Contractor at no additional cost to the Owner. Measures shall be taken to ensure that no hazardous waste reaches a stream or adjoining property.

Any fines assessed for not following the SWPPP will be the sole responsibility of the Contractor. If the Owner is fined by a State or Federal agency, liquidated damages in the amount of the fine will be charged to the Contractor by the Owner. Contractor agrees that it shall remit payment for said liquidated damages immediately upon request by Owner. Failure to do so may, at the Owner's option, be considered a breach of contract thereby entitling Owner to such other damages as may result. These damages shall be in addition to the liquidated damages described in this paragraph.

- 28) **SCHEDULE AND PROGRESS REPORTS:** The Contractor shall, within 15 calendar days after the date of notice to proceed, submit to the Owner a project work schedule, covering all major operations in the work, for the County's review and approval. At the request of the Owner, the diagram shall be updated for relevancy to actual progress.

- 29) **TIME OF COMPLETION AND LIQUIDATED DAMAGES:** The parties recognize that time is of the essence of this contract and, after the Contractor receives a notice to proceed from the Owner, the work to be performed hereunder shall be commenced and shall be completed within the respective number of days specified in the proposal.

If the Contractor fails to complete the work within the time specified, or any extension thereof granted hereunder, the Contractor should pay the Owner the sum specified in the Contract for each day, as defined by Sec 108 of the **2018** Edition of the "Missouri Standard Specifications for Highway Construction", the Contractor is in default. It is agreed that said daily sum is to be paid, not as a penalty, but as compensation to the Owner as liquidated damages for a loss which the Owner will suffer because of such default through increased administrative and engineering costs and other tangible and intangible costs. Such damages may be at the Owner's option, be deducted from any monies held by it which are payable to the Contractor.

The completion of the work included under this Contract is defined for purposes of determining liquidated damages, as that time when all of the structures and appurtenances have been completed and tested and are, in the opinion of the Owner, ready for continuous permanent use and occupancy for the purposes intended, which includes all grading, cleaning up, or other minor work which is required to provide a completed project in accordance with the plans and specifications. At the Owner's discretion, unreasonable response time in the preparation and submittal of any required paperwork may also justify charging of working days or liquidated damages compensation. The date that liquidated damages are no longer applicable shall be the date of final acceptance from the Owner to the Contractor.

- 30) **EXTENSION OF TIME:** The Contractor shall not be entitled to any extension of time for completion of the work as herein above specified unless a request for extension is submitted to the engineer within 10 days of the delay, and proves:

- a. That such delay arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, acts of public enemy, acts of Government in either its sovereign or contractual capacity, acts of another contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or delays

of subcontractors arising from such unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and such subcontractors; and

- b. That the Contractor cannot complete the work within the time specified solely by reason of such causes.

The engineer shall make a determination as soon as practicable after the Contractor's notice is received and shall decide the amount of additional time, if any, for completion of the work which conditions justify. Any time extensions will require the approval of the Missouri Highway and Transportation Department and the Federal Highway Administration, as well as the Owner.

- 31) **FORFEITURE OF CONTRACT:** Should the Contractor at any time refuse, neglect or fail to supply a sufficient number of properly skilled workmen or sufficient equipment or materials of the proper quality, or execute the work with diligence and in accordance with approved schedules, or fail in the performance of any of the covenants herein contained, the Owner may, after three days of written notice to the Contractor and his bonding company, provide any such labor, equipment or materials and deduct the cost thereof from any money then due or thereafter to become due to the Contractor under this contract.

Alternatively, the Owner, may after ten days' written notice to the Contractor and his bonding company, terminate the employment of the Contractor for said works and enter upon the premises and take possession of all materials, tools, and equipment thereon and finish or contract with others to finish the work. The Owner and such others may use such materials, tools, and equipment to finish the work. The Contractor shall not be entitled to rental or other compensation for the use of his construction tools and equipment, but shall only be entitled to the return thereof in the condition existing when possession was taken, ordinary wear and tear excepted. In case of such discontinuance of the employment of the Contractor, the Contractor shall not be entitled to receive any further payment under this Contract until the said work shall be wholly finished, at which time, if the unpaid balance of the amount to be paid under this contract shall exceed the expenses incurred by the Owner to the Contractor, but if such expenses shall exceed such unpaid balance, the Contractor shall pay the difference from money then due or thereafter to become due to the Contractor under this contract. The expense incurred by the Owner as here provided for finishing the work and its cost incurred through such default shall be certified by the Consultant, whose certificate thereof shall be conclusive and binding upon the parties. The remedies of the Owner under this Article are exclusive of and in addition to any other contained in this contract, the Contractor's bonds, or provided by law.

- 32) **PAYMENTS:** The Contractor, shall receive as full compensation for all accepted work hereunder, a sum equal to the value of the work done based on his proposal, attached hereto and made a part of this contract.

Payment shall be made to the contractor once per month, upon agreement and approval of the contractor submitted pay request. By the 15th calendar day of each month, the Contractor shall submit to the Owner, a pay estimate, in AIA standard format, showing the dollar amount requested for each line item represented in the contract. The engineer may request additional, or alternate invoicing requirements, depending on the structure of the original bid. The final payment shall be paid to the Contractor, subject to final acceptance of construction and approval of the final change order, within 30 days after completion and acceptance of the entire work herein be contracted for, and upon receipt by the County, and approval of, all final documentation. Final documentation shall include, but not be limited to:

- a. Affidavit, compliance with the prevailing wage law, see sample; form PW-4.
- b. Contractor's certification regarding the settlement of claims, see sample; Figure XI-8.
- c. Contractor's Final Pay Estimate.
- d. Letter from contractor stating the total amount paid (final contract amount) for completion of the project.
- e. Contractor's Final Lien Waiver and Final Lien Waivers from all subcontractors. The engineer may request proof of payment to material suppliers, and which point, the contractor shall provide this information.
- f. Any certified payroll forms that had not been previously submitted.
- g. Certifications for materials (where required per project documents or MoDOT standard specifications)

The engineer reserves the right to, at any time, enact payment retainage, up to 10% of each line item. Retainage shall be as stated in General Provision 35

- 33) **PAYMENTS NO EVIDENCE OF PERFORMANCE:** No certificate for payment made under this contract except the final certificate of final payment, shall be evidence of the performance of this contract, either wholly or in part. No Payment shall be construed to be an acceptance of defective work or improper materials.

- 34) **CHANGES:** The Owner and/or the Consultant shall have the right to make changes within the scope of the work or change the quantities of the work to be performed. No such change shall be valid unless made in writing by the Owner or Consultant, approved by the engineer, and adopted by the county council. In the event such changes cause an increase or decrease in the Contractor's cost, or time required for performance of the contract, the contract price and/or period of performance shall be equitably adjusted; provided, the increase or decrease in the amount of the work for which unit prices apply under the specifications shall be computed by multiplying the change in quantities (measured as provided in the contract documents) of such work by such contract prices.

In the absence of a bid price for a given item of work not provided for nor fairly included in the bid prices for other items of work, a written agreement may be made between the Owner and the Contractor to be included in the written order for such extra work. New items specifically covered under Section 109 of the Missouri Standard Specification for Highway Construction, 2016 shall be added to the contract as stated in those specifications. Incidental items, noted anywhere in the plans, specifications, or supplemental specifications, shall not be considered for additional compensation.

Whenever the Contractor and the Owner are unable to agree on prices for extra work and the Owner directly or acting through the Consultant orders the Contractor to proceed with the work by force account, the work will be paid for in the manner herein described and the compensation thus provided shall constitute full payment for said work. All additional work provided by force account shall be calculated and compensated per Section 109.5 of the Missouri Standard Specifications for Highway Construction, 2016.

- 35) **LIENS AND CLAIMS:** In addition to other remedies available the Owner hereunder, in all cases of non-payment by the Contractor or a subcontractor of any sums of money due for labor, materials, supplies, equipment or other items in performing in this contract, or if at any time there should be evidence of a lien or claim chargeable to the Contractor or a subcontractor for which, if established, the Owner might become liable, the Owner is hereby authorized and empowered to retain out of any payment then due or thereafter to become due to the Contractor, an amount sufficient to indemnify the Owner against any such lien or claim.

Alternatively, without limiting other remedies and rights of the Owner under the Contract, under the Contractor's bonds or under the law, the Owner may withhold, in addition to the 10 percent retention, a sufficient amount of payments otherwise due to the Contractor to cover payments that may be past due and payable by the Contractor or his subcontractors or suppliers for just claims for labor or materials furnished in and about the performance of the work under this contract and for failure of the Contractor to make proper payments to his subcontractors. The Owner shall disburse and shall have the right to act as agent for the Contractor in disbursing such funds as have been withheld pursuant to this paragraph to the party or parties who are entitled to payment there from. The Owner will render the Contractor a proper accounting of all such funds disbursed in behalf of the Contractor.

- 36) **RESPONSIBILITY:** Nothing in the Contract Documents shall be construed as placing the work under the specific direction or supervision of the Owner or the Consultant, or relieving the Contractor from his liability as an independent contractor and, as such, he shall perform his work, including, but not limited to, supervision and control of his own personnel and scheduling of the work as required to ensure its proper and timely performance, and he shall be solely responsible for the exercise of due care to prevent bodily injury and damage to property in the execution of the work. The Owner need not be present to witness installation of materials or performing of a service to deem the product or service unsatisfactory, and order the removal, replacement, installment, repetition, or depreciation of compensable value of the defective material or service.

37) **INDEMNIFICATIONS AND INSURANCE:**

Contractor's Responsibility for Claims for Damage or Injury: The Contractor and surety shall indemnify and save harmless the County, and its members, agents and employees from all claims or suits made or brought for personal injury, death or property damage, caused or contributed to be caused by:

- (a) The negligence of the contractor, subcontractors, suppliers or their respective officers, agents or employees;
- (b) The creation or maintenance of a dangerous condition of or on the County's property or right of way, which condition occurred at least in part due to the acts or omissions of the contractor, subcontractors, suppliers or their respective officers, agents or employees; or
- (c) The failure of the contractor, subcontractors, suppliers of their respective officers, agents or employees, to perform the work in accordance with the plans and specifications.

Neither the County nor the Contractor, by execution of a contract, shall intend to or create a new or enlarge an existing cause of action in any third party. This provision shall not be interpreted to create any new liability which does not exist under the

statutory limited waiver of sovereign immunity, or to waive or extinguish any defense which either party to this contract or their respective agents and employees may have to an action or suit by a third party.

Contractor's Responsibility for Work: Until the County accepts the work, it shall be in the custody and under the charge and care of the Contractor. The Contractor shall restore and replace, at the Contractor's expense, any lost or stolen County-owned material in the Contractor's custody or control. Damages to any portion of the work before its completion and acceptance, caused by the action of the elements or from any other reason, shall be restored or replaced at the Contractor's expense. Issuance of a payment estimate on any part of the work done will not be considered as final acceptance of any work completed up to that time. The County may, in its discretion, make such adjustments as it considers being proper for damage to the work due to unforeseeable causes beyond the control of, and without fault or negligence on the part of the Contractor.

Liability Insurance Requirements: The Contractor shall procure and maintain at its own expense, until acceptance of the project by the County, liability insurance for all damages and losses imposed by law and assumed under the contract, of the kinds and in the amounts specified in the relevant sections shown herein. Before the Contractor commences the work, the Contractor shall require the insurance company or companies to furnish to the County evidence of such insurance showing compliance with these specifications. All insurance required herein shall be occurrence policies in a form acceptable to the County, and shall remain in force until all work required to be performed under the terms of the contract is satisfactorily completed as evidenced by its formal acceptance by the County.

Each policy or its declaration pages shall provide that the policy shall not be materially changed or canceled until the County has been given at least 30 days advance notice in writing. If any policy is canceled before the contract work is complete, a satisfactory replacement policy must be in force, with notice and evidence of insurance submitted to the County, prior to the effective date of cancellation of the former policy. All evidence of insurance and notices shall be submitted to: Director of Public Works, Jefferson County Public Works Department, 725 Maple Street, PO Box 100, Hillsboro, Missouri 63050. **The Contractor shall furnish the County with a complete copy of the policy prior to the time the Contractor commences work on the site of the project.** Failure to furnish evidence of proper insurance, or complete insurance policies will result in temporary suspension of work and may result in other claims or actions for breach of contract or otherwise, as may be recognized at law or in equity.

Workers' Compensation Liability Insurance: The Contractor shall furnish evidence to the County that, with respect to the operations it performs, it carries workers' compensation insurance, or is qualified as self-insured, sufficient to comply with all its obligations under state laws relating to worker's compensation. The Contractor shall also require each subcontractor on the project to furnish the same evidence to the County. This evidence shall be furnished to and approved by the County prior to the time the Contractor or the subcontractor commences work on the site of the project. **Worker's Compensation Liability Insurance shall be submitted with the bid**

Commercial General Liability Insurance: The Contractor shall obtain one or more occurrence-based policies of commercial general liability insurance (Form CG 00 01 or equivalent), which provide coverage for the contract work. The minimum limits of liability for commercial general liability insurance shall be: \$1,000,000 each bodily injury or property damage occurrence, combined single limit, \$2,000,000 general aggregate with a per project endorsement and \$1,000,000 products/completed operations aggregate. Each such policy shall be endorsed so as to cover liability arising from blasting if applicable, other inherently dangerous activities and underground property damage. Each such policy shall be endorsed to include broad form general liability, contractual liability and completed operations coverage. **Commercial General Liability Insurance shall be submitted with the bid**

Commercial Auto Liability Insurance: The Contractor shall obtain one or more occurrence-based policies of auto liability insurance, which provide for its owned, non-owned and hired vehicles of every type and description, which are used in the contract work. The minimum limits of liability for such insurance shall be \$1,000,000 combined single limit. **Commercial Auto Liability Insurance shall be submitted with the bid**

Additional Insureds: Each such policy of commercial general liability insurance shall name the County of Jefferson and its employees as additional insureds. Each commercial general liability insurance policy shall also contain a separation of insureds condition. The insurance afforded by the Contractor shall be primary insurance.

Subcontractor's Coverage: If any part of the contract is subcontracted, each subcontractor, or the Contractor on behalf of the subcontractor, shall obtain the same commercial general liability insurance and commercial automobile liability insurance coverage. The commercial general liability insurance shall name the same entities specified above as additional

insureds, and shall have the same separation of insureds conditions.

Railroad Protective Liability Insurance: In addition to other required liability insurance, the Contractor shall provide railroad protective liability insurance if applicable, for and in behalf of the railroad as outlined in provisions for each project. The insurance policy shall be submitted to the County in original and duplicate for approval. No work will be permitted on the railroad right of way until such approval is granted.

Insurance with Other Than Missouri Companies: Any insurance policy required as specified above, if written by an insurance company organized in a state other than Missouri, shall be signed by an agent or broker licensed by the State of Missouri. In the case of policies written by companies organized in a state other than Missouri, the evidence of insurance submitted as authorized in the contract shall be signed by an agent or broker licensed by the State of Missouri. Nothing in this provision limits or waives the requirement that each insurance policy must be issued by a company authorized to issue such insurance in Missouri.

Third Party Liability: Neither the State of Missouri, the County of Jefferson nor the Contractor, by execution of the contract including these specifications, intend to create a right of action in a third party beneficiary except as specifically set out in these specifications and the contract. It is not intended by any required contractual liability in the contract or in these specifications that any third party beneficiary has a cause of action arising out of the condition of the project when completed in accordance with the plans and accepted by the County.

Personal Liability of Public Officials: There shall be no personal liability upon the County, or any member, employee or agent of the County in carrying out any of the provisions of the contract or in exercising any power or authority granted to them, it being understood that in such matters they act as agents and representatives of the County, with official and public duty doctrine immunity. If any provision of the contract appears to impose a duty on such an individual, the duty remains exclusively that of the County and is not a personal duty or obligation of the individual

Professional Liability Insurance: The Vendor/Contractor shall provide the County with proof of Professional Liability Insurance, which shall protect the County against any and all claims, which might arise as a result of the operation of the Vendor/Contractor in fulfilling the terms of this Contract during the life of the Contract. The minimum amounts of such insurance will be \$1,000,000.00. Should any work be subcontracted, these limits will also apply.

- 38) **BOND:** The Contractor at his expense shall, before commencing work hereunder, procure and deliver to the Owner a Performance Bond and a Labor and Materials Payment Bond in the amount of 100% of the contract as awarded, as security for the faithful performance of the contract and the payment of all obligations thereunder by the Contractor and his subcontractors. The Bonds shall be written in such form as may be satisfactory to the Owner and provided by a guaranty or surety company listed in the latest issue of U.S. Treasury Circular 570 and the penal sum shall be within the maximum specified for such company in said Circular 570. In substance, the condition of the obligation under said bond or bonds shall be as follows:

“The condition of this obligation is such that if the above bound Principal shall in all respects comply with the terms and conditions of said contract and his obligations thereunder, including the specifications and plans referred to therein, and such changes and alterations as may be made in said contract, specifications and plans and shall indemnify and save harmless the Owner against or from all costs, expenses, damages, injuries or losses to which the said Owner may be subjected by reason of any wrongdoing, misconduct, want of care or skill, negligence or default on the part of said Principal, his subcontractors, officers, agents or employees, in the execution of performance of said contract and shall promptly pay all just claims for damages for injury to property and for labor, equipment, materials and supplies incorporated in the work or consumed in the performance thereof incurred by said Principal, his subcontractors, officers, agents or employees, in or about the construction or improvement contracted for, then this obligation shall be void; otherwise, to remain in full force and virtue in law. The Surety hereby waives notice of any changes, alterations or modifications, including any extensions of the period of performance, in the contract, specifications and plans.”

If any surety upon any bond furnished in connection with this contract becomes unacceptable to the Owner, or if any such surety fails to furnish reports as to his financial condition from time to time as requested by the Owner, the Contractor shall promptly furnish such additional security as may be required from time to time to protect the interests of the Owner and of persons supplying labor or materials in the prosecution of the work contemplated by this contract.

- 39) **ROYALTIES AND PATENTS:** The Contractor shall indemnify, defend, and hold harmless, the Owner and Consultant from all liabilities, decrees, judgments, claims or disbursements, including attorney fees and/or damages and expenses which may come against or be incurred by the Owner or the Consultant by reason of the use of any patented material, machinery, devices, equipment or processes furnished or used in the performance of the work under this contract or the use by the Owner of the completed structure or by reason of the use of patented designs furnished by the Contractor and accepted by the Owner. In the event any claim, action at law or suit in equity of any kind whatsoever is made or brought against the Owner, the Owner shall have the right, without impairment of the foregoing indemnification, to retain from the money due and to become due said Contractor a sufficient amount of money to protect itself against loss
- 40) **CONFLICTS IN CONTRACT DOCUMENTS:** Where any provision of plans, specifications, or any other document referred to or incorporated into the Contract Documents is inconsistent or in conflict with the another provision of the Contract Documents, the order of governance shall be per the revised Section 105.4 of the Missouri Standard Specifications for Highway Construction, as stated in these General Provisions, Provision 44
- 41) **STANDARDS:** Where materials and methods are indicated in the specifications as being in conformance with a standard specification, references shall be to the most current available standard at time of the opening of bids.
- 42) **FEDERAL EMPLOYMENT AUTHORIZATION:** The Contractor shall comply with the requirements of the revised Statutes of the State of Missouri Chapter sections 285.525 to 285.555. If any part of the contract is subcontracted, each subcontractor shall comply with the same requirements of this specification.

No Contractor shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri. As a condition for the award of the contract the **Contractor shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services.** Every such Contractor shall also sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

A Contractor may enroll and participate in a federal work authorization program and shall verify the employment eligibility of every employee in the Contractor's hire whose employment commences after the Contractor enrolls in a federal work authorization program.

A general contractor or subcontractor of any tier shall not be liable under sections 285.525 to 285.550 when such general contractor or subcontractor contracts with its direct subcontractor who violates subsection 1 of this section, if the contract binding the contractor and subcontractor affirmatively states that the direct subcontractor is not knowingly in violation of subsection 1 of this section and shall not henceforth be in such violation and the contractor or subcontractor receives a sworn affidavit under the penalty of perjury attesting to the fact that the direct subcontractor's employees are lawfully present in the United States.

- 43) **OSHA TRAINING:** The Contractor shall comply with the requirements of the revised Statutes of the State of Missouri Chapter sections 292.675. If any part of the contract is subcontracted, each subcontractor shall comply with the same requirements of this specification.

Any Contractor signing a contract to work on the construction of public works for the Owner shall provide a ten-hour Occupational Safety and Health Administration (OSHA) construction safety program for their on-site employees which includes a course in construction safety and health approved by OSHA or a similar program approved by the department which is at least as stringent as an approved OS11A program. All employees are required to complete the program within sixty (60) days of beginning work on such construction project.

Any employee found on a worksite subject to this section without documentation of the successful completion of the course required under this section shall be afforded twenty (20) days to produce such documentation before being subject to removal from the project. The contractor shall forfeit as a penalty to the Owner two thousand five hundred dollars (\$2,500) plus one hundred dollars (\$100) for each employee employed by the contractor or subcontractor, for each calendar day, or portion thereof, such employee is employed without the required training. The penalty shall not begin to accrue until the time period in this section has elapsed.

The Owner shall withhold and retain all sums and amounts due and owing as a result of any violation of this section when making payments to the contractor under the contract. The contractor may withhold from any subcontractor, sufficient sums to cover any penalties the Owner has withheld from the contractor resulting from the subcontractor's failure to comply with the terms of this section. If the payment has been made to the subcontractor without withholding, the contractor may recover the amount of the penalty resulting from the fault of the subcontractor in an action maintained in the circuit court in the county in which the public works project is located from the subcontractor.

In determining whether a violation of this section has occurred, and whether the penalty of this section shall be imposed, the Department of Labor and Industrial Relations shall investigate any claim of violation. Upon completing such investigation, the Department shall notify the Owner and any party found to be in violation of this section of its findings and whether a penalty shall be assessed. Determinations under this section may be appealed in the circuit court in the county in which the public works project is located. The Department may establish rules and regulations for the purpose of implementing the provisions of this section.

REVISIONS TO MODOT STANDARD SPECIFICATIONS

Rev. 01/01/19

Modifications to the **2018** Missouri Standard Specifications for Highway Construction shall be as listed herein.

SECTION 102

BIDDING REQUIREMENTS AND CONDITIONS

All references to submitting electronic bids in Section 102 shall be deleted. Please refer to the “Bid Notice” for directions to submit bids on County projects.

Delete Section **102.3 Bidding** – in its entirety and replace it with the following:

102.3 Bidding Documents. Upon request, the County will furnish the bidding documents to the prospective bidder. These documents will generally be available on the County’s website for download and viewing. All prospective bidders must complete the registration form titled “PLAN HOLDER CONTACT INFORMATION” to be eligible to bid on the project and in order to receive updated notices. The documents will state the location, description and requirements of the contemplated construction and will show the estimate of the various quantities and kinds of work to be performed or material to be furnished, and will have a schedule of items for which unit bid prices are invited. The bidding documents will state the time in which the work shall be completed, the amount of the bid guaranty, and the date, time and place of the opening of bids.

102.3.1 All papers bound with or attached to or referenced in the bidding documents are considered a part thereof and must not be detached or altered when the bid is submitted.

102.3.2 If applicable, the prospective bidder will be required to pay the Commission the sum stated in the notice of bid opening for each copy of a project's bidding documents. The *Missouri Standard Specifications for Highway Construction*, *Missouri Standard Plans for Highway Construction*, including all revisions of these documents, and other items referenced in the bidding documents, whether attached or not, will be considered a part of the bid. A prospective bidder will be expected to separately purchase or have access to the current edition of the *Missouri Standard Specifications for Highway Construction* and the *Missouri Standard Plans for Highway Construction*, including all revisions of these documents.

102.3.3 It will be conclusively presumed that all of the bidding documents are in the bidder’s possession and that these documents have been reviewed and used by the bidder in the preparation of any bid submitted. The effective dates of the *General Provision & Supplemental Specifications* and the *Supplemental Plans for Highway Construction* will be specified in the contract documents. A copy of the latest version of these documents is available on MoDOT’s web site.

Delete Section **102.7 Preparation of Bidding Documents** – in its entirety and replace it with the following:

102.7 Preparation of Bidding Documents. All bids shall be properly signed, sealed and submitted in accordance with Sec 102.10. Each bidder shall specify in the bid, in figures, a unit price for each of the separate items listed in the bidding documents, except a unit price entry will not be necessary for those items having a quantity of one and only the amount for that item need be entered. Zero will be considered a valid bid. The bidder shall not enter zero in any "Unit Price" field unless zero is the intended bid for that item. A unit price left blank, with or without an extension, other than items having a quantity of one, will be considered as zero by the Commission. In case of alternate items, unit prices shall be entered for only one alternate, unless otherwise specified in the bidding documents. A unit price shall not exceed two decimal places. Bids shall not contain interlineations, alterations or erasures except as noted in Sec 102.7.1. The bidder shall show the products of the respective unit prices and quantities in the amount column provided for that purpose. The extension of each line item shall be rounded to the nearest second decimal place value, with half cents rounded up. These extensions shall be totaled and in case of errors or discrepancies in extensions, the unit prices shall govern. All entries in the bid shall be in ink or typewritten. If, in the sole discretion of the engineer, an obvious and apparent clerical error exists in the unit price listed for an item due to a misplaced decimal, but the extension appears to be correct and as intended in all respects, the engineer may correct the unit price bid in accordance with the extension listed. All errors in extensions or totals will be corrected by the engineer and such corrected extensions and totals will be used in comparing bids.

102.7.1 A bidder may alter or correct a unit price, lump sum bid or extension entered on the paper bid form or the computer-generated itemized paper bid form by crossing out the figure with ink and entering a new unit price, lump sum bid or extension above or below in ink, with the bidder's initials.

102.7.2 A bidder may submit a separate bid on any or all projects, except that bids shall be submitted for all projects in a required combination. Bidders not having the ability to simultaneously execute all contracts for bids submitted during a bid opening may state, in one of the bids, the maximum total value of contract awards the bidder is willing to accept for that bid opening. Only one statement of "Maximum Monetary Value of Awards Accepted this Bid Opening" shall be completed per bid opening. In the event a bidder submits multiple statements of maximum award, the lowest value stated will be used. The Commission reserves the right to select and award the combination of bids, not exceeding this maximum, that will be to the best interest of the County provided these bids are in conformance with the requests for bids. Any corrected bid that exceeds the lowest specified maximum award may be declared non-responsive.

102.7.3 The bid of an individual, including those doing business under a fictitious name, shall include the signature and address of the individual. The signature shall be exactly the same as that appearing on the contractor questionnaire.

102.7.4 The bid by a partnership or joint venture, including individuals doing business under fictitious names or corporations, shall be executed by at least one of the partners followed by the title "Partner" or one of the joint venturers followed by the title "Joint Venturer" and the business address of the partnership or joint venturer shown. The true legal name and address of each partner and joint venturer shall also be shown and shall appear exactly the same as that shown on the contractor questionnaire.

102.7.5 The bid by a corporation, whether acting alone or as a joint venturer, shall show the address and name of the corporation exactly as shown on the contractor questionnaire, and shall include the signature or digital ID and title of a person authorized by its board of directors to bind the corporation.

102.7.6 Each bidder shall submit with each bid a sworn statement, executed by or on behalf of the bidder to whom a contract may be awarded, certifying that the bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with the bid or any contract that may result from its acceptance.

102.7.7 A bid will not be accepted or considered if the bid is the product of collusion among bidders, if the bidder is disqualified or determined not responsible or if the bid is irregular in accordance with Sec 102.8.

Delete Section **102.9 Bid Guaranty** – in its entirety. (*See Section 11 of the "Instructions and Notices to Contractors" in the bid documents*)

Delete Section **102.10** in its entirety.

Delete Section **102.11** in its entirety.

SECTION 105

CONTROL OF WORK

Delete Section 105.1- Authority and Duties of Commission in Contract Administration - items (a) through (h) that pertain exclusively to MoDOT and not to the County of Jefferson.

Revise 105.4 - Coordination of Contract Documents. - such that the governing ranking will be as follows:

- | | |
|-----|--|
| (a) | Job Special Provisions |
| (b) | Project Specific Drawings |
| (c) | General Provisions |
| (d) | Revisions to MoDOT Standard Specifications |
| (e) | General Special Provisions |
| (f) | Supplemental Specifications |
| (g) | Standard Specifications |
| (h) | Standard Drawings |
| (i) | Bid Items or Quantities |

In case of discrepancies, calculated dimensions will govern over scaled dimensions.

SECTION 107
LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

If a Corps of Engineers 404 Permit or Department of Natural Resources Section 401 permit is applicable for a project, then the permit requirements and conditions will prevail over Section 107.10.

SECTION 109
MEASUREMENT AND PAYMENT

Delete Section 109.9.1.2 of Division 109.9 - Retained Percentage - in its entirety.

Delete Section 109.14 – Price Adjustment for Fuel - in its entirety.

SECTION 201
CLEARING AND GRUBBING

Add the following to Section 201.2.2.1 **Clearing**:

(e) All branches hanging lower than 18 feet above the finish roadway surface shall be removed over all lanes of traffic, including up to 3 feet outside the traveled edge of pavement.

SECTION 203
ROADWAY AND DRAINAGE EXCAVATION,
EMBANKMENT AND COMPACTION

Modify Section 203.3.1 of Section 203.3 – Borrow – as follows:

Replace the first sentence with the following: Borrow will consist of approved material required for the construction of embankment or for other portions of the work, and shall be obtained either from borrow areas shown on the plans, from areas designated by the engineer, or from other approved sources.

Modify Section 203.4 as follows:

Delete the reference in Section 203.4.1 that states, “Finishing by hand methods will not be required,...”: Replace with the following:

Hand raking or fine grading by mechanical means of the disturbed areas shall be required to remove debris and stones. The soil shall be tilled to a depth of 4” and graded to a reasonably smooth surface. All brush, weeds, excess mud and silt, or other debris shall be removed from culverts and channels within the scope of the work in accordance with Sec 104.11.2, even if such structures are used in place.

Replace Section 203.4.1.1 with the following:

Field Stone. Before final project acceptance, the removal and disposal requirements of all loose field stones shall be guided by the following table:

<u>Location - limits</u>	<u>Limits</u>	<u>Maximum Stone Size</u>
Residential and business where lawns are maintained	All disturbed areas	Relatively free of stones – ½” maximum
Foreslopes, roadside ditches and backslopes outside of maintained lawn areas	Right of way	1” maximum
Rock cut sections	All disturbed areas	As directed by the Engineer

SECTION 206
EXCAVATION FOR STRUCTURES

Replace Section 206.5.2 – with the following: “Final measurement of Class 3 Excavation for pipe culverts, utilities, retrofit pipe culverts, drop inlets or manholes will be made to reflect the actual computed quantity established from field measurements. The plan quantities were estimated based on the random boring data and visual observations of the adjacent existing ditch lines. The revision or correction will be computed and added to or deducted from the contract quantity. Measurement of Class 3 Excavation will be made to the nearest cubic yard for each structure of that volume of material actually removed from within the area bounded by vertical planes of 12 inch minimum to 18 inches maximum outside of the outer walls of the structure. The upper limits of the volume measured, will be the existing ground line, or the lower limits of the roadway excavation, whichever is lower. The lower limits of the volume measured will include excavation necessary for pipe bedding.

SECTION 304

BASES AND AGGREGATE SURFACES

Delete Section 304.3.5 - Substitutions for Aggregate Base - in its entirety.

Modify Section 304.5 – Method of Measurement – as follows:

Final measurement of the completed aggregate base course will be based on actual field measurements to the nearest square yard.

Replace Section 304.6 - Basis of Payment – with the following: “The accepted quantities of aggregate base course of the thickness and type specified will be paid for at the contract unit price for each of the pay items included in the contract. Payment will be considered full compensation for water used in performing this work.”

SECTION 401

PLANT MIX BITUMINOUS BASE AND PAVEMENT

Section 401.4 Job Mix Formula – The County may waive submission of representative mixture samples. The Contractor, at the time he submits his job mix formula, shall request in writing whether samples are required. The County will respond in writing and if samples are required, they shall be submitted within ten working days of receipt of the County’s letter.

Section 401.4.1 Mixture Design – Modify this paragraph as follows:

The mix design shall be submitted to the County for approval at least seven (7) days prior to mixture production. A mix design shall be submitted for all County projects. The composition of the mixture shall conform to the following limits by weight:

Total Mineral Aggregate	94.0-96.5 %
Asphalt Binder	3.5-6.0 %

Add the following item to Section 401.4.2 – Required Information:

(q) Unit weight of combined mixture.

Modify Section 401.4.3 Mixture Approval so that “Jefferson County” is substituted where it presently reads “Construction and Materials”.

Delete Section 401.5.2 Substitutions - in its entirety.

Delete Section 401.6 Field Laboratory – in its entirety.

Delete Section 401.7.1 and replace with the following:

401.7.1 Weather Limitations. Bituminous mixtures shall not be placed (1) when either the air temperature or the temperature of the surface on which the mixture is to be placed is below 40 F (5 C), (2) on any wet or frozen surface, or (3) when weather conditions prevent the proper handling or finishing of the mixture. Temperatures are to be obtained in accordance with MoDOT Test Method TM20.

If a rainfall event occurs (with rain duration lasting more than 5 min.) before 10am on any given workday, then paving operation shall be cancelled for the balance of that workday and the contractor is not charged for the workday. Once a rainfall event begins the contractor is to immediately shut down plant mix operation. No pavement materials will be accepted at the construction site until further notice from engineer. At the contractor's request, the engineer may waive these requirements on an individual basis.

401.7.5.1 Irregularities. Add a sentence preceding the sentence "The outside edge alignment shall be uniform" as follows: The outside edges of the pavement shall be constructed to an angle of approximately 45 degrees with the surface of the roadbed and rolled with a hand roller for a smooth appearance.

Replace Section 401.8 Quality Control with the following:

The Contractor shall maintain equipment and qualified personnel or retain the services of a qualified testing laboratory to perform QC field inspection, sampling and testing in accordance with applicable portions of Section 403. The testing service shall be a firm different than the one retained by the County for testing services on that project. The Contractor shall notify the Engineer at the preconstruction meeting who he intends to use for testing services, the name of a contact person and his or her telephone number. A proposed third party testing service for dispute resolution shall be included with the mix design submittal.

Replace the last sentence in Section 401.8.4 Pavement Testing with the following:

The Contractor shall restore the surface from which samples have been taken immediately with the mixture under production or with a non-shrink concrete grout. A cold patch mixture will not be acceptable.

Replace Section 401.13 Method of Measurement with the following:

Measurement will be in accordance with Sec 403.22 and as modified by the job special provisions.

SECTION 402

PLANT MIX BITUMINOUS SURFACE LEVELING

Delete Section 402.2.2 – in its entirety.

Add the following sentence to the beginning of Section 402.3 Composition of Mixture:

Mixture shall meet the requirements of the asphalt type specified in the contract and/or bidding documents.

Section 402.4 – Replace with the following:

402.4 Job Mix Formula. The mixture shall be in accordance with Sec 401.4 and shall conform to the following limits by weight:

Total Mineral Aggregate	92.0-96.5 %
Asphalt Binder	3.5-8.0 %

Delete Section 402.9 - in its entirety.

SECTION 403

ASPHALTIC CONCRETE PAVEMENT

Delete Section 403.4.1 – in its entirety.

Replace "Construction and Materials" in Section 403.4.3 with "the Engineer".

Section 403.6 – Delete the first sentence in its entirety. Revise the fourth sentence to read: "The gyratory compactor shall be one from MoDOT's Construction and Materials approved list."

Delete Section 403.10.2 Substitutions – in its entirety.

Section 403.11.1 Field Mix Redesign – Replace “Central Laboratory” with “Engineer”.

Section 403.11.1.1 Approval – replace “Construction and Materials” with “the Engineer”. Delete the second sentence in this section.

Modify the first sentence of 403.17.1 Quality Control Operations – to read “The Contractor shall maintain or retain equipment and qualified personnel to perform all QC field inspection, sampling and testing as required by this specification.” Add the following sentence: “The personnel, if from an independent testing laboratory, shall be different than the company retained by the County for QC purposes.”

Section 403.17.2 Bituminous Quality Control Plan – Change “Construction and Materials” to “the Engineer”.

Revise the last sentence of 403.22.4.2 Surface Restoration to read: “If bituminous construction has been completed, the surface from which samples have been taken shall be restored within 48 hours with an approved commercial mixture or with an approved non-shrink concrete grout. Cold mix is not an acceptable patch.

Delete Sections 403.23.5 through 403.23.7.3 inclusive.

SECTION 407

TACK COAT

Add Section 407.4.1.3 Weather Limitations. Tack coat shall not be applied when either the air temperature or the temperature of the surface to be tacked is below 40 F. Temperatures are to be obtained in accordance with MoDOT Test Method TM20.

SECTION 408

PRIME COAT

Add Section 408.4.1.1 Weather Limitations. Bituminous material shall not be applied (1) when either the air temperature or the temperature of the surface to be primed is below 60 F or (2) when weather conditions prevent the proper construction of the prime coat. Temperatures are to be obtained in accordance with MoDOT Test Method TM20.

SECTION 413

SURFACE TREATMENTS

Replace “Construction and Materials” in Section 413.30.3 with “the Engineer”.

Replace “Construction and Materials” in Section 413.30.3.1 with “the Engineer”.

Revise Section 413.30.6.1 as follows: **Quality Control Operations.** Quality control shall be conducted in accordance with Sec 403.17 as modified herein by the “**REVISIONS TO MODOT STANDARD SPECIFICATIONS**”, except as follows.

SECTION 501

CONCRETE

Section 501.3 Mix Design. – Change the last sentence to read:

“The Contractor may be required to submit representative samples of each ingredient to the Engineer for laboratory testing.”

Revise Section 501.8.2 (f), the fifth sentence, “The Engineer may allow the use of the test concrete for appropriate incidental construction”, shall be deleted. In its place add the following sentence – “Test concrete shall not be used in construction”.

Revise Section 501.8.10 to delete the Type 1 field laboratory at the proportioning plant.

SECTION 502

PORTLAND CEMENT CONCRETE BASE AND PAVEMENT

Delete Section 502.3.7 - in its entirety.

Revise the first sentence in Section 502.11.1 to read, "Prior to approval of concrete mix designs by the engineer, the contractor shall submit a QCP to the County."

Table I shall be revised so that "Percent of Contract Price" does not exceed 100.

Delete Sections 502.15.3 Width, 502.15.4 Pay Factors, and 502.15.8 PWL Determination Table in their entirety.

SECTION 601

FIELD LABORATORIES

Delete this Section in its entirety.

SECTION 603

WATER LINE INSTALLATION

Revise Section 603.2 - Material. To include the following sentence after the table:

Materials other than those shown may be specified by the Engineer and shall meet AWWA, ASTM, ANSI and NSF specifications.

Revise Section 603.3.4 - Abandoned Water Mains. To include the following at the end of this section:

8" and larger abandoned water mains remaining under the completed road and or shoulder shall be abandoned by grout filling the line. Grout shall consist of Mortar for Grout as specified in Section 1066. The cost of the grout, plugs, labor, fuel and equipment shall be included in the lump sum unit cost for "Removal of Improvements". Smaller watermain shall be abandoned as noted above by capping and covering the cap with concrete. PVC watermain may be capped with caps made of the same material, glued in place.

SECTION 605

UNDERDRAINAGE

Delete Sections 605.10.2.5 through 605.10.2.5.3 in their entirety. Video inspection of edge drains will not be required.

SECTION 622

PAVEMENT AND BRIDGE SURFACE REMOVAL AND TEXTURING

Revised Section 622.10.4 to read:

Final measurements of coldmilling of the type specified will be based on actual field measurements to the limits shown on the plans or as directed by the Engineer, and computed the nearest square yard. Revisions or corrections will be computed and added or deducted from the contract quantity.

SECTION 627

CONTRACTOR SURVEYING AND STAKING

Add the following to the end of Section 627.2.1:

In addition, the Contractor shall protect and carefully preserve all official survey monuments, property marks, section markers and Geological Survey Monuments, or other similar monuments. The Contractor shall notify the Engineer of the presence of any such survey or property monuments as soon as they are discovered.

Revised Section 627.2.3 to read:

The project will generally have set control points with known coordinates provided by the design consultant. The engineer will furnish all coordinate data to lay out the job and locate benchmarks as shown on the plans. Except as specified herein, the contractor shall provide all other staking, including but not limited to, centerline stakes, right of way stakes, additional lines, connections, ramps, slope stakes, grade stakes, construction benchmarks and reference stakes locating all drainage, roadway and bridge structures, and utilities necessary for the successful prosecution of the work. Centerline staking shall be done before construction begins and shall be established at all PIs, PCs, PTs and at 100 foot intervals within the proposed project limits, including any temporary transition lengths outside the projects limits. Right of way staking shall be a maximum of 200 feet apart on tangents, at angle changes in the right of way and a maximum of 50 feet apart in horizontal curves, on both sides of the road, at all parcel property lines, and shall be done at the initial start of the project to facilitate relocation of utilities. Right of way stakes shall indicate cuts and fills to final grade for help in determination of utility placement. The contractor shall maintain construction stakes for the duration of the project at no additional cost to the County. All alignment control established by the contractor shall be referenced, and a copy of the references shall be furnished to the engineer.

Revised Section 627.2.4 to read:

Any surveying or measurements necessary for computing pay quantities, except for earthwork pay items which quantities are based on cross sections measurements, will be performed by the engineer. The contractor shall notify the engineer at least two working days prior to disturbing any areas used to calculate pay items.

Earthwork pay items which quantities are based on cross section measurements shall have “before” and “after” cross sections performed by the contractor. The contractor shall notify the engineer prior to surveying the cross sections so that a field representative, designated by the engineer, can be present to witness and record and/or verify the readings. The contractor shall cooperate with the designated field representative in coordinating the surveying activities.

Add the following to the end of Section 627.2.1:

Should it be necessary to disturb any survey or property monument (grading, install structure), a Missouri Professional licensed surveyor shall witness and reference their location, and reset such monument after construction work is completed and before final acceptance of project. The cost to protect, preserve and provide any surveying work to reset survey or property monuments will not be paid for separately, but shall be considered as included in the cost of the project, and no additional compensation shall be allowed.

SECTION 703

CONCRETE MASONRY CONSTRUCTION

Add a sentence to the end of Section 703.3.8 -Surface Sealing for Concrete – that reads: “Surface sealing shall not be applied until after all defects in the bridge deck surface have been patched per the Engineer’s requirements.”

SECTION 706
REINFORCING STEEL FOR CONCRETE STRUCTURES

Delete the last sentence in Section 706.2.2 that allows flame cutting of uncoated reinforcement. Reinforcement shall be saw cut or sheared.

Delete the sentences in Section 706.3.1 that reads: "For bridge decks and top slabs of culverts, bars in the top mat shall be tied at all intersections except where spacing is less than or equal to 12 inches in each direction, in which case alternate intersections shall be tied. At other locations, the bars shall be firmly tied at alternate crossings or closer." Replace this sentence with: "All reinforcement, including superstructure and substructure, shall be tied at 100% of crossing locations."

SECTION 712
STRUCTURAL STEEL CONSTRUCTION

Delete the sentence in Section 712.3 that reads: "Any material that has become bent shall be straightened before being assembled or shall be replaced, if necessary." Replace it with the following: "Any material that has become bent from the intended shape shall be replaced at no cost to the County."

SECTION 720
MECHANICALLY STABILIZED EARTH WALL SYSTEMS

Delete Section 720.3.1 - in its entirety and replace with the following:

The Contractor shall submit product information on the type of mechanically stabilized earth wall system he is proposing. The wall shall be in conformance with the Plans and Job Special Provisions. Shop drawings and design calculations shall be submitted and shall be signed and sealed by a Professional Engineer registered in the state of Missouri.

SECTION 724
PIPE CULVERTS

Revise Section 724.3.1 to read:

Inspection of pipe and pipe placement will be performed visually by the County during construction.

Delete Sections 724.3.2, 724.3.3, 724.3.4, 724.3.4.1, 724.3.5, 724.3.6, 724.3.7, 724.3.8, and 724.3.9.

Revise Section 724.4.1 to read:

Final measurements of pipe culverts of the type specified will be based on actual field measurements to the nearest lineal foot along the geometric center of the pipe. Revisions or corrections will be computed and added or deducted from the contract quantity.

SECTION 725
METAL PIPE AND PIPE ARCH CULVERTS

Revise Section 725.4 to read:

Backfill material for metal culverts shall consist of crushed stone.

Revise Section 725.4.1 to read:

Crushed stone shall consist of a mixture of stone in accordance with Section 1009, Grade 4, Gradation B. For all pipe culverts under roadways or sidewalks crushed stone backfill shall be used for full depth of the trench, and to the subgrade of the road, and to a point two feet on either side of the pavement width. For backfill under grass areas, the granular

backfill shall be brought to one foot above the top of the pipe, then completed with earthen backfill to the required grade. Bedding material shall be the same as that specified above for backfill.

SECTION 726

RIGID PIPE CULVERTS

Delete Section 726.1.2.

Modify the sixth sentence in Section 726.3.1 to read:

All joints shall be sealed with an approved plastic compound, tubular joint seal, an external wrap, cement mortar or other approved methods to create a soil tight condition.

Modify 726.3.2 **Bedding** to read:

Bedding for reinforced concrete pipe shall consist of a mixture of stone in accordance with Section 1009, Grade 4, Gradation B.

Section 726.3.4 - Insert the following after the second sentence:

For all pipe culverts under roadways or sidewalks crushed stone backfill, meeting the requirements of Section 1009, Grade 4, Gradation B, shall be used for full depth of the trench, and to the subgrade of the road, and to a point two feet on either side of the pavement width. For backfill under grass areas, the granular backfill shall be brought to one foot above the top of the pipe, then completed with earthen backfill to the required grade.

SECTION 727

STRUCTURAL PLATE PIPE AND STRUCTURAL PLATE PIPE-ARCH CULVERTS

Delete 727.3.3 Bedding and Backfill material and replace with the following:

727.3.3 Bedding and Backfill Material. Bedding for structural plate pipe and structural plate pipe-arch culverts shall consist of a mixture of stone in accordance with Section 1009, Grade 4, Gradation B, except if rock is encountered, the trench shall be excavated to a minimum depth of 8 inches below the bottom of the culvert.

Delete Section 727.3.4.1 and Section 727.3.4.2 and replace with the following:

Backfill shall be with crushed stone consisting of a mixture of stone in accordance with Section 1009, Grade 4, Gradation B. Stone backfill shall be used for full depth of the trench, and to the subgrade of the road, and to a point two feet on either side of the pavement width. Layers of backfill shall be carefully tamped in place and shall be kept at approximately the same elevation on opposite sides of the structure at all times during the progress of work in order to equalize the loading.

SECTION 731

PRECAST REINFORCED CONCRETE MANHOLES AND DROP INLETS

Revise Section 731.4.1 to read:

Final measurements of precast concrete manholes and drop inlets will be based on actual field measurements to the nearest lineal foot along the geometric center of the manhole/drop inlet. Revisions or corrections will be computed and added or deducted from the contract quantity. The depth of the structure will be the vertical distance from the top of the uppermost precast section to the invert flowline.

SECTION 732

FLARED END SECTIONS

Delete the second sentence in Section 732.5 that reads:

When two different diameters of pipe are shown on the plans for a given location for Group B or Group C pipe, the contract unit price for the flared end section or safety slope end section that would be required for the larger diameter pipe will be used for payment purposes.

SECTION 801

LIME AND FERTILIZER

Revise the third sentence in Section 801.4.1 to read:

The soil shall be thoroughly broken up, worked, tilled and loosened to a minimum depth of 4 inches.

Revise the second sentence of 801.4.2 to read:

After application, the lime and fertilizer shall be thoroughly mixed into the soil to a minimum depth of 4 inches, except when applied hydraulically on slopes steeper than 2:1.

SECTION 802

MULCHING

Add the following to Section 802.1 **Description.**:

If a specified stabilization covering is not indicated in the contract, mulch overspray shall be applied over rocky type soils. In all other cases the contractor shall have the options of mulch overspray, embedment, or other methods as approved by the engineer.

SECTION 803

SODDING

Add the following to Section 803.3 Construction Requirements:

Sodding placed at the downstream end of a flared end section or the downstream end of a pipe without a flared end section shall be securely fastened with metal clips. The sod shall be placed slightly lower than the flowline of the flared end section or the flowline of the culvert. Sod washed away by flows through the culvert shall be cleaned up, disposed of and replaced by the Contractor at no additional charge to the County.

SECTION 804

TOPSOIL

Add Section 804.3.3 The Contractor shall be responsible for obtaining all necessary permits for removal of topsoil from an area. This shall include but not be limited to land disturbance, stormwater discharge, endangered species, farmland protection, wetlands, hazardous waste and cultural resources. Contact agencies for most of these are listed on MoDOT's website under Local Public Agency Manual.

SECTION 805

SEEDING

Revised the following under Section 805.3 **Construction Requirements:**

805.3.1 The seedbed shall be prepared in accordance with Sec 801. Seeding shall be done before the seedbed becomes eroded. Seed shall be uniformly applied at no less than the rates specified in the contract provisions. If no seeding rates are shown in the contract documents, the following seeding and fertilizing rates shall be used:

(pure live seed per acre)			(based on pure nutrients, no filler)		
Tall Fescue	60%	120 lbs per acre	Nitrogen		80 lbs per acre
Orchard Grass	20%	40 lbs per acre	Phosphoric Acid		80 lbs per acre
Annual Rye	20%	40 lbs per acre	Potash		80 lbs per acre
		Total	200 lbs per acre	Total	240 lbs per acre

Revise 805.3.2 to read:

805.3.2 Disturbed areas outside of authorized construction limits shall be seeded at the contractor's expense, unless such disturbed areas are adjacent to the construction limits and caused by utility relocation/adjustment work. Disturbed areas caused by such utility work shall be prepared and seeded as directed by the Engineer.

Add Section 805.3.4:

805.3.4 Seeding application methods shall be as follows:

Drop seeding shall only be allowed in small disturbed areas as approved by the engineer; Drill seeding shall be allowed for flat areas and slopes up to 3(H):1(V); and

Hydro seeding shall be required on slopes 3(H):1(V) or steeper.

Revise Section 805.4 to read:

805.4 Acceptance. Acceptance of permanent seeding will be made when seeded disturbed areas meet the requirements for final stabilization as defined as a minimum uniform 70% perennial vegetative cover over disturbed land areas. Inspection for acceptance will be made within 60 days after seeding excluding seeding dates that fall between September 30 and March 1. Seeding that occurs between September 30 and March 1 will be inspected no earlier than May 1.

SECTION 806

POLLUTION, EROSION AND SEDIMENT CONTROL

Revise 806.4.4 to read as follows:

Erosion control features shall be in place prior to any clearing and grubbing of the construction site. Additional erosion control features may need to be installed as the project continues and problem areas become exposed.

Until the site is stabilized, all erosion and sedimentation control BMPs must be maintained properly.

Maintenance must include inspections of all erosion and sedimentation control BMPs after each rainfall event and on a weekly basis. A written inspection report by the contractor shall be submitted to the engineer after every inspection. The report shall state a summary of the site conditions, status of the erosion and sediment control BMPs, date, time and name of inspector. The Contractor shall maintain all erosion control features by removing silt buildup so that the erosion control feature is fully effective. Any erosion control features knocked down during construction shall be reinstalled at no additional cost to the County.

Add a paragraph to 806.80.3 as follows:

The Contractor shall maintain the temporary pipes throughout the length of the project. Pipes, backfill and road surface washed out shall be replaced at no additional cost to the County.

Add the following sentence to 806.100.2.2:

The Contractor shall maintain the temporary stream crossing throughout the length of the project. Pipes, backfill and road surface washed out shall be replaced at no additional cost to the County.


END OF "REVISIONS TO MODOT 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. Subgrade Repair
- B. Removal of Improvements
- C. Rock Backfill, Boulders, and Bedding
- D. Required Clearances for Borrow Areas
- E. Emergency Provisions and Incident Management
- F. Coordination with Existing Utilities
- G. Traffic Control (All Inclusive)
- H. SWPPP Design, Implementation, Maintenance and Removal
- I. Contractor-Furnished Surveying and Staking
- J. 12-Inch Flexible Storm Pipe and Banding
- K. Project Restoration
- L. Granular Backfill

	JEFFERSON COUNTY DEPARTMENT OF PUBLIC WORKS 729 Maple Street, PO Box 100 Hillsboro, MO 63050 Phone 636-797-5369
	<i>CDG Engineers, Inc.</i> <i>One Campbell Plaza St. Louis, MO 63139</i> Certificate of Authority: 1271 Consultant Phone: (314) 781-7770
	JOB NUMBER: PW19135BXC Heads Creek Road Bridge over Tributary Creek Jefferson County, Missouri DATE PREPARED: January 22, 2019
Date: January 22, 2019	ADDENDUM DATE:
Only the above Job Special Provisions A thru L are authenticated by this seal:	

JOB SPECIAL PROVISIONS

A. SUBGRADE REPAIR

1.0 Description. During compaction of the prepared subgrade, the Contractor shall record and report all soft or uncompactable areas to the County.

Where the County deems subgrade material to be unsatisfactory, over-excavation below subgrade will be required to a depth of one foot below design subgrade. The excavated material shall be disposed of at a Contractor-furnished offsite disposal site.

2.0 Submittals. Submit manufacturer's data and a 6" x 6" sample of the geogrid proposed. Submitted literature to clearly indicate it meets the below listed criteria.

3.0 Construction Requirements. Backfill the over-excavated areas with subgrade repair material as follows:

3.1 Cover over-excavated area with reinforced Geogrid meeting the following minimum requirements:

3.1.1 Geogrid proposed must meet the following minimum requirements:

1. Aperture Stability Modulus at 20 cm-kg/deg
Kinney – 01 test method, 0.32 m-N/deg
2. Rib Shape
Observation test method, rectangular or square
3. Rib Thickness
Caliper test method, 0.03 in (-0.76 mm)
4. Nominal Aperture Size
I.D. Caliper test method, 1.0-1.5 in (25-33 mm)
5. Junction Efficiency
GRI-GG2-87 test method, 93%
6. Flexural Rigidity
ASTM D1388-96 test method, 250,000 mg-cm
7. Minimum True Initial Modulus in Use
ASTM D6637-01 test method
 - MD, 17,140 lb/ft (250 kN/m)
 - CMD, 27,420 lb/ft (400 kN/m)

3.1.2 Place Type 5 Aggregate on Geogrid in compacted lifts 4 inches in thickness to subgrade.

3.2 If the excavation below subgrade is required because of negligence on the part of the Contractor, the necessary excavation, backfilling and compaction required to restore the subgrade satisfactorily shall be at the Contractor's sole expense.

4.0 Method of Measurement. Measurement will include subgrade repair material furnished, placed, and compacted during Subgrade Repair and during Proofrolling as specified herein.

4.1 Measurement will be based upon measurement under this item.

5.0 Basis of Payment. Payment for this item will be paid at the contract unit price per square yard.

5.1 Payment for this item shall constitute full compensation for all material, labor, equipment, and incidentals necessary for excavation of designated areas, furnishing materials including rock stabilization fabric, placing and compaction of materials, and recompaction of the subgrade. Disposal of excavated material is also included in this payment item.

5.2 This item is to provide for the repair of the subgrade in the process of the work and shall be used only under the direction of the County.

B. REMOVAL OF IMPROVEMENTS

1.0 Description. This work shall consist of the removal and disposal of all existing improvements, except those designated or permitted to be left in place or to be removed under other items of work, within the right-of-way and within the limits of the construction area outside the right-of-way. Improvements, to be left in place within construction limits, must be adequately protected and remain in operating condition.

1.1 The work to be performed under this section shall include, but not be limited to, the removal of the following items:

1. Any scattered or piled concrete, stones or debris as may be necessary for new construction.
2. That portion of the existing fencing, roadway and entrances to be replaced, as shown on the plans.
3. Existing pipes and other miscellaneous items as specified herein or shown on the plans.
4. All incidental removals as necessary to install detour signs, bridge or roadway improvements as shown on the plans or specified elsewhere herein.

2.0 Execution. The plans and specifications do not show or list each of the items requiring removal. The Contractor shall determine the quantity of items to be removed under this item and base his bid accordingly. Removal of improvements shall be accomplished as indicated in MoDOT Standard Specifications, Section 202.30, except as hereinafter modified.

2.1 Salvaged materials will be considered the property of the Contractor, unless otherwise indicated. County-owned items such as traffic signs, etc., will remain the property of the County, and the Contractor shall deliver those items to the County at a specified location.

3.0 Method of Measurement. Removal of Improvements will not be measured for payment, but will be considered a lump sum.

4.0 Basis of Payment. Payment for all work, including all labor, materials and equipment required, specified herein including incidental removals will be made at the contract lump sum bid for "Removal of Improvements."

C. ROCK BACKFILL, BOULDERS, AND BEDDING

1.0 General.

1.1 Section Includes. The work includes excavation, grading, and installation of rock backfill, boulders, and bedding placed at the locations shown on the drawings. The materials to be used and the construction of such structures shall be as specified herein.

1.2 References. The following is a list of standards which may be referenced in this section:

1. American Association of State Highway and Transportation Officials (AASHTO):
 - a. T85, Standard Method of Test for Specific Gravity and Absorption of Coarse Aggregate.
 - b. T96, Standard Method of Test for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
 - c. T103, Standard Method of Test for Soundness of Aggregates by Freezing and Thawing.
 - d. T104, Standard Method of Test for Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate.
 - e. T248, Reducing Field Samples of Aggregate Test Size.
2. ASTM International (ASTM): D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft³)

1.3 Submittals.

1.3.1 Contractor shall cooperate with Engineer in obtaining and providing samples of all specified materials.

1.3.2 Contractor shall submit certified laboratory test certificates for all items required in this section.

2.0 Products.

2.1 Materials.

2.1.1 **Rock Backfill.** Rock backfill used shall be the type designated on the drawings and shall conform to Table 1.

Table 1: Rock Backfill Gradation			
Rock Backfill Designation	% Smaller Than Given Size by Weight	Intermediate Rock Dimension (inches)	d ₅₀ * (inches)
R18	70 - 100	30	18
	50 - 70	24	
	35 - 50	18	
	2 - 10	6	
*d ₅₀ = Mean Particle Size			

2.1.2 The rock backfill designation and total thickness of rock backfill shall be as shown on the drawings. The maximum stone size shall not be larger than the thickness of the rock backfill.

2.1.3 Neither width nor thickness of a single stone of rock backfill shall be less than one-third (1/3) of its length.

2.1.4 The specific gravity of the rock backfill shall be two and one-half (2.5) or greater.

2.1.5 Rock backfill specific gravity shall be according to the bulk-saturated, surface-dry basis, in accordance with AASHTO T85.

2.1.6 The bulk density for the rock backfill shall be 1.3 ton/cy or greater.

2.1.7 The rock backfill shall have a percentage loss of not more than forty percent (40%) after five hundred (500) revolutions when tested in accordance with AASHTO T96.

2.1.8 The rock backfill shall have a percentage loss of not more than ten percent (10%) after five (5) cycles when tested in accordance with AASHTO T104 for ledge rock using sodium sulfate.

2.1.9 The rock backfill shall have a percentage loss of not more than ten percent (10%) after twelve (12) cycles of freezing and thawing when tested in accordance with AASHTO T103 for ledge rock, procedure A.

2.1.10 Rock shall be free of calcite intrusions.

2.1.11 Gradation.

1. Each load of riprap shall be reasonably well graded from the smallest to the largest size specified.
2. Stones smaller than the two to ten percent (2 to 10%) size will not be permitted in an amount exceeding ten percent (10%) by weight of each load.
3. Control of gradation shall be by visual inspection. However, in the event Engineer determines the rock backfill to be unacceptable, Engineer shall pick two (2) random truckloads to be dumped and checked for gradation.
 - a. Mechanical equipment and labor needed to assist in checking gradation shall be provided by Contractor at no additional cost.

2.1.12 Broken concrete or asphalt pavement shall not be acceptable for use in the work.

2.1.13 Rounded rock (river rock) is not acceptable, unless specifically designated on the drawings.

2.2 Boulders.

2.2.1 Boulders used shall be the type designated on the drawings and shall conform to Table 2.

Table 2: Boulder Properties			
Boulder Classification	Nominal Size (inches)	Range in Smallest Dimension of Individual Rock Boulders (inches)	Maximum Ratio of Largest to Smallest Rock Dimension of Individual Boulders
B36	36	30 - 42	1.50

2.2.2 The specific gravity of the boulders shall be two and one-half (2.5) or greater.

2.2.3 Boulder specific gravity shall be according to the bulk-saturated, surface-dry basis, in accordance with AASHTO T85.

2.2.4 The bulk density for the boulder shall be 1.3 ton/cy or greater.

2.2.5 The boulders shall have a percentage loss of not more than forty percent (40%) after five hundred (500) revolutions when tested in accordance with AASHTO T96.

2.2.6 The boulders shall have a percentage loss of not more than ten percent (10%) after five (5) cycles when tested in accordance with AASHTO T104 for ledge rock using sodium sulfate.

2.2.7 The boulders shall have a percentage loss of not more than ten percent (10%) after twelve (12) cycles of freezing and thawing when tested in accordance with AASHTO T103 for ledge rock, procedure A.

2.2.8 Rock shall be free of calcite intrusions.

2.3 Bedding.

2.3.1 Gradation for granular bedding shall conform to Table 3.

2.3.2 Granular bedding designation and total thickness of bedding shall be as shown on the drawings.

2.3.3 Granular bedding shall meet the same requirements for specific gravity, absorption, abrasion, sodium sulfate soundness, calcite intrusion, and freeze-thaw durability as required for rock backfill.

1. Broken concrete asphalt pavement or sledge, shall not be acceptable for use in the work. Rounded river rock is not acceptable unless specifically designated on the drawings.
2. The requirements for the wear test in AASHTO T96 shall not apply.

Table 3: Granular Bedding Gradation	
U.S. Standard Sieve Size	Type II
4 inches	90 - 100
3 inches	---
2 inch	20 - 90
1½ inches	---
No. 4	0 - 20
No. 16	---
No. 50	---
No. 100	---
No. 200	0 - 3

3.0 Execution.

3.1 Preparation.

3.1.1 Channel slope, bottom, or other areas that are to be protected with rock backfill or boulders shall be free of brush, trees, stumps, and other objectionable material and be graded to a smooth compacted surface as shown on the drawings.

3.1.2 Contractor shall excavate areas to receive rock backfill to the subgrade as shown on the drawings accounting for granular bedding.

3.1.3 Contractor shall excavate areas to receive boulders to the specified depth (bedding material is not required for boulders).

3.1.4 Subgrade Materials.

1. The subgrade materials shall be stable.
2. If unsuitable materials are encountered, they shall be removed and replaced.

3.1.5 Additional Compaction.

1. Additional compaction shall not be required unless specified by Engineer.
2. When subgrade is built up with embankment material it shall be compacted to ninety five percent (95%) maximum density (ASTM D698).

3.1.6 Bedding.

1. After an acceptable subgrade is established, bedding shall be immediately placed and leveled to the specified elevation on the drawings.
2. Immediately following the placement of the bedding material, the rock backfill shall be placed.
3. If bedding material is disturbed for any reason, it shall be replaced and graded at Contractor's expense.
4. Contamination:
 - a. In-place bedding materials shall not be contaminated with soils, debris or vegetation before the rock backfill is placed.

- b. If contaminated, the bedding material shall be removed and replaced at Contractor's expense.

3.2 Placement.

3.2.1 Rock Backfill.

1. Following acceptable placement of granular bedding, rock backfill placement shall commence as follows:
 - a. Machine Placed Rock Backfill:
 - 1) Rock backfill shall be placed on the prepared slope or channel bottom areas in a manner which will produce a reasonably well graded mass of stone with the minimum practicable percentage of voids.
 - 2) Rock backfill shall be machine placed, unless otherwise stipulated in the drawings or specifications.
 - 3) It is the intent of these specifications to produce a fairly compact rock backfill protection in which all sizes of material are placed in their proper proportions. Unless otherwise authorized by Engineer, the rock backfill protection shall be placed in conjunction with the construction of embankment or channel bottom with only sufficient delay in construction of the rock backfill protection, as may be necessary, to allow for proper construction of the portion of the embankment and channel bottom which is to be protected.
 - b. Slope Placement:
 - 1) When rock backfill is placed on slope, placement shall commence at the bottom of the slope working up the slope.
 - c. The entire mass of rock backfill shall be placed on either channel slope or bottom so as to be in conformance with the required gradation mixture and to line, grade, and thickness shown on the drawings.
 - d. Rock backfill shall be placed to full course thickness at one operation and in such a manner as to avoid displacing the underlying bedding material. Placing of rock backfill in layers, or by dumping into chutes, or by similar methods shall not be permitted.
 - e. All material used for rock backfill protection for channel slope or bottom shall be placed and distributed such that there shall be no large accumulations of either the larger or smaller sizes of stone. Some hand placement may be required to achieve this distribution.
 - f. The basic procedure shall result in larger materials flush to the top surface with faces and shapes arranged to minimize voids, and smaller material below and between larger materials.
 - g. Surface grade shall be a plane or as indicated, but projections above or depressions under the finished design grade by more than ten percent (10%) of the rock layer thickness shall not be allowed.
 - h. Smaller rock shall be securely locked between the larger stone. It is essential that the material between the larger stones not be loose or easily displaced by flow or by disturbance.
 - i. The stone shall be consolidated by the bucket of the backhoe or other means that will cause interlocking of the material.

- j. All rock is to be placed in a dewatered condition beginning at the toe of the slope or other lowest point.
 - k. Contractor shall maintain the rock protection until accepted. Any material displaced for any reason shall be replaced to the lines and grades shown on the drawings at no additional cost to Owner. If the bedding materials are removed or disturbed, such material shall be replaced prior to replacing the displaced rock backfill.
2. Hand Placed Rock Backfill:
- a. Hand placed rock backfill shall be performed during machine placement of rock backfill and shall conform to all the requirements of 2.0, above.
 - b. Hand placed rock backfill shall also be required when the depth of rock backfill is less than two (2) times the nominal stone size, or when required by the drawings or specifications.
 - c. After the rock backfill has been placed, hand placing or rearranging of individual stones by mechanical equipment shall be required to the extent necessary to secure a flat uniform surface and the specified depth of rock backfill, to the lines and grades as shown on the drawings.
3. Soil Replacement Over Rock Backfill:
- a. Where rock backfill is designated to be buried, place onsite excavated material that is free from trash and organic matter in rock backfill voids by washing and rodding.
 - b. Prevent excessive washing of material into stream.
 - c. When voids are filled and the surface accepted by engineer, place a nominal six (6) inches of topsoil over the area, or as designated on the drawings.
 - d. Fine grade, seed, and mulch per the specifications.

3.2.2 Boulders.

- 1. Following excavation and acceptance of subgrade by Engineer, boulder placement shall commence as follows:
 - a. Boulders shall be placed on the prepared subgrade in a manner which will minimize voids.
 - b. Voids between boulders exceeding 4" shall be chinked.

3.3 Reject of Work and Materials.

3.3.1 Engineer will reject placed rock backfill, boulders, and bedding that do not conform to this section. Contractor shall immediately remove and re-lay the rock backfill, boulders, and bedding to conform to specifications.

3.3.2 Rock backfill, boulders, and bedding that do not conform to this section shall be rejected, whether delivered to the job site or placed.

3.3.3 Rejected rock backfill, and bedding shall be removed from the project site by Contractor at Contractor's expense.

D. 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. Written proof of MoDNR clearance of the contractor selected borrow area must be provided to the Jefferson County Public Works Department PRIOR to obtaining material. The contractor should include the Jefferson County 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 known 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 borrow 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 which 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
Telephone 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 borrow site and Form AD-1 006 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 borrow 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 borrow area 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 Jefferson County: 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 borrow area.

5. 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 borrow 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 borrow site. After the contractor has obtained all of the above data and clearances, it should be submitted to Jefferson County construction 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 borrow areas. An adjustment in contract time will be considered for any delay caused by receiving the required clearances.

E. EMERGENCY PROVISIONS AND INCIDENT MANAGEMENT

1.0 Description. 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 County Engineer shall also be notified when the contractor requests emergency assistance.

2.0 General. 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.

Jefferson County Sheriff's Office:	(636) 797-5000
Antonia Fire District:	(636) 948-4433

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.

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 County Engineer on the status of incident management.

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

F. COORDINATION WITH EXISTING UTILITIES

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 work for this improvement:

Utility Name

Known Required Adjustment

Ameren Missouri
William Rosener
6450 Highway MM
House Springs, MO 63051
Phone: 636-671-6152
Email: wrosener@ameren.com

No known adjustments. Utility pole and overhead lines running along west side of existing bridge. Contractor to coordinate with Ameren to determine if their proposed work and methods of construction require relocations or adjustments. Ameren will make required adjustments or relocations at that time.

AT&T Distribution
Glenn Hogemiller
122 North Second Street
Festus, MO 63028
Phone: 636-931-7525
Email: gh5805036T@att.com

Relocation required. AT&T facilities on west side of existing bridge. Facilities will need to be moved. Contractor to coordinate with AT&T and Ameren on relocation efforts.

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 County at this time. This information is provided by the County "as-is" and the County 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 County

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, its 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 County from damages to any utility facilities interruption of service by it or its Subcontractor's operation.

2.0 Prior to beginning work, the Contractor shall request locates from Missouri One Call at 1-800-344-7483 and shall contact Ameren and AT&T to determine if any adjustments or relocation of their facilities will be required to accommodate the proposed construction or the contractor's methods of construction.

G. TRAFFIC CONTROL (ALL INCLUSIVE)

1.0 Description. This work will consist of furnishing and constructing traffic control and safety devices. The Contractor is responsible for submitting a Traffic Control Plan to the County Engineer.

The Contractor shall submit a written Traffic Control Plan, including drawings, to the County Engineer for review and approval 10 calendar days prior to initiating any road work. Traffic control maintenance is addressed by the JSP for "Maintenance and Revisions to Traffic Control Base Plan" that follows.

2.0 Materials. All materials shall conform to subsection 616.2 of Section 616 (Temporary Traffic Control) of the Missouri Standard Specifications, 2018 edition, as well as the following:

Legends, dimensions, and gloss shall be in accordance with the "Manual on Uniform Traffic Control Devices" published by the Federal Highway Administration, the plans, or as directed by the Engineer and the MoDOT Standard Specification.

3.0 Construction Requirements. The construction requirements shall conform to Subsection 616.4 of Section 616 (Temporary Traffic Control) of the Missouri Standard Specifications, 2018 edition, as well as the following:

- A. The requirements of this Job Special Provision shall not relieve the Contractor of his responsibilities for protecting both the public and the workers within the project area.
- B. Existing entrances and approach streets must remain accessible at all times during construction.
- C. The Contractor shall maintain all traffic control items for the full duration of construction under this JSP.

4.0 Method of Measurement. The Traffic Control will be measured for payment under traffic control (all inclusive).

5.0 Basis of Payment. The accepted quantities for the Traffic Control will be paid for at the contract bid prices and shall include the furnishing, installation and relocation of temporary signage, channelizers, or other warning devices required during construction. This item shall include the temporary traffic control devices as shown on the Traffic

Control Plan as required under these provisions, and any and all devices, as necessary to reasonably insure the safety of the public and the Contractor's employees, which will be incidental to other pay items.

Payment will be made under: "Traffic Control (all inclusive)" per lump sum.

H. SWPPP DESIGN, IMPLEMENTATION, MAINTENANCE AND REMOVAL

1.0 Description. Design, implement, maintain and remove a Stormwater Pollution Prevention Plan (SWPPP). Maintenance of the SWPPP includes adjustments to the SWPPP as deemed necessary by the County and any adjustments necessary to control stormwater pollution.

2.0 Materials. Provide all equipment and materials, suitable and in adequate quantity, required to accomplish the work as specified herein.

3.0 Construction Requirements. Design, install and maintain SWPPP BMP's during construction as necessary to control and prevent pollution of stormwater. Adjust SWPPP as directed by the County and as necessary to prevent stormwater pollution. At an appropriate time after project completion, and only after all disturbed areas are fully vegetated or otherwise protected from erosion in a permanent fashion, remove SWPPP BMP's.

The SWPPP shall meet the requirements as shown on Jefferson County's Stormwater Management Division's website: www.jeffcomo.org/Stormwater.aspx

A copy of the approved SWPPP is required to be posted on the project site.

All BMP's shall be inspected weekly and after rainfall events of 1 inch or more. Inspections must be scheduled at least once per week and no later than 48 hours after a rainfall that causes stormwater runoff to occur on-site. An inspection report must be delivered to the County after each inspection.

4.0 Basis of Payment. Payment for this item will be lump sum.

This item shall include the whole expense necessary to design a SWPPP, obtain all necessary land disturbance/erosion control/grading permits, implement and maintain the SWPPP as described herein, and remove stormwater BMP's at the appropriate time.

I. CONTRACTOR-FURNISHED SURVEYING AND STAKING

1.0 Description. This work includes the project surveying and staking by the Contractor from the bid documents. Additional detailed engineering drawings or CADD files will not be provided. This work shall be accomplished by or under the direct supervision of a Missouri Registered Land Surveyor. Proof of registration to be provided to County upon request.

2.0 Execution Prior to beginning construction, the Contractor shall locate and stake locations of all control points and benchmarks shown on the plans. The Contractor shall also locate and stake all pipes, structures and any other appurtenances that may affect the earthwork and/or relocation of utilities.

Provide and maintain stake cuts at 50-foot intervals along the entire project centerline alignment for use in the utility relocation phase of the project. The payment for this work shall be included in the bid item for Contractor Furnished Surveying and Staking.

3.0 Method of Measurement. Contractor-Furnished Surveying and Staking will not be measured for payment, but will be considered a lump sum.

4.0 Basis of Payment. Payment for all work, including all labor, materials and equipment required, specified herein will be made at the contract lump sum bid for "Contractor Furnished Surveying and Staking."

J. 12-INCH FLEXIBLE STORM PIPE AND BANDING

1.0 Description. This work shall include all labor, equipment and materials required for construction and installation of 12-inch flexible storm pipe and banding to an existing storm pipe at the locations shown on the plans. All work shall be in accordance with the drawings.

2.0 General.

2.1 Flexible Storm Pipe. This specification describes the 12-inch flexible storm pipe for gravity-flow storm drainage.

2.2 Pipe Requirements.

2.2.1 All pipe shall have a smooth interior and annular exterior corrugations.

2.2.2 The pipe shall be flexible to meet plan layout requirements and ensure positive drainage.

2.2.3 All pipe shall meet AASHTO M330 and ASTM F2881, and shall be designed for Manning's "n" value of 0.012 for use.

2.2.6 Installation shall be in accordance with manufacturer's recommended installation instructions.

3.0 Method of Measurement. The "12-inch Flexible Storm Pipe and Banding" will be measured to the nearest linear foot along the centerline of the pipe. All accessories (bands, bolts, etc.) necessary for installation shall be included in the unit price.

4.0 Basis of Payment. Payment for furnishing all materials, labor and equipment for the flexible storm pipe and banding will be paid for at the contract unit bid price per linear foot. No direct payment will be made for excavating the trench, furnishing and installing pipes, fittings, or for backfilling and backfill material.

K. PROJECT RESTORATION

1.0 Description. This section covers the work necessary for the completion of finish grading and site restoration.

1.1 Quality of Work and Materials. The Contractor shall furnish all materials and perform all work in accordance with these specifications, drawings, and instructions. **The work shall include restoring the site to existing condition prior to any construction.** Restoration will be made with "in kind" materials.

1.2 Weather Conditions. Work must be carried out only during weather conditions favorable to landscape construction and to the health and welfare of plants. The suitability of such weather conditions shall be determined by the County.

2.0 Material.

2.1 Topsoil. Work Included: Place topsoil in areas designated on the drawings or as specified herein.

2.1.1 Placement of Topsoil. Place no topsoil until subgrade has been approved. Before placing topsoil, rake subsoil surface clear of stones, debris, and roots. Compact topsoil to form a layer with a minimum depth of 4" in areas to be seeded. Topsoil shall be placed so that after final settlement, there will be good drainage (and conforming to elevations shown on the drawings). Contractor is to maintain surfaces and place any additional topsoil necessary to replace that eroded before acceptance.

2.1.2 Preparation. Disk, drag, harrow or hand rake subgrade to a depth of 3" to provide bond for topsoil. Topsoil which must be transported across finished walks shall be delivered in such a manner that no damage will be done to the walks. The Contractor shall be responsible for the repair of such damage.

2.1.3 Topsoil. Natural, friable, fertile, fine loamy soil possessing the characteristics of representative topsoils in the vicinity which produces a heavy growth; free from subsoil, objectionable weeds, litter, sods, stiff clay, stones larger than 1" in diameter, stumps, roots, trash, toxic substances, or any other material which may be harmful to plant growth or hinder planting operations. The Contractor is to verify the amount stockpiled and supply any additional as needed.

2.2 Imported Topsoil.

1. Imported topsoil shall be a natural, friable soil, representative of productive soils in the vicinity. It shall be obtained from well-drained areas, free from admixture of subsoil and foreign matter, and objects larger than 2 inches in diameter, toxic substances, and any other deleterious material which may be harmful to plant growth and be a hindrance to grading, planting, and maintenance operations.
2. Topsoil shall meet, or shall be improved to meet, the following mechanical requirements by adding sand and/or peat or manure and incorporating into the topsoil:

COMPONENT	MAX. PERCENTAGE
Silt	50 percent
Clay	25 percent

3. Topsoil shall be pulverized prior to being brought to the jobsite. It shall be pulverized to a size of 3/8 inches in diameter as the largest cross section.
4. No topsoil may be imported from the Big River or Meramec River floodplain areas.

2.3 Lime. Ground dolomitic limestone not less than 85 percent total carbonates and magnesium, ground so that 50 percent passes 100-mesh sieve and 90 percent 20-mesh sieve. Coarser material will be acceptable provided the specified rates of application are increased proportionately on the basis of quantities passing the 100-mesh sieve.

2.4 Fertilizer.

2.4.1 Commercial Fertilizer. A complete plant food containing 6 percent nitrogen, 24 percent available phosphoric acid, and 24 percent potash, at a rate of 50 lbs./5,000 sq. ft., conforming to applicable state fertilizer laws, availability of plant nutrients conforming to standards of the Association of Official Agricultural Chemists (AOAC), uniform in composition, dry, free-flowing, and delivered in original, unopened containers bearing manufacturer's guaranteed analysis.

2.4.2 Superphosphate. Ammonium phosphate (16-20-0) containing 1.4 percent sulphur; granular, dry, free-flowing delivered in original bags.

2.5 Textural Soil Amendments.

2.5.1 Peat. A natural residue formed by decomposition of reeds, sedges, or mosses from freshwater site, free from lumps, roots, and stones, absorbing at least four times its dry weight of water, organic matter not less than 90 percent on a dry weight basis. The maximum moisture content at time of delivery shall be 65 percent by weight.

2.5.2 Manure. Well-rotted, unleached stable or cattle manure, reasonably free from weed seed and refuse, containing no chemicals or materials harmful to plant life; not less than 4 months nor more than 2 years old. Sawdust or shavings shall not exceed 50 percent content.

2.6 Straw Mulch. Threshed straw of oats, wheat, or rye, free from seed of obnoxious weeds or clean salt hay.

2.7 Seed.

2.7.1 Grass Seed. Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances.

2.7.2 Seed Species. Seed of grass species as follows, with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 percent weed seed:

1. Full Sun: K-31 Fescue or approved turf type fescue.

3.0 Construction Requirements.

3.1 Project Schedule. Within 20 calendar days of the date specified for commencement of work, submit to the County a proposed time schedule indicating dates for beginning and completion of the following operations:

1. Delivery and source of materials.
2. Preparation of seed bed.
3. Placing seed.
4. Maintenance.

3.2 Construction Methods.

3.2.1 Preparation of Subgrade. After rough grading is completed and before topsoil is spread, thoroughly scarify ground to a minimum depth of 8 inches with a toothed ripping machine by running in two directions at right angles over the entire surface to be planted.

3.2.2 Spreading of Topsoil. Spread topsoil and textural soil amendments, if required based on the results of the gradation test, over the prepared rough grade using a rubber-tired tractor with grader blade or equivalent not weighing more than 3-1/2 tons. Spread materials to make a finished thickness of a minimum of 4 inches.

3.3.2 Liming and Fertilizing.

1. Apply lime uniformly with a mechanical spreader to the entire area for grass at the rate determined from soil test.
2. Apply commercial fertilizer uniformly with a mechanical spreader at a rate of 50 pounds per 5,000 square feet, or at rate determined from soil test.

3.2.3 Finish Grading.

1. Thoroughly mix the applied materials to a depth of 4 inches by running a rototiller over the entire area in two directions at right angles.
2. Rake the top soiled area to a uniform grade so that all areas drain, as indicated on the grading plan.
3. Lightly compact with a cultipacker before placing seed.
4. Remove all trash and stones exceeding 1 inch in diameter from area to a depth of 2 inches prior to preparation and placing seed.

3.2.4 Seeding.

1. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
 - a. Do not use wet seed or seed that is moldy or otherwise damaged.

2. Sow seed at the rate of 15 lbs per acre.
3. Rake seed lightly into top 1/8 inch of topsoil, roll lightly, and water with fine spray.
4. Protect seeded areas with slopes exceeding 1:6 with erosion-control fiber mesh and 1:4 with erosion-control blankets installed and stapled according to manufacturer's written instructions.
5. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose depth over seeded areas. Spread by hand, blower, or other suitable equipment.
 - a. Anchor straw mulch by crimping into topsoil with suitable mechanical equipment.
6. Protect seeded areas from hot, dry weather or drying winds by applying straw mulch within 24 hours after completing seeding operations. Soak and scatter uniformly to a depth of 3/16 inch and roll to a smooth surface.

4.0 Basis for Payment. Payment for this item will be lump sum.

This item shall also include backfilling behind pavements, to assure positive drainage, seeding (all disturbed areas), finish grading, and all other appurtenances not covered by unit prices.

L. GRANULAR BACKFILL

1.0 Description. This work shall include all labor, equipment, and materials required to install the granular backfill for the structure as shown on the drawings. The method of construction and all special requirements are described herein.

2.0 Materials. The provided granular backfill for structure shall meet the following gradation:

Sieve	Percentage by Weight
Passing 1-inch	100
Passing 1/2-inch	60-90
Passing No. 4	35-60
Passing No. 30	10-35

3.0 Construction Requirements. Place to the dimensions shown on the drawings.

3.1 Compaction. Granular backfill shall be compacted to 95% of standard maximum per Section 304 of the Missouri Standard Specifications, latest edition.

3.2 Materials. Salvaged or new bituminous materials shall NOT be substituted for this granular backfill.

4.0 Method of Measurement. Measurement for Granular Backfill for Structure will be per Cubic Yard for all materials, equipment, and labor specified herein.

4.0 Basis of Payment. Payment for this item will be based on the contract unit price per Cubic Yard stated in the Proposal.

Payment for this item shall constitute full compensation for all material, labor, equipment, and incidentals necessary for the placement and installation of the Granular Backfill for the Structure as shown on the contract drawings and specified herein.

ENVIRONMENTAL/CULTURAL PERMITS, LAND DISTURBANCE PERMIT(s), APPROVAL LETTERS, RAILROADS, ETC.

The following permits have been acquired and are included herein:

1. Corps of Engineers 404 Permit
2. MoDNR 401 Permit
3. Lead and Asbestos Test Results
4. Jefferson County Floodplain Developmental Permit (will be available to winning bidder)



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT CORPS OF ENGINEERS
1222 SPRUCE STREET
ST. LOUIS, MISSOURI 63103-2833

December 17, 2018

Regulatory Branch
File Number: MVS-2016-047

Mr. Jason Jonas
Dept. of Public Works
Jefferson County, Missouri
725 Maple Street – P.O. Box 100
Hillsboro, Missouri 63050

Dear Mr. Jonas:

We have reviewed the revised application, received on November 28, 2018, regarding the project known as *Heads Creek Road Bridge 135030 Replacement*. The proposed project is to replace the existing undersized concrete box culvert that supports Heads Creek Road over an unnamed tributary to Heads Creek immediately upstream from its confluence with Heads Creek. The new proposed concrete box culvert will be a 21 foot wide and 7 foot high structure that would meet Missouri Regional Condition 1 for adequate flow passage. The stream bed gradient will be reestablished with the placement of 24-36 inch stone to fill in the existing scour hole at the discharge. Protective stone revetment will be placed upstream of the culvert and inappropriate bank stabilization will be removed from the downstream banks and replaced with stone revetment. All concrete rubble and debris will be removed and disposed of in an upland location by the contractor. The project is located in Section 13, Township 42 North, Range 4 East, in Jefferson County, Missouri. Heads Creek is a secondary tributary to the Meramec River, a navigable waterway.

The Corps of Engineers has determined that this activity is authorized under Section 404 of the Clean Water Act by an existing Department of the Army nationwide permit for *Linear Transportation Projects*, as described in the January 6, 2017 Federal Register, Reissuance of Nationwide Permits; Notice (82 FR 1987), Appendix A (B)(14). **This verification is valid until March 18, 2022**, unless the District Engineer modifies, suspends, or revokes the nationwide permit authorizations in accordance with 33 CFR 330.5(d). If you commence, or are under contract to commence, this activity before the nationwide permits expire, you will have 12 months after the date the nationwide permit expire or are modified, suspended, or revoked, to complete the activity under the present terms and conditions of these nationwide permit. Enclosed is a copy of the nationwide permit and conditions and management practices with which you must comply. **The District Engineer has further conditioned this authorization to include the following special conditions:**

- 1. All material that is to be removed from the tributary to Heads Creek shall be disposed of in an upland area, void of any wetlands.**

In accordance with General Condition number 30 of the Nationwide Permit, a compliance certification (Attachment A of this package) must be completed within 30 days of project completion or the permit issuance may be revoked and considered null and void.

The Missouri Department of Natural Resources Water Protection Program (MDNR/WPP) has conditionally issued general Section 401 Water Quality Certification for these nationwide permits, subject to special conditions (see enclosure). These conditions are part of the Corps permit. If you have any

questions regarding the water quality certification conditions, you may call Mr. Mike Irwin, MDNR/WPP, at 573-522-1131 or Mike.Irwin@dnr.mo.gov

This determination is applicable only to the permit program administered by the Corps of Engineers. It does not eliminate the need to obtain other federal, state or local approvals before beginning work. This permit verification does not convey property rights, nor authorize any injury to property or invasion of other rights.

You are reminded that the permit is based on submitted plans. Variations from these plans shall constitute a violation of Federal law and may result in the revocation of the permit. If this nationwide permit is modified, reissued, or revoked during this period, the provisions described at 33 CFR 330.6(b) will apply.

If you have any questions, please contact Samantha Hollenberg at (314) 331-8186. Please refer to file number **MVS-2016-047**. The St. Louis District Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete the Customer Service Survey found on our web site at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

Sincerely,

Chad M. LaMontagne
Missouri Section
Regulatory Branch

Attachments & Enclosures

Copy Furnished: (electronically w/o enclosures)
Mr. Mike Irwin, MDNR-Water Protection Program
Mr. Jason Daniels, U.S. Environmental Protection Agency
Ms. Heather Gibb, MDNR-State Historic Preservation Office
Mr. Matt Vitello, Missouri Department of Conservation

ATTACHMENT A

COMPLETED WORK CERTIFICATION

Date of Issuance: December 17, 2018

File Number: MVS-2016-047

Name of Permittee: Jefferson County Dept. of Public Works– c/o Mr. Jason Jonas

Name of Project: Heads Creek Road Bridge 135030 Replacement

Project Location: Section 13, Township 42 North, Range 4 East; 38.381739°, -90.52917°

River Basin/County/State: Mississippi / Jefferson / Missouri

Project Manager: S. Hollenberg

Upon completion of this activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Attn: Regulatory Branch (OD-F)
1222 Spruce Street
St. Louis, Missouri 63103-2833

(Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification or revocation.)

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date



2017 Nationwide Permit Summary

U.S Army Corps
Of Engineers
St. Louis District

Issued: March 19, 2017

Expires: March 18, 2022

No. 14. Linear Transportation Projects

(NWP Final Notice, 82 FR, 1987)

Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage

buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include 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 that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

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.

(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 NWP 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 $1\frac{1}{2}$ -acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than $1\frac{1}{2}$ -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 $1\frac{1}{3}$ -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).

F. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term "discharge" means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results

in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry

land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the acres or linear feet of stream bed that are filled or excavated as a result of the regulated activity.

Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A

request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Protected tribal resources: Those natural resources and properties of traditional or customary religious or cultural importance, either on or off Indian lands, retained by, or reserved by or for, Indian tribes through treaties, statutes, judicial decisions, or executive orders, including tribal trust resources.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: Re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer

substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (*i.e.*, spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (*i.e.*, a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of “independent utility”). Single and complete non-linear projects may not be “piecemealed” to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use

on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (*i.e.*, by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: (1) Held in trust by the United States for the benefit of any Indian tribe or individual; or (2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

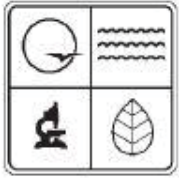
Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted

aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a jurisdictional water of the United States. If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of “waterbodies” include streams, rivers, lakes, ponds, and wetlands.

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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" (http://www.nwk.usace.army.mil/Portals/29/docs/regulatory/nationwidepermits/2017/2017NWP_MORegCon.pdf?ver=2017-03-17-114205-543) 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, 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. NWPs 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

- a. 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.
- b. Material resulting from activity may not be temporarily side-cast into waters of the state for more than one month.
- c. Directional boring to avoid impacts to waters of the state is recommended.
- d. 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.
- e. 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.
- f. 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

- a. 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.
- b. 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

- a. 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.
- b. 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

- a. The use of this NWP shall be limited to impacts of six months or less in duration.
- b. 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

- a. Material from the reshaping activities shall not be side-cast into any jurisdictional waters.
- b. 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

- a. 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.
- b. Stream channel work is limited to a maximum of 100 feet upstream and a maximum of 100 feet downstream of the dam.
- c. 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. Timothy Nugent
CDG Engineers
One Campbell Plaza, Suite 3A
St. Louis, MO 63139

Ms. Raegan Ball, FHWA
Mr. Taylor Peters, FHWA
Mr. Michael Meinkoth, MoDOT

PROJECT:

Replacement of Heads Creek Road Bridge Over Tributary to Heads Creek

FEDERAL AGENCY

FHWA

COUNTY:

Jefferson

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, PhD, Deputy State Historic Preservation Officer

November 13, 2018
Date

MISSOURI DEPARTMENT OF NATURAL RESOURCES
HISTORIC PRESERVATION PROGRAM
P.O. Box 176, Jefferson City, Missouri 65102
For additional information, please contact Amanda Burke 573-522-4641
Please be sure to refer to the project number: 049-JE-18



**ASBESTOS AND LEAD-BASED PAINT SURVEYS
HEADS CREEK ROAD BRIDGE
HOUSE SPRINGS, MISSOURI**

Prepared for:
**JEFFERSON COUNTY DEPARTMENT OF PUBLIC WORKS
HILLSBORO, MISSOURI**

Prepared by:
**GEOTECHNOLOGY, INC.
ST. LOUIS, MISSOURI**

Date:
AUGUST 6, 2018

Geotechnology Project No.:
J032667.01

**SAFETY
QUALITY
INTEGRITY
PARTNERSHIP
OPPORTUNITY
RESPONSIVENESS**

St. Louis, MO | Erlanger, KY | Memphis, TN | Overland Park, KS | Cincinnati, OH | Fairview Heights, IL
Lexington, KY | Dayton, OH | Oxford, MS | Jonesboro, AR



August 6, 2018

Mr. Jason Jonas, P.E.
Jefferson County Department of Public Works
729 Maple Street
P.O. Box 100
Hillsboro, Missouri 63050

Re: Asbestos and Lead-Based Paint Surveys
Heads Creek Road Bridge
House Springs, Missouri
Geotechnology. Job No. J032667.01

Dear Mr. Jonas:

In accordance with our proposal P032667.01, dated July 11, 2018, Geotechnology, Inc. (Geotechnology) is pleased to provide this asbestos and lead-based paint (LBP) surveys report for the referenced project. Our scope of services included asbestos and LBP surveys, sampling of suspect asbestos-containing material (ACM), X-ray fluorescence (XRF) LBP screening, laboratory analysis of samples, and a letter report.

SITE AND PROJECT DESCRIPTION

The subject structure is an approximately 19-foot-long, concrete bridge crossing a tributary to Heads Creek, located on Heads Creek Road, south of the intersection of Route MM in House Springs, Missouri. The existing superstructure consists of concrete abutments with a concrete bottom slab, and a concrete deck atop corrugated metal forms over shallow rolled steel beams. It is our understanding that the bridge is scheduled to be replaced.

ASBESTOS SURVEY

The objective of the asbestos survey was to identify potential ACM in suspect building materials located within the subject structure. In general conformance with the National Emission Standards for Hazardous Air Pollutants (NESHAPs) and the Missouri Department of Natural Resources (MDNR) requirements, the survey was conducted on July 24, 2018, by Mr. Brad Lohrum, a Missouri-licensed asbestos inspector. Copies of Mr. Lohrum's training certificate and asbestos inspector license are included in Appendix A.

Samples were collected in general conformance with the NESHAPs and MDNR requirements. The identified suspect ACMs were subdivided into homogeneous areas (an area of surfacing material, thermal system insulation material or miscellaneous material that is uniform in color



and texture). Samples were collected from each identified homogeneous area, consistent with industry practice.

Using standard chain-of-custody procedures, the suspect ACM samples were submitted to QuanTEM Laboratories of Oklahoma City, Oklahoma, a National Voluntary Laboratory Accreditation Program (NVLAP)-accredited laboratory, for identification by Polarized Light Microscopy (PLM) coupled with dispersion staining, according to the test method, "Method for Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116). A copy of the asbestos survey summary is included in Appendix B.

ASBESTOS RESULTS

Laboratory analyses of the submitted samples did not detect the presence of asbestos in the samples.

Geotechnology will not be able to represent that the site contains no asbestos beyond that detected or observed by Geotechnology during the survey. Copies of the asbestos laboratory analytical results are included in Appendix C.

LEAD-BASED PAINT SURVEY

An LBP survey of painted surfaces was conducted at the subject structure in general accordance with the *HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* (HUD Guidelines) of June 1995 (updated July 2012). The LBP survey was performed by Mr. Brad Lohrum, a Missouri-licensed Lead Risk Assessor, on July 24, 2018. Copies of Mr. Lohrum's training certificate and lead risk assessor license are included in Appendix A. The purpose of the LBP survey was to provide a professional opinion as to the potential extent of lead-based painted components, which may require future remedial action. A Niton XRF Spectrum Analyzer, Model XLp 702A, was used to identify the total lead content of surface coatings (e.g., paints, varnishes, etc.) in units of milligrams of lead per square centimeter of surface area (mg/cm^2).

Lead-based paint is generally defined as a surface coating containing greater than or equal to $1.0 \text{ mg}/\text{cm}^2$ lead. Total lead content should not be confused with Toxicity Characteristic Leaching Procedure (TCLP) lead content used to determine if lead is present at levels deemed as hazardous (5 ppm). Geotechnology is not aware of a definitive relationship between total lead content and TCLP lead content.

LEAD-BASED PAINT SURVEY RESULTS

The survey included accessible areas of the subject structure. A total of eight XRF readings and six calibration readings were obtained during the survey. Of the eight XRF readings, one was a proximity button misfire (null), one was a shutter calibration check, and six were negative.

The LBP XRF calibration and survey logs which contain the XRF screening locations and results collected during the survey are included in Appendix B. The XRF survey data sheets are included in Appendix C.



The Niton XRF Spectrum Analyzer 702 Series was calibrated against manufacturer-supplied standards at the beginning and end of the survey. Calibration data is also included in the attached field survey data sheets.

ASBESTOS RECOMMENDATIONS

The results of the laboratory analysis did not indicate the presence of asbestos in the building materials sampled during the survey. Our recommendations are summarized below:

- Should suspect materials not observed during our asbestos survey be discovered within inaccessible and unobserved areas during demolition activities, further testing may be recommended.

LEAD-BASED PAINT RECOMMENDATIONS

The results of the XRF screening did not indicate the presence of LBP on materials and surfaces tested during the survey. Our recommendations are summarized below:

- Should painted surfaces not observed during our LBP survey be discovered within inaccessible and unobserved areas during demolition activities, further testing may be recommended.

* * * * *

The following attachments are included in and complete this report:

- | | | |
|------------|---|---|
| Appendix A | - | Certificates and Licenses of Environmental Professional |
| Appendix B | - | Asbestos Survey Summary |
| Appendix C | - | Asbestos Laboratory Analytical Results |
| Appendix D | - | XRF LBP Survey Log |
| Appendix E | - | XRF Survey Data Sheet |
| Appendix F | - | Limitations of Report |

* * * * *

We appreciate the opportunity to be of service to the Jefferson County Department of Public Works. If you have any questions or comments, please contact me at (314) 997-7440.

Very truly yours,

GEOTECHNOLOGY, INC.

Bradley J. Lohrum
Senior Scientist

BJL/DTK:bjl/jsj



APPENDIX B
ASBESTOS SURVEY SUMMARY

ASBESTOS SURVEY SUMMARY

Page 1 of 1

Inspection Date: July 24, 2018
 Inspector: Brad Lohrum
 Site Address: Heads Creek Road Bridge
 House Springs, Missouri

Geotechnology, Inc. Project No.: J032667.01
 Project Name: Heads Creek Road Bridge
 Type of Structure: Two-lane Concrete Bridge

Homogeneous Area Number/Location	Type of Material	Quantity/Condition ¹	Sample I.D.	Location of Sampled Material/Substrate	Friability Category	Asbestos	
						Type	%
#1 / Throughout	Concrete	NQ, P	1A	Below Deck / Concrete	F	ND	
			1B	Below Deck / Concrete	F	ND	
			1C	Below Deck / Concrete	F	ND	
#2 / Throughout	Asphalt	NQ, P	2A	Above Deck / Concrete	NF I	ND	
			2B	Above Deck / Concrete	NF I	ND	
			2C	Above Deck / Concrete	NF I	ND	



APPENDIX C

ASBESTOS LABORATORY DATA SHEETS



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 297129

Account Number: C039

Date Received: 07/26/2018

Received By: Katie Davis

Date Analyzed: 08/02/2018

Analyzed By: Gayle Ooten

Methodology: EPA/600/R-93/116

Client: Geotechnology, Inc.
11816 Lackland Rd., STE 150
St. Louis, MO 63146

Project: Heads Creek Road Bridge

Project Location: Barnhardt, Missouri

Project Number: J032667.01

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	1A	Homogeneous	Tan Concrete	Asbestos Not Present	NA	Sand CaCO3
002	1B	Homogeneous	Tan Concrete	Asbestos Not Present	NA	Sand CaCO3
003	1C	Homogeneous	Tan Concrete	Asbestos Not Present	NA	Sand CaCO3
004	2A	Homogeneous	Black Asphalt	Asbestos Not Present	NA	Sand CaCO3 Tar
005	2B	Homogeneous	Black Asphalt	Asbestos Not Present	NA	Sand CaCO3 Tar
006	2C	Homogeneous	Black Asphalt	Asbestos Not Present	NA	Sand CaCO3 Tar

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.



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 297129

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11816 Lackland Rd., STE 150

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Project: Heads Creek Road Bridge

Project Location: Barnhardt, Missouri

Project Number: J032667.01

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
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Gayle Ooten, Analyst

8/2/2018

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

Page 1 of 1

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Only	
Lab No. <u>297125</u>	Accept <input checked="" type="checkbox"/> Reject <input type="checkbox"/>
Report Results (<input checked="" type="checkbox"/> one box)	
<input type="checkbox"/> QuanTEM Website	<input checked="" type="checkbox"/> Email <u>blohrum@geotechnology.com</u>
<input type="checkbox"/> Other _____	

Contact Information		Project Information	
Company: <u>Geotechnology, Inc.</u>	Phone: <u>(314) 997-7440</u>	Project Name: <u>Heads Creek Road Bridge</u>	
Contact: <u>Brad Lohrum</u>	Cell Phone: _____	Project Location: <u>Barnhardt, Missouri</u>	
Account #: <u>C039</u>	E-mail: <u>blohrum@geotechnology.com</u>	Project ID: <u>J032667.01</u>	
SAMPLED BY: Name: <u>Brad Lohrum</u>	Date: <u>7/24/2018</u>	P.O. Number: <u>GEO-5223-2018</u>	

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
<u>Bradley Lohrum</u>	<u>7/24/18 @ 16:00</u>		<u>[Signature]</u>	<u>8-2-26 9:30</u>

REQUESTED SERVICES (Please <input checked="" type="checkbox"/> the Appropriate Boxes)				
PLM	PLM	TEM	TEM	TURNAROUND 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"/> 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"/> Same Day
<input type="checkbox"/> 1000 Point Count		<input type="checkbox"/> Air- ISO 10312	<input type="checkbox"/> Dust- Presence / Absence	<input type="checkbox"/> 24 - Hour
<input type="checkbox"/> Gravimetric Preparation	PCM	<input type="checkbox"/> Drinking Water- EPA 100.2	<input type="checkbox"/> Dust- Quantitative [fibers/sq.cm]- ASTM D5755	<input type="checkbox"/> 3 - Day
<input type="checkbox"/> Particle ID	<input type="checkbox"/> NIOSH 7400	<input type="checkbox"/> Waste Water- EPA 600/4-83-043	<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> 5 - Day

No.	Sample ID (10 Characters Max)	<input checked="" type="checkbox"/> To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
1	<u>1A</u>	<input checked="" type="checkbox"/>	<u>Gray</u>	<u>Concrete</u>		<u>PLM Bulk - stop</u>
2	<u>1B</u>	<input checked="" type="checkbox"/>	<u>+</u>	<u>+</u>		<u>1st Positive</u>
3	<u>1C</u>	<input checked="" type="checkbox"/>	<u>+</u>	<u>+</u>		
4	<u>2A</u>	<input checked="" type="checkbox"/>	<u>Black</u>	<u>Asphalt</u>		
5	<u>2B</u>	<input checked="" type="checkbox"/>	<u>+</u>	<u>+</u>		
6	<u>2C</u>	<input checked="" type="checkbox"/>	<u>+</u>	<u>+</u>		
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 D

XRF LBP SURVEY LOG

**GEOTECHNOLOGY INC.
LEAD-BASED PAINT XRF CALIBRATION LOG**

Project No.: J032667.01 Survey Date: July 24, 2018

Surveyed By: Brad Lohrum XRF Serial No.: XLp 702A TR0944-24561

Structure Age: Unknown Address: Heads Creek Road Bridge

START OF SURVEY

Calibration Check (start of survey)					
Sample No.	Standard mg/cm ²	+ - mg/cm ²	XRF mg/cm ²	+ - mg/cm ²	Other
1012	0.307	0.021	0.4	0.2	Green
1013	0.714	0.083	0.5	0.2	Gold
1014	3.58	0.39	3.6	1.4	Yellow

END OF SURVEY

Calibration Check (end of survey)					
Sample No.	Standard mg/cm ²	+ - mg/cm ²	XRF mg/cm ²	+ - mg/cm ²	Other
1023	0.307	0.021	0.21	0.1	Green
1024	0.714	0.083	0.5	0.2	Gold
1025	3.58	0.39	2.2	0.5	Yellow

Comments/Note:

**GEOTECHNOLOGY INC.
LEAD-BASED PAINT XRF CALIBRATION LOG**

Project No.: J032667.01Survey Date: July 24, 2018Surveyed By: Brad LohrumXRF Serial No.: XLp 702A TR0944-24561Structure Age: UnknownAddress: Heads Creek Road Bridge

Sample No.	Color	Substrate (D,I) ¹	Specific Location	XRF mg/cm ²	+ - mg/cm ²
1015	Blue	Metal, D	Bridge Deck Beam	0.01	0.03
1016	Red	Metal, D	Bridge Deck Beam	0.06	0.07
1017	Green	Metal, D	Bridge Deck Beam	0.08	0.09
1018	Silver	Metal, D	Bridge Deck Beam	0.09	0.08
1019	NULL				
1020	Yellow	Metal, D	Bridge Deck Beam	0.02	0.03
1021	Black	Metal, D	Bridge Deck Beam	0.01	0.02
1022	Shutter Calibration				

¹Condition Survey – Deteriorating (D) or Intact (I)



APPENDIX E
XRF SURVEY DATA SHEET

Heads Creek Road Bridge

Index	Reading No	Time	Units	Sequence	Results	PbC	PbL	PbK
1	1012	2018-07-24 14:54	mg / cm ^2	Final	Negative	0.40 ± 0.20	0.40 ± 0.20	< LOD : 0.00
2	1013	2018-07-24 14:55	mg / cm ^2	Final	Negative	0.50 ± 0.20	0.50 ± 0.20	0.70 ± 1.20
3	1014	2018-07-24 14:55	mg / cm ^2	Final	Positive	3.60 ± 1.40	3.60 ± 1.40	3.40 ± 5.10
4	1015	2018-07-24 14:58	mg / cm ^2	Final	Negative	0.01 ± 0.03	0.01 ± 0.03	0.25 ± 2.17
5	1016	2018-07-24 14:59	mg / cm ^2	Final	Negative	0.06 ± 0.07	0.06 ± 0.07	0.40 ± 1.60
6	1017	2018-07-24 14:59	mg / cm ^2	Final	Negative	0.08 ± 0.09	0.08 ± 0.09	0.50 ± 2.40
7	1018	2018-07-24 15:00	mg / cm ^2	Final	Negative	0.09 ± 0.08	0.09 ± 0.08	0.70 ± 2.20
8	1019	2018-07-24 15:00	mg / cm ^2	Final	Null	0.05 ± 0.22	0.05 ± 0.22	0.24 ± 7.84
9	1020	2018-07-24 15:00	mg / cm ^2	Final	Negative	0.02 ± 0.03	0.02 ± 0.03	0.12 ± 2.03
10	1021	2018-07-24 15:01	mg / cm ^2	Final	Negative	0.01 ± 0.02	0.01 ± 0.02	0.80 ± 2.00
11	1022	2018-07-24 15:06	qps	Final		4.34 ± 0.00	0.71 ± 0.00	0.02 ± 0.00
12	1023	2018-07-24 15:07	mg / cm ^2	Final	Negative	0.21 ± 0.10	0.21 ± 0.10	< LOD : 1.63
13	1024	2018-07-24 15:07	mg / cm ^2	Final	Negative	0.50 ± 0.20	0.50 ± 0.20	< LOD : 1.95
14	1025	2018-07-24 15:08	mg / cm ^2	Final	Positive	2.20 ± 0.50	2.20 ± 0.50	< LOD : 3.90



APPENDIX F

LIMITATIONS OF REPORT

ASBESTOS AND LEAD-BASED PAINT SURVEYS
LIMITATIONS OF REPORT

1. This report has been prepared on behalf of and for the exclusive use of the addressee, solely for use as an asbestos and lead-based paint survey of the site. If this report is provided to contractors, Client should make it clear that information is provided for data purposes only and not as a warranty of the asbestos conditions at the site. Unless other contractual agreements were made, the services described in this report were carried out in accordance with the Terms for Geotechnology's Services that accompanied the proposal.
2. The surveys were performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and Geotechnology endeavored to conduct the services identified herein in a manner consistent with that level of care and skill ordinarily exercised by other consultants under similar circumstances and conditions. The findings and conclusions stated herein must be considered not as scientific certainties, but rather as professional opinions concerning the significance of the limited data gathered during the course of the survey. Specifically, Geotechnology does not and cannot represent that the site contains no asbestos and lead-based paint beyond that observed by Geotechnology during its survey.
3. The observations described in this Report were made under the conditions stated therein. The conclusions presented in the Report were based solely upon the services described therein, and not on scientific tasks or procedure beyond the scope of described services or the time and budgetary constraints imposed by Client. Furthermore, such conclusions are based solely on site condition, and rules and regulations, which were in effect at the time of the study.
4. In the event that information is developed relative to asbestos or lead-based paint issues at the site and not contained in this report, such information shall be brought to Geotechnology's attention. Geotechnology will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this Report.
5. Observations were made of the site as indicated within the Report. Where access to portions of the site was unavailable or limited, Geotechnology renders no opinion as to the presence of potentially hidden asbestos and lead-based paint in that portion of the site. In addition, Geotechnology renders no opinion as to the presence of potentially hidden asbestos and lead-based paint where direct observation of the interior walls, floor, roof, or ceiling of a site was obstructed by objects or coverings on or over these surfaces. These inaccessible and unobserved areas should be further investigated prior to any renovation/demolition activity that may disturb them.
6. Since it is not always possible to acquire a large enough sample of adhesively applied suspect asbestos-containing material to adequately analyze the underlying mastic without seriously defacing the surface, prior to renovation/demolition in those indeterminate areas additional sampling should be accomplished.

7. Except as noted within the text of the Report, no quantitative laboratory testing was performed as part of the survey. Where such analyses have been conducted by an outside laboratory, Geotechnology has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.
8. The purpose of the asbestos survey portion of this Report was to assess the physical characteristics of the subject site with respect to the presence on the building surfaces of asbestos as defined in 40 CFR Parts 761 and 763, and 29 CFR Part 1926. No specific attempt was made to check on the compliance of present or past owners or operators of the site with federal, state, or local laws and regulations, environmental or otherwise.
9. It is recommended that Geotechnology be retained to provide further asbestos consulting services during construction and/or implementation of any remedial measures recommended in this report. This is to allow Geotechnology to observe compliance with the concepts and recommendations contained herein, and to allow the development of design changes in the event that conditions differ from those anticipated.
10. This survey may address the identification requirements of the Communication of Hazards Duties of Building and Facility Owners – as described in OSHA 29 CFR 1296.1101(k) Asbestos (in construction) Standard, Practices and Procedures for removal, prior to demolition and disposal, should be in accordance with referenced regulations, the OSHA Asbestos in Construction Standard, and the EPA Interpretive Rule Governing Roof Removal (40 CFR Part 61, Appendix A to Subpart M).

AFFIDAVIT COMPLIANCE WITH THE PREVAILING WAGE LAW

Before me, the undersigned Notary Public, in and for the County of _____, State of _____, personally came and appeared _____

(Name)

_____ of _____

(Title)

(Company Name)

(a corporation)(a partnership)(a proprietorship) and after being duly sworn did depose and say that all provisions and requirements set out in Chapter 290, Sections 290.210 through and including 290.340, Missouri Revised Statutes, pertaining to the payment of wages to workers employed on public works projects have been fully satisfied and there has been no exception to the full and complete compliance with said provisions and requirements with Wage Determination No. _____ or Annual Wage Order No. _____ issued by the Division of Labor Standards on project _____,

(Job Number)

(Route or location, if building construction)

_____ County, Missouri, and completed on the ____ day of _____, 20____.

Signature

Subscribed and sworn to me this ____ day of _____, 20____.

My commission expires _____, 20____.

Notary Public

(Revised 03-23-00)

Missouri

Division of Labor Standards

WAGE AND HOUR SECTION



ERIC R. GREITENS, Governor

Annual Wage Order No. 25

Section 050

JEFFERSON 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

Matt Cowell, Director
Division of Labor Standards

Filed With Secretary of State: March 9, 2018

Last Date Objections May Be Filed: April 9, 2018

Prepared by Missouri Department of Labor and Industrial Relations

OCCUPATIONAL TITLE	** Date of Increase	*	Basic Hourly Rates	Over-Time Schedule	Holiday Schedule	Total Fringe Benefits
Asbestos Worker (H & F) Insulator			\$38.70	55	60	\$23.17
Boilermaker	6/18		\$36.41	126	7	\$30.81
Bricklayer and Stone Mason	6/18		\$33.25	72	5	\$23.57
Carpenter	6/18	e	\$38.85	77	41	\$17.30
Cement Mason	6/18		\$32.66	80	6	\$19.00
Communication Technician			\$33.21	44	47	\$20.24
Electrician (Inside Wireman)			\$36.92	82	71	\$10.84 + 39%
Electrician (Outside-Line Construction\Lineman)			\$44.56	43	45	\$5.75 + 36%
Lineman Operator			\$38.35	43	45	\$5.75 + 36%
Groundman			\$29.48	43	45	\$5.75 + 36%
Elevator Constructor	6/18	a	\$48.54	26	54	\$34.395
Glazier			\$34.55	87	31	\$26.20
Ironworker			\$33.96	11	8	\$25.745
Laborer (Building):						
General		b	\$28.11	73	7	\$13.42
First Semi-Skilled		d	\$28.11	73	7	\$13.42
Second Semi-Skilled		c	\$28.11	73	7	\$13.42
Lather			USE CARPENTER RATE			
Linoleum Layer and Cutter	6/18		\$33.43	92	26	\$17.00
Marble Mason			\$32.12	76	51	\$15.25
Marble Finisher			\$26.67	76	51	\$14.48
Millwright	6/18		\$38.85	77	41	\$17.31
Operating Engineer						
Group I	6/18		\$32.96	3	66	\$27.43
Group II	6/18		\$32.96	3	66	\$27.43
Group III	6/18		\$31.06	3	66	\$27.43
Group III-A	6/18		\$32.96	3	66	\$27.43
Group IV	6/18		\$27.60	3	66	\$27.43
Group V	6/18		\$27.60	3	66	\$27.43
Painter			\$33.40	104	12	\$14.26
Pile Driver			USE CARPENTER RATE			
Pipe Fitter			\$39.25	91	69	\$27.18
Plasterer			\$31.81	67	3	\$18.68
Plumber			\$39.25	91	69	\$27.18
Roofer \ Waterproofer			\$32.70	15	73	\$17.97
Sheet Metal Worker			\$41.55	32	25	\$22.72
Sprinkler Fitter - Fire Protection			\$43.31	66	18	\$23.27
Terrazzo Worker			\$32.40	116	5	\$14.26
Terrazzo Finisher			\$30.65	116	5	\$12.73
Tile Setter			\$32.12	76	51	\$15.25
Tile Finisher			\$26.67	76	51	\$14.48
Traffic Control Service Driver			\$28.775	22	55	\$9.045
Truck Driver-Teamster			\$30.41	35	36	\$10.82

Fringe Benefit Percentage is of the Basic Hourly Rate

**Annual Incremental Increase

OCCUPATIONAL TITLE	** Date of Increase	Basic Hourly Rates	Over-Time Schedule	Holiday Schedule	Total Fringe Benefits

* Welders receive rate prescribed for the occupational title performing operation to which welding is incidental.

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

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).

- a - Vacation: Employees over 5 years - 8%; Employees under 5 years - 6%
- b - Projects over \$1 Million - \$28.11; Projects under \$1 Million - \$25.96
- c - Projects over \$1 Million - \$28.11; Projects under \$1 Million - \$25.96
- d - Projects over \$1 Million - \$28.11; Projects under \$1 Million - \$25.96
- ** e - Projects over \$1 Million - \$38.85; Projects under \$1 Million - \$33.76

**REPLACEMENT PAGE
JEFFERSON COUNTY
BUILDING CONSTRUCTION - OVERTIME SCHEDULE**

FED: Minimum requirement per Fair Labor Standards Act means time and one-half ($1\frac{1}{2}$) shall be paid for all work in excess of forty (40) hours per work week.

NO. 3: Means the regular workday shall consist of eight (8) consecutive hours, exclusive of a thirty (30) minute lunch period, with pay at the straight time rate. The regular workday shall begin between the hours of 6:00 a.m. and 9:00 a.m. The Employer may have the option to schedule the work week from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be paid at the applicable overtime rate. If the Employer elects to work from Monday through Thursday and is stopped due to inclement weather, holiday or other conditions beyond the control of the Employer, they shall have the option to work Friday at the straight time rate of pay to complete the forty (40) hours for the workweek. All overtime work performed on Monday through Saturday shall be paid at time and one-half ($1\frac{1}{2}$) the hourly rate plus an amount equal to one-half ($\frac{1}{2}$) of the hourly Total Indicated Fringe Benefits. All work performed on Sundays and recognized holidays shall be paid at double (2) the hourly rate plus an amount equal to the hourly Total Indicated Fringe Benefits. Shifts may be established when considered necessary by the Employer. Shift hours and rates will be as follows. If shifts are established, work on the First Shift will begin between 6:00 a.m. and 9:00 a.m. and consist of eight (8) hours of work plus one-half hour unpaid lunch. Hours worked during the first shift will be paid at the straight time rate of pay. The second shift shall start eight hours after the start of the first shift and consist of eight (8) hours of work plus one-half hour unpaid lunch. Work on the second shift will begin between 2:00 p.m. and 5:00 p.m. and be paid the straight time rate plus \$2.50 per hour. The third shift shall start eight hours after the start of the second shift and consist of eight (8) hours plus one-half hour unpaid lunch. Work on the third shift will begin between 10:00 p.m. and 1:00 a.m. and be paid the straight time rate plus \$3.50 per hour. The additional amounts that are to be paid are only applicable when working shifts. Shifts that begin on Saturday morning through those shifts which end on Sunday morning will be paid at time and one-half these rates. Shifts that begin on Sunday morning through those shifts which end on Monday morning will be paid at double time these rates.

NO. 11: Means eight (8) hours shall constitute a day's work, with the starting time to be established between 6:00 a.m. and 8:00 a.m. from Monday to Friday. Time and one-half ($1\frac{1}{2}$) shall be paid for first two (2) hours of overtime Monday through Friday and the first eight (8) hours on Saturday. All other overtime hours Monday through Saturday shall be paid at double (2) time rate. Double (2) time shall be paid for all time on Sunday and recognized holidays or the days observed in lieu of these holidays.

NO. 15: Means the regular working day shall be scheduled to consist of at least eight (8) hours, but no more than ten (10) consecutive hours, exclusive of the lunch period. The regular working day may be scheduled to commence at any time between the hours of 5:00 a.m. and 10:00 a.m. All work performed in excess of forty (40) hours in one work week, or in excess of ten (10) hours in one work day shall be paid at the rate of one and one-half ($1\frac{1}{2}$) times the regular hourly wage scale. Any work performed on a Saturday shall be paid for at the rate of one and one-half ($1\frac{1}{2}$) times the regular hourly wage scale unless such Saturday work falls under the category of Saturday Make-Up Day. Any work performed by Employees anywhere on Sunday or recognized holidays, shall be paid for at the rate of double (2) time the regular wage scale. If, during the course of a work week, an Employee is unable to work for any reason, and, as a result, that Employee has not accumulated forty (40) hours of compensable time at the straight time rate, the Employer, at his option may offer the Employee the opportunity to work on Saturday at straight time; provided, however, if during the period worked by said Employee on Saturday, the Employee's compensable time at the straight time rate exceeds forty (40) hours, all time worked in excess of the forty (40) hours will be paid at the rate of one and one-half ($1\frac{1}{2}$) times the regular hourly wage scale.

NO. 22: Means a regular work week of forty (40) hours will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A workday is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time may be advanced or delayed if mutually agreed to by the interest parties. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.

**REPLACEMENT PAGE
JEFFERSON COUNTY
BUILDING CONSTRUCTION - OVERTIME SCHEDULE**

NO. 26: Means that the regular working day shall consist of eight (8) hours worked between 6:00 a.m., and 5:00 p.m., five (5) days per week, Monday to Friday, inclusive. Hours of work at each jobsite shall be those established by the general contractor and worked by the majority of trades. (The above working hours may be changed by mutual agreement). Work performed on Construction Work on Saturdays, Sundays and before and after the regular working day on Monday to Friday, inclusive, shall be classified as overtime, and paid for at double (2) the rate of single time. The employer may establish hours worked on a jobsite for a four (4) ten (10) hour day work week at straight time pay for construction work; the regular working day shall consist of ten (10) hours worked consecutively, between 6:00 a.m. and 6:00 p.m., four (4) days per week, Monday to Thursday, inclusive. Any work performed on Friday, Saturday, Sunday and holidays, and before and after the regular working day on Monday to Thursday where a four (4) ten (10) hour day workweek has been established, will be paid at two times (2) the single time rate of pay. The rate of pay for all work performed on holidays shall be at two times (2) the single time rate of pay.

NO. 32: The regular working day shall consist of eight (8) hours of labor on the job between six (6) a.m. and four (4) p.m. and the regular working week shall consist of five (5) consecutive eight (8) hour days of labor on the job beginning with Monday and ending with Friday of each week. The normal work week is 40 hours. All full-time or part-time labor performed during such hours shall be recognized as regular working hours and paid for at the regular hourly rate. All work performed during regular work hours on Saturdays will be paid at time and one-half (1½). All work performed outside of regular working hours and performed during the regular work week, shall be at double (2) times the regular rate, except that the first two (2) hours following the regular work day shall be paid at one and one-half (1½) times the regular rate. An early starting time of 6:00 a.m. may be used mutually agreed upon by the interested parties. **SHIFT RATE:** Shift work would start after 4:00 p.m. to 6:00 a.m. The first 8 hours would be at 115% of the basic wage rate. Overtime Monday through Friday would be at 1½ of base shift rate. Saturday regular work day hours – 1½ of base shift rate. Saturday – work after 8 hours – 2 times the basic wage rate. Sunday and Holidays – 2 times the basic wage rate. All work performed on recognized holidays and Sundays shall be paid double (2) time. Appropriate overtime rates to be based on fifteen minute increments.

NO. 35: Means a regular work week of forty (40) hours, will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof maybe worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A work day is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time maybe advanced or delayed if mutually agreed to by the interested parties. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.

NO. 43: Eight (8) hours shall constitute a work day between the hours of 7:00 a.m. and 4:30 p.m. Forty (40) hours within five (5) days, Monday through Friday inclusive, shall constitute the work week. Work performed in the 9th and 10th hour, Monday through Friday, shall be paid at time and one-half (1½) the regular straight time rate of pay. Contractor has the option to pay two (2) hours per day at the time and one-half (1½) the regular straight time rate of pay between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. Work performed outside the regularly scheduled working hours and on Saturdays, Sundays and recognized legal holidays, or days celebrated as such, shall be paid for at the rate of double (2) time.

NO. 44: Means forty (40) hours shall constitute a work week, Monday through Friday. Eight (8) hours shall constitute a work day. Hours of work shall be between the hours of 7:00 a.m. and 4:30 p.m. All work performed before 7:00 a.m. and after 4:30 p.m. and all work performed in excess of eight (8) hours in any one work day, over forty (40) hours in any work week and the first eight (8) hours of work on Saturday, shall be paid at the rate of one and one-half (1½) times the regular rate of pay. All hours worked in excess of eight (8) hours on Saturday, all hours worked on Sunday and on holidays, or days that may be celebrated as such, and as designated by the federal government, shall be paid at two (2) times the regular rate of pay. All shifts for work performed between the hours of 4:30 p.m. and 1:00 a.m. shall receive eight (8) hours pay at the regular hourly rate of pay plus two dollars (\$2.00) per clock hour. All work performed between the hours of 12:30 a.m. and 9:00 a.m. on a third shift shall receive eight (8) hours pay at the regular hourly rate plus four dollars (\$4.00) per clock hour. All overtime work required after the completion of a regular shift shall be paid at one and one-half times (1½ x) the "shift" hourly rate.

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NO. 55: Means the regular work day shall be eight (8) hours between 6:00 a.m. and 4:30 p.m. The first two (2) hours of work performed in excess of the eight (8) hour work day, Monday through Friday, and the first ten (10) hours of work on Saturday, shall be paid at one & one-half (1½) times the straight time rate. All work performed on Sunday, observed holidays and in excess of ten (10) hours a day, Monday through Saturday, shall be paid at double (2) the straight time rate.

NO. 66: Means eight (8) hours shall constitute a day's work beginning at 7:00 a.m. (or 8:00) A.M. and ending at 3:30 (or 4:30) P.M. The work week shall be forty (40) hours beginning Monday at 7:00 a.m. (or 8:00) A.M. And ending Friday at 3:30 (or 4:30) P.M. The Employer at his option may use a flexible starting time between the hours of 6:00 a.m. and 8:00 a.m. All overtime, that is worked outside of the above established working hours of Monday through Friday, shall be paid at double (2) time, including Saturdays, Sundays and Holidays.

NO. 67: Means eight (8) hours shall constitute a day's work, with a flexible starting time to begin between 6:00 a.m. to 8:00 a.m., five (5) days a week, Monday through Friday. Any work over eight (8) hours in any one day shall be at the overtime rate, which is time & one-half (1½). Any work on Saturday shall be at time & one-half (1½), unless a Make-Up Day due to inclement weather is in effect. Any work on Sundays or holidays shall be at double (2) time. Four (4) days, ten (10) hours each day to be worked during Monday through Friday, shall be paid at straight time. A Make-Up Day Due To Inclement Weather Only - Employee(s) will be permitted to work an eight (8) hour make-up day on Saturday only, and the employee will receive the regular straight time wage rate.

NO. 72: Means that except as is otherwise provided herein, the work week shall be determined to begin at 8:00 a.m. Wednesday and end at 4:30 p.m. on the following Tuesday. Except as herein provided, working hours are from 8:00 a.m. to 11:55 a.m. and 12:30 p.m. to 4:25 p.m. and no more than the regular hours shall be worked during the forenoon or afternoon at the regular rate. In the case of days of inclement weather starting time and quitting time may be adjusted so long as the hours worked on such days do not exceed eight (8) and do not extend beyond 4:30 p.m. In circumstances where the Employee or Employees have regularly been working overtime on a particular day or days, no adjustment in the starting time shall operate to deprive Employees of overtime pay, which they would have otherwise received but for the change in the starting time. The parties understand that the application of the provisions of the preceding sentence will result in Employees receiving overtime pay even where they have not worked more than with (8) hours on a particular day. Regardless of the starting time, the forenoon working hours shall end at 11:55 a.m. and the afternoon working hours shall begin at 12:30 p.m. and end 8 hours and 25 minutes after the starting time fixed by the Employer for forenoon hours. Work performed by an employee on a non-holiday Saturday, except as hereinafter provided, or at night or before or after regular working hours on a non-holiday weekday, shall be considered overtime work, for which Employees working during such time shall be paid at the rate of one and one-half (1½) times their regular hourly wage rate for each hour or fraction thereof, worked during such time. Work performed on a Sunday or the recognized holidays shall be considered overtime work for which the Employee shall be paid twice the amount of his or her regular hourly wage rate for each hour or fraction thereof worked on any such day.

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NO. 73: Means eight (8) hours shall constitute a day's work to begin at 8:00 a.m. and end at 4:30 p.m. The starting time may be advanced one (1) or two (2) hours. Employees shall receive time and one-half (1½) for all time they are required to work before 8:00 a.m., during the lunch period or after 4:30 p.m. unless the starting time is advanced as provided above. Forty (40) hours shall constitute a week's work, Monday through Friday, or any part thereof by reason of inclement weather (rain or mud), Saturday or any part thereof may be worked as a make-up day at the straight time rate. The Employer shall have the option of working five (5) eight (8) hour day's or four (4) ten (10) hour day's Monday through Friday. If an Employer elects to work five (5) eight (8) hour days during any work week, hours worked more than eight (8) per day or forty (40) per week shall be paid at time and one-half (1½) the hourly rate Monday through Friday. If an employer elects to work four (4) ten (10) hour days in any week, work performed more than ten (10) hours per day or forty (40) hours per week shall be paid at time and one-half (1½) the hourly rate Monday through Friday. If an Employer is working ten (10) hour days and loses a day due to inclement weather, he may work ten (10) hours Friday at straight time. All time over the regular workday as defined and all hours worked on Saturday shall be paid at the rate of one and one-half (1½) the regular rate of wages. If workmen are required to work recognized holidays or days observed as such, or on Sunday, they shall receive double (2) the regular rate of pay for such work. If a laborer is assisting another craft on a make-up day and the other craft is receiving overtime pay the laborer shall receive the same overtime multiple as the craft assisted. No overtime rates shall be broken down into less than thirty (30) minute units of time. Projects that cannot be performed during regular workday: Building construction work, if required by the owner, the contractor may perform work outside the normal hours and employees shall be paid applicable straight time hourly wage rate plus a premium of \$1.50 per hour for the first eight hours worked. Any hours worked in excess of eight hours shall be paid at the applicable overtime rate plus \$1.50 per hour premium. Shift work: The Employer may elect to work, one, two or three shifts on any work. When two or more shifts are worked on any operation, the first shift or day shift shall consist of eight (8) hours exclusive of lunch time; the second or swing shift consist of eight (8) hours' work for eight and one-half hours pay, exclusive of lunch time; the third or graveyard shift shall consist of eight (8) hours' work for nine (9) hours' pay exclusive of lunch time. The swing shift shall be paid twenty-five cents (\$.25) per hour above the regular rate of pay. The graveyard shift shall be paid fifty cents (\$.50) per hour above the regular rate of pay. Multiple shift (second or third shift) operation will not be construed on the entire project if at any time it is deemed advisable and necessary for the employer to a specific operation. However, no shift shall be started between midnight and 6:00 a.m. except the graveyard shift on a three (3) shift operation, or except in unusual or emergency, regardless if the project is working one (1) or two (2) shift. Shifts shall be established for a minimum of three (3) consecutive workdays. When 2-10 or 12 hour shifts are worked, the second shift shall receive \$.50 per hour above regular rate of pay. When the employer elects to work 2-10 or 12 hour shifts, the first 8 hours shall be at straight time rates. The remaining 2 or 4 hours shall be at the overtime rate of time and one-half.

NO. 76: Means the standard workday shall consist of eight (8) hours of work between the hours of 8:00 a.m. and 4:30 p.m. with a thirty (30) minute unpaid lunch hour occurring in the middle of the shift. The standard workweek shall consist of five standard workdays commencing on Monday and ending on Friday. The normal starting and quitting times may be changed by mutual consent of interested parties. All time worked before and after the established eight (8) hour workday, Monday through Friday, and all time worked on Saturday, shall be paid for at the rate of time & one-half (1½) the hourly base wage rate in effect. All time worked on Sunday and holidays shall be paid at the rate of double (2) the hourly wage in effect. All work done on Saturday will be done at time & one-half (1½), unless Saturday shall be used as a make-up day. If an employee should lose one or more days in a work week and use Saturday as a make-up day the pay shall be at the regular hourly base wage rate and benefits.

NO. 77: Means the regular workday shall consist of eight (8) consecutive hours, exclusive of a thirty (30) minute lunch period, with pay at the regular straight time hourly rate. The regular workday shall begin on the job site between the hours of 6:00 a.m. and 8:00 a.m. with the starting time to be determined by the Employer, unless project owner requires different starting time. This adjustable starting time can, at the Employer's option, be staggered to permit starting portions of the work force at various times within the prescribed hours. The Employer may establish a four (4) ten (10) hour shift exclusive of the thirty (30) minute lunch period at the straight time wage rate. Forty (40) hours per week shall constitute a week's work Monday through Thursday. In the event a job is down due to weather conditions, safety or other conditions beyond the control of the Employer, then Friday may, at the option of the employer, be worked as a make-up day at the straight time wage rate. Straight time is not to exceed ten (10) hours a day or forty (40) hours per week. Time and one-half (1 ½) shall be paid for all overtime hours worked during the week, Monday through Friday and for all work performed on Saturday. Double (2) time shall be paid for all time worked on Sunday and recognized holidays.

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NO. 80: Means eight (8) hours shall constitute the regular work day and forty (40) hours a work week, Monday through Friday. The Employer shall establish the starting time between 6:30 a.m. through 9:00 a.m. An Employer may further adjust the starting time up to 9:30 a.m. throughout the year. Time and one-half (1½) shall be paid after eight (8) consecutive hours worked after the established starting time and for hours worked before the established starting time. Time and one-half (1½) shall be paid for work performed on Saturdays. Work performed on Sundays and Holidays shall be paid at the double (2) time rate of pay. The Employer when working on Highway and Road Work may have the option to schedule the work week for his paving crew only from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be at the applicable overtime rate of time and one-half (1½). If the Employer elects to work from Monday through Thursday and is stopped due to inclement weather (rain, snow, sleet falling), the Employer shall have the option to work Friday at the straight time rate of pay to complete the forty (40) hours.

NO. 82: Means the work day shall consist of eight (8) hours worked between 7:00 a.m. and 4:30 p.m. Forty (40) hours will constitute the work week from Monday through Friday, inclusive. Up to four (4) hours of overtime work per day performed before or after the assigned normal work day, (twelve (12) continuous hours, starting no earlier than 6:00 a.m., Monday through Friday), shall be paid at a rate of one and one-half times (1.5x) that employee's hourly rate. Any additional overtime, Monday through Friday, shall be paid at two times (2x) the regular rate of pay. The first eight hours of overtime work on Saturday shall be paid at the rate of one and one-half times (1.5x) the regular rate of pay. Hours worked in excess of eight (8) hours on Saturday shall be paid at two times (2x) the regular rate of pay. Double time shall be paid for work performed on Sundays, recognized legal holidays or days that may be celebrated as such as designated by the federal government. All shifts for work performed between the hours of 4:30 p.m. and 1:00 a.m. shall be paid at the regular hourly rate plus two dollars (\$2.00) per clock hour. All shifts for work performed between the hours of 12:30 a.m. and 9:00 a.m. shall be paid at the regular hour rate plus four dollars (\$4.00) per clock hour. All overtime work required after the completion of a regular shift shall be paid at one and one-half times (1.5x) the "shift" hourly rate.

NO. 87: Means eight (8) hours starting between 6:00 a.m. and 8:00 a.m. and ending between 2:30 p.m. and 4:30 p.m. at the Employers discretion shall constitute a day's work. Any work prior to 6:00 a.m. or after eight (8) hours shall be paid at the overtime rate. Five (5) days from Monday through Friday inclusive shall constitute a regular work week. All hours before and after these regular hours shall be considered overtime and shall be paid for at the rate of double (2) time. All work on Saturday and Sunday shall be paid at double (2) the prevailing scale of wages.

NO. 91: Means eight (8) hours shall constitute a day's work commencing at 7:00 a.m. and ending at 3:30 p.m., allowing one-half (½) hour for lunch. The option exists for the Employer to use a flexible starting time between the hours of 6:00 a.m. and 9:00 a.m. The regular workweek shall consist of forty (40) hours of five (5) workdays, Monday through Friday. The workweek may consist of four (4) ten (10) hour days from Monday through Thursday, with Friday as a make-up day. If the make-up day is a holiday, the employee shall be paid at the double (2) time rate. The employees shall be paid time and one-half (1½) for work performed on Saturdays, before the regular starting time or after the regular quitting time or over eight (8) hours per work day (unless working a 10-hour work day, then time and one-half (1½) is paid for work performed over ten (10) hours a day) or over forty (40) hours per work week. Work performed on Sundays and recognized holidays shall be paid at the double (2) time rate of pay. **SHIFT WORK:** When it is necessary for the project to operate in shifts, there will be three (3) eight (8) hour shifts commencing at 8:00 a.m. Shift work must continue for a period of not less than three (3) consecutive work days, two (2) days which must be regular work days (Monday through Friday). In the event the second or third shift of any regular work day shall fall into a Saturday or a holiday, such extension into a Saturday or holiday shall be considered as part of the previous workday and employees shall be paid at the regular shift rate. The first day shift shall work a regular eight (8) hour day at regular rates. The second shift shall be eight (8) hours regular time pay plus \$2.50 per hour premium for eight (8) hours work. Third shift will be for eight (8) hours regular time pay plus \$3.00 per hour premium for eight (8) hours work.

NO. 92: Means all work performed from 8:00 a.m. to 4:30 p.m., Monday through Friday, will be at straight time pay up to forty (40) hours per week. All work performed Monday through Friday before 8:00 a.m. and after 4:30 p.m. will be done at time and one-half (1½). All work done on Saturday will be done at time and one-half (1½), unless the employer and employee agree that Saturday shall be used as a make-up day. The Employer may use a flexible starting time of 7:00 a.m. to 8:00 a.m., and quitting time of 3:30 p.m. to 4:30 p.m., and any such different work starting time shall determine whether wages are payable at the straight rate or the premium rate. All work performed on Saturday shall be paid for at time and one-half (1½), unless the Saturday has been used as a make-up day. All work performed on Sunday and holidays shall be paid for at the rate of double (2) time.

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NO. 104: Means eight (8) hours per day shall constitute a standard work day between the hours of 6:00 a.m. and 8:00 p.m. The standard work week shall be forty (40) hours between 6:00 a.m. on Monday and ending 8:00 p.m. on Friday. An overtime rate of time and one-half ($1\frac{1}{2}$) the base hourly rate shall be paid on all hours in excess of eight (8) hours in a day Monday through Friday. Saturdays shall be considered overtime and work done on Saturday shall be paid at time and one-half ($1\frac{1}{2}$) the prevailing scale. Sundays and holidays shall be considered overtime and work done on these days shall be paid at double (2) the prevailing scale.

NO. 116: Means the standard work day shall consist of eight (8) hours of work between the hours of 8:00 a.m. and 4:30 p.m. The standard work week shall consist of five standard work days commencing on Monday and ending on Friday inclusive. All time worked before and after the established eight (8) hour work day, Monday through Friday, and all time worked on Saturdays, shall be paid for at the rate of time & one-half ($1\frac{1}{2}$) the hourly base wage rate in effect. All time worked on Sundays and recognized holidays shall be paid for at the rate of double (2) the hourly base wage rate in effect.

NO. 126: Means eight (8) hours per day shall constitute a day's work and forty (40) hours per week, Monday through Friday, shall constitute a week's work. The regular starting time shall be 8:00 a.m. If a second or third shift is used, the regular starting time of the second shift shall be 4:30 p.m. and the regular starting period for the third shift shall be 12:30 a.m. These times may be adjusted by the employer. The day shift shall work a regular eight (8) hours shift as outlined above. Employees working a second shift shall receive an additional \$0.25 above the regular hourly rate and perform seven and one-half ($7\frac{1}{2}$) hours work for eight (8) hours pay. Third shift employees shall be paid an additional \$0.50 above the regular hourly rate and work seven (7) hours for eight (8) hours pay. When circumstances warrant, the Employer may change the regular workweek to four (4) ten-hour days at the regular time rate of pay. All time worked before and after the established workday of eight (8) hours, Monday through Friday, and all time worked on Saturday shall be paid at the rate of time and one-half ($1\frac{1}{2}$) except in cases where work is part of an employee's regular Friday shift. All time worked on Sunday and recognized holidays shall be paid at the double (2) time rate of pay except in cases where work is part of an employee's previous day's shift. For all overtime hours worked \$29.15 of the fringe benefits portion of the prevailing wage shall be paid at the same overtime rate at which the cash portion of the prevailing wage is to be paid. The remaining \$1.66 of the fringe benefit portion of the prevailing wage may be paid at straight time.

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NO. 3: All work done on New Year's Day, Decoration Day, July 4th, Labor Day, Veteran's Day, Thanksgiving and Christmas shall be compensated at the double (2) time rate of pay. When any of these holidays fall on a Sunday, the following Monday shall be observed.

NO. 5: All work that shall be done on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day shall be paid twice the amount of his or her regular hourly wage rate for each hour or fraction thereof worked on any such day .

NO. 6: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day and any additional holidays which may be mutually agreed upon. Whenever any such holiday falls on a Sunday, the following Monday shall be recognized and observed as the holiday. Work performed on Sundays and holidays shall be paid at the double time rate of pay. No work shall be performed on Labor Day.

NO. 7: The following days are assigned days and are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. If a holiday falls on a Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week. However, no reimbursement for these eight (8) hours is to be paid to the workman unless worked. If workman are required to work the above enumerated holidays or days observed as such, or on Sunday, they shall receive double (2) the regular rate of pay for such work.

NO. 8: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day, or the days observed in lieu of these holidays, shall be paid at the double time rate of pay.

NO. 12: All work done on New Year's Day, Decoration Day, Independence Day, Veteran's Day, Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. Should any of these days fall on Sunday, then the following day shall be observed as the holiday. Under no circumstances shall employees be permitted to work on Labor Day.

NO. 18: All work done on New Year's Day, Memorial Day, July 4th, Labor Day, Veteran's Day, Thanksgiving Day, the Friday following Thanksgiving and Christmas Day shall be paid at the double time rate of pay. When one of the above holidays falls on Sunday, the following Monday shall be considered the holiday, and when one of the above holidays falls on Saturday, the preceding Friday shall be considered the holiday, and all work performed on said day(s) shall be paid at the double time rate.

NO. 25: All work done on New Year's Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving, Christmas Day, Presidential Election Day, or days locally observed as such, and Saturday and Sunday shall be recognized as holidays and shall be paid at the double (2) time rate of pay. If a named holiday falls on a Saturday, the holiday will be observed on the preceding Friday. When a named holiday falls on Sunday, the Monday after will be observed as the holiday. Appropriate overtime rates to be based on fifteen minute increments.

NO. 26: All work done on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. When a Holiday occurs on Saturday it shall not be observed on either the previous Friday or the following Monday. Such days shall be regular work days. If such a holiday occurs on Sunday it shall be observed on the following Monday.

NO. 31: All work done on New Year's Day, Presidents Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, and Employee's Birthday shall be paid at the double time rate of pay. If a holiday falls on Sunday, the following Monday will be observed as the recognized holiday. If a holiday falls on Saturday, the preceding Friday will be observed as the recognized holiday.

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NO. 36: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workman unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a make-up day when an observed holiday occurs during the work week. Employees have the option to work that make-up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

NO. 41: The following days shall be observed as legal holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. No work shall be performed on the Fourth of July, Labor Day or Christmas Day. Any work performed on the above holidays shall be paid for at two (2) times the regular straight time rate of pay. When any of the above holidays fall on Sunday, the following Monday shall be observed as such holiday. If a holiday falls on Saturday, it shall not be considered to be observed on the previous Friday or following Monday. Such days shall be regular workdays.

NO. 45: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving, the day before Christmas, and Christmas Day, shall be paid at the double time rate of pay.

NO. 47: The following holidays are recognized: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving and Christmas Day. When a holiday listed above falls on Saturday, it shall be celebrated on the Friday preceding the holiday. When a holiday falls on Sunday, the following Monday shall be observed. Holidays referred to above shall be paid for at the double (2) time rate of pay when worked.

NO. 51: All time worked on Sundays and recognized holidays shall be paid for at the rate of double (2) the hourly base wage rate in effect. The Employer agrees to recognize the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. If the holiday falls on Sunday, it shall be recognized on the following Monday. If the holiday falls on a Saturday, it shall be recognized as a Saturday only holiday.

NO. 54: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day shall be paid at the double (2) time rate of pay. When a holiday falls on Saturday, it shall be observed on Friday. When a holiday falls on Sunday, it shall be observed on Monday.

NO. 55: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workmen unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a makeup day when an observed holiday occurs during the work week. Employees have the option to work that make up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

NO. 60: All work performed on New Year's Day, Armistice Day (Veteran's Day), Decoration Day (Memorial Day), Independence Day (Fourth of July), Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. No work shall be performed on Labor Day except when triple (3) time is paid. When a holiday falls on Saturday, Friday will be observed as the holiday. When a holiday falls on Sunday, the following Monday shall be observed as the holiday.

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NO. 66: All work performed on Sundays and the following recognized holidays, or the days observed as such, of New Year's Day, Decoration Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day, shall be paid at double (2) the hourly rate plus an amount equal to the hourly Total Indicated Fringe Benefits. Whenever any such holidays fall on a Sunday, the following Monday shall be observed as a holiday.

NO. 69: All work performed on New Year's Day, Memorial Day, July Fourth, Labor Day, Veteran's Day, Thanksgiving Day or Christmas Day shall be compensated at double (2) their straight-time hourly rate of pay. Friday after Thanksgiving and the day before Christmas are also holidays, however, if the employer chooses to work the normal work hours on these days, the employee will be paid at straight -time rate of pay. If a holiday falls on a Saturday, the holiday will be observed on Saturday; if a holiday falls on a Sunday, the holiday will be observed on the following Monday.

NO. 71: All work performed on the following recognized holidays, or days that may be celebrated as such, shall be paid at the double (2) time rate of pay: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving and Christmas Day. If a holiday falls on Sunday, it shall be celebrated on Monday. If a holiday falls on Saturday, it shall be celebrated on the Friday proceeding such Saturday.

NO. 73: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day (or mutually agreed date of the Friday after Thanksgiving Day may be substituted for Veteran's Day), Thanksgiving Day and Christmas Day, or in the event that any of said Holidays falls on Sunday, then the day or days generally recognized as such. Any work performed anywhere on any of the aforesaid Holidays, or on the day or days recognized and observed as such, shall be paid for at double (2) time the regular hourly rate.

OCCUPATIONAL TITLE	* Date of Increase	Basic Hourly Rates	Over-Time Schedule	Holiday Schedule	Total Fringe Benefits
Carpenter	6/18	\$37.33	23	16	\$17.10
Cement Mason	6/18	\$32.66	17	11	\$19.00
Electrician (Outside-Line Construction\Lineman)		\$44.56	9	12	\$5.75 + 36%
Lineman Operator		\$38.35	9	12	\$5.75 + 36%
Lineman - Tree Trimmer	6/18	\$25.62	32	31	\$11.70 + 3%
Groundman		\$29.48	9	12	\$5.75 + 36%
Groundman - Tree Trimmer	6/18	\$20.30	32	31	\$8.88 + 3%
Laborer					
General Laborer	6/18	\$31.16	2	4	\$13.82
Skilled Laborer	6/18	\$31.76	2	4	\$13.82
Millwright	6/18	\$37.33	23	16	\$17.10
Operating Engineer					
Group I	6/18	\$32.96	10	9	\$27.43
Group II	6/18	\$32.96	10	9	\$27.43
Group III	6/18	\$31.66	10	9	\$27.43
Group IV	6/18	\$28.20	10	9	\$27.43
Oiler-Driver	6/18	\$28.66	10	9	\$27.43
Pile Driver	6/18	\$37.33	23	16	\$17.10
Traffic Control Service Driver		\$28.775	26	25	\$9.045
Truck Driver-Teamster		\$30.41	25	21	\$10.82

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.

JEFFERSON COUNTY HEAVY CONSTRUCTION - OVERTIME SCHEDULE

FED: Minimum requirement per Fair Labor Standards Act means time and one-half (1½) shall be paid for all work in excess of forty (40) hours per work week.

NO. 2: Means a regular workweek shall be forty (40) hours and will start on Monday and end on Friday. The Employer shall have the option of working five 8-hour days or four 10-hour days Monday through Friday. If an Employer elects to work five 8-hour days during any workweek, hours worked more than eight (8) per day or 40 per week shall be paid at time and one-half the hourly rate Monday through Friday. If an Employer elects to work four 10-hour days in a week, work performed more than ten (10) hours per day or 40 hours per week shall be paid at time and one-half the hourly rate Monday through Friday. When working a five 8-hour day schedule and an Employer is prevented from working forty (40) hours Monday through Friday, or any part thereof, by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. If an Employer is working a four 10-hour day schedule and loses a day due to inclement weather, he may work 10 hours Friday at straight time. All hours worked over the 40 hours Monday through Friday will be paid at 1 ½ overtime rate. A workday shift is to begin at the option of the Employer, between 6:00 a.m. and not later than 9:00 a.m. However, the project starting time may be advanced or delayed if required. If workmen are required to work the enumerated holidays or days observed as such or Sundays, they shall receive double (2) the regular rate of pay for such work. Overtime shall be computed at one-half (1/2) hour intervals. Shift: The Contractor may elect to work one, two or three shifts on any work. When operating on more than one shift, the shifts shall be known as the day shift, swing shift, and graveyard shift as such terms are recognized in the industry. When two shifts are worked on any operation, the shifts will consist of eight (8) or ten (10) hours exclusive of lunchtime. When three shifts are worked the first day or day shift will consist of eight (8) hours exclusive of lunchtime. The second or swing shift shall consist of seven and one-half (7 1/2) hours work for eight hours pay, exclusive of lunchtime, and the third or the graveyard shift shall consist of seven (7) hours work for eight (8) hours pay, exclusive of the lunchtime. All time in excess of normal shifts shall be considered overtime. Multiple shift (the two or three shift) operation will not be construed on the entire project if at anytime it is deemed advisable and necessary for the Employer to multiple shift a specific operation. However, no shift shall be started between midnight and six a.m. except the graveyard shift on a three-shift operation, or except in an unusual or emergency situation. If an Employer starts a shift between midnight and 6 a.m. except the graveyard shift on a three-shift operation, he shall reimburse all employees for the entire shift at the double time rate. Completion of the second shift on a two-shift operation or completion of the graveyard shift on a three-shift operation that carries over into Saturday morning shall be at the straight time rate. Overtime shall be computed at ½ hour intervals.

NO. 9: Eight (8) hours shall constitute a work day between the hours of 7:00 a.m. and 4:30 p.m. Forty (40) hours within five (5) days, Monday through Friday inclusive, shall constitute the work week. Work performed in the 9th and 10th hour, Monday through Friday, shall be paid at time and one-half (1½) the regular straight time rate of pay. Contractor has the option to pay two (2) hours per day at the time and one-half (1½) the regular straight time rate of pay between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. Work performed in the first eight (8) hours on Saturday shall be paid at the rate of one and eight tenths (1.8) the regular straight time rate. Work performed outside these hours and on Sundays and recognized legal holidays, or days celebrated as such, shall be paid for at the rate of double (2) time.

JEFFERSON COUNTY HEAVY CONSTRUCTION - OVERTIME SCHEDULE

NO. 10: Means the regular workday for which employees shall be compensated at straight time hourly rate of pay shall, unless otherwise provided for, begin at 8:00 a.m. and end at 4:30 p.m. The regular workweek shall consist of five (5) days, Monday through Friday, beginning at 8:00 a.m. and ending at 4:30 p.m. except as may be modified. The starting time may be either advanced or delayed one hour or two hours at the discretion of the Employer. The Employer may have the option to schedule his work week from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be at the applicable overtime rate. If the Employer elects to work Monday through Thursday and is stopped due to inclement weather, holidays or other conditions beyond the control of the Employer, he shall have the option to work Friday at the straight time rate of pay to complete the forty (40) hour workweek. All necessary overtime and work performed on Saturday, shall be paid at time and one-half ($1\frac{1}{2}$) the hourly rate, plus an amount equal to one-half ($\frac{1}{2}$) of the hourly Total Indicated Fringe Benefits. All work performed on Sundays and recognized holidays shall be paid at double (2) the hourly rate, plus an amount equal to the hourly Total Indicated Fringe Benefits. Shifts may be established when considered necessary by the Employer. Shift hours and rates will be as follows. If shifts are established, work on the First Shift will begin between 6:00 a.m. and 9:00 a.m. and consist of eight (8) hours of work plus one-half hour unpaid lunch. Hours worked during the first shift will be paid at the straight time rate of pay. The second shift shall start eight hours after the start of the first shift and consist of eight (8) hours of work plus one-half hour unpaid lunch. Work on the second shift will begin between 2:00 p.m. and 5:00 p.m. and be paid the straight time rate plus \$2.50 per hour. The third shift shall start eight hours after the start of the second shift and consist of eight (8) hours plus one-half hour unpaid lunch. Work on the third shift will begin between 10:00 p.m. and 1:00 a.m. and be paid the straight time rate plus \$3.50 per hour. The additional amounts that are to be paid are only applicable when working shifts. Shifts that begin on Saturday morning through those shifts which end on Sunday morning will be paid at time and one-half these rates. Shifts that begin on Sunday morning through those shifts which end on Monday morning will be paid at double time these rates.

NO. 17: Means eight (8) hours shall constitute the regular work day and forty (40) hours a work week, Monday through Friday. The Employer shall establish the starting time between 6:30 a.m. through 9:00 a.m. An Employer may further adjust the starting time up to 9:30 A.M. throughout the year. Time and one-half ($1\frac{1}{2}$) shall be paid after eight (8) consecutive hours worked after the established starting time and for hours worked before the established starting time. Time and one-half ($1\frac{1}{2}$) shall be paid for work performed on Saturdays. Work performed on Sundays and Holidays shall be paid at the double (2) time rate of pay. The Employer when working on Highway and Road Work may have the option to schedule the work week for his paving crew only from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be at the applicable overtime rate of time and one-half ($1\frac{1}{2}$). If the Employer elects to work from Monday through Thursday and is stopped due to inclement weather (rain, snow, sleet falling), the Employer shall have the option to work Friday at the straight time rate of pay to complete the forty (40) hours.

NO. 23: Means the regular workweek shall start on Monday and end on Friday, except where the Employer elects to work Monday through Thursday, (10) hours per day. All work over ten (10) hours in a day or forty (40) hours in a week shall be at the overtime rate of one and one-half ($1\frac{1}{2}$) times the regular hourly rate. The regular workday shall be either eight (8) or ten (10) hours. If a job can't work forty (40) hours Monday through Friday because of inclement weather or other conditions beyond the control of the Employer, Friday or Saturday may be worked as a make-up day at straight time (if working 4-10's). Saturday may be worked as a make-up day at straight time (if working 5-8's). An Employer, who is working a four (4) ten (10) hour day work schedule may use Friday as a make-up day when a workday is lost due to a holiday. A workday is to begin at the option of the Employer but not later than 11:00 a.m. except when inclement weather, requirements of the owner or other conditions beyond the reasonable control of the Employer prevent work. Except as worked as a make-up day, time on Saturday shall be worked at one and one-half ($1\frac{1}{2}$) times the regular rate. Work performed on Sunday shall be paid at two (2) times the regular rate. Work performed on recognized holidays or days observed as such, shall also be paid at the double (2) time rate of pay. For all overtime hours worked during the week or on Saturday \$16.25 of the fringe benefits portion of the prevailing wage shall be paid at time and one-half ($1\frac{1}{2}$). For all overtime hours worked on Sundays or recognized holidays \$16.25 of the fringe benefits portion of the prevailing wage shall be paid double time. The remaining \$.60 of the fringe benefit portion of the prevailing wage shall be paid at straight time.

JEFFERSON COUNTY HEAVY CONSTRUCTION - OVERTIME SCHEDULE

NO. 25: Means a regular work week of forty (40) hours, starting on Monday and ending on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof maybe worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A work day is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time maybe advanced or delayed if mutually agreed to by the interest parties. All hours worked on recognized holidays, or days observed as such, double (2) time shall be paid.

NO. 26: Means a regular work week of forty (40) hours will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A workday is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time may be advanced or delayed if mutually agreed to by the interest parties. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.

NO. 32: Means the overtime rate shall be time and one-half the regular rate for work over forty (40) hours per week. Sundays and Holidays shall be paid at double the straight time rate.

JEFFERSON COUNTY HEAVY CONSTRUCTION - HOLIDAY SCHEDULE

NO. 4: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, or observed as such, shall be paid at the double time rate of pay. When a Holiday falls on a Sunday, Monday shall be observed. No work shall be performed on Labor Day, except in case of jeopardy to life or property. This is applied to protect Labor Day.

NO. 9: All work performed on Sundays and the following recognized holidays, or the days observed as such, of New Year's Day, Decoration Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day, shall be paid at double (2) the hourly rate plus an amount equal to the hourly Total Indicated Fringe Benefits. Whenever any such holidays fall on a Sunday, the following Monday shall be observed as a holiday.

NO. 11: Means all work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day, and any additional holidays which may be mutually agreed upon shall be paid at the double (2) time rate of pay. Whenever any such holiday falls on a Sunday, the following Monday shall be recognized and observed as the holiday. No work shall be performed on Labor Day.

NO. 12: All work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day, or days celebrated as such, shall be paid at the double time rate of pay. When one of the foregoing holidays falls on Sunday, it shall be celebrated on the following Monday. When one of the foregoing holidays falls on Saturday, it shall be celebrated on the Friday before the holiday.

NO. 16: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on Sunday, it shall be observed on the following Monday. If a holiday falls on Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid to the worker unless worked. If workers are required to work the above recognized holidays or days observed as such, they shall receive double (2) the regular rate of pay for such work.

NO. 21: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workman unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a make-up day when an observed holiday occurs during the work week. Employees have the option to work that make-up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

NO. 25: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workmen unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a make-up day when an observed holiday occurs during the work week. Employees have the option to work that make up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

NO. 31: All work performed on New Year's Day, Presidents' Day, Veterans' Day, Good Friday, Decoration Day, Fourth of July, Labor Day, Christmas Eve Day, Christmas Day, Thanksgiving Day and Day after Thanksgiving or days celebrated for the same.