

**IN THE COUNTY LEGISLATURE OF JACKSON COUNTY, MISSOURI**

**AN ORDINANCE** appropriating \$185,204.00 from the undesignated fund balance of the 2022 County Improvement Fund and awarding a contract on Invitation to Bid No. 89-22 for the Ryan Road Culvert Replacement Project, No. 3168, to Radmacher Brothers Excavating Co., Inc., of Pleasant Hill, MO, at an actual cost to the County not to exceed \$965,092.00, and authorizing the Director of Public Works to approve line item adjustments under this contract at no additional cost to the County.

**ORDINANCE NO. 5694**, October 31, 2022

**INTRODUCED BY** Theresa Cass Galvin, County Legislator

WHEREAS, the Director of Finance and Purchasing has solicited formal bids on Invitation to Bid No. 89-22 for the Ryan Road Culvert Replacement Project, No. 3168; and,

WHEREAS, he has received two bids thereon as follows:

<u>VENDOR</u>	<u>BID</u>
Radmacher Brothers Excavating Co., Inc. Pleasant Hill, MO	\$965,092.00
Lehman Construction Co., LLC California, MO	\$1,256,065.00

and,

WHEREAS, the Directors of Public Works and Finance and Purchasing recommend that award be made to Radmacher Brothers Excavating Co., Inc., of Pleasant Hill, MO, for the reason that it has submitted the lowest and best bid; and,

WHEREAS, in the event that line item adjustments to the contract become necessary, it is appropriate that the Director of Public Works be authorized to approve said line item

adjustments to the extent there is no additional cost to the County; now therefore,

BE IT ORDAINED by the County Legislature of Jackson County, Missouri, that the following appropriation from the undesignated fund balance of the 2022 County Improvement Fund be and hereby is made:

<u>DEPARTMENT/DIVISION</u>	<u>CHARACTER/DESCRIPTION</u>	<u>FROM</u>	<u>TO</u>
County Improvement Fund 013-9999	32810- Undesignated Fund Balance	\$185,204	
Special Projects in Public Works 013-1507	58040- Roads & Highways		\$185,204

and,

BE IT FURTHER ORDAINED that award be made as recommended by the Directors of Public Works and Finance and Purchasing and that the County Executive be and hereby is authorized to execute any documents necessary to the accomplishment of the award; and,

BE IT FURTHER ORDAINED that the Directors of Public Works and Finance and Purchasing be and hereby is authorized to make adjustments in the contract line item quantities to the extent that there will be no further funding obligation to the County; and,

BE IT FURTHER ORDAINED that the Director of Finance and Purchasing is authorized to make all payments, including final payment on the contract.

Effective Date: This ordinance shall be effective immediately upon its signature by the County Executive.

APPROVED AS TO FORM:

 Chief Deputy County Counselor  
 County Counselor

I hereby certify that the attached ordinance, Ordinance No. 5694 introduced on October 24, 2022, was duly passed on November 14, 2022 by the Jackson County Legislature. The votes thereon were as follows:

Yeas 9

Nays 0

Abstaining 0

Absent 0

This Ordinance is hereby transmitted to the County Executive for his signature.

11.14.22  
Date

  
Mary Jo Spino, Clerk of Legislature

I hereby approve the attached Ordinance No. 5694.

11.14.22  
Date

  
Frank White, Jr., County Executive

Funds sufficient for his appropriation are available from the source indicated below.

ACCOUNT NUMBER: 013 9999 32810  
ACCOUNT TITLE: County Improvement Fund  
Undesignated Fund Balance  
NOT TO EXCEED: \$185,204.00

There is a balance otherwise unencumbered to the credit of the appropriation to which the expenditure is chargeable and there is a cash balance otherwise unencumbered in the treasury to the credit of the fund from which payment is to be made each sufficient to provide for the obligation herein authorized.

ACCOUNT NUMBER: 013 1507 58040  
ACCOUNT TITLE: County Improvement Fund  
Special Projects in Public Works  
Roads & Highways  
NOT TO EXCEED: \$885,204.00

ACCOUNT NUMBER: 004 1507 58040  
ACCOUNT TITLE: Special Road & Bridge Fund  
Special Projects in Public Works  
Roads & Highways  
NOT TO EXCEED: \$79,888.00

10/27/2022  
Date

  
Chief Administrative Officer



# CONTRACT

**Date: January 11, 2023**

**File No: 05-0202**

**CONTRACTING PARTY/VENDOR:** RADMACHER BROTHERS  
EXCAVATING CO, INC, (PUBLIC WOR

**TYPE OF CONTRACT:** Ordinance

**RESOLUTION/ORDINANCE NO:** O. 5694

**SUBJECT MATTER:** 2022 Ryan Road Culvert Replacement  
Project No. 3168

**CONTRACT AMOUNT:** \$965,092.00

**NUMBER OF ORIGINALS:** 6

**ORIGINATING DEPARTMENT:** Jackson County Public Works

**CONTACT PERSON:** Jenkins, Christopher (Chris)

Department	Date Sent To Department	Dated Returned To Counselor
Originating Dept.		
Counselor	1-11-23	1-11-23
Finance	1-11-23	1-13-23
Clerk	1-17-23	1-17-23
Executive	1-11-23	1.11.23
Other Signature Needed (Optional)	N/A	N/A

**NOTES:**

**Return (3) To:  
County Counselor's Office, X13355**

*f*

**Bid Documents, Contract Documents, and Technical  
Specifications**

for

O. 5694

**RYAN ROAD CULVERT  
REPLACEMENT**

**Jackson County Public Works Project No. 3168**

**Invitation to Bid No. 89-22**

**Jackson County, Missouri  
Department of Public Works  
Engineering Division  
303 West Walnut Street  
Independence, Missouri 64050  
(816) 881-4530**

**FILED**

**JAN 18 2023**

**MARY JO SPINO  
COUNTY CLERK**

# Alscott, Inc.

An AssuredPartners Company  
4911 S. Arrowhead Dr. Suite 310  
Independence, MO 64055  
Phone: 816-525-3155  
Email: Bonds-ind@assuredpartners.com

December 12, 2022

Radmacher Brothers Excavating Co., Inc.  
2201 North 7 Highway, Suite B  
Pleasant Hill, MO 64080

RE: Project: Ryan Rd Culvert Replacement JCPW Project No. 3168  
Obligee: Jackson County, Missouri  
Bond No: B3287454

Dear Sir or Madam,

Please let this letter serve as authorization to date the bonds and powers of attorney for the above captioned bonds. This authority may be extended by you to the owner, architect, or their designated representatives.

Should you have any questions, please feel free to call.

Sincerely,



David S. Salavitch  
Attorney In Fact, The Cincinnati Insurance Company



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
12/14/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Thomas McGee Group P O Box 419013 Kansas City MO 64141-6013	<b>CONTACT NAME:</b> Jen Pellegrino <b>PHONE (A/C, No, Ext):</b> 816-842-4800 <b>E-MAIL ADDRESS:</b> jpellegrino@thomasmcgee.com	<b>FAX (A/C, No):</b> 816-472-5018													
	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A : Phoenix Insurance Company</td> <td>25623</td> </tr> <tr> <td>INSURER B : Charter Oak Fire Insurance Company</td> <td>25615</td> </tr> <tr> <td>INSURER C : Travelers Property Casualty Company of America</td> <td>25874</td> </tr> <tr> <td>INSURER D : MIDWEST BUILDERS' CASUALTY MUTUAL</td> <td>13126</td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : Phoenix Insurance Company	25623	INSURER B : Charter Oak Fire Insurance Company	25615	INSURER C : Travelers Property Casualty Company of America	25874	INSURER D : MIDWEST BUILDERS' CASUALTY MUTUAL	13126	INSURER E :		INSURER F :
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<b>INSURED</b> Radmacher Brothers Excavating Company, Inc. 2201 North 7 Highway, Suite B Pleasant Hill MO 64080	RADMBRO-01
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**COVERAGES**

CERTIFICATE NUMBER: 1083122188

REVISION NUMBER:


THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	Y	Y	DT-CO-6S664409-PHX-22	9/1/2022	9/1/2023	EACH OCCURRENCE	\$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 300,000
							MED EXP (Any one person)	\$ 10,000
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
								\$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	Y	Y	810-6S585720-22-26-G	9/1/2022	9/1/2023	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
								\$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB <input checked="" type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000	Y	Y	CUP-7S283008-22-26	9/1/2022	9/1/2023	EACH OCCURRENCE	\$ 10,000,000
							AGGREGATE	\$ 10,000,000
								\$
D	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	WC100-0000369-2022A	9/1/2022	9/1/2023	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER	
							E.L. EACH ACCIDENT	\$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	\$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Ryan Road Culvert Replacement - Project No. 3168  
 Jackson County Public Works Department is Additional Insured for General, Auto and Umbrella Liability coverage on a Primary, non-contributory basis, as required by written contract. Waiver of Subrogation in favor of the additional insured applies on General Liability, Auto Liability and Umbrella Liability coverage as required by written contract and where allowed by law.

**CERTIFICATE HOLDER****CANCELLATION**

Jackson County Public Works Department 303 West Walnut Street Independence MO 64050	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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## 1.0 INTRODUCTION

- 1.1 Jackson County, Missouri is seeking bids from qualified contractors for the **Construction Services for Ryan Road Culvert Replacement** for the Jackson County, Missouri Public Works Department.
- 1.2 This is Jackson County, Missouri Invitation to Bid No. 89-22. Response Deadline is 2:00 PM, CDT on August 30, 2022.
- 1.3 **Submission of Bids:** Bids must be submitted on-line through the Bonfire Portal at <https://jacksongov.bonfirehub.com> . Bids submitted by any other method will not be accepted.
- 1.4 Term of Contract: This will be a one-time project.
- 1.5 Point of Contact: The Point of Contact for this Invitation to Bid is Barbara Casamento, Purchasing Administrator for Jackson County, Missouri.
- 1.6 Project Location: Approximately 1,350 feet from the intersection of SE Ryan Road and SE Taylor Road to the existing culvert structure in Unincorporated Jackson County, MO. near address 28611 E Ryan Road, Unincorporated Jackson County, Missouri 64014.
- 1.7 Project Completion: 90 Working Days
- 1.8 This project will be inspected and managed by Jackson County, Missouri Department of Public Works.
- 1.9 Contacts for the Public Works Department will be furnished upon award of project.
- 1.10 This will be Jackson County Public Works Project No. 3168.

## 2.0 QUESTION PROCEDURE

- 2.1 All Questions regarding this Invitation to Bid shall be communicated electronically through the Bonfire Portal via the Opportunity Q & A within the Invitation to Bid.
- 2.2 All questions must be received on the Bonfire Portal by 2:00 PM, CST on August 23, 2022. All questions will be answered on the Opportunity Q & A within the Invitation to Bid.
- 2.3 All questions will be answered in the form of Addenda to the Invitation to Bid on the Bonfire Portal.
- 2.4 Bonfire will notify bidders of the Question Answers if they have obtained the Invitation to Bid through Bonfire.
- 2.4 There will not be any formal notification of Addenda, it is the Contractor's responsibility to check the Bonfire Portal for Addenda.

- 2.5 Bidders and their agents (including subcontractors, associates, consultants, or their agents) **may not contact any other County associates, staff or elected officials** regarding the matters covered by this Invitation to Bid during the solicitation and evaluation of bids.
- 2.6 Inappropriate contacts are grounds for **REJECTION OF YOUR BID**.

### 3.0 BIDDING REQUIREMENTS

- 3.1 If Bidder is not located in the Greater Kansas City Metropolitan Area, respondent **MUST** provide detailed information with their proposal on how the Scope of Services/Specifications of this Request for Proposal will be performed. Jackson County, Missouri reserves the right to determine if Respondent's plan for performance is acceptable.
- 3.2 State Sales Tax Exemption: Jackson County, Missouri is an exempt entity under Section 144.062, Revised Statutes of Missouri and will issue to the Successful Respondent and their subcontractors an exempt certificate. Respondents are instructed not to include sales tax in their prices.
- 3.3 Time of Completion: **The time of completion is of the essence on this project** and it will be necessary for the Bidder to provide to the County proof their ability to complete the project by the deadline set in Item No. 1.6 in Section 1.0 Introduction. Information detailing how Bidder will meet this deadline must be submitted with your bid. Attention is directed to Public Works General Conditions, Section 48 "EXTENSION OF TIME" and Section 49 "LIQUIDATED DAMAGES" and Special Conditions, Section 48 "EXTENSION OF TIME" and Section 49 "LIQUIDATED DAMAGES", relative to delays, extensions of time and liquidated damages.
- 3.4 An Evaluation Committee made up of Jackson County personnel will evaluate the bids and make recommendations. Jackson County shall be the sole judge of the bids submitted for this Invitation to Bid and its decision shall be final.
- 3.5 Bid Bond Required:
  - 3.5.1 Bid Bond in the amount of five percent (5%) of the total bid amount must be turned in to the Purchasing Department, Jackson County, Missouri Courthouse, 415 East 12<sup>th</sup> Street, Ground Floor, Room G-1, Kansas City, Missouri 64106 before the Response Deadline for this Invitation to Bid.
  - 3.5.2 Bid Surety can be in the form of a Cashier's Check drawn on an acceptable bank, or a Bid Bond by a Surety Company acceptable to the Jackson County, Missouri Purchasing Department, authorized to do business in the State of Missouri and listed on the Federal Register.

- 3.5.3 Failure to provide a Bid Bond before the Response Deadline of this Invitation to Bid will lead to the **REJECTION OF YOUR BID.**

#### 4.0 AWARD REQUIREMENTS

- 4.1 Certificate of Insurance: The Successful Bidder will be required to submit to the Purchasing Department a Certificate of Insurance meeting or exceeding the provisions of Item Fifteen of the General Conditions and Exhibit A included herein within Ten Business Days after receiving the Notification of Award. The Certificate of Insurance must be received by the Purchasing Department prior to the commencement of any work on this project.
- 4.2 Performance and Labor and Materials Bond Required: The Successful Bidder will be required to submit to the Purchasing Department a Performance Bond and Labor and Materials Payment Bond in the amount of 100% of the contract award within ten business days after Notification of Award. The bond must be in a form acceptable to the Director of Finance and Purchasing and executed by a Surety Company registered to do business in the State of Missouri and listed on the Federal Register. Bonds must be received by the Purchasing Department prior to the commencement of any work on this project.
- 4.3 Maintenance Bond Required: The Successful Respondent shall be required to submit a Maintenance Bond on the work being performed for a **Two-Year Maintenance Period.** The bond must be in a form acceptable to the Director of Finance and Purchasing, executed by a Surety Company authorized to do business in the State of Missouri and listed on the Federal Register. Contractor shall submit a Maintenance Bond to Jackson County Public Works (JCPW) upon the Final Acceptance by the County.
- 4.4 Project Exemption Certificate: Jackson County, Missouri is an exempt entity under Section 144.062, Revised Statutes of Missouri. Upon request of the Successful Respondent, Jackson County will issue a project specific Missouri Sales Tax Exemption Certificate to the Successful Bidder and their named subcontractors to be utilized during the performance of this project. This certificate must be requested **prior to the purchase of any materials, supplies and/or equipment.** Under no circumstances will this certificate be back dated to cover materials, supplies or equipment already purchased.
- 4.5 Compliance with Chapter 6: The Jackson County Code for Minority, Women and Veteran Business Utilization will be required on this Invitation to Bid. The Contractor's Utilization Plan, included with Purchasing Forms as attachments herein, must be completed prior to Award. If Goals are set by Compliance, they are required, not suggested. Failure to comply will result in the **REJECTION OF YOUR BID.**
- 4.6 Compliance with State Wage Determination: Compliance with Prevailing Hourly Rate of Wages is required on any resulting contract pursuant Section 290.262 RSMo 1984 Division of Labor Standards, State of Missouri.

**5.0 ATTACHMENTS:** The following items are attached to this Invitation to Bid on Bonfire:

5.1	Project Manual from the Olsson Associates	Attachment A
5.2	Pricing/Quotation Sheet (to be submitted with bid)	Attachment B
5.3	Purchasing Information	Attachment C
5.4	Purchasing Forms (to be submitted with bid)	Attachment D
5.5	Public Works Forms (to be submitted with bid)	Attachment E
5.6	Registered Truck Driver Ordinance	Attachment F
5.7	Geotech Report by Olsson	Attachment G
5.8	U.S. Army Corps of Engineers Permit	Attachment H

**6.0 REQUIRED SUBMITTALS WITH YOUR BID**

- 6.1 Pricing/Quote Sheet
- 6.2 Purchasing Forms
- 6.3 Public Works Forms
- 6.4 Description of Bidder's Background
- 6.5 Bidders References
- 6.6 Brief background on Bidder's personnel that will be working on this project
- 6.7 Proof of Financial Responsibility – if Bidder needs to submit **Confidential and/or Proprietary** information, it should be clearly labeled "Confidential and Proprietary". The County will take all reasonable efforts to ensure the confidentiality of the documents and will return these documents as quickly as possible if the Bidder is unsuccessful. If the Bidder is successful the County will keep the documents until the contract is complete and then return them to the Successful Bidder.
- 6.8 If not located in the Greater Kansas City Metropolitan Area, submit a plan on how Bidder proposes to complete the work. Jackson County, Missouri reserves the right to determine if plan is acceptable.

**7.0 PURCHASING INFORMATION, INCLUDED AS SEPARATE ATTACHMENT:**

General Terms and Conditions  
Certificate of Compliance Notice  
Insurance Requirements  
State of Missouri Wage Determination

**8.0 PURCHASING FORMS, INCLUDED AS A SEPARATE ATTACHMENT, TO BE DOWNLOADED, FILLED OUT AND SUBMITTED WITH YOUR BID:**

Affidavit  
Acknowledgement of Addenda  
Exceptions  
Contractor's Utilization Plan

**9.0 PUBLIC WORKS FORMS, INCLUDED AS A SEPARAT ATTACHMENT, TO BE DOWNLOADED, FILLED OUT AND SUBMITTED WITH YOUR BID:**

Equipment Questionnaire  
List of Contracts on Hand  
List of Intended Subcontracts  
OHSA Ten Hour Training

**10. PUBLIC WORKS INFORMATION**

- 10.1 **Proposed Work:** The Bidder shall furnish all materials, equipment, tools and labor required for other services necessary to construct the Reinforced Concrete Box Culvert Replacement on Ryan Road as described herein. Said work shall include but not be limited to: the General Contractor shall furnish all materials, equipment, tools and labor required to perform the following on Ryan Road RCB: 1. The demolition of the existing bridge & roadway as shown on the plans. 2. Construction of a new Double 14' x 12' Reinforced Concrete Box. 3. Install new cast-in-place concrete retaining walls. 4. Install guardrail systems. 5. Approximately 456 feet of roadway work. 6. All other incidental work in the most substantial and workmanlike professional manner for the new culvert, and do everything required by the Contract Documents as defined herein.
- 10.2 **Local Conditions affecting work:** Each Bidder shall visit the site of the work and shall completely inform themselves relative to construction hazards and procedure, labor and all other conditions and factors, local and otherwise, which would affect prosecution and completion of the work and its cost. Such considerations shall include the arrangement and condition of existing structures and storage facilities, the procedure necessary for maintenance of uninterrupted operation of existing facilities for transportation, handling, and storage of materials and equipment. All such factors shall be properly investigated and considered in the preparation of bid. There will be no subsequent financial adjustment for lack of such information.
- 10.3 **Period of Performance: The Completion Time will be Ninety (90) Working Days excluding County holidays from the time the Notice to Proceed is issued.** If the Successful Respondent does not meet this deadline, then Liquidated Damages will be assessed in accordance with Special Conditions for JCPW Construction, Pages 49 through 79; SC49 LIQUIDATED DAMAGES.
- 10.4 **DELAYED NOTICE TO PROCEED:**  
The contractor may choose to delay the NTP on this project by up to 6 months. If the contractor chooses to delay the NTP, any additional costs related to the delay are to be paid by the contractor.  
The contractor will submit their schedule for the whole project but show the delayed start in the schedule.
- 10.5 **Liquidated Damages:** The Successful 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 Special Conditions SC-49 herein.

- 10.6 **Safety Training:** Contractors and sub-contractors who sign a contract to work on public works project provide a 10-Hour OSHA construction safety program, or similar program approved by the Department of Labor and Industrial Relations, to be completed by their on-site employees within sixty (60) days of beginning work on the construction project.
- 10.7 **OSHA Ten Hour Training Requirement:** Missouri Law, 292.675 RSMO, requires any awarded contractor and its subcontractor(s) to provide a ten-hour Occupational Safety and Health Administration (OSHA) Construction Safety Program (or a similar program approved by the Missouri Department of Labor and Industrial Relations as a qualified substitute) for their on-site employees (laborers, workmen, drivers, equipment operators, and craftsmen) who have not previously completed such a program and are directly engaged in actual construction of the improvement (or working at a nearby or adjacent facility used for construction of the improvement). The awarded contractor and its subcontractor(s) shall require all such employees to complete this ten-hour program, pursuant to 292.675 RSMO, unless they hold documentation on their prior completion of said program. Penalties, for Non-Compliance include contractor forfeiture to the Contracting Authority in the amount of \$2,500, plus \$100 per contractor and subcontractor employee for each calendar day such employee is employed beyond the elapsed time period for required program completion under 292.675 RSMO.
- 10.8 **Project Award:** This project will be awarded to the lowest, responsive, responsible Bidder.





**OFFICE OF THE COUNTY AUDITOR**

**COMPLIANCE REVIEW OFFICE**

415 E 12TH STREET, 2ND FLOOR  
KANSAS CITY, MISSOURI 64106

(816) 881-3302  
FAX (816) 881-3340  
COMPLIANCE@JACKSONGOV.ORG  
WWW.JACKSONGOV.ORG/AUDITOR

**CERTIFICATE OF COMPLIANCE NOTICE**

**All vendors doing business with Jackson County are required to obtain a Certificate of Compliance issued by the Jackson County Compliance Review Office.**

**A Certificate of Compliance is required to be submitted with any bid response. Failure to comply with this requirement may result in the REJECTION of a bid.**

**Vendors may complete a  
Certificate of Compliance Application by visiting  
[www.jacomocompliance.com](http://www.jacomocompliance.com)**

**A Certificate of Compliance will certify that vendors meet the following requirements:**

1. Are duly listed and assessed on the tax rolls of Jackson County and are not delinquent in the payment of any taxes due to the County, or do not have on December 31<sup>st</sup> of the previous year any property subject to taxation by Jackson County.
2. Attest and agree to Chapter 6 of the Jackson County Code which prohibits discriminatory practices and promotes Equal Employment Opportunity by contractors doing business with Jackson County.

**Certificate of Compliance Application must be submitted five (5) business days prior to a bid response deadline to allow sufficient time to process. A Certificate of Compliance is not guaranteed if this timeline is not met.**

**QUESTIONS? Email [compliance@jacksongov.org](mailto:compliance@jacksongov.org)**

**GENERAL CONDITIONS**

The General Conditions which follow apply to and are a part of this Invitation to Bid unless otherwise specified herein. Subject to State and County laws and all rules, regulations and limitations imposed by legislation of the Federal Government, responses on all advertisements and invitations issued by the Jackson County Purchasing Department will bind Respondents to applicable conditions and requirements herein set forth unless otherwise specified in the Invitation to Bid. Respondents or their authorized representatives are expected to fully inform themselves as to the conditions, requirements, and specifications before submitting a response to a bid; failure to do so will be at the Respondent's own risk and he cannot secure relief on the plea of error.

1. **Withdrawal of Response to Bid:** A written request for the withdrawal of a bid or any part thereof may be granted if the request is received in the Office of the Director of Finance and Purchasing prior to the response deadline.
2. **Completeness:** All bids must be submitted on-line through the Bonfire Portal at <http://jacksongov.bonfirehub.com> . Bids submitted by any other method/manner will not be accepted.
3. **Bids Binding For 90 Days:** Unless otherwise specified all bids submitted shall be binding for ninety (90) calendar days following the response deadline, unless the Respondent(s), upon request of the Director of Finance and Purchasing, agrees to an extension.
4. **Exceptions:** Conditional or qualified bids are subject to rejection in whole or in part. All exceptions to the specifications of this Invitation to Bid must be made in writing and attached as Exhibit F to the bid when it is submitted by the Respondent. The County will consider **minor** exceptions to its specifications. A minor exception is one which is a matter of form, not substance. The minor exception is considered immaterial and inconsequential when its significance to price, quantity, quality, or delivery is trivial or negligible when contrasted with total scope of the Invitation to Bid (ex: comparable manufacturer or alternate bids where allowed by the Invitation to Bid). The County will not consider exceptions to its General Conditions, Forms, or Insurance Requirements. The County reserves the right in its sole discretion to accept or reject any exceptions included in Exhibit F. Exceptions made in any other manner or form whether by omission or by inclusion in any other manner other than as specifically entered and described in full on Exhibit F shall not be made a part of the resulting contract. Exceptions which are made by the Respondent and entered on Exhibit F and determined to be acceptable to the County shall be made a part of the resulting contract by inclusion as a provision of a mutually executed Amendment to the contract. Exceptions which are not made a part of said Amendment shall not be included in the contract nor be binding upon the County and the specifications of the Invitation to Bid shall prevail.
5. **Questions Regarding Specifications:** All Questions regarding this Invitation to Bid shall be communicated electronically through the Bonfire Portal via the Opportunity Q & A on the Invitation to Bid. All Questions must be received on the Bonfire Portal by 5:00 PM on August 23, 2022. All Questions will be answered in the form of Addenda to the Invitation to Bid on the Bonfire Portal.
6. **Multiple Bids:** No Respondent will be allowed to offer more than one bid on each item requested even though he may feel that he has two or more types or styles that will meet specifications. IF SAID RESPONDENT SHOULD SUBMIT MORE THAN ONE BID ON ANY ITEM REQUESTED, ALL BIDS FOR THAT ITEM MAY BE REJECTED AT THE DISCRETION OF THE DIRECTOR OF FINANCE AND PURCHASING.
7. The County reserves the right to split the award of the bid, to reject any or all bids, to waive technical defects in bids, and to select the bid(s) deemed most advantageous to the County. The County shall consider bids submitted on an "all or nothing" basis only if the bid is clearly designated as such by the Respondent affixing the words "ALL OR NOTHING" on the quotation portion of the Invitation to Bid.
8. **Applicable Law:** The contract shall be construed according to the laws of the State of Missouri. The Contractor must be registered and maintain good standing with the Secretary of State, of the State of Missouri and other regulatory agencies as may be required by law or regulation.

9. Communications and Notices: Any notice to the Contractor shall be deemed sufficient when deposited in the United States Mail postage prepaid; faxed; e-mailed; delivered to a telegraph office fee prepaid; or hand-carried and presented to an authorized employee of the Contractor at the Contractor's address as listed on the signature page of the contract or at such address as the contractor may have requested in writing.

10. Bankruptcy or Insolvency: Upon filing for any bankruptcy or insolvency proceedings by or against the Contractor, whether voluntary or involuntary, or upon the appointment of a receiver, trustee, or assignee for the benefit of creditors, the Contractor must notify Jackson County's Director of Finance and Purchasing immediately in writing. Upon learning of the actions herein identified, Jackson County reserves the right at its sole discretion to either affirm the contract or cancel the contract and hold the Contractor responsible for damages.

11. Patents: Contractor agrees to defend, indemnify, protect, and save harmless, Jackson County, Missouri, against all claims for royalties for patents or suit for infringement thereon which may be involved in the manufacture or use of the materials or items to be furnished.

12. By virtue of statutory authority, the Director of Finance and Purchasing shall give preference to all commodities manufactured, mined, produced, or grown within the State of Missouri and to all firms, corporations or individuals doing business as Missouri firms, corporations or individuals, when quality is equal or better and delivered price is same or less.

13. Material Standards: All material or equipment furnished shall meet the minimum requirements of the Occupational Safety & Health Standard (OSHA) published in the Federal Register.

14. Tax Clearance Required: No person, firm or corporation, resident in Jackson County, or otherwise legally within the taxing jurisdiction of the County, shall be eligible to provide any goods, contractual services or anything covered by the County Purchasing Ordinance, unless said person, firm or corporation is duly listed and assessed on the County tax rolls, and is in no way delinquent on any taxes payable to the County. Further, no person, firm, or corporation, regardless of state of residency, shall be eligible to provide any goods, contractual services, or anything covered by this chapter, of a cost in excess of \$150,000 per annum, if that person, firm or corporation is in any way delinquent on any taxes payable to any local government entity with which Jackson County has entered into an "Intergovernmental Agreement for Tax Verification Information".

Where any individual, firm or corporation is a resident of Jackson County, or it otherwise appears that such firm is legally within the taxing jurisdiction of the County, and has made an offer, bid, or quotation for any County purchase, or has submitted an application to be given an opportunity to make quotations for County purchases, the Director of Finance and Purchasing shall cause a search to be made of the County tax rolls, and, if applicable, an inquiry to be made of the appropriate personnel of any other local government entity with which Jackson County has entered into an "Intergovernmental Agreement for Tax Verification Information", to determine the eligibility of that person, firm or corporation under this section.

When the lowest/highest responsible bidder for a given purchase order or contract is ineligible under this section, the Director of Finance and Purchasing may, where time is not of the essence to the County, notify the bidder and allow three (3) days for the bidder to correct the deficiency or pay up any delinquency involved. If the bidder fails, after such notice, to comply within three (3) days, or if the Director of Finance and Purchasing deems time to be of the essence, he shall proceed as though the next lowest/highest responsible bidder who is eligible under this section had entered the lowest/highest bid.

15. Insurance and Indemnification: The Successful Contractor shall defend, indemnify, and hold harmless Jackson County and any of its agencies, officials, officers, or employees from and against all claims, damages, liability, losses, costs and expenses, including reasonable attorney's fees, arising out of or resulting from any acts or omissions in connection with the operations or work included or undertaken in the performance of this contract, caused in whole or in part by Contractor, its employees, agents, or subcontractors, or caused by others for whom Contractor is liable. Contractor's obligations under this section with respect to indemnification for acts or omissions shall be limited to the coverage and limits of insurance that Contractor is required to procure and maintain under this Contract. Insurance shall be procured and maintained by Contractor as described in Exhibit A of this Invitation to Bid. Contractor shall file Certificates of Insurance with Jackson County Purchasing Department in the form described in Exhibit A within the time limit also described in the Exhibit.

16. The County is not responsible for articles or services furnished without a Purchase Order.

17. Inspection and Acceptance: Inspection and acceptance will be at destination. Prior to the time of delivery and acceptance by the County, or after any rejection, risk or loss shall be the responsibility of the Contractor unless loss results from negligence of the County.

18. Equal Opportunity: The Contractor shall maintain policies of employment as follows:

a) The Contractor and the Contractor's Subcontractor(s) shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, disability, or national origin. The Contractor shall take affirmative action to ensure

that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, disability, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

b) The Contractor and the Contractor's Subcontractor(s) shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race religion, color, sex or national origin.

19. Foreign Corporations: Firms submitting bids as corporations which are not incorporated in the State of Missouri must include with their bid a copy of a properly executed **Certificate of Registration for Foreign Corporation** authorizing the firm to do business in the State of Missouri.

20. Errors in Bids: Respondent shall be bound by its bid even though the bid is based on an erroneous calculation, and Respondent shall have no right to withdraw its bid after the Response Deadline on the basis of an error in calculation of its bid. Carelessness in quoting prices, or in preparation of bid, will not relieve the Respondent in case of errors. Erasures or changes in bids must be initialed.

21. Omission in Bids: Omission in the bid of any provision herein prescribed shall not be construed as to relieve the contractor of any responsibility or obligation requisite to the complete and satisfactory operation of any and all equipment and services. Any exception to the bid must be in writing and not by omission.

22. No lowest/highest Respondent shall receive a business expectancy merely because his bid is the lowest/highest one received; until the contract has been awarded, no business expectancy exists.

23. Conflict of Interest: Respondent warrants that no officer or employee of the County, whether elected or appointed, shall in any manner whatsoever be interested in or receive any benefit from the profits or emoluments of this contract.

No official or employee of Jackson County or its governing body and no other public official in Jackson County who exercises any functions or responsibilities in the review or approval of the undertaking or carrying out of the project covered by this contract shall voluntarily acquire any personal interest, directly or indirectly, in this contract.

The Contractor covenants that he/she presently has no interest and shall not acquire any interest, directly or indirectly, which would conflict in any manner or degree with the performance of the services hereunder. The Contractor further covenants that no person having any such known interest shall be employed or conveyed an interest, directly or indirectly, in this contract.

24. It shall be the responsibility of all Respondents to warrant that all goods, services and/or work to be procured and/or performed under this contract shall conform to and/or be performed in compliance with all applicable Federal, State and Local Statutes, Ordinance and Codes including but not limited to the American with Disabilities Act of 1990. Failure to comply in any manner with applicable Statutes, Ordinances or Codes shall result in said Contractor replacing the goods, services and/or work performed in order to effect compliance or in liquidated damages in the amount required to effect compliance with said Statutes, Ordinance and Codes together with any costs associated with collection of said damages.

25. Bidder certifies that all goods to be supplied to the County as a result of contracts awarded under this Invitation to Bid were produced in compliance with all applicable requirements of sections 6, 7, and 12 of the Fair Labor Standards Act, as amended, and of regulations and orders of the United States Department of Labor issued under section 14 thereof.

26. Fund Allocation: Continuance of any resulting agreement, contract, or issuance of purchase orders after December 31 of the current calendar year is contingent upon the allocation of County funds for the next proceeding calendar year.

27. Qualifications of Bidders: The County may make such reasonable investigations as deemed proper and necessary to determine the ability of the bidder to perform the work and the bidder shall furnish to the County all such information and data for this purpose, as may be requested. The County reserves the right to inspect bidder's physical plant prior to award to satisfy questions regarding the bidder's capabilities. The County further reserves the right to reject any bid if the evidence submitted by or investigations of such bidder fails to satisfy the County that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated herein.

28. Except for the furnishing and transportation of materials, the Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of any portion of this contract to any individual, firm, or corporation without written consent of Jackson County. This consent of the County will not be given unless, and until the Contractor has submitted satisfactory evidence that the proposed subcontractor is qualified to execute the work and has an Affirmative Action Plan acceptable to the County, together with a complete copy of the subcontract if so, requested by the County. The subcontract shall bind the subcontractor to comply with all requirements of this contract including but

not limited to wage rates, equal employment opportunity regulations, submittal of payrolls, etc. Assignment of the entire contract may be made only upon written consent of the County.

No assigning, transferring, or subletting, even though consented to, shall relieve the Contractor of his liabilities under this contract.

The Contractor shall give his personal attention to any portion of this contract which has been sublet and he shall be responsible for its proper completion.

The Contractor, as a condition of this contract, is responsible for assuring submission of proof or documentation regarding Affirmative Action Compliance by his subcontractors and for the subsequent Affirmative Action performance by such subcontractors.

Jackson County reserves the right to approve or reject the Bidder's proposed subcontractors in accordance with these and any other requirements of this Invitation to Bid.

**29. Minority, Women and Veteran Business Enterprise Utilization:** Contractor shall comply with all requirements of Chapter 6, Jackson County Code, a copy of which can be viewed on the County's website at <http://www.jacksongov.org/394/Compliance-Review-Office>, Government, County Code, Current Code, 06. Affirmative Action Programs and by reference, incorporated herein for the construction under a County bid or for the purchase of County goods and services. Contractor shall ensure that it and its subcontractors collectively meet both the MBE, WBE and VBE goals established by the County, or show good faith effort as to why those goals could not be met and comply with all reporting requirements. The Contractor, as a condition of this contract, is responsible for assuring submission of the Contractor Utilization Plan and other documentation regarding utilization of MBE, WBE and VBE Subcontractors, and good faith efforts when requested by the County. Contractor Utilization Plan must be accepted by the Compliance Review Office prior to contract being awarded.

30. As a condition for the award of any contract or grant in excess of five thousand dollars by the County to a business entity, the business entity 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 business entity 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. Any entity contracting with the state, or any political subdivision of the state shall only be required to provide the affidavits required in this subsection to the state and any political subdivision of the state with which it contracts, on an annual basis.

31. This contract shall be construed according to the laws of the State of Missouri, including Missouri Revised Statute Chapter 610.111.1, which requires that all records of Jackson County, Missouri will be open to the public, unless subject to statutory exception, as Jackson County, Missouri is a public governmental body. Pursuant to Missouri Revised Statute Chapter 610.021(12), sealed bids, and related documents, once the bid documents have been opened, along with any related documents, are considered public records subject to disclosure upon request. Missouri Revised Statute Chapter 610.021(12) also requires, upon request, disclosure of any negotiated contract and documents related to such contract once the contract has been executed or until all bids have been rejected.

32. If awarded a Contract as a result of this bid; you must have a hard copy of a purchase order issued by the Jackson County, Missouri Finance and Purchasing Department **BEFORE** providing any goods and/or services. Failure to adhere to this policy will result in the immediate termination of said contract.

33. Wage Rates: Except as provided in subparagraph A., below, this contract shall be based upon payment by the Contractor and its subcontractors of wage rates not less than the prevailing hourly wage rate for each craft or classification of workman engaged on the work as determined by the Industrial Commission of Missouri on behalf of the Department of Labor and Industrial Relations.

A. Wage Law: Except as provided in this subparagraph, the contractor shall comply with all requirements of the prevailing wage law of the State of Missouri, Revised Statutes of Missouri, Sections 290.210 to 290.340, including the latest amendments thereto. Pursuant to section 290.230.5, the provisions of the prevailing wage law do not apply to the construction of public works for which either the engineer's estimate or the bid accepted by the county for the total project cost is in the amount of \$75,000 or less. The "total project cost" is based upon the entire project and not individual jobs within a larger project. The "total project cost" includes the total value of work performed on the project by every person paid by a contractor or subcontractor for that person's work on the project and additionally includes all materials and supplies purchased for the project. The provisions of this paragraph 33 do not apply to any contract that is excluded from the applicability of the Missouri prevailing wage law pursuant to section 290.230.5, RSMo.

B. Penalty: The Contractor shall forfeit as a penalty to the County, One Hundred Dollars (\$100.00) for each workman employed, for each calendar day, or portion thereof, that such workman is paid less than the said stipulated rate for any work done under this contract by the Contractor or by any of its subcontractors.

C. The contractor and all subcontractors to the contract must require all on-site employees to complete the ten-hour construction safety training program required under Section 292.675 RSMo, unless they have previously completed the program and have documentation of having done so. The contractor will forfeit a penalty to the contracting public body of \$2500 plus an additional \$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.

D. Withholding Payment: Under Section 290.250 of said law, the County has a duty to withhold and retain from payment, which is due to the Contractor under this contract all sums and amounts due and owing as a result of any violation of said laws. The County reserves the right to withhold payments throughout the duration of any resulting contract if a contractor is found to be delinquent in any aspect relating to compliance with Chapters 6 and 19 of the Jackson County Code. Payments may be held until all said delinquencies have been rectified to the satisfaction of the Compliance Review Office.

E. Required Records: The Contractor and each subcontractor shall keep an accurate record showing the names and occupations of all workmen employed, together with the actual wages paid to each workman. At all reasonable hours, such records shall be open to inspection by the representatives of the Industrial Commission of Missouri and the County. Said records shall be kept for a minimum of one (1) year after the project has been accepted and the Required Affidavit, outlined in subsection G, is received.

F. No Adjustment for Changes in Rates: During the life of this contract, the prevailing hourly rate of wages is subject to change by the Department of Labor and Industrial Relations or by court decision, as provided by law. Any such change shall not be the basis of any claim by the Contractor against the County, nor will deductions be made by the County against sums due to the Contractor by reason of any such change.

G. Exceeding Rates and Hours: The prevailing wage law does not prohibit payment of more than the prevailing rate of wages, nor does it limit the hours of work which may be performed by any workman in a particular period of time.

H. Required Affidavit: No final payment for work under this contract will be made by the County until it has received from each Contractor and subcontractor an affidavit stating that each has fully complied with the provisions and the requirements of said law.

I. Prevailing Wages: The current prevailing wage rate determination made by the Industrial Commission of Missouri and applicable during the term of this contract is reproduced verbatim herein.

J. Posting: Throughout the life of this contract, a copy of the wage determination and the rules promulgated by the Industrial Commission of Missouri, shall be displayed in a conspicuous place on the project under a heading of NOTICE, with the heading in letters at least one inch high.

K. Contract Work Hours and Safety Standards Act (42 U.S.C. Sect. 329): The Contractor is required to comply with Section 103 of the above Act.

L. Certified Payroll Records: An original copy of certified payroll records shall be emailed weekly to the Compliance Review Office at [CRO@jacksongov.org](mailto:CRO@jacksongov.org). A copy of certified payroll records indicating applicable invoice number(s) shall also be emailed to the Project Supervisor.

Payroll Records must meet the following minimum requirements:

Workers must be classified according to the State's Occupational Title Rule. Workers listed as Journey Worker for Local Union XX is not acceptable. The specific classification must be named.

The specific Group must be named. It is impossible to compare wage rates paid to the proper prevailing wage rate if the Group is not listed.

For all apprentices on each payroll, the apprentice letter must be attached confirming registration in the program, level in the program (i.e., 3<sup>rd</sup> Level, or 3<sup>rd</sup> 6-Month Period) and the percentage of the base wage rate the apprentice is to be paid. If the same apprentice is used more than one week, only one letter for each apprentice needs to be submitted the first time the apprentice is shown on the payroll.

The one-to-one ratio of apprentices to journey workers must be followed. Any apprentice working out of ratio or without a journey worker present must be paid journey worker's level wages.

Fringe benefits must be indicated whether paid in cash or to a fund by checking the box on the certificate page of the payroll form. If fringe benefit contributions are not indicated by an hourly rate on the certificate payroll form, please submit a one-time letter with the next applicable payroll indicating the hourly breakdown of contributions made and to where.

34. Changes in the Work: Changes in the works as defined in this Invitation to Bid which result in additions, deletions, or other revisions to the Contract Sum or Contract Time must be accomplished by written Change Order to the Contractor. Such Change Orders must be submitted in writing by the Contractor and approved in writing by the County prior to the commencement of the work included in such Change Orders.

**EXHIBIT A, INSURANCE**

Contractor shall procure and maintain in effect throughout this duration of the contract insurance coverages not less than the types and amounts specified in this section. If due to the nature of the goods and/or services provided by the contractor are such that they may be excluded from coverage listed below, an addendum shall be made to the contract requesting coverage and limits required (Professional Liability, Work on bodies of water, Garage or tow services, Liquor liability are some examples).

All subcontractors of the contractor are required to carry the same coverages and limits as the contractor. All Liability policies required are to be written on an "occurrence" basis unless an agreement, in writing, is made with Jackson County.

**1. COMMERCIAL GENERAL LIABILITY**

Commercial General Liability Insurance: with limits of not less than \$1,000,000 per occurrence and \$2,000,000 Annual Aggregate (both General and Products-Completed Operations). Aggregate shall be on a "per project" basis where more than one project is to be performed by the contractor under this contract. Policy shall include Severability of Interests coverage applying to Additional Insureds and also include Contractual Liability with no limitation endorsements. Policy shall include \$100,000 limit each occurrence for Damage to Rented Premises, \$1,000,000 limit each occurrence for Personal & Advertising injury liability, \$5,000 Medical Expense (any one person), and Employee Benefits Liability coverage with a \$1,000,000 limit.

**2. COMMERCIAL AUTOMOBILE LIABILITY**

Commercial Automobile Liability Insurance: with a limit not less than \$1,000,000 Combined Single Limit for Bodily Injury and Property Damage Limit (each accident), covering owned, hired, borrowed, and non owned vehicles. Coverage shall be provided on a "any auto" basis and be on a Commercial Business Auto form, or acceptable equivalent, and will protect against claims arising out of the operation of motor vehicles in connection with this contract.

**3. WORKERS COMPENSATION AND EMPLOYERS' LIABILITY COVERAGE**

Contractor shall provide coverage for Workers Compensation and Employers Liability for all claims by employees of the contractor or by anyone for whose acts it may be liable under the statutes of the State of Missouri with limits of:

-Workers Compensation	Statutory
-Employers Liability	\$500,000 each accident
	\$500,000 Disease-each employee
	\$500,000 Disease-Policy limit

**4. EXCESS/UMBRELLA LIABILITY COVERAGE**

Contractor shall provide Excess/Umbrella liability, on an occurrence basis, with \$10,000 Retention, to provide coverage limits over all liability coverages listed above, at a limit not less than \$1,000,000 each occurrence and \$1,000,000 Aggregate.

**5. ADDITIONAL INSURED & CERTIFICATE OF INSURANCE**

The Commercial General and Automobile Liability Insurance specified above shall provide that Jackson County Missouri and its agencies, officials, officers, and employees, while acting within the scope of their authority, will be named as additional insured for the services performed under this contract.

A Certificate of Insurance shall be filed with the County's Director of Finance and Purchasing within 10 calendar days of the date when requested or before commencement of the work that are acceptable to the Director that the insurance requirements have been satisfied. Should any of the required insurances be cancelled before the expiration date, a notice shall be filed with the County's Director of Finance and Purchasing in accordance with policy provisions. In the case of multi-year, renewable, or extended term on the contract; Contractor must supply the Director with current Certificate(s) on any coverage mentioned above within Thirty (30) days prior to the expiration date of coverage(s). The Director of Finance and Purchasing may request copies of the Contractor's insurance policies for verification of coverage(s).

**6. QUALIFICATIONS INSURANCE CARRIERS**

All insurance coverage must be written by companies that have an A. M. Best's rating of "B+ V" or better or Lloyd's of London and are licensed and approved by the State of Missouri to do business in Missouri.

**7. FAILURE TO MAINTAIN INSURANCE COVERAGE**

Regardless of any approval by Jackson County, it is the responsibility of the contractor to maintain the required insurance coverage in force at all times; its failure to do so will not relieve it of any contractual obligation or responsibility. In the event of Contractor's failure to maintain the required insurance in effect, Jackson County may order Contractor to stop work immediately and, upon 10 days notice and an opportunity to cure, may pursue its remedies for breach of this contract as provided for herein and by law.

# Missouri

## Division of Labor Standards

### WAGE AND HOUR SECTION



MICHAEL L. PARSON, Governor

## Annual Wage Order No. 29

Section 048  
**JACKSON COUNTY**

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

Original Signed by

Todd Smith, Director  
Division of Labor Standards

Filed With Secretary of State: \_\_\_\_\_ March 10, 2022

Last Date Objections May Be Filed: April 11, 2022

Prepared by Missouri Department of Labor and Industrial Relations



Building Construction Rates for  
JACKSON County

Section 048

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Asbestos Worker	\$67.05
Boilermaker	\$37.33*
Bricklayer	\$59.20
Carpenter	\$60.21
Lather	
Linoleum Layer	
Millwright	
Pile Driver	
Cement Mason	\$54.35
Plasterer	
Communications Technician	\$58.66
Electrician (Inside Wireman)	\$66.21
Electrician Outside Lineman	\$64.01
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Elevator Constructor	\$37.33*
Glazier	\$56.84
Ironworker	\$66.35
Laborer	\$49.04
General Laborer	
First Semi-Skilled	
Second Semi-Skilled	
Mason	\$54.39
Marble Mason	
Marble Finisher	
Terrazzo Worker	
Terrazzo Finisher	
Tile Setter	
Tile Finisher	
Operating Engineer	\$60.71
Group I	
Group II	
Group III	
Group III-A	
Group IV	
Group V	
Painter	\$50.15
Plumber	\$74.12
Pipe Fitter	
Roofer	\$57.93
Sheet Metal Worker	\$71.70
Sprinkler Fitter	\$61.32
Truck Driver	\$47.50
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

\*The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. The public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

\*\*The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title as defined in Section 290.210 RSMo.

Heavy Construction Rates for  
 JACKSON County

Section 048

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Carpenter	\$60.95
Millwright	
Pile Driver	
Electrician (Outside Lineman)	\$84.43
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Laborer	\$49.28
General Laborer	
Skilled Laborer	
Operating Engineer	\$58.78
Group I	
Group II	
Group III	
Group IV	
Truck Driver	\$50.64
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

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

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title as shown on the Building Construction Rate Sheet.

\*The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. The public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

\*\*The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title as defined in Section 290.210 RSMo.

## OVERTIME and HOLIDAYS

### OVERTIME

For all work performed on a Sunday or a holiday, not less than twice (2x) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work.

For all overtime work performed, not less than one and one-half (1½) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work or contractual obligation. For purposes of this subdivision, "**overtime work**" shall include work that exceeds ten hours in one day and work in excess of forty hours in one calendar week; and

A thirty-minute lunch period on each calendar day shall be allowed for each worker on a public works project, provided that such time shall not be considered as time worked.

### HOLIDAYS

January first;  
The last Monday in May;  
July fourth;  
The first Monday in September;  
November eleventh;  
The fourth Thursday in November; and  
December twenty-fifth;

If any holiday falls on a Sunday, the following Monday shall be considered a holiday.

 **Document A310™ – 2010**

**Bid Bond**

**CONTRACTOR:**

*(Name, legal status and address)*

Radmacher Brothers Excavating Co., Inc.  
2201 North 7 Highway, Suite B  
Pleasant Hill, MO 64080

**SURETY:**

*(Name, legal status and principal place  
of business)*

The Cincinnati Insurance Company  
6200 S. Gilmore Rd.  
Fairfield, OH 45014

**OWNER:**

*(Name, legal status and address)*

Jackson County, Missouri Public Works  
303 West Walnut,  
Independence, MO 64050

**BOND AMOUNT:** \$ Five percent (5%) of amount bid

**PROJECT:**

*(Name, location or address, and Project number, if any)*

Ryan Road Culvert Replacement  
Jackson County Public Works Project No. 3168

**ADDITIONS AND DELETIONS:**

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Init.



THE CINCINNATI INSURANCE COMPANY  
THE CINCINNATI CASUALTY COMPANY

JCPW Project No. 3168

Fairfield, Ohio

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That THE CINCINNATI INSURANCE COMPANY and THE CINCINNATI CASUALTY COMPANY, corporations organized under the laws of the State of Ohio, and having their principal offices in the City of Fairfield, Ohio (herein collectively called the "Companies"), do hereby constitute and appoint

David S. Salavitch; Luke P. Sealer; Robert L. Cox, II and/or Samuel J. Sealer

Of Lees Summit, Missouri their true and legal Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and deliver on behalf of the Companies as Surety, any and all bonds, policies, undertakings or other like instruments, as follows:

Any such obligations in the United States, up to  
One Hundred Million and No/100 Dollars (\$100,000,000.00).

This appointment is made under and by authority of the following resolutions adopted by the Boards of Directors of The Cincinnati Insurance Company and The Cincinnati Casualty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the President or any Vice President be hereby authorized, and empowered to appoint Attorneys-in-Fact of the Company to execute any and all bonds, policies, undertakings, or other like instruments on behalf of the Corporation, and may authorize any officer or any such Attorney-in-Fact to affix the corporate seal; and may with or without cause modify or revoke any such appointment or authority. Any such writings so executed by such Attorneys-in-Fact shall be binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company.

RESOLVED, that the signature of the President or a Vice President and the seal of the Company may be affixed by facsimile on any power of attorney granted, and the signature of the Secretary and the Seal of the Company may be affixed by facsimile to any certificate of any such power and any such power of certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Company.

IN WITNESS WHEREOF, the Companies have caused these presents to be sealed with their corporate seals, duly attested by their President or a Senior Vice President this 19th day of December, 2018.



THE CINCINNATI INSURANCE COMPANY  
THE CINCINNATI CASUALTY COMPANY

STATE OF OHIO )  
COUNTY OF BUTLER )

Stephen A. Sealer

On this 19th day of December, 2018 before me came the above-named President or Vice President of The Cincinnati Insurance Company and The Cincinnati Casualty Company, to me personally known to be the officer described herein, and acknowledged that the seals affixed to the preceding instrument are the corporate seals of said Companies and the corporate seals and the signature of the officer were duly affixed and subscribed to said instrument by the authority and direction of said corporations.



Keith Collett

Keith Collett, Attorney at Law  
Notary Public - State of Ohio  
My commission has no expiration date.  
Section 147.03 O.R.C.

I, the undersigned Secretary or Assistant Secretary of The Cincinnati Insurance Company and The Cincinnati Casualty Company, hereby certify that the above is the Original Power of Attorney issued by said Companies, and do hereby further certify that the said Power of Attorney is still in full force and effect.

Given under my hand and seal of said Companies at Fairfield, Ohio, this 30th day of August, 2022



Ed [Signature]

**AFFIDAVIT**

STATE OF Missouri )  
 ) SS.  
COUNTY OF Johnson )

Robert C. Radmacher of the city of Pleasant Hill, Missouri  
County of Cass State of Missouri being duly sworn on her or his oath, deposes and says,

1. That I am the President (Title of Affiant) of Radmacher Brothers Excavating Co., Inc. (Name of Bidder) and have been authorized by said Bidder to make this Affidavit upon my best information and belief, after reasonable inquiry as to the representations herein.
2. No Officer, Agent or Employee of Jackson County, Missouri is financially interested directly or indirectly what Bidder is offering to sell to the County pursuant to this Invitation (though no representation is made regarding potential ownership of publicly traded stock of bidder).
3. If Bidder were awarded any contract, job, work or service for Jackson County, Missouri, no Officer, Agent or Employee of the County would be interested in or receive any benefit from the profit or emolument of such.
4. Either Bidder is duly listed and assessed on the tax rolls of Jackson County, Missouri and is not delinquent in the payment of any taxes due to the County or Bidder did not have on December 31, 2021, any property subject to taxation by the County and if bidder is duly listed and assessed on the tax rolls of Jackson County, Missouri, bidder agrees to permit an audit of its records, if requested by the Jackson County Director of Assessment, as they relate to the assessment of Business Personal Property.
5. Bidder has not participated in collusion or committed any act in restraint of trade, directly or indirectly, which bears upon anyone's response or lack of response to the Invitation.
6. Bidder certifies and warrants that Bidder or Bidder's firm/organization is not listed on the General Services Administration's Report of Debarred and/or Suspended Parties, or the State of Missouri and City of Kansas City, Missouri Debarment List.
7. Bidder certifies and affirms its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services.
8. Bidder certifies and affirms that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

Radmacher Brothers Excavating Co., Inc. (Name of Bidder)

By: [Signature] (Signature of Affiant)

President (Title of Affiant)

Subscribed and sworn to before me this 30th day of August, 2022

[Signature]

NOTARY PUBLIC in and for the County of Johnson (SEAL)

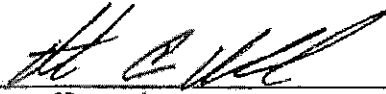
State of Missouri

My Commission Expires: December 17, 2024



**ACKNOWLEDGMENT OF RECEIPT OF ADDENDA**

The undersigned acknowledges receipt of Addenda through and including numbers None and that this Bid is submitted in accordance with information, instructions, and stipulations set forth therein.

  
\_\_\_\_\_  
Signature of Respondent

8-30-2022  
Date

Radmacher Brothers Excavating Co., Inc.  
Company Name

2201 North 7 Highway, Suite B  
Address

Pleasant Hill, MO 64080  
City, State, and Zip

816-540-3614  
Phone



**EXHIBIT F**

**BIDDER'S EXCEPTIONS  
TO  
SPECIFICATIONS  
OF**

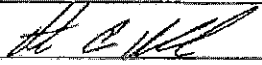
**JACKSON COUNTY, MISSOURI INVITATION TO BID NO. 89-22**

Respondent's attention is directed to Paragraph 4 of the General Conditions of this Invitation to Bid. **READ THIS PARAGRAPH CAREFULLY.**

The following exceptions to the Specifications of Invitation to Bid No. 89-22 are requested by the undersigned Respondent: (Use additional pages as necessary.)

REFERENCE PARA # & PAGE #	EXCEPTION REQUESTED
	N/A

Name of Firm: Radmacher Brothers Excavating Co., Inc.

Signature of Bidder: 



**OFFICE OF THE COUNTY AUDITOR**  
COMPLIANCE REVIEW OFFICE  
415 E 12TH STREET, 2ND FLOOR  
KANSAS CITY, MISSOURI 64108

(816) 881-3302  
FAX (816) 881-3340  
CRO@JACKSONGOV.ORG  
WWW.JACKSONGOV.ORG/AUDITOR

**JACKSON COUNTY, MISSOURI  
CONTRACTOR UTILIZATION PLAN**

Bid/RFP/RFQ Number: 89-22  
Bid/RFP/RFQ Title: Construction Services for Ryan Road Culvert Replacement  
Contracting Department: Public Works Department  
Respondent: Radmacher Brothers Excavating Company, Inc.

I, Kathy Kee, of lawful age and upon my oath state as follows:

- 1. This Affidavit is made for the purpose of complying with the provisions of the MBE/WBE/VBE submittal requirements on the above Bid/RFP/RFQ and the MBE/WBE/VBE Program and is given on behalf of the Respondent listed above. It sets out the Respondent's plan to utilize MBE and/or WBE and/or VBE prime and subcontractors on the awarded contract.

The goals set by Jackson County, Missouri are:

9.5 % MBE    11.7 % WBE    9.5 % VBE

- 2. Bidder stipulates that it will utilize a minimum of the following percentages of MBE/WBE/VBE participation in the above bid:

0.5 % MBE    11.7 % WBE    0.0 % VBE

- 3. The following are the MBE/WBE/VBE Contractors to be utilized on the above-named solicitation. Respondent maintains that it either has a formal contract or a conditional contract contingent upon award.

Please note:

- a. If Bidder is a certified MBE, WBE, or VBE firm, it may list itself in the appropriate area below.
- b. No contractor may be listed under multiple categories below regardless of certifications.

***INTERNAL USE ONLY***	
CUP RECEIVED: _____	CUP APPROVED: <span style="border: 1px solid black; padding: 2px;">APPROVED By Jaline Guillen at 1:55 pm, Sep 15, 2022</span>
GFE RECEIVED: _____	GFE APPROVED: <span style="border: 1px solid black; padding: 2px;">APPROVED By Jaline Guillen at 1:56 pm, Sep 16, 2022</span>
CUP REVISED: _____	REVISION APPROVED: _____
APPROVED GOALS: <u>0.5%</u> MBE <u>11.7%</u> WBE <u>0.0%</u> VBE	
RES/ORD: _____	AMT AWARDED: _____
<b>NOTES:</b> Received 9/7/2022 JG. Will need to submit a GFE for MBE goal. 9/15/2022 UPDATE: The CRO has reviewed and approved a Good Faith Effort submitted by Radmacher Bros. Excavation. See above for approved goals. JG	

**MBE SUBCONTRACTORS**

\*\*\*Add Additional Pages as Necessary\*\*\*

Description		Bidder Response	
A.	MBE Firm:	Erosion Specialists	<b>INTERNAL USE ONLY</b>  Certifying Agency: <input checked="" type="checkbox"/> KCMO State of MO  Approved: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N  Sub A Contract Value: \$
	Address line 1:	PO Box 681599	
	Address line 2-include County:	Riverside, MO 64168-Platte	
	Telephone Number:	816-321-1847	
	President/Owner:	Chris Roberts	
	Email Address:	chris@erosionkc.com	
	Certifying Agency	KCMO	
	Expiration Date of Certification:	7-5-2023	
	Scopes of Work Utilized:	<input checked="" type="checkbox"/> Seeding and Erosion Control	
	Percentage of Contract Awarded:	0.5%	
B.	MBE Firm:		<b>INTERNAL USE ONLY</b>  Certifying Agency: KCMO State of MO  Approved: Y N  Sub B Contract Value: \$
	Address line 1:		
	Address line 2-include County:		
	Telephone Number:		
	President/Owner:		
	Email Address:		
	Certifying Agency		
	Expiration Date of Certification:		
	Scopes of Work Utilized:		
	Percentage of Contract Awarded:		
C.	MBE Firm:		<b>INTERNAL USE ONLY</b>  Certifying Agency: KCMO State of MO  Approved: Y N  Sub C Contract Value: \$
	Address line 1:		
	Address line 2-include County:		
	Telephone Number:		
	President/Owner:		
	Email Address:		
	Certifying Agency		
	Expiration Date of Certification:		
	Scopes of Work Utilized:		
	Percentage of Contract Awarded:		
		<b>TOTAL MBE VALUE</b>	\$

WBE SUBCONTRACTORS

\*\*\*Add Additional Pages as Necessary\*\*\*

Description		Bidder Response	
A.	WBE Firm:	Realm Construction, Inc.	INTERNAL USE ONLY Certifying Agency: <input checked="" type="checkbox"/> KCMO State of MO Approved: <input type="checkbox"/> Y <input type="checkbox"/> N Sub A Contract Value: \$
	Address line 1:	604 SE Industrial Drive	
	Address line 2-include County:	Blue Springs, MO 64014-Jackson	
	Telephone Number:	816-229-6620	
	President/Owner:	Linda Taylor	
	Email Address:	linda@realmconstructioninc.com	
	Certifying Agency	KCMO	
	Expiration Date of Certification:		
	Scopes of Work Utilized:	<input checked="" type="checkbox"/> Ironwork	
Percentage of Contract Awarded:	7.1%		
B.	WBE Firm:	Streetwise, Inc.	INTERNAL USE ONLY Certifying Agency: <input checked="" type="checkbox"/> KCMO State of MO Approved: <input type="checkbox"/> Y <input type="checkbox"/> N Sub B Contract Value: \$
	Address line 1:	13501 Arrington Rd	
	Address line 2-include County:	Grandview, MO 64030-Jackson	
	Telephone Number:	816-331-2355	
	President/Owner:	Shawna Hettfenger	
	Email Address:	shettfenger@streetwise-inc.com	
	Certifying Agency	KCMO	
	Expiration Date of Certification:		
	Scopes of Work Utilized:	<input checked="" type="checkbox"/> Traffic Control and Striping	
Percentage of Contract Awarded:	1.1%		
C.	WBE Firm:	<input checked="" type="checkbox"/> Petro Logistics, LLC	INTERNAL USE ONLY Certifying Agency: <input type="checkbox"/> KCMO State of MO State of KS Approved: <input type="checkbox"/> Y <input type="checkbox"/> N Sub C Contract Value: \$
	Address line 1:	910 S Kirkweek Unit 120	
	Address line 2-include County:	Kirkwood, MO 63122-St Louis	
	Telephone Number:	314-835-9499	
	President/Owner:	Lianne Reizer	
	Email Address:	lianne@petrologisticsllc.com	
	Certifying Agency	Saint Louis State of KS	
	Expiration Date of Certification:		
	Scopes of Work Utilized:	<input checked="" type="checkbox"/> Asphaltic Cement Supply	
Percentage of Contract Awarded:	2.1%		
		TOTAL WBE VALUE	\$

WBE SUBCONTRACTORS

\*\*\*Add Additional Pages as Necessary\*\*\*

Description		Bidder Response		
A.	WBE Firm:	Grey Diamond, LLC	INTERNAL USE ONLY	
	Address line 1:	16722 S Hadsell Rd		
	Address line 2-include County:	Pleasant Hill, MO 64080-Cass		Certifying Agency: <input checked="" type="checkbox"/> KCMO <input type="checkbox"/> State of MO
	Telephone Number:	816-517-7564		
	President/Owner:	Debra Barker		Approved: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
	Email Address:	greydiamondllc@gmail.com		
	Certifying Agency	KCMO		
	Expiration Date of Certification:			Sub A Contract Value:
	Scopes of Work Utilized:	<input checked="" type="checkbox"/> Aggregate Supply		\$
	Percentage of Contract Awarded:	1.4%		
B.	WBE Firm:		INTERNAL USE ONLY	
	Address line 1:			
	Address line 2-include County:			Certifying Agency: <input type="checkbox"/> KCMO <input type="checkbox"/> State of MO
	Telephone Number:			
	President/Owner:			Approved: <input type="checkbox"/> Y <input type="checkbox"/> N
	Email Address:			
	Certifying Agency			
	Expiration Date of Certification:			Sub B Contract Value:
	Scopes of Work Utilized:			\$
	Percentage of Contract Awarded:			
C.	WBE Firm:		INTERNAL USE ONLY	
	Address line 1:			
	Address line 2-include County:			Certifying Agency: <input type="checkbox"/> KCMO <input type="checkbox"/> State of MO
	Telephone Number:			
	President/Owner:			Approved: <input type="checkbox"/> Y <input type="checkbox"/> N
	Email Address:			
	Certifying Agency			
	Expiration Date of Certification:			Sub C Contract Value:
	Scopes of Work Utilized:			\$
	Percentage of Contract Awarded:			
		TOTAL WBE VALUE	\$	

VBE SUBCONTRACTORS

\*\*\*Add Additional Pages as Necessary\*\*\*

Description		Bidder Response
A.	VBE Firm:	INTERNAL USE ONLY  Certifying Agency: KCMO State of MO  Approved: Y N  Sub A Contract Value: \$
	Address line 1:	
	Address line 2-include County:	
	Telephone Number:	
	President/Owner:	
	Email Address:	
	Certifying Agency	
	Expiration Date of Certification:	
	Scopes of Work Utilized:	
	Percentage of Contract Awarded:	
B.	VBE Firm:	INTERNAL USE ONLY  Certifying Agency: KCMO State of MO  Approved: Y N  Sub B Contract Value: \$
	Address line 1:	
	Address line 2-include County:	
	Telephone Number:	
	President/Owner:	
	Email Address:	
	Certifying Agency	
	Expiration Date of Certification:	
	Scopes of Work Utilized:	
	Percentage of Contract Awarded:	
C.	VBE Firm:	INTERNAL USE ONLY  Certifying Agency: KCMO State of MO  Approved: Y N  Sub B Contract Value: \$
	Address line 1:	
	Address line 2-include County:	
	Telephone Number:	
	President/Owner:	
	Email Address:	
	Certifying Agency	
	Expiration Date of Certification:	
	Scopes of Work Utilized:	
	Percentage of Contract Awarded:	
<b>TOTAL VBE VALUE</b>		\$

ACKNOWLEDGMENT

Respondent acknowledges that it is responsible for considering the effect that any change order and/or amendments changing the total contract amount may have on its ability to meet or exceed the subcontractor participation goals.

**Good Faith Effort:**

Respondent further acknowledges that it is responsible for submitting a **Good Faith Effort Form** if it will be unable to meet the participation goals. A **Good Faith Effort Form** documents the efforts a respondent puts forth to achieve the MBE and/or WBE and/or VBE goals on a project. **Simply stating that goals cannot be met is not considered sufficient.**

**Contractor Modification Form:**

If, at any point during the life of the awarded contract, the contractor needs to substitute an approved subcontractor a **Contractor Modification Form** must be submitted to the Compliance Review Office.

*Any Good Faith Effort or Contractor Modification Form must be approved by the Compliance Review Office.*

**\*\*\*Contact the Compliance Review Office for assistance or to request forms.\*\*\***

*I hereby certify that I am authorized to make this Affidavit on behalf of the Respondent named below and who shall abide by the terms set forth herein. I acknowledge that the assigned values determined by this CUP shall be enforceable under the contract terms and conditions.*

Respondent Primary Contact: Kathy Kee

Title: EEO Officer Email: kkee@radbroex.com

Date: 8-30-2022 Phone: 816-540-3614

Subscribed and sworn to before me this 30 day of August, 2022

My Commission Expires: 3-26-24

*Ashley M Beason*



ASHLEY M BEASON  
My Commission Expires  
March 26, 2024  
Cass County  
Commission #12586039

Notary Public  
(Attach corporate seal if applicable)

For questions on this form please contact:

Compliance Review Office  
816-881-3302  
CRO@jacksongov.org

Item No.	Description	Quantity	Units	Unit Price	Total Price
	<b>ROADWAY</b>				
1	Mobilization	1	LUMP SUM	\$ 89,206.00	\$ 89,206.00
2	Removal of Improvements	1	LUMP SUM	\$ 25,318.00	\$ 25,318.00
3	Contractor Furnished Surveying & Staking	1	LUMP SUM	\$ 8,955.00	\$ 8,955.00
4	Clearing and Grubbing	1	ACRE	\$ 12,023.00	\$ 12,023.00
5	Asphaltic Concrete Mixture APWA Type 5-01 Surface	200	TON	\$ 190.00	\$ 38,000.00
6	Asphaltic Concrete Mixture APWA Type 5-01 Base	801	TON	\$ 153.00	\$ 122,553.00
7	Tack Coat	162	GALLON	\$ 4.50	\$ 729.00
8	Type 5 Aggregate for Subbase (6 in Thick)	1616	SQ. YD.	\$ 13.90	\$ 22,462.40
9	Type 5 Aggregate for Driveway Subbase (3 in Thick)	110	SQ. YD.	\$ 9.60	\$ 1,056.00
10	Earthwork	1	LUMP SUM	\$ 20,064.00	\$ 20,064.00
11	Type 2 Rock Blanket with Geotextile	207	CU. YD.	\$ 101.00	\$ 20,907.00
12	Guardrail	350	LIN. FT.	\$ 124.00	\$ 43,400.00
13	MSKT TL-3 End Terminal	4	EACH	\$ 4,319.00	\$ 17,276.00
14	Erosion Control	1	LUMP SUM	\$ 3,668.00	\$ 3,668.00
15	Hydro Seed & Mulch	1	LUMP SUM	\$ 1,106.00	\$ 1,106.00
	<b>SIGNING AND STRIPING</b>				
16	4" Solid White Edge Line (Paint)	912	LIN. FT.	\$ 1.00	\$ 912.00
17	4" Solid Yellow Centerline (Paint)	912	LIN. FT.	\$ 1.00	\$ 912.00
	<b>CULVERT AND RETAINING WALLS</b>				
18	Removal of Structure	1	LUMP SUM	\$ 32,523.00	\$ 32,523.00

8/30/2022 Radmacher Brothers Excavating Company, Inc. Quotation Forms for Ryan Road Culvert Replacement, ITB 89-22, JCPW Project # 3168



19	KCMMB 5K Concrete (Culverts)	169.7	CU. YD.	\$ 1,238.00	\$ 210,088.60
20	KCMMB 5K Concrete (Retaining Walls)	177.2	CU. YD.	\$ 1,277.00	\$ 226,284.40
21	Diversion Dam	1	LUMP SUM	\$ 3,784.00	\$ 3,784.00
22	Seal Course (3" Concrete Grade Slab)	1	LUMP SUM	\$ 12,582.00	\$ 12,582.00
23	Granular Bedding Material	104	CU. YD.	\$ 116.00	\$ 12,064.00
	<b>TRAFFIC CONTROL</b>				
24	Traffic Control	1	LUMP SUM	\$ 9,218.00	\$ 9,218.00
	<b>FORCE ACCOUNT</b>				
25	Force Account	1	LUMP SUM	\$30,000.00	\$30,000.00
<b>Total Bid for Project =</b>					<b>\$ 965,091.40</b>

Note: The County reserves the right to adjust the quantities up or down to any and all bid items to accommodate the available funds.

8/30/2022 Radmacher Brothers Excavating Company, Inc. Quotation Forms for Ryan Road Culvert Replacement, ITB 89-22, JCPW Project # 3168
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## EQUIPMENT QUESTIONNAIRE

The undersigned hereby represents that they proposes to perform the work in the following manner and with the following equipment:

- a. The work, if awarded, will have the personal supervision of whom?

Scott Hicks

- b. List below the equipment that will be used or is available for use on this contract.

QUANTITY ITEM	DESCRIPTION, SIZE, CAPACITY, ETC.	CONDITION	YEARS OF SERVICE	PRESENT LOCATION
	(SEE ATTACHED EQUIPMENT LIST)			
2	CAT 336 Excavator	Good	3	Clay Co
1	Wirtgen Asphalt Mill	Good	4	Jackson Co
1	CAT 563 Compactor	Good	3	Cass Co
4	Mack Triaxle Dump Truck	Good	4	Jackson Co
1	Grove 875 RT Crane	Good	5	Jackson Co
1	CAT D6 Dozer	Good	4	Jackson Co
1	Takeuchi TL-12 Skid Steer	Good	4	Jackson Co
1	JLG Manlift	Good	5	Jackson Co

Note: Attach additional sheets if required



**RADMACHER BROTHERS EXCAVATING CO., INC.**  
**PROJECT REFERENCES (CURRENT PROJECTS)**

PROJECT	OWNER	TELEPHONE	ARCHITECT	CONTRACT AMOUNT	DATE STARTED	COMPLETED
63rd Street Design Build - Woodland Avenue to Prospect Avenue Pavement & Water Main Upgrades	City of Kansas City Public Works 412 East 12th Street Kansas City, MO 64106	785-393-3146 Kathleen Stenbacher	Bartlett & West	\$ 7,520,000.00	6/15/2022	0%
Blue Springs High School - Wildcat Drive New Road/Bridge over Existing Railway System	Blue Springs R-V School District 1807 NW Vesper Blue Springs, MO 64015	Darren Youker 913-281-7389 Scott Marcos	Holt - Miller Architects 1322 Walnut Street Kansas City, MO 64108	\$ 8,118,100.00	5/16/2022	5%
U.S. Treasury	RMA Group LLC 400 State Avenue, Suite 1002 Kansas City, KS 66101			\$ 429,401.00	In Design Phase	0%
Franklin Bridge Street/Bridge Improvements	City of Clinton 105 East Ohio Street Clinton, MO 64735	417-899-3400 Joe Rickman	CIV Transportation Consultants 5051 S. National Springfield, MO 65819	\$ 792,241.50	9/12/2022	0%
Route 65, Saline County Grading & Pavement	MADOT 600 NE Colbern Road Lee's Summit, MO 64095	650-816-1418 Tim Sims	MADOT 105 West Capital Jefferson City, MO 65102	\$ 2,400,350.71	7/15/2022	60%
Route 50, Pettis County Intersection Improvements	MADOT 600 NE Colbern Road Lee's Summit, MO 64098	816-215-2779 William Dignat	MADOT 105 West Capital Jefferson City, MO 65102	\$ 3,922,828.03	8/12/2022	0%
Crow's Creek Lagoon Maintenance & Improvements - Phase 2 Lagoon mitigation	City of Clinton, Missouri 1 Courthouse Square Liberty, MO 64065	816-333-9400 Blair Wells	Burns & McDonnell Engineering 9400 Wore Parkway Kansas City, MO 64114	\$ 368,745.00	5/15/2022	75%
Route 160 & 744, Gosport County (Subcontractor) Intersection Improvements	BURNS ASPHALT 11307 LAWRENCE 1163 M. Vernon, MO 65712	417-486-3758 Scott Canby	MADOT 105 West Capital Jefferson City, MO 65102	\$ 478,718.75	3/15/2022	90%
Wastewater Treatment Plant Improvements Lagoon Improvements	City of Lone Jack, 207 N. Bryan Road Lone Jack, MO 64070	818-210-6261 Kendon Newport (HDR)	HDR 10450 Holmes Road Kansas City, MO 64131	\$ 415,694.00	3/01/2022	60%
Route A, Clay County Intersection Improvements	MADOT 600 NE Colbern Road Lee's Summit, MO 64086	918-347-4143 Russell Penner	MADOT 105 West Capital Jefferson City, MO 65102	\$ 898,245.15	5/15/2022	90%
CRCC Relieving Platform Demolition and replacement of relieving platform	Central Plants Cement Company 2200 N. Courtney Road Sugar Creek, MO 64050	816-365-1626 Jaime Duran	Manly Brothers, Inc. 200 Benton Street St. Louis, MO 63088	\$ 988,560.00	1/15/2022	100%
Marshall WWTP Phase 2 Improvements (Subcontractor) Wastewater Treatment Plant Improvements	Burns McDonnell 8400 Ward Parkway Kansas City, MO 64114	816-686-2212 Kevin Davyda	Burns McDonnell 9400 Ward Parkway Kansas City, MO 64114	\$ 1,368,823.00	3/1/2022	25%
Grant Avenue Parkway Oil-street bike & pedestrian pathway, bridge enhancements, utility upgrades, crossing & intersection improvements.	City of Springfield 210 Beaconville Avenue Springfield, MO 65801	417-821-2069 Loree Reese	CFS Engineers 1421 East 104th, Suite 100 Kansas City, MO 64131	\$ 20,452,461.00	4/1/2022	10%
City Park Dam & Spillway Rehabilitation Project Dam & spillway improvements	City of Harrisonville 300 E. Pearl Street Harrisonville, MO 64701	816-380-8900 Ted Martin	Wilson & Company 800 East 101st Terr., Suite 200 Kansas City, MO 64131	\$ 1,791,908.10	12/15/2021	99%

Contract 2: Water Treatment Plant New water treatment plant & lagoons	City of Lexington 919 Franklin Street Lexington, MO 64067	650-259-2751 Mark O'Dell	Bartlett & West 10895 Grandview Dr., Suite 110 Overland Park, KS 66210	\$	8,997,000.00	12/16/2021	24%
I-49 Outer Roadway Conversion Road Reconstruction	City of Grandview 1200 Main Street Grandview, MO 64030	815-316-4877 Doug Weissaschmidt	Trek Design Group LLC 1414 East 104th St. Kansas City, MO 64131	\$	11,800,000.00	7/1/2021	75%
Route 29, Patti County Bridges Replacements	MO DOT 1900 NW Cookingham Drive Kansas City, MO 64135	816-437-3829 Michael Scarpitta	MO DOT 105 West Capitol Jefferson City, MO 65102	\$	7,541,439.87	3/22/2021	75%
Swope Park Industrial Area - 75th St Realignment - Phase 1 Pre-Load Embankment & Water Main Replacement	City Of Kansas City, Missouri 414 East 72th Kansas City, MO 64106	Kathrin Steinbacher 785-393-3145	Hansen Professional Services 1001 East 101st Terr., Suite 120 Kansas City, MO 64131	\$	1,885,929.45	3/29/2021	90%
Flood Repairs (Fort Leavenworth) Repair Damage at Leveas	U.S. Army Corps of Engineers 750 W. Leavenworth Road FL Leavenworth, KS 65027	Carol Hodges 816-398-3732	U.S. Army Corps of Engineers 801 East 12th Street Kansas City, MO 64106	\$	17,351,110.00	1/21/2021	67%
KCA Terminal Modernization Project (Subcontract) Retaining Wall	ChauWheiz/Clarkson 523 Menard City Avenue Kansas City, MO 64153	Mark Goodwin 240-997-1392	Sidmore, Owings & Merrill LLP 14 Wall Street New York, NY 10005	\$	17,900,000.00	12/14/2020	99%
Atherton WWTP Phase 3 Biosolids Improvements	Little Blue Valley Sewer District 2120B E. Old Atherton Road Independence, MO 64053	Lisa O'Neil 786-7660	HDR 10450 Holmes Rd., Suite 800 Kansas City, MO 64131	\$	8,322,500.00	5/15/2020	59%

**ANNUAL WORKER ELIGIBILITY VERIFICATION AFFIDAVIT**  
(for joint ventures, a separate affidavit is require for each business entity)

STATE OF Missouri )  
COUNTY OF Johnson ) ss

On the 30th day of August, 2022, before me appeared Robert C. Radmacher  
(Affiant name)

personally know 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 County 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 President of Radmacher Brothers Excavating Co., Inc.  
(Title) (Business Name)

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

• I, the Affiant, also 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 Jackson County, Missouri. 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 Jackson County, Missouri, 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 285.525, RSMo, the aforementioned business entity may be held liable under Sections 285.525 through 285.550, RSMo, for subcontractors that knowingly employee or continue to employ any unauthorized alien to work within the State of Missouri.

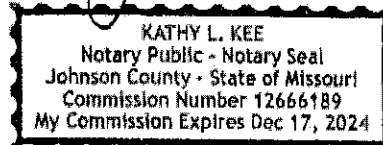
• I, the Affiant, acknowledge that I am signing this affidavit as a free act and deed of the aforementioned business entity and under duress.

Subscribed and sworn to before me, a Notary Public in and for Jackson County, Missouri, this

30th day of August, 2022.

My Commission Expires December 17, 2024

*[Signature]*  
Affiant  
*[Signature]*  
Notary Public Kathy L. Kee





Company ID Number: 180228

**THE E-VERIFY PROGRAM FOR EMPLOYMENT VERIFICATION  
MEMORANDUM OF UNDERSTANDING**

**ARTICLE I**

**PURPOSE AND AUTHORITY**

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

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

**ARTICLE II**

**FUNCTIONS TO BE PERFORMED**

**A. RESPONSIBILITIES OF SSA**

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

# E-Verify



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4. SSA agrees to provide a means of automated verification that is designed (in conjunction with DHS's automated system if necessary) to provide confirmation or tentative nonconfirmation of U.S. citizens' employment eligibility within 3 Federal Government work days of the initial inquiry.

5. SSA agrees to provide a means of secondary verification (including updating SSA records as may be necessary) for employees who contest SSA tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of U.S. citizens' employment eligibility and accuracy of SSA records for both citizens and aliens within 10 Federal Government work days of the date of referral to SSA, unless SSA determines that more than 10 days may be necessary. In such cases, SSA will provide additional verification instructions.

## **B. RESPONSIBILITIES OF DHS**

1. After SSA verifies the accuracy of SSA records for aliens through E-Verify, DHS agrees to provide the Employer access to selected data from DHS's database to enable the Employer to conduct, to the extent authorized by this MOU:

- Automated verification checks on alien employees by electronic means, and
- Photo verification checks (when available) on employees.

2. DHS agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. DHS agrees to provide the Employer names, titles, addresses, and telephone numbers of DHS representatives to be contacted during the E-Verify process.

3. DHS agrees to provide to the Employer a manual (the E-Verify User Manual) containing instructions on E-Verify policies, procedures and requirements for both SSA and DHS, including restrictions on the use of E-Verify. DHS agrees to provide training materials on E-Verify.

4. DHS agrees to provide to the Employer a notice, which indicates the Employer's participation in the E-Verify program. DHS also agrees to provide to the Employer anti-discrimination notices issued by the Office of Special Counsel for Immigration-Related Unfair Employment Practices (OSC), Civil Rights Division, U.S. Department of Justice.

5. DHS agrees to issue the Employer a user identification number and password that permits the Employer to verify information provided by alien employees with DHS's database.

6. DHS agrees to safeguard the information provided to DHS by the Employer, and to limit access to such information to individuals responsible for the verification of alien employment eligibility and for evaluation of the E-Verify program, or to such other persons or entities as may be authorized by applicable law. Information will be used only to verify the accuracy of Social Security Numbers and employment eligibility, to enforce the Immigration and Nationality Act (INA) and Federal criminal laws, and to administer Federal contracting requirements.

7. DHS agrees to provide a means of automated verification that is designed (in conjunction with SSA verification procedures) to provide confirmation or tentative





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nonconfirmation of employees' employment eligibility within 3 Federal Government work days of the initial inquiry.

8. DHS agrees to provide a means of secondary verification (including updating DHS records as may be necessary) for employees who contest DHS tentative nonconfirmations and photo non-match tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of the employees' employment eligibility within 10 Federal Government work days of the date of referral to DHS, unless DHS determines that more than 10 days may be necessary. In such cases, DHS will provide additional verification instructions.

### C. RESPONSIBILITIES OF THE EMPLOYER

1. The Employer agrees to display the notices supplied by DHS in a prominent place that is clearly visible to prospective employees and all employees who are to be verified through the system.

2. The Employer agrees to provide to the SSA and DHS the names, titles, addresses, and telephone numbers of the Employer representatives to be contacted regarding E-Verify.

3. The Employer agrees to become familiar with and comply with the most recent version of the E-Verify User Manual.

4. The Employer agrees that any Employer Representative who will perform employment verification queries will complete the E-Verify Tutorial before that individual initiates any queries.

A. The Employer agrees that all Employer representatives will take the refresher tutorials initiated by the E-Verify program as a condition of continued use of E-Verify, including any tutorials for Federal contractors if the Employer is a Federal contractor.

B. Failure to complete a refresher tutorial will prevent the Employer from continued use of the program.

5. The Employer agrees to comply with current Form I-9 procedures, with two exceptions:

- If an employee presents a "List B" identity document, the Employer agrees to only accept "List B" documents that contain a photo. (List B documents identified in 8 C.F.R. § 274a.2(b)(1)(B)) can be presented during the Form I-9 process to establish identity.) If an employee objects to the photo requirement for religious reasons, the Employer should contact E-Verify at 888-464-4218.
- If an employee presents a DHS Form I-551 (Permanent Resident Card) or Form I-766 (Employment Authorization Document) to complete the Form I-9, the Employer agrees to make a photocopy of the document and to retain the photocopy with the employee's Form I-9. The employer will use the photocopy to verify the photo and to assist DHS with its review of photo non-matches that are contested by employees. Note that employees retain the right to present any List A, or List B and List C, documentation to complete the Form I-9. DHS may in the future designate other documents that activate the photo screening tool.

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6. The Employer understands that participation in E-Verify does not exempt the Employer from the responsibility to complete, retain, and make available for inspection Forms I-9 that relate to its employees, or from other requirements of applicable regulations or laws, including the obligation to comply with the antidiscrimination requirements of section 274B of the INA with respect to Form I-9 procedures, except for the following modified requirements applicable by reason of the Employer's participation in E-Verify: (1) identity documents must have photos, as described in paragraph 5 above; (2) a rebuttable presumption is established that the Employer has not violated section 274A(a)(1)(A) of the Immigration and Nationality Act (INA) with respect to the hiring of any individual if it obtains confirmation of the identity and employment eligibility of the individual in compliance with the terms and conditions of E-Verify; (3) the Employer must notify DHS if it continues to employ any employee after receiving a final nonconfirmation, and is subject to a civil money penalty between \$550 and \$1,100 for each failure to notify DHS of continued employment following a final nonconfirmation; (4) the Employer is subject to a rebuttable presumption that it has knowingly employed an unauthorized alien in violation of section 274A(a)(1)(A) if the Employer continues to employ an employee after receiving a final nonconfirmation; and (5) no person or entity participating in E-Verify is civilly or criminally liable under any law for any action taken in good faith based on information provided through the confirmation system. DHS reserves the right to conduct Form I-9 compliance inspections during the course of E-Verify, as well as to conduct any other enforcement activity authorized by law.

7. The Employer agrees to initiate E-Verify verification procedures for new employees within 3 Employer business days after each employee has been hired (but after both sections 1 and 2 of the Form I-9 have been completed), and to complete as many (but only as many) steps of the E-Verify process as are necessary according to the E-Verify User Manual. The Employer is prohibited from initiating verification procedures before the employee has been hired and the Form I-9 completed. If the automated system to be queried is temporarily unavailable, the 3-day time period is extended until it is again operational in order to accommodate the Employer's attempting, in good faith, to make inquiries during the period of unavailability. In all cases, the Employer must use the SSA verification procedures first, and use DHS verification procedures and photo screening tool only after the SSA verification response has been given. Employers may initiate verification by notating the Form I-9 in circumstances where the employee has applied for a Social Security Number (SSN) from the SSA and is waiting to receive the SSN, provided that the Employer performs an E-Verify employment verification query using the employee's SSN as soon as the SSN becomes available.

8. The Employer agrees not to use E-Verify procedures for pre-employment screening of job applicants, in support of any unlawful employment practice, or for any other use not authorized by this MOU. Employers must use E-Verify for all new employees, unless an Employer is a Federal contractor that qualifies for the exceptions described in Article II.D.1.c. Except as provided in Article II.D, the Employer will not verify selectively and will not verify employees hired before the effective date of this MOU. The Employer understands that if the Employer uses E-Verify procedures for any purpose other than as authorized by this MOU, the Employer may be subject to appropriate legal action and termination of its access to SSA and DHS information pursuant to this MOU.

9. The Employer agrees to follow appropriate procedures (see Article III. below) regarding tentative nonconfirmations, including notifying employees of the finding, providing written referral instructions to employees, allowing employees to contest the finding, and not taking

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adverse action against employees if they choose to contest the finding. Further, when employees contest a tentative nonconfirmation based upon a photo non-match, the Employer is required to take affirmative steps (see Article III.B. below) to contact DHS with information necessary to resolve the challenge.

10. The Employer agrees not to take any adverse action against an employee based upon the employee's perceived employment eligibility status while SSA or DHS is processing the verification request unless the Employer obtains knowledge (as defined in 8 C.F.R. § 274a.1(l)) that the employee is not work authorized. The Employer understands that an initial inability of the SSA or DHS automated verification system to verify work authorization, a tentative nonconfirmation, a case in continuance (indicating the need for additional time for the government to resolve a case), or the finding of a photo non-match, does not establish, and should not be interpreted as evidence, that the employee is not work authorized. In any of the cases listed above, the employee must be provided a full and fair opportunity to contest the finding, and if he or she does so, the employee may not be terminated or suffer any adverse employment consequences based upon the employee's perceived employment eligibility status (including denying, reducing, or extending work hours, delaying or preventing training, requiring an employee to work in poorer conditions, refusing to assign the employee to a Federal contract or other assignment, or otherwise subjecting an employee to any assumption that he or she is unauthorized to work) until and unless secondary verification by SSA or DHS has been completed and a final nonconfirmation has been issued. If the employee does not choose to contest a tentative nonconfirmation or a photo non-match or if a secondary verification is completed and a final nonconfirmation is issued, then the Employer can find the employee is not work authorized and terminate the employee's employment. Employers or employees with questions about a final nonconfirmation may call E-Verify at 1-888-464-4218 or OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

11. The Employer agrees to comply with Title VII of the Civil Rights Act of 1964 and section 274B of the INA by not discriminating unlawfully against any individual in hiring, firing, or recruitment or referral practices because of his or her national origin or, in the case of a protected individual as defined in section 274B(a)(3) of the INA, because of his or her citizenship status. The Employer understands that such illegal practices can include selective verification or use of E-Verify except as provided in part D below, or discharging or refusing to hire employees because they appear or sound "foreign" or have received tentative nonconfirmations. The Employer further understands that any violation of the unfair immigration-related employment practices provisions in section 274B of the INA could subject the Employer to civil penalties, back pay awards, and other sanctions, and violations of Title VII could subject the Employer to back pay awards, compensatory and punitive damages. Violations of either section 274B of the INA or Title VII may also lead to the termination of its participation in E-Verify. If the Employer has any questions relating to the anti-discrimination provision, it should contact OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

12. The Employer agrees to record the case verification number on the employee's Form I-9 or to print the screen containing the case verification number and attach it to the employee's Form I-9.

13. The Employer agrees that it will use the information it receives from SSA or DHS pursuant to E-Verify and this MOU only to confirm the employment eligibility of employees as

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authorized by this MOU. The Employer agrees that it will safeguard this information, and means of access to it (such as PINS and passwords) to ensure that it is not used for any other purpose and as necessary to protect its confidentiality, including ensuring that it is not disseminated to any person other than employees of the Employer who are authorized to perform the Employer's responsibilities under this MOU, except for such dissemination as may be authorized in advance by SSA or DHS for legitimate purposes.

14. The Employer acknowledges that the Information which it receives from SSA is governed by the Privacy Act (5 U.S.C. § 552a(l)(1) and (3)) and the Social Security Act (42 U.S.C. 1306(a)), and that any person who obtains this information under false pretenses or uses it for any purpose other than as provided for in this MOU may be subject to criminal penalties.

15. The Employer agrees to cooperate with DHS and SSA in their compliance monitoring and evaluation of E-Verify, including by permitting DHS and SSA, upon reasonable notice, to review Forms I-9 and other employment records and to interview it and its employees regarding the Employer's use of E-Verify, and to respond in a timely and accurate manner to DHS requests for information relating to their participation in E-Verify.

#### **D. RESPONSIBILITIES OF FEDERAL CONTRACTORS**

1. The Employer understands that if it is a Federal contractor subject to the employment verification terms in Subpart 22.18 of the FAR it must verify the employment eligibility of any "employee assigned to the contract" (as defined in FAR 22.1801) in addition to verifying the employment eligibility of all other employees required to be verified under the FAR. Once an employee has been verified through E-Verify by the Employer, the Employer may not reverify the employee through E-Verify.

a. Federal contractors not enrolled at the time of contract award: An Employer that is not enrolled in E-Verify as a Federal contractor at the time of a contract award must enroll as a Federal contractor in the E-Verify program within 30 calendar days of contract award and, within 90 days of enrollment, begin to use E-Verify to initiate verification of employment eligibility of new hires of the Employer who are working in the United States, whether or not assigned to the contract. Once the Employer begins verifying new hires, such verification of new hires must be initiated within 3 business days after the date of hire. Once enrolled in E-Verify as a Federal contractor, the Employer must initiate verification of employees assigned to the contract within 90 calendar days after the date of enrollment or within 30 days of an employee's assignment to the contract, whichever date is later.

b. Federal contractors already enrolled at the time of a contract award: Employers enrolled in E-Verify as a Federal contractor for 90 days or more at the time of a contract award must use E-Verify to initiate verification of employment eligibility for new hires of the Employer who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire. If the Employer is enrolled in E-Verify as a Federal contractor for 90 calendar days or less at the time of contract award, the Employer must, within 90 days of enrollment, begin to use E-Verify to initiate verification of new hires of the contractor who are working in the United States, whether or not assigned to the contract. Such verification of new hires must be initiated within 3 business days after the date of hire. An Employer enrolled as a Federal contractor in E-Verify must initiate verification of each employee assigned to the

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contract within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever is later.

c. Institutions of higher education, State, local and tribal governments and sureties: Federal contractors that are institutions of higher education (as defined at 20 U.S.C. 1001(a)), State or local governments, governments of Federally recognized Indian tribes, or sureties performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond may choose to only verify new and existing employees assigned to the Federal contract. Such Federal contractors may, however, elect to verify all new hires, and/or all existing employees hired after November 6, 1986. The provisions of Article II.D, paragraphs 1.a and 1.b of this MOU providing timeframes for initiating employment verification of employees assigned to a contract apply to such institutions of higher education, State, local and tribal governments, and sureties.

d. Verification of all employees: Upon enrollment, Employers who are Federal contractors may elect to verify employment eligibility of all existing employees working in the United States who were hired after November 6, 1986, instead of verifying only those employees assigned to a covered Federal contract. After enrollment, Employers must elect to do so only in the manner designated by DHS and initiate E-Verify verification of all existing employees within 180 days after the election.

e. Form I-9 procedures for Federal contractors: The Employer may use a previously completed Form I-9 as the basis for initiating E-Verify verification of an employee assigned to a contract as long as that Form I-9 is complete (including the SSN), complies with Article II.C.5, the employee's work authorization has not expired, and the Employer has reviewed the information reflected in the Form I-9 either in person or in communications with the employee to ensure that the employee's stated basis in section 1 of the Form I-9 for work authorization has not changed (including, but not limited to, a lawful permanent resident alien having become a naturalized U.S. citizen). If the Employer is unable to determine that the Form I-9 complies with Article II.C.5, if the employee's basis for work authorization as attested in section 1 has expired or changed, or if the Form I-9 contains no SSN or is otherwise incomplete, the Employer shall complete a new I-9 consistent with Article II.C.5, or update the previous I-9 to provide the necessary information. If section 1 of the Form I-9 is otherwise valid and up-to-date and the form otherwise complies with Article II.C.5, but reflects documentation (such as a U.S. passport or Form I-551) that expired subsequent to completion of the Form I-9, the Employer shall not require the production of additional documentation, or use the photo screening tool described in Article II.C.5, subject to any additional or superseding instructions that may be provided on this subject in the E-Verify User Manual. Nothing in this section shall be construed to require a second verification using E-Verify of any assigned employee who has previously been verified as a newly hired employee under this MOU, or to authorize verification of any existing employee by any Employer that is not a Federal contractor.

2. The Employer understands that if it is a Federal contractor, its compliance with this MOU is a performance requirement under the terms of the Federal contract or subcontract, and the Employer consents to the release of information relating to compliance with its verification responsibilities under this MOU to contracting officers or other officials authorized to review the Employer's compliance with Federal contracting requirements.



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### ARTICLE III

#### REFERRAL OF INDIVIDUALS TO SSA AND DHS

##### A. REFERRAL TO SSA

1. If the Employer receives a tentative nonconfirmation issued by SSA, the Employer must print the tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation.

2. The Employer will refer employees to SSA field offices only as directed by the automated system based on a tentative nonconfirmation, and only after the Employer records the case verification number, reviews the input to detect any transaction errors, and determines that the employee contests the tentative nonconfirmation. The Employer will transmit the Social Security Number to SSA for verification again if this review indicates a need to do so. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.

3. If the employee contests an SSA tentative nonconfirmation, the Employer will provide the employee with a system-generated referral letter and instruct the employee to visit an SSA office within 8 Federal Government work days. SSA will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.

4. The Employer agrees not to ask the employee to obtain a printout from the Social Security Number database (the Numident) or other written verification of the Social Security Number from the SSA.

##### B. REFERRAL TO DHS

1. If the Employer receives a tentative nonconfirmation issued by DHS, the Employer must print the tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation.

2. If the Employer finds a photo non-match for an employee who provides a document for which the automated system has transmitted a photo, the employer must print the photo non-match tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the finding.

3. The Employer agrees to refer individuals to DHS only when the employee chooses to contest a tentative nonconfirmation received from DHS automated verification process or when the Employer issues a tentative nonconfirmation based upon a photo non-match. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible

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after the Employer receives it.

4. If the employee contests a tentative nonconfirmation issued by DHS, the Employer will provide the employee with a referral letter and instruct the employee to contact DHS through its toll-free hotline (as found on the referral letter) within 8 Federal Government work days.

5. If the employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will provide the employee with a referral letter to DHS. DHS will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.

6. The Employer agrees that if an employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will send a copy of the employee's Form I-551 or Form I-766 to DHS for review by:

- Scanning and uploading the document, or
- Sending a photocopy of the document by an express mail account (furnished and paid for by DHS).

7. The Employer understands that if it cannot determine whether there is a photo match/non-match, the Employer is required to forward the employee's documentation to DHS by scanning and uploading, or by sending the document as described in the preceding paragraph, and resolving the case as specified by the Immigration Services Verifier at DHS who will determine the photo match or non-match.

## ARTICLE IV

### SERVICE PROVISIONS

SSA and DHS will not charge the Employer for verification services performed under this MOU. The Employer is responsible for providing equipment needed to make inquiries. To access the E-Verify System, an Employer will need a personal computer with Internet access.

## ARTICLE V

### PARTIES

A. This MOU is effective upon the signature of all parties, and shall continue in effect for as long as the SSA and DHS conduct the E-Verify program unless modified in writing by the mutual consent of all parties, or terminated by any party upon 30 days prior written notice to the others. Any and all system enhancements to the E-Verify program by DHS or SSA, including but not limited to the E-Verify checking against additional data sources and instituting new verification procedures, will be covered under this MOU and will not cause the need for a supplemental MOU that outlines these changes. DHS agrees to train employers on all changes made to E-Verify through the use of mandatory refresher tutorials and updates to the E-Verify User Manual. Even without changes to E-Verify, DHS reserves the right to require employers to take

# E-Verify



Company ID Number: 180228

mandatory refresher tutorials. An Employer that is a Federal contractor may terminate this MOU when the Federal contract that requires its participation in E-Verify is terminated or completed. In such a circumstance, the Federal contractor must provide written notice to DHS. If an Employer that is a Federal contractor fails to provide such notice, that Employer will remain a participant in the E-Verify program, will remain bound by the terms of this MOU that apply to non-Federal contractor participants, and will be required to use the E-Verify procedures to verify the employment eligibility of all newly hired employees.

B. Notwithstanding Article V, part A of this MOU, DHS may terminate this MOU if deemed necessary because of the requirements of law or policy, or upon a determination by SSA or DHS that there has been a breach of system integrity or security by the Employer, or a failure on the part of the Employer to comply with established procedures or legal requirements. The Employer understands that if it is a Federal contractor, termination of this MOU by any party for any reason may negatively affect its performance of its contractual responsibilities.

C. Some or all SSA and DHS responsibilities under this MOU may be performed by contractor(s), and SSA and DHS may adjust verification responsibilities between each other as they may determine necessary. By separate agreement with DHS, SSA has agreed to perform its responsibilities as described in this MOU.

D. Nothing in this MOU is intended, or should be construed, to create any right or benefit, substantive or procedural, enforceable at law by any third party against the United States, its agencies, officers, or employees, or against the Employer, its agents, officers, or employees.

E. Each party shall be solely responsible for defending any claim or action against it arising out of or related to E-Verify or this MOU, whether civil or criminal, and for any liability wherefrom, including (but not limited to) any dispute between the Employer and any other person or entity regarding the applicability of Section 403(d) of IRIRA to any action taken or allegedly taken by the Employer.

F. The Employer understands that the fact of its participation in E-Verify is not confidential information and may be disclosed as authorized or required by law and DHS or SSA policy, including but not limited to, Congressional oversight, E-Verify publicity and media inquiries, determinations of compliance with Federal contractual requirements, and responses to inquiries under the Freedom of Information Act (FOIA).

G. The foregoing constitutes the full agreement on this subject between DHS and the Employer.

H. The individuals whose signatures appear below represent that they are authorized to enter into this MOU on behalf of the Employer and DHS respectively.





Company ID Number: 180228

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

Employer Radmacher Brothers Excavating Co., Inc.

Kathy Kee

Name (Please Type or Print)

Administrative Assistant

Title

Electronically Signed

Signature

01/14/2009

Date

Department of Homeland Security – Verification Division

USCIS Verification Division

Name (Please Type or Print)

Title

Electronically Signed

Signature

01/14/2009

Date



Company ID Number: 180228

**Information Required for the E-Verify Program**

Information relating to your Company:

Company Name: Radmacher Brothers Excavating Co., Inc.

Company Facility Address: 2201 North 7 Highway

Suite B

Pleasant Hill, MO 64080

Company Alternate  
Address:

County or Parish: CASS

Employer Identification

Number: 431659884

North American Industry  
Classification Systems

Code: 237

Parent Company: Radmacher Brothers Excavating

Number of Employees: 20 to 99

Number of Sites Verified

for: 1

Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State:

- MISSOURI 1 site(s)

# E-Verify



Company ID Number: 180228

Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

Name:	Kathy L. Kee	Fax Number:	(816) 540 - 4444
Telephone Number:	(816) 540 - 3614		
E-mail Address:	kkee@radbroex.com		

### LIST OF INTENDED SUBCONTRACTORS

Bidder Name: Radmacher Brothers Excavating Company, Inc.

Will subcontractors be used to complete the work?  Yes  No

If yes, complete this form and submit it with your bid.

Subcontractor No. 1

Name: Erosion Specialists

Address: PO Box 681599

City & Zip Code: Riverside, MO 64168

Telephone No: 816-321-1847 Fax No: \_\_\_\_\_

Description of work to be performed (include Bid Item Number, and Bid Item):

Seeding and Erosion Control

Dollar Amount	\$ 5,281.75.00	DBE Y	Certif. Agency	MRCC
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Subcontractor No. 2

Name: Superior Bowen

Address: 520 Penway St., Suite 300

City & Zip Code: Kansas City, MO 64134

Telephone No: 816-921-8200 Fax No: \_\_\_\_\_

Description of work to be performed (include Bid Item Number, and Bid Item):

Asphalt Pavement

Dollar Amount	\$ 159,833.50	DBE	Certif. Agency	
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**LIST OF INTENDED SUBCONTRACTORS (cont.)**

Subcontractor No. 3

Name: Collins & Hermann Infrastructure Solutions

Address: 2366 State Line Rd

City & Zip Code: Kansas City, MO 66103

Telephone No: 913-621-3906

Fax No: \_\_\_\_\_

Description of work to be performed (include Bid Item Number, and Bid Item):

Guard Rail

Dollar Amount	\$ 60,100.00	DBE	Certif. Agency	
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Subcontractor No. 4

Name: Streetwise, Inc,

Address: 13501 Arrington Rd

City & Zip Code: Grandview, MO 64030

Telephone No: 816-331-2355

Fax No: \_\_\_\_\_

Description of work to be performed (include Bid Item Number, and Bid Item):

Temporary Traffic Control and Pavement Marking

Dollar Amount	\$ 11,081.04	DBE Y	Certif. Agency	MRCC
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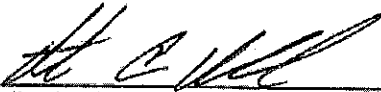
## OSHA TEN HOUR TRAINING

Missouri Law, Section 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 (laborer, 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 as 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 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.

The undersigned Bidder hereby certifies:

### OSHA 10 CARD CERTIFICATION

The undersigned Bidder hereby certifies and acknowledges receipt of OSHA 10 Card(s) as the contractor and for the subcontractor(s) of this project. Copies of the card(s) shall be provided to Jackson County, Missouri to be reviewed by the Compliance Review Officer.



\_\_\_\_\_  
Authorized Signature of Bidder

Radmacher Brothers Excavating Co., Inc.

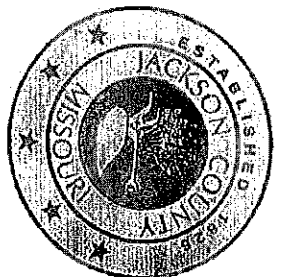
\_\_\_\_\_  
Company Name

8-30-2022

\_\_\_\_\_  
Date

Jackson County Missouri

# Certificate of Compliance



In accordance with Jackson County Code Chapter(s) 6 and 10,  
this Certificate of Compliance is hereby issued to:

Radmacher Brothers Excavating Co., Inc.  
2201 North 7 Highway B  
Pleasant Hill, MO 64080  
2022 Certificate: 20220111VC426

Issued: 2022-01-11  
Expires: 2022-12-31

The above named firm/agency has met the following requirements:

Is duly listed and assessed on the tax rolls of Jackson County, Missouri and is not delinquent in the payment of any taxes due to the County, or did not have on December 31st of the previous year any property subject to taxation by the County

Attests and agrees to Chapter 6 of the Jackson County Code which prohibits discriminatory employment practices and promotes equal employment opportunity by contractors doing business with Jackson County.

Chief Compliance Review Officer  
Jackson County Missouri  
816-881-3302  
compliance@jacksonsongov.org





**RADMACHER BROTHERS EXCAVATING CO., INC.**  
**PROJECT REFERENCES (COMPLETED)**

PROJECT	OWNER	TELEPHONE	ARCHITECT	CONTRACT AMOUNT	DATE STARTED	COMPLETED
Route 152 & Prairie Purchase Dr., Clay, Platte County Interchange Improvements	MADOT 2800 NW Cookington Drive Kansas City, MO 64155	816-437-3524 Christopher Karna	MADOT 105 West Capitol Jefferson City, MO 65102	\$ 5,754,092.40	9/1/2021	Complete
Blue Lavan Storm Drainage (complete Blue Hills contract) New storm sewer	City of Independence 111 East Maple Independence, MO 64050	816-325-6917 Ted Warner	City of Independence 111 East Maple Independence, MO 64050	\$ 271,593.40	10/15/2021	Complete
2013 Water System Improvements (complete Blue Hills contract) Replace water mains	City of Sedalia 200 S. Cass Avenue Sedalia, MO 65201	650-227-2000 X1103 Jeremy Stone	Potter-Yeungquist 207 E. Dennis Avenue Osborne, KS 66081	\$ 1,691,872.00	7/1/2021	Complete
Route 287 & Schroer, Jackson County Intersection Improvements	MADOT 600 NE Colburn Road Leak Summit, MO 64066	816-347-4142 Jason Wilson	MADOT 105 West Capitol Jefferson City, MO 65102	\$ 1,350,298.84	5/24/2021	Complete
Truman & Harris Emergency Repairs	City of Independence 111 East Maple Independence, MO 64050	Alvina Hujon 816-325-7618	Powell CYLL 3200 S. State Route 291 Independence, MO 64057	\$ 721,796.84	3/15/2021	Complete
DN Tanks (Subcontract) Resuming Work, Concrete Slabs, Asphalt Paving	Masterson Data Center 11200 N. Ambassador Drive Kansas City, MO 64153	Jason Phillips 817-415-5287	DN Tanks 410 E. Fairly Blvd. Grand Prairie, TX 75050	\$ 481,812.00	12/1/2020	Complete
Route 54, Vernon County Bridge Deck Replacement	MADOT 1057 E. Garret Drive Dillon, MO 64713	Shannon Kolmer 800-485-6565	MADOT 105 West Capitol Jefferson City, MO 65102	\$ 33,995,008.29	11/1/2020	Complete
MO 150 & Raytown Road Intersection Improvements	City of Raytown 10000 East 88th Street Raytown, MO 64133	Jason Hinson 816-737-6912	CDN Struth 9200 Ward Parkway Kansas City, MO 64114	\$ 2,186,272.60	8/02/2020	Complete
Influent Fine Screen Replacement Fine Screen Replacement	Lille Blue Valley Sewer District 21208 E. Old Aberdeen Road Independence, MO 64058	Turkey Proctor 816-756-7800	Osson 1301 Burlington Street Kansas City, MO 64118	\$ 498,200.00	8/12/2020	Complete
3-4 Street Improvements - Pryor Road in Murray Road Street Improvements	City of Lees Summit 229 SE Green Street Lees Summit, MO 64063	Craig Kohler 816-896-1800	Osson Engineering 7301 West 134d St., Suite 200 Overland Park, KS 66213	\$ 4,638,739.10	5/15/2020	Complete
Turkey Creek Missouri Interceptor Flood Risk Prevention	U.S. Army Corps of Engineers Kansas City District 12500 E. 40 Highway, Suite M Independence, MO 64055-5847	(816) 389-2221 Zachary Wurton	U.S. Army Corps of Engineers 647 Federal Building Kansas City, MO 64106	\$ 26,577,770.00	3/1/2018	Complete
Route 151, Johnson, Linn, and Cass County Road Reconstruction	MADOT 600 NE Colburn Road Lees Summit, MO 64066	(816) 607-2103 Briker Burger	MADOT 105 West Capitol Jefferson City, MO 65102	\$ 4,958,253.43	2/1/2021	Complete
Lille Blue Tract Trail Trail Improvements	Jackson County Parks & Recreation 22807 Woods Chapel Road Blue Springs, MO 64015	Seana Wilks 816-553-4802	TransSystems 2400 Pershing Rd., Suite 400 Kansas City, MO 64108	\$ 422,411.82	11/30/2020	Complete
Route 125, Clay County Bridge Deck Replacement	MADOT 1500 NW Cookington Drive Kansas City, MO 64155	Matthew Duhon 816-437-5825	MADOT 105 West Capitol Jefferson City, MO 65102	\$ 722,814.10	8/1/2020	Complete
Route 1, Clay County Build new roundabout	MADOT 1800 NW Cookington Drive Kansas City, MO 64155	Derek Bernousten 816-565-4393	MADOT 105 West Capitol Jefferson City, MO 65102	\$ 1,887,091.82	8/1/2020	Complete
Route 65, Livingston County Bridge Rehabilitation	MADOT 1303 Mitchell Avenue Chillicothe, MO 64601	Jenna Calogre 650-645-3218	MADOT 105 West Capitol Jefferson City, MO 65102	\$ 4,148,172.70	3/1/2020	Complete

1470 Oak Grove Drainage Repair	MADOT 1553 West Arrow Street Maysville, MO 65340	650-895-3464	MADOT 105 West Capital Jefferson City, MO 64108	\$	217,507.95	10/12/2024	Complete
Route 140th Street, Jackson County Bridge Replacement	MADOT 600 NE Calhoun Road Leos Summit, MO 64096	816-347-4143 Natali Alshabi	MADOT 105 West Capital Jefferson City, MO 64108	\$	2,085,384.23	5/1/2020	Complete
Route 1470, Hillcrest Road Bridge Duck Replacement	MADOT 800 NE Calhoun Road Leos Summit, MO 64096	816-347-4143 Bradley Watkins	MADOT 105 West Capital Jefferson City, MO 64108	\$	1,590,361.82	3/1/2020	Complete
2019 Reanova Drive Road Reconstruction	City of Blue Springs 803 West Main Street Blue Springs, MO 64015	816-228-0121 Jodi Sait	Olsson, Inc. 7201 W. 123rd, Suite 200 Overland Park, KS 66213	\$	1,200,859.36	8/1/2019	Complete
Rock Island Rail Corridor Storage Use Path - North Segment Trail Construction (13.49 miles)	Jackson County 302 West Walnut Independence, MO 64050	Marv Dicks 816-503-4819	Burns McDonnell 6400 Third Parkway Kansas City, MO 64114	\$	11,067,438.71	7/7/2019	Complete
Facility Improvements at North Airport & Truman Flood Pump Stations Renovation of Two Flood Pump Stations	City of Kansas City Water Department 4800 East 83rd Street Kansas City, MO 64120	Richard Gasman 816-513-0382	Custom Engineering 12750 East 40 Highway Independence, MO 64056	\$	974,000.00	5/6/2019	Complete
County Club Collector Project Road Reconstruction	City of Pleasant Hill, Missouri 203 Paul Street Pleasant Hill, MO 64080	John B. Sells Shelby Tauler (913) 236-7484 Linda Rothgraves	Arlink Corp 8900 Indian Creek Pkwy, Suite 450 Overland Park, KS 66210	\$	1,786,883.85	10/1/2018	Complete
1425 South Loop Link Design Build Bridge Rehab and Road Reconstruction	MADOT 800 NE Calhoun Road Leos Summit, MO 64096	(816) 607-2102 Perry Allen	Wilson & Company, Inc. 800 East 104 <sup>th</sup> Terrace Suite 200 Kansas City, MO 64111	\$	84,500,000.00	3/1/2018	Complete
2018 Concrete Street Improvements Street Improvements	City of Independence Public Works 111 East Maple Independence, MO 64090	Shari Dinnaganti 816-325-7511	Track Design Group 1411 East 104th Street Kansas City, MO 64131	\$	5400,000.00	9/16/2019	Complete
Route 168, Clay County Drainage & Pavement	MADOT (Kashua Project Office) 1986 NW Conington Drive Kansas City, MO 64115	Mark Dawson 816-437-3025	MADOT 105 West Capital Jefferson City, MO 64108	\$	2,470,727.64	5/1/2019	Complete

HVAC, Trash Rack Cleaning & Open Channel Improvements Removal & Replacement of Modifications	Little Blue Valley Sewer District 21200 E. Old Aberdeen Road Independence, MO 64086	David Lity 816-299-6116	Shaffer, Kline & Wenzel 11250 Corporate Avenue Leawood, KS 66218	\$	\$78,300.00	5/1/2018	Complete
North Oak Trailway Design Build Road Reconstruction	City of Kansas City, Missouri 414 East 12th Street Kansas City, MO 64106	(816) 513-2746 David H. Miller	T&K Design Group 1411 East 104th St. Kansas City, MO 64131	\$	5,241,050.00	10/1/2018	Complete
In-Line Storage - OK Creek Gully Installation of Roller Gates at Turkey Creek Wastewater Pump Station	KCMO Water Services Dept 4000 East 53rd Street Kansas City, MO 64130	(816) 513-0354 Sam Marie Casner	KC Water Services Engineering 4800 East River Street Kansas City, MO 64130	\$	3,972,800.00	6/1/2017	Complete
69th Street Repair Project Roadway Removal & Replacement	City of Raytown 10000 East 59th Street Raytown, MO 64133	(816) 737-6012 Jason Harlan		\$	\$341,123.00	10/22/2018	Complete
Route 1470, Jackson County Bridge Rehabilitation	MO DOT 600 NE Cabern Road Lee's Summit, MO 64086 Kansas City, MO 64130	(816) 347-4143 Jacob Wilson	MO DOT 105 West Capitol Jefferson City, MO 65102 Kansas City, MO 64130	\$	2,338,341.88	3/15/2018	Complete
Facility Improvements at Gift, Lydia & Prospect Flood Pump Stations Redistribution of These Flood Pump Stations	KCMO Water Services Dept 4800 East 53rd Street Kansas City, MO 64130	816-513-0363 Agnis Ross	Alfred Peterson & Company 14 W. Third Street, Suite 220 Kansas City, MO 64105	\$	890,150.00	4/1/2018	Complete
Route 20, Jackson County (at 243 Hwy) Road Reconstruction	MO DOT 600 NE Cabern Road Lee's Summit, MO 64086	(816) 347-4143 Chris Baldwin	MO DOT 105 West Capitol Jefferson City, MO 65102	\$	11,440,213.18	6/15/2017	Complete
Blue Valley Ash Pond Closure Closure of Fly Ash & Bottom Ash Ponds	Independence Power & Light 21500 East Tanager Road Independence, MO 64296	(816) 325-7517 Jessica Pitt	SCS Associates 7311 West 109th, Suite 102 Overland Park, KS 66212	\$	\$,585,020.00	8/1/2016	Complete
Trolley Track Trail Repairs - Frost to Woodland Trail Repair	City of Kansas City Public Works 4721 East Main Road Kansas City, MO 64130	(816) 513-6984 Marek Yaszczak	Renaissance Reframature Capital 2075 NW Canal, Suite 190 Overland, MO 64150	\$	339,605.00	2/1/2018	Complete
Route 49, Jackson County (155th Street) Bridge Replacement	MO DOT 500 NE Cabern Road Lee's Summit, MO 64086	(816) 347-4143 William Croppel	MO DOT 105 West Capitol Jefferson City, MO 65102	\$	6,372,925.45	1/15/2018	Complete
Route 49, Jackson County (Main Street) Road Reconstruction	MO DOT 600 NE Cabern Road Lee's Summit, MO 64086	(816) 607-2271 Mark Famer	MO DOT 105 West Capitol Jefferson City, MO 65102	\$	3,044,308.07	1/15/2018	Complete
Pacific Sanitary Sewer Main Replacement Sewer Main Replacement	City of Independence 711 East Maple Independence, MO 64050	(816) 325-7611 Shir Dillingham	Lump Pyrotechnon 9904 State Line Rd., Suite 200 Kansas City, MO 64114	\$	410,818.00	12/15/2017	Complete
Timber Street Pump Station Improvements Pump Station Improvements	City of Pleasant Hill, Missouri 203 Paul Street Pleasant Hill, MO 64080	(816) 540-3135	HDR 3741 NE Troon Drive Lee's Summit, MO 64084	\$	255,100.00	12/1/2017	Complete
Slope Repair (Various Counties) Bridge Slope Repair	MO DOT 1800 NW Cookington Drive Kansas City, MO 64130	(816) 437-3825 Matthew Dauton	MO DOT 105 West Capitol Jefferson City, MO 65102	\$	\$20,075,552	1/6/2017	Complete

Lulu Blue Trace Trail Segment 8 - South Bridge Connector New Trail Construction	KCMO Parks & Recreation Dept. 4800 East 63rd Street Kansas City, MO 64130	(816) 513-7319 Kathryn Riffe	CDM Smith, Inc. 9200 Wyand Pkwy., Suite 500 Kansas City, MO 64114	\$	8,874,874.00	5/15/2016	Complete
Target Green Way 816 #3 New Storm Sewers, Sewer Relocation, Construction of Wetland Detention Basin	Kansas City Water Services Dept. 4800 East 63rd Street Kansas City, MO 64130	(816) 513-0578 Pavel Ivanov	ADSS Consultants 30601 Highway 15 Mankato, MO 64559	\$	2,231,000.00	7/5/2016	Complete
Johnson County PWSID No. 3, Contract 1 Wastewater Treatment Facility	Johnson County PWSID No. 3 108 Southgates, 421st Road Wynnewood, MO 64093	(866) 428-2494 David Stinner	CDG Engineers One Campbell Plaza St. Louis, MO 63139	\$	6,644,000.00	6/12/2016	Complete
Rock Island Trail - Phase 2 - Pleasant Hill to Windsor Bicycle & Recreational Trail	State of Missouri (Design/Construction) 301 West High Jefferson City, MO 65102	(573) 751-6839 Tim Schmitt	McDui 3025 East Kearney Street Springfield, MO 65801	\$	4,208,211.79	3/12/2016	Complete
Route B, Webster/Greene Counties Road Reconstruction & Bridges	McDui 3025 East Kearney Street Springfield, MO 65801	(417) 828-8410 Myra Benjamin	SK Design Group 4600 College Boulevard, Suite 100 Overland Park, KS 66211	\$	576,825.00	2/12/2016	Complete
Trolley Trail Constructing a walking/biking trail	City of Kansas City, Missouri 4800 E. 63rd Street Kansas City, MO 64130	(816) 513-7713 Richard Allen	Carolee 800 E. 104th St., Suite 320 Kansas City, MO 64131	\$	389,493.00	3/12/2016	Complete
Abertown Fire Station Fire Station Replacement	Lulu Blue Village Sewer District 21108 East Old Abertown Road Independence, MO 64058	(816) 935-2693 Jill Shook	McDui 105 West Central Jefferson City, MO 65102	\$	697,774.35	5/12/2016	Complete
Route 49, Jackson County Road Reconstruction	McDui 600 NE Cahoon Road Lee's Summit, MO 64086	(816) 347-4140 Bridget Watson	Wison Associates 7201 West 132nd, Suite 100 Overland Park, KS 66213	\$	8,154,350.20	1/17/2015	Complete
Tudor Road Phase II New Roadway	City of Lee's Summit 220 SE Green Street Lee's Summit, MO 64063	(816) 569-1800 Scott Ward	McDui 105 West Central Jefferson City, MO 65102	\$	2,468,800.00	8/12/2015	Complete
Princess Beanne 546 IMPROVEMENTS AT THE WATER TREATMENT PLANT	Water Services Department 4800 E. 63rd Street Kansas City, MO 64130	(816) 513-0348 Chris Bergman	HDR Engineering 8404 Indian Hills Drive Omaha, NE 68114	\$	4,979,042.70	8/12/2015	Complete
Blue Parkway/Eastwood Parkway ROADWAY WIDENING AND INTERSECTION IMPROVEMENTS	City of Kansas City 414 East 12th Street Kansas City, MO 64105	(816) 513-0119 Damon Hodges	HDR Engineering 8404 Indian Hills Drive Omaha, NE 68114	\$	1,631,687.00	10/12/2015	Complete
Mt. City Ash Pond Closure Site Prep, grading (importing soil for fill & construction of final cover system)	City of Independence, Missouri 21500 E Truman Road Independence, MO 64051	(784) 724-8338 Garret Williams	HDR Engineering 8404 Indian Hills Drive Omaha, NE 68114	\$	1,288,700.00	5/26/2015	Complete
KC Structural Inclined Structural Platforms	KC Structural Constructors 1828 Walnut Street, Suite 500 Kansas City, MO 64108	(816) 244-8871 Richard MacCallough	McDui 600 NE Cahoon Road Lee's Summit, MO 64086	\$	12,208,552.00	10/12/2014	Complete
Hidden WTP WASTEWATER TREATMENT PLANT IMPROVEMENTS	City of Hidden	(816) 752-0343	McDui 600 NE Cahoon Road Lee's Summit, MO 64086	\$	27,000,000.00	5/16/2014	Complete
Lee's Summit Road/Route 49, Jackson County ROAD RECONSTRUCTION	McDui 600 NE Cahoon Road Lee's Summit, MO 64086	Jon Voss	RS&H 3933 W. 110th, Suite 500 Overland Park, KS 66218	\$	3,767,755.80	7/28/2014	Complete
Route 60, Rogersville Design Build ROAD RECONSTRUCTION & BRIDGES	McDui Post Office Box 618 Springfield, MO 65801	(417) 828-8417 Gregory Chapman		\$			
Stoebler Road Improvements ROAD RECONSTRUCTION	City of Lee's Summit 220 SE Green Lee's Summit, MO 64063	(816) 589-1800 Steve Proutch		\$			

*Francis*

**RADMACHER BROTHERS EXCAVATING CO. INC.**  
 Balance Sheets  
 December 31, 2021 & 2020

<b>ASSETS</b>	2021	2020
<b>Current Assets:</b>		
Cash	\$ 4,402,067	\$ 8,724,109
Marketable securities	12,128,591	10,873,203
Accounts receivable	7,441,446	6,883,621
Prepaid expenses	593,313	396,601
Cost and estimated earnings in excess of billings on contracts in progress	<u>1,672,174</u>	<u>2,046,701</u>
Total Current Assets	<u>26,237,591</u>	<u>28,924,235</u>
Property and equipment	14,132,235	13,883,315
Other assets	<u>94,669</u>	<u>105,411</u>
Total Assets	<u>\$ 40,464,495</u>	<u>\$ 42,912,961</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
<b>Current Liabilities:</b>		
Accounts payable	\$ 1,874,183	\$ 3,232,861
Current portion of long-term debt	147,193	539,903
Accrued liabilities	268,386	218,097
Billings in excess of costs and estimated earnings on uncompleted contracts	<u>6,069,002</u>	<u>1,064,830</u>
Total Current Liabilities	<u>8,358,764</u>	<u>5,055,691</u>
Long-term notes payable	-	11,761
Total Liabilities	<u>8,358,764</u>	<u>5,067,452</u>
<b>Shareholders' Equity</b>		
Common stock, \$1 par value; 30,000 shares authorized 20,000 shares issued and outstanding	20,000	20,000
Additions paid in capital	304,742	304,742
Retained earnings	26,944,072	33,731,121
Accumulated other comprehensive income	<u>4,836,917</u>	<u>3,789,646</u>
	<u>32,105,731</u>	<u>37,845,509</u>
	<u>\$ 40,464,495</u>	<u>\$ 42,912,961</u>

# BEN CUMMINGS, PE

Project Manager

## PROFESSIONAL SUMMARY

Ben has been a project manager and construction manager with Radmacher Brothers since his arrival in 2014. His immediate contributions to the Rogersville Project Freeway helped make it one of the most successful projects in MoDOT's southwest region. His recent experience has been in managing design build highway and interchange projects for MoDOT. Ben spent his early career as a lead construction inspector and construction manager for MoDOT. His history with MoDOT gives him a unique understanding of MoDOT's processes, standards, and expectations that he leverages to make projects successful. Ben has managed over \$200 million of MoDOT projects, and each of his projects has been delivered on time or ahead of schedule.

### REFERENCES

- **Perry Allen**  
I-435 South Loop Link,  
MoDOT  
816-607-2102
- **Johnny Teegardin**  
MoDOT  
Projects,  
MoDOT  
417-335-5635

### EDUCATION

- BSCE,  
Missouri  
University of  
Science and  
Technology,  
Rolla, 2002

### LICENSES

- Professional  
Engineer - MO

### RELEVANT EXPERIENCE

I-435 South Loop Link, Jackson County, Missouri. Ben is serving as the Construction Manager for this \$64.5 million Design-Build project in Kansas City, Missouri. He is responsible for all aspects of the construction of the project as well as guiding the design development. He directed project scheduling, coordinating and implementing traffic control, ensuring safety in the field, and leading project coordination meetings. Ben was instrumental in helping *develop and implement the innovative traffic handling plan* that kept all four lanes of traffic open in both directions. He helped guide the *design and construction of eight bridges on the interstate highway system in this physically constrained corridor with high average daily traffic*. Ben helped develop the AAS pavement design that was the key *innovative approach that delivered the project within budget and on schedule*. His duties included overseeing the *development and implementation of the quality management plan, control of documents, and non-conformance resolution*. He *implemented the storm water pollution prevention* for the project disturbance area and the Blue River.

Rogersville Project Freeway, Rogersville, Missouri. Ben served as Construction Manager for this \$33 million design-build project, taking over in the design phase. He worked directly with the designers, providing guidance for efficient, constructible design for the freeway, interchanges, and three new bridges. He orchestrated all aspects of the construction, including ensuring safety, *implementing the effective stormwater pollution prevention plan, handling utility coordination, and implementing the innovative traffic handling plans*. Ben led the effort to develop a completely new MOT plan when new

interchange ramps were added to the project. His rapid response and practical phasing approach kept the project on schedule. He worked closely with the design team to keep all lanes open at the Route B/VV interchange, converting a standard intersection to a roundabout interchange. This project was underway when the Consent Decree changed the stormwater pollution prevention plan requirements. Ben was able to respond to the new requirements without affecting the project budget. As construction manager, Ben was involved in the *quality management plan development and implementation, conformance and non-conformance identification and resolution*. The project was *delivered within budget*, and achieved substantial completion six weeks *ahead of schedule*. The approach to quantity tracking by Site Manager implementation was the key innovative solution that made it possible to achieve final closeout in less than two months.

US-50 & Route 291, Lee's Summit, Missouri. Ben was the Assistant Project Manager for this \$12 million Interchange upgrade in the *physically constrained corridor*, converting the over capacity standard diamond to a diverging diamond interchange. He had direct responsibility for three Value Engineering *innovative approaches to deliver the project within budget*, including a change to save \$50,000 of median pavement removal and replacement. This project started with an aggressive schedule to have US-50 in its ultimate configuration by winter, which was actually completed a full six months *ahead of schedule*.

## PROFESSIONAL SUMMARY

Scott is an experienced Structures Superintendent and Construction Manager with more than 20 years of heavy highway construction management experience. His experience in rehabilitation and new bridge construction is an excellent fit for the role of Construction Manager for this bridge rebuild project. Over his career, he has focused on DOT projects and has experience with all types of rehabilitations and new bridge construction. Recently, Scott has been involved with integrating his construction experience with the design on the I-435 South Loop Link Design Build project, where he is also serving as Assistant Construction Manager.

### REFERENCES

- **Perry Allen**  
I-435 South Loop Link,  
MoDOT  
816-607-2102
- **Brian Iles**  
MoDOT  
Projects,  
MoDOT  
660-584-7757

### RELEVANT EXPERIENCE

I-435 South Loop Link, Jackson County, Missouri. Scott is the Structures Superintendent and Assistant Construction Manager for this \$65 million design build project in Kansas City. He is responsible for the construction of 4 new interstate bridges, 4 bridge rehabilitations, and two bridge widenings. This section of I-435 is on the *interstate highway system in a physically constrained corridor with high average daily traffic*. The new bridges are single-span bridges with concrete girders supported with MSE walls. The existing bridges over the UPRR and Blue River are multi-span steel girder bridges that are being rehabilitated and widened.

The phased approach to construction required all four new bridges be partially constructed and the widening of the existing bridges be completed prior to the first major traffic shift. Because of this requirement, the new bridges were designed and constructed with **Accelerated Bridge Construction**. Scott was instrumental in working with the design team to simplify construction. This allowed the first bridge to be constructed within 6 weeks of receiving RFC plans.

Scott is also assisting with the Construction Manager duties for the project. He is responsible for scheduling material deliveries, working with roadway and subcontractors, and overseeing safety of the bridge construction crews. He is involved with scheduling the structures work and coordinating with the design team. Scott is helping **deliver this project on schedule and within budget**.

Scott has served in a similar role on the following bridge projects:

Hickory Co. Route 64 Nemo Bridge (MoDOT) \$5.5 million - Full-depth precast deck panel with post tensioning, CIP reinforced concrete closure joints, grouted block out w/shear connectors, PT ducts/bonded, match cast closure joint, and micro-silica concrete overlay.

Dade Co. Route Y (MoDOT) \$5.6 Million- 1,855' bridge deck replacement, hinge and bearing modifications, bridge painting. Phased job to allow one lane of construction traffic on bridge throughout construction eliminating need for barges. Completed in 43 of the 56 allotted days.

Cass Co. Route C (MoDOT) \$2 million - Bridge deck replacement, hinge and bearing modifications, bridge coatings rehab with heavy metals containment, interchange improvements. Progressed job by completing offline tasks and bridge coatings prior to traffic impediment. Completed in 32 of 40-day closure period.

Clay Co. Flintlock Rd./I-35 (MoDOT) \$11.5 million - Constructed 880' bridge over I-35 and 161' over Little Shoal Creek. Scheduled bridge work to minimize traffic impacts to I-35 and local roadways. Provided a VE proposal to tie two box culverts together under I-35 and outer road eliminating the need for lane closures on both roadways. Completed on schedule and budget.

Safe and Sound/KTU (MoDOT) \$685 million Design-Build Project. Supervised rehab work on 32 bridges. Bridges ranged in size from single span to 4 span structures including bridges spanning railroads and trails. Worked in 3 regions of state on various packages. Managed 3 to 4 bridges simultaneously. All bridges completed ahead of scheduled closure days.

# STATE OF MISSOURI



**John R. Ashcroft**  
**Secretary of State**

**CORPORATION DIVISION**  
**CERTIFICATE OF GOOD STANDING**

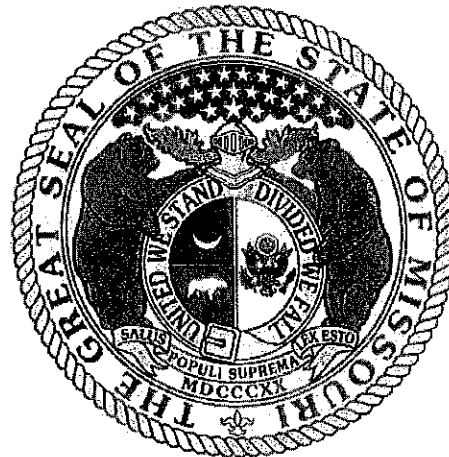
I, JOHN R. ASHCROFT, Secretary of State of the State of Missouri, do hereby certify that the records in my office and in my care and custody reveal that

***RADMACHER BROTHERS EXCAVATING CO., INC.***  
***00343115***

was created under the laws of this State on the 25th day of July, 1990, and is in good standing, having fully complied with all requirements of this office.

IN TESTIMONY WHEREOF, I hereunto set my hand and cause to be affixed the GREAT SEAL of the State of Missouri. Done at the City of Jefferson, this 20th day of July, 2022.

  
Secretary of State



Certification Number: CERT-07202022-0002



Bidder's Background



Bridge Columns at Little Blue Parkway

# Radmacher Brothers Excavating Company

2201 North State Route 7 Highway, Suite B, Pleasant Hill, MO 64080

Radmacher Brothers Excavating Company, Inc. is one of the leading heavy highway contractors in the Kansas City area. This family owned and operated corporation was founded in 1980. We specialize in heavy highway contracts including, large earthmoving projects, bridges, and utility jobs. Our company has been awarded contracts ranging in size from \$10,000.00 to \$34,000,000.00

Our Bridge Crew has built bridges ranging in size from 100 feet to 1,600 feet in length. These include bridges over railroads, small rivers, and highways. Our

most notable bridges are Oak and Main Street in Kansas City and Rockwell Bridge over Brush Creek in the Country Club Plaza.

Our Utility Crews have laid pipe as small as 8 inches to as large as 144 inches. One of our more notable utility projects include Phases I and II for the Aviation Department at the Downtown Airport.

Our Grading Crews have completed earth-moving projects as small as 2,000 cubic yards to as large as 2,500,000 cubic yards.

Our company employs union workers from several trades. We carry a workforce of approximately 50 to 100 employees. We have an active safety program and comply with all Affirmative Action plans. We are a member of the Heavy Constructors Association and the Builders Association.

Radmacher Brothers owns an Equipment Fleet of over 200 machines, which are operated and maintained by our crews.



Route 1116, Buchanan County



85th & Troost, Jackson County

## CONTRACT AGREEMENT

THIS AGREEMENT, is made and entered into by and between, Jackson County, Missouri, Party of the First Part and hereinafter called the Owner, and

RADMACHER BROTHERS EXCAVATING CO., INC.

a MISSOURI CORPORATION Party of the Second Part and hereinafter called the Contractor,

### WITNESSETH

THAT WHEREAS, in accordance with law, the Owner has caused Contract Documents to be prepared and **Invitation to Bid No. 89-22** for Jackson County Project: **Construction Services for Ryan Road Culvert Replacement, JCPW Project No. 3168**, and

WHEREAS, the Contractor, in response to the Invitation to Bid, has submitted to the Owner, in the manner and at the time specified, a sealed bid in accordance with the terms of the Invitation to Bid, and

WHEREAS, the Owner, in the manner prescribed by law, has opened, examined, and canvassed the Bid submitted, and has determined the aforesaid Contractor to be the lowest and best bidder for the work and has duly awarded to the said Contractor, a contract therefor, for the sum or sums named in the Contractor's Bid, a copy thereof being attached to and made a part of this contract.

NOW THEREFORE, in consideration of the compensation to be paid to the Contractor and of the mutual agreements herein contained, the parties to these presents have agreed and hereby agree, the Owner for itself and its successors, and the Contractor for itself, or themselves, and its, or their successors and assigns, and its, or their executors and administrators, as follows:

ARTICLE I. That the Contractor shall: (a) furnish all tools, equipment, supplies, superintendence, transportation, and other construction accessories, services, and facilities; (b) furnish all materials, supplies, and equipment specified and required to be incorporated in and form a permanent part of the completed work; (c) provide and perform all necessary labor; and (d) in a good, substantial, and professional manner and in accordance with the requirements, stipulations, provisions, and conditions of the Contract Documents as defined, which are incorporated herein by reference as if fully set forth. The Contract Documents consist of all the of the following:

1. This Agreement
2. Performance Bond (together with power of attorney)
3. Introduction
4. Question Procedure
5. Bidding Requirements
6. Award Requirements
7. Attachments
8. Required Submittal with your Bid
9. Purchasing Information – Attachment C
  - a. General Terms and Conditions
  - b. Certificate of Compliance Notice
  - c. Insurance Requirements
  - d. State of Missouri Wage Determinations
10. Purchasing Forms – Attachment D
  - a. Affidavit
  - b. Statement of No Bid
  - c. Acknowledge of Receipt of Addenda

## CONTRACT AGREEMENT (cont.)

- d. Exhibit F Bidder's Exceptions to Specifications of Invitation to Bid
- e. JCMO Contractor's Utilization Plan
- f. Excel Spreadsheet Bid Form – Attachment B
- g. Acknowledgement
- 11. Public Works Forms – Attachment E
  - a. Equipment Questionnaire
  - b. List of Contracts on Hand
  - c. Annual Worker Eligibility Verification Affidavit
  - d. List of Intended Subcontractors
  - e. OSHA Ten Hour Training
- 12. Public Works Information
  - a. Registered Truck Driver Ordinance – Attachment F
  - b. Geotech Report by Olsson – Attachment G
  - c. U.S. Army Corps of Engineers – KC District 404 and Nationwide Permit – Attachment H
  - d. Olsson Engineers Plans -Attachment A
- 13. Proposed Work
- 14. Local Conditions Affecting Work
- 15. Period of Performance
- 16. Delayed Notice to Proceed
- 17. Liquidated Damages
- 18. Safety Training
- 19. OSHA Training Requirements
- 20. Project Award
- 21. Sample Contract Agreement
- 22. Public Works General Conditions
- 23. Public Works Special Conditions
- 24. Public Works Technical Specifications

As included in the bid documents said documents forming the Contract Agreement and being as fully a part thereof as if repeated verbatim herein, perform, execute, construct and complete all work included in and covered by the Owner's official award of this Contract to the said Contractor, such award being based on the acceptance of the Owner of the Contractor's Bid.

ARTICLE II. That the Owner shall pay to the Contractor for the performance of the work embraced in this contract, and the Contractor will accept as full compensation therefore, the sum (subject to adjustment as provided by the contract) of

Nine Hundred Sixty-Five Thousand, Ninety-Two Dollars and 00 Cents

(\$ 965,092.00 ) for all work covered by and included in the contract award and designated in the foregoing Article I; payment thereof to be made in cash or its equivalent, in the manner provided in the General Conditions.

ARTICLE III. That the Contractor shall start work within ten (10) days following the date stipulated in a written order from the Owner to proceed with the work to be performed hereunder, and that the Contractor shall complete the work within the number of days, after the authorized starting date, stipulated in the attached Proposal.

ARTICLE IV. That the Contractor expressly warrants that they have employed no third person to solicit or obtain this contract in their behalf, or to cause or produce the same to be obtained upon

## **CONTRACT AGREEMENT (cont.)**

compensation in any way contingent, in whole or in part, upon such procurement; and that they have not paid, or promised or agreed to pay, to any third person, in consideration of such procurement, or in compensation for services in connection therewith any brokerage, commission, or percentage upon the amount receivable by them here-under; and that they have not, in estimating the contract price demanded by them, included any sum by reason of any such brokerage, commission, or percentage, and that all monies payable to them hereunder are free from obligation of any other person for services rendered, or supposed to have been rendered, in the procurement of this contract. Contractor further agrees that any breach of this warranty shall constitute adequate cause for the annulment of this contract by the Owner and that the Owner may retain to its own use from any sums due or to become due hereunder an amount equal to any brokerage, commission, or percentage so paid, or agreed to be paid. The Owner agrees to pay the Contractor in the manner and in the amount provided in the said specifications and Bid.

### CONTRACT AGREEMENT (cont.)


IN WITNESS WHEREOF, Jackson County, Missouri has caused by Ordinance No. 5694

of October 31, 2022, these presents to be executed in its behalf by its duly authorized agent, and the said Party of the Second Part has hereunto set its hand and seal.

Recommended by:


  
Brian Gaddie, P.E.  
Director of Public Works

1.6.2023  
Date

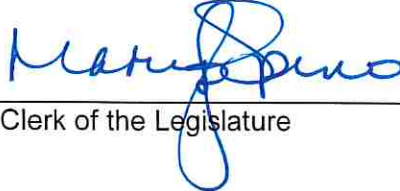
  
Frank White, Jr.  
County Executive

1.11.2023  
Date

Approved to form this \_\_\_\_\_ day of \_\_\_\_\_, 2022.

  
County Counselor



Attest:   
Clerk of the Legislature



By:   
Second Party (Contractor)

Attest: 



## PERFORMANCE BOND

Project Number JCPW Project No. 3168  
Project Title: Construction Services for the Ryan Road Culvert Replacement

KNOW ALL MEN BY THESE PRESENTS: That

Radmacher Brothers Excavating Co., Inc., as PRINCIPAL (CONTRACTOR), and

The Cincinnati Insurance Company, (SURETY), licensed to do business as such

in the State of OHIO (OH), hereby bind themselves and their respective heirs, executors, administrators, successors, and assigns unto Jackson County, Missouri, a constitutionally home rule chartered governmental organization, (COUNTY), as Obligee, in the penal sum of

Nine Hundred Sixty-Five Thousand, Ninety-Two Dollars and 00 Cents

(\$ 965,092.00 ) for the payment whereof CONTRACTOR and SURETY bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

CONTRACTOR has entered a Contract with COUNTY

for Construction Services for Ryan Road Culvert Replacement which Contract, including any present or future amendment thereto, is incorporated herein by reference and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if CONTRACTOR shall promptly and faithfully perform said Contract including all duly authorized changes thereto, according to all the terms thereof, including those under which CONTRACTOR agrees to pay legally required wage rates including the prevailing hourly rate of wages in the locality, as determined by the Department of Labor and Industrial Relations or by final judicial determination, for each craft or type of workman required to execute the Contract and, further, shall defend, indemnify, and hold harmless COUNTY from all damages, including but not limited to liquidated damages, loss and expense occasioned by any failure whatsoever of said CONTRACTOR and SURETY to fully comply with and carry out each and every requirement of the Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect.

WAIVER. That SURETY, for value received, hereby expressly agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder, shall in any way affect the obligations of this Bond; and It does hereby waive notice of any such change, extension of time, or alteration or addition to the terms of the Contract or the Work to be performed thereunder.

THE CINCINNATI INSURANCE COMPANY  
THE CINCINNATI CASUALTY COMPANY

Fairfield, Ohio

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That THE CINCINNATI INSURANCE COMPANY and THE CINCINNATI CASUALTY COMPANY, corporations organized under the laws of the State of Ohio, and having their principal offices in the City of Fairfield, Ohio (herein collectively called the "Companies"), do hereby constitute and appoint

David S. Salavitch; Luke P. Sealer; Robert L. Cox, II; Kathryn E. Johnson and/or Rodney S. Demaree

of Sedalia, Missouri

their true and legal Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and deliver on behalf of the Companies as Surety, any and all bonds, policies, undertakings or other like instruments, as follows:

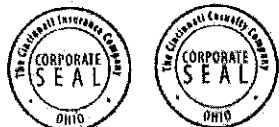
Any such obligations in the United States, up to  
One Hundred Million and No/100 Dollars (\$100,000,000.00).

This appointment is made under and by authority of the following resolutions adopted by the Boards of Directors of The Cincinnati Insurance Company and The Cincinnati Casualty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the President or any Senior Vice President be hereby authorized, and empowered to appoint Attorneys-in-Fact of the Company to execute any and all bonds, policies, undertakings, or other like instruments on behalf of the Corporation, and may authorize any officer or any such Attorney-in-Fact to affix the corporate seal; and may with or without cause modify or revoke any such appointment or authority. Any such writings so executed by such Attorneys-in-Fact shall be binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company.

RESOLVED, that the signature of the President or any Senior Vice President and the seal of the Company may be affixed by facsimile on any power of attorney granted, and the signature of the Secretary or Assistant Vice-President and the Seal of the Company may be affixed by facsimile to any certificate of any such power and any such power of certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Company.

IN WITNESS WHEREOF, the Companies have caused these presents to be sealed with their corporate seals, duly attested by their President or any Senior Vice President this 18th day of March, 2021.



STATE OF OHIO )SS:  
COUNTY OF BUTLER )

THE CINCINNATI INSURANCE COMPANY  
THE CINCINNATI CASUALTY COMPANY

Stephen A. Justice

On this 16th day of March, 2021 before me came the above-named President or Senior Vice President of The Cincinnati Insurance Company and The Cincinnati Casualty Company, to me personally known to be the officer described herein, and acknowledged that the seals affixed to the preceding instrument are the corporate seals of said Companies and the corporate seals and the signature of the officer were duly affixed and subscribed to said instrument by the authority and direction of said corporations.

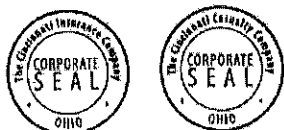


Keith Collett

Keith Collett, Attorney at Law  
Notary Public – State of Ohio  
My commission has no expiration date.  
Section 147.03 O.R.C.

I, the undersigned Secretary or Assistant Vice-President of The Cincinnati Insurance Company and The Cincinnati Casualty Company, hereby certify that the above is the Original Power of Attorney issued by said Companies, and do hereby further certify that the said Power of Attorney is still in full force and effect.

Given under my hand and seal of said Companies at Fairfield, Ohio, this \_\_\_\_\_ day of \_\_\_\_\_



Ed H.

### REVENUE CERTIFICATE

I hereby certify that there is a balance otherwise unencumbered to the credit of the appropriation to which this contract is chargeable, and a cash balance otherwise unencumbered in the treasury from which payment is to be made, each sufficient to meet the obligation of \$ 965,092.00, which is hereby authorized.

1-12-2023

  
\_\_\_\_\_  
Manager, Division of Finance  
*Director of Finance*

ACCOUNT NUMBER(S) TO BE CHARGED:

Department	Account Number	Amount
1507	58040	\$965,092

FMS CONTRACT NUMBER ASSIGNED TO THIS  
CONTRACT: PC 150722001 000 ML

NOTICE TO CONTRACTORS

Under the laws of the State of Missouri, any changes made in this contract must be made in writing, approved of record by the County Legislature, Certified by the Manager, Division of Finance, and all made a matter of record before the County is liable therefore.

Manager, Division of Finance  
Jackson County, Missouri



### REVENUE CERTIFICATE

I hereby certify that there is a balance otherwise unencumbered to the credit of the appropriation to which this contract is chargeable, and a cash balance otherwise unencumbered in the treasury from which payment is to be made, each sufficient to meet the obligation of  
\$ 965,092.00, which is hereby authorized.

\_\_\_\_\_  
Manager, Division of Finance

ACCOUNT NUMBER(S) TO BE CHARGED:

Department	Account Number	Amount

FMS CONTRACT NUMBER ASSIGNED TO THIS CONTRACT: \_\_\_\_\_

#### NOTICE TO CONTRACTORS

Under the laws of the State of Missouri, any changes made in this contract must be made in writing, approved of record by the County Legislature, Certified by the Manager, Division of Finance, and all made a matter of record before the County is liable therefore.

Manager, Division of Finance  
Jackson County, Missouri

## PUBLIC WORKS GENERAL CONDITIONS

### GC-3 DEFINITIONS

Any word, phrase, or other expression defined in this paragraph GC-3 and used in these Contract Documents shall have the meaning herein given:

- a. "Contract" or "Contract Documents" shall include all of the documents and drawings Included in this Invitation to Bid.
- b. "Owner" shall mean the corporation (municipal or otherwise), board, district, or other political subdivision, company, or firm, who is named and designated as the "Party of the First Part" in the Contract Agreement hereto attached and for whom the work covered by this Contract is to be performed, acting through its duly authorized officers or agents."
- c. "Contractor" shall mean the corporation, company, partnership, firm, or individual, named and designated in the Contract Agreement as the "Party of the Second Part" and who has entered into this Contract for the performance of the work covered thereby, and its, his, or their duly authorized agents and other legal representatives.
- d. "Engineer-Architect" or "A-E" shall mean the Director of the Jackson County Public Works Department, or authorized agent.
- e. "Inspector" shall mean the engineering, architectural or technical inspector or inspectors duly authorized by the Owner or Engineer-Architect, limited in each case to the particular duties entrusted to them.
- f. "Date of Contract" or words equivalent thereto shall mean the date written in the first paragraph of the Contract Agreement.
- g. "Day" or "days" unless herein otherwise expressly defined shall mean a calendar day or days of 24-hours each.
- h. "The Work" shall mean the work to be done and the equipment, supplies, and materials to be furnished under this Contract, unless some other meaning is indicated by the context.
- i. "Plans" or "the plans" or "the Contract Plans" shall mean and include all:
  - (1) Drawings caused by the Owner for this Invitation to Bid.
  - (2) All drawings submitted by the successful bidder with their proposal and by the Contractor to the Owner, when and as approved by the Engineer-Architect and
  - (3) All drawings submitted by the Owner or Engineer-Architect to the Contractor during the progress of the work as provided for herein.
- j. Whenever in these Contract Documents the words "as ordered," "as directed," "as required," "as permitted," "as allowed," or words or phrases of like import are used, it shall be understood that the order, direction, requirement, permission or allowance of the Owner and Engineer-Architect is intended.
- k. Similarly, the words "approved," "reasonable," "suitable," "acceptable," "properly," "satisfactory," or words of like effect and import, unless otherwise particularly specified herein, shall mean approved, reasonable, suitable, acceptable, proper, or satisfactory in the judgment of the Owner and Engineer-Architect.
- l. Whenever any statement is made in the Contract Documents concerning the expression "it is understood and agreed," or an expression of like import, such expression means the mutual understanding agreement of the parties executing the Contract Agreement of which these general conditions are a part.



**GC-4 VERBAL STATEMENTS NOT BINDING**

It is understood and agreed that the written terms and provisions of this agreement shall supersede all prior verbal statements of any and every official and/or other representative of the Owner, and such statements shall not be effective or be construed as entering into, or forming a part of, or altering in any way whatsoever, the written agreement.

**GC-5 TITLES AND SUBHEADINGS**

The titles or subheadings used in this Contract and on the Plans and drawings and in the technical specifications, are understood to be for convenience of reference only, and shall not be taken or considered as being a part thereof, or as having any bearing on the interpretation thereof.

**GC-6 COPIES OF CONTRACT**

The Contractor's Bid as submitted, Bond Form(s), and the Contract Agreement shall be prepared. Five (5) of these copies, each containing the Bond (or Bonds) properly executed and the Contract Agreement signed by the Contractor, shall be submitted to and signed by the Owner; two (2) of the copies so signed shall be delivered to the Contractor—one (1) for their surety company and one (1) to the Engineer-Architect. Two (2) copies shall remain with the Owner.

**GC-7 SCOPE, NATURE, AND INTENT OF TECHNICAL SPECIFICATIONS AND PLANS**

The said Technical Specifications and Plans are intended to supplement, but not necessarily duplicate each other, and together constitute one complete set of technical specifications and plans, so that any work exhibited in the one and not in the other, shall be executed just as if it had been set forth in both, in order that the work shall be completed according to the complete design or designs as decided and determined by the Engineer-Architect. Should anything be omitted from the technical specifications and plans which is necessary to clear understanding of the work, or should it appear various instructions are in conflict, then the Contractor shall secure written instructions from the Engineer-Architect before proceeding with the construction affected by such omissions or discrepancies. It is understood and agreed that the work shall be performed and completed according to the true spirit, meaning, and intent of the Contract, Technical Specifications and Plans. The Contractor's responsibility for construction covered by conflicting requirements, not provided for by addendum prior to the time of opening bids for the work represented thereby shall not extend beyond the construction in conformity with the cheaper of the said conflicting requirements. Any increase in cost of work required to be done in excess of the cheaper of the conflicting requirement will be paid for as extra work as provided for herein.

**GC-8 FIGURED DIMENSIONS TO GOVERN**

Dimensions and elevations shown on the plans shall be accurately followed, even though they differ from scaled measurements. No work shown on the plans, the dimensions of which are not indicated, shall be executed until the required dimensions have been obtained from the Engineer-Architect.

**GC-9 CONTRACTOR TO CHECK PLANS AND SCHEDULES**

The Contractor shall check all dimensions, elevations, and quantities shown on the Plans, and schedules given to them by the Engineer-Architect and shall notify the Engineer-Architect of any discrepancy between the Plans and the conditions on the ground, or any error or omission in Plans, or in the layout as given by stakes, points, or instructions, which they may discover in the course of the work. The Contractor will not be allowed to take advantage of any error or omission in the Plans or Contract Documents, as full instructions will be furnished by the Engineer-Architect should such error or omission be discovered, and the Contractor shall carry out such instructions as if originally specified.



**GC-10 DRAWINGS TO BE FURNISHED BY CONTRACTOR**

The Contractor shall check and verify all field measurements and shall furnish/ all shop, fabrication, assembly, and other drawings required by the technical specifications; drawings of equipment and devices, offered by the Contractor for approval of the Engineer-Architect, in sufficient detail to adequately show the construction and operation thereof; drawings showing essential details of any changes in design of construction proposed, for consideration of the Owner, by the Contractor in lieu of the design or arrangement required by the Contract or any item of extra work thereunder; and all required special wiring and piping layouts. Not less than three (3) preliminary copies of each such drawing shall be submitted to the Engineer-Architect for their check and approval, together with the same number of copies of each drawing required by the Engineer-Architect to be revised. On final approval, the Engineer-Architect shall be furnished with a total of not less than two (2) copies, and more when required, of each drawing as finally approved; such number to include any copies of preliminary or revised drawings which are approved as submitted. After due approval by the Engineer-Architect, all such drawings shall become a part of the Contract Documents and the work or equipment shown thereby shall be in conformity

Contract Documents and the work or equipment shown thereby shall be in conformity therewith unless required by the Owner. No work shall be performed in connection with the fabrication or manufacture of material or equipment shown by any drawing thereof, nor shall any accessory, appurtenance, or device not fabricated or manufactured by the Contractor or their subcontractor, be purchased until the drawing or drawings therefor have been approved as stipulated, except at the Contractor's own risk and responsibility. The Engineer- Architect's check and approval of drawings submitted by the Contractor will be for, and will cover, only general conformity to the Plans and technical specifications and will not constitute a blanket approval of all dimensions, quantities, and details of the material Or equipment shown nor shall such relieve the Contractor of their responsibility for errors contained in such drawings.

**GC-11 APPROVED EQUAL**

If the Contractor desires to substitute materials, appliances, equipment, etc., specified in the technical specifications, the Contractor shall request, in writing, an approval from the Engineer-Architect. Said materials; appliances, equipment, etc. can only be used as approved equal after receipt from the Engineer-Architect of written approval thereof. If the Engineer-Architect is not familiar with the products for which the Contractor desires approval as an equal, they will reserve the right to have the products submitted to an independent testing laboratory of their choosing, to determine if the substitute product is an equal. The costs of such tests shall be borne by the Contractor or the parties offering the product as an approved equal.

**GC-12 OWNERSHIP OF DRAWINGS**

All drawings, technical specifications and copies thereof furnished by the Engineer-Architect are their property. They are not to be used on other work, and, with the exception of the signed contract set, are to be returned to them on request, at the completion of the work.

**GC-13 SAMPLES**

The Contractor shall furnish for approval, with such promptness as to cause no delay in their own work or in that of any other Contractor, all samples as directed by the Engineer-Architect. The Engineer-Architect shall check and approve such samples, with reasonable promptness, only for conformance with the design concept of the project and for compliance with the information given in the Contract Documents. The work shall be in accordance with approved samples.



**GC-14 CONTRACTOR TO FURNISH STAKES AND HELP**

When the documents or technical specifications require that the Engineer-Architect perform staking, the Contractor shall furnish without charge, competent employees from their force and such tools, stakes, and other materials as the Engineer-Architect may require for the proper staking out of the work, and in making measurements and surveys, and in establishing temporary or permanent reference marks in connection with said work the Contractor shall perform all work necessary to locate all construction on the site for building projects. A registered land surveyor employed by the Contractor shall locate the building corners.

**GC-15 LINES AND GRADES**

All work done under this Contract shall be done to the lines, grades, and elevations shown on the Plans. The Contractor shall keep the Engineer-Architect informed, a reasonable time in advance, of the times and places at which they wish to do work, in order that lines and grades may be furnished and necessary measurements for record and payment may be made with the minimum of inconvenience to the Engineer-Architect and of delay to the Contractor. This paragraph applies to projects for which the Engineer-Architect is to make staking surveys and payment is on a unit price basis.

**GC-16 WORK DONE WITHOUT LINES OR GRADES**

Any work done without being properly located and established by base lines, offset stakes, bench marks, or other basic reference points located, established, or checked by the Engineer-Architect, may be ordered removed and replaced at the Contractor's cost and expense.

**GC-17 PRESERVATION OF MONUMENTS AND STAKES**

The Contractor shall carefully preserve all monuments, bench marks, reference points, and stakes, and in case of willful or careless destruction of the same will be charged with the resulting expense of replacement. The Contractor shall have no claim for damages or extension of time due to such destruction. In case of any permanent monuments, bench marks, section corner and quarter-section corner monuments which must be removed or disturbed during construction, the Contractor shall carefully protect and preserve the same until they have properly referenced for relocation and replacement. The Contractor shall furnish, at their own expenses, a duly qualified and Missouri licensed land surveyor to reference and reestablish, after completion of construction, with permanent markers as is normally used in these locations. The Contractor shall also furnish a certificate sealed by the land surveyor with a statement that the monument recovered was reset in the same location prior to final acceptance of the project by the Owner.

**GC-19 CONTRACTOR'S OFFICE AT SITE OF WORK**

During the performance of this Contract, the Contractor shall maintain a suitable office at or near the site of the work which shall be the headquarters of a representative authorized to receive drawings, instructions, or other communications or articles from the Owner or the Owner's agents; and any such communications given to the said representative, or delivered at the Contractor's office at the site of the work in their absence, shall be deemed to have been given to the Contractor.

**GC-20 RESPONSIBILITY OF CONTRACTOR**

The Contractor shall furnish all transportation, tools, equipment, machinery, and plant, and all suitable appliances, requisite for the execution of this Contract and shall be solely answerable for the same and for the safe, proper, and lawful construction, maintenance, and use thereof. They shall cover and protect their work from damage, and all injury to the same (before the completion and acceptance of this contract) shall be made good by them. The Contractor shall be solely answerable for all damage to the Owner or the property of the Owner, to other contractors or other employees of the Owner, to the neighboring premises, or to any private or personal property, due to improper, illegal, or negligent conduct of theirs or their subcontractors, employees, or agents in and about said work, or in the execution of the work covered by this Contract, or any extra work undertaken as herein provided, or to



any defect in, or the improper use of, any scaffolding, shoring, apparatus, ways, works, machinery, or plant.

**GC-23 RELATIONS WITH OTHER CONTRACTORS**

The Contractor shall cooperate with all other contractors who may be performing work on behalf of the Owner, and workmen who may be employed by the Owner, on any work in the vicinity of the work to be done under this Contract, and they shall so conduct their operations as to interfere to the least possible extent with the work of such contractors or employees. The Contractor shall promptly make good, at their own expense, any injury or damage that may be sustained by other contractors or employees of the owner at their hands. Any difference or conflict which may arise between the Contractor and other contractors or between the Contractor and the employees of the Owner, in regard to their work shall be adjusted and determined by the Engineer-Architect. If the work of the Contractor is delayed because of any acts or omissions of any other contractor or contractors, the Contractor shall have no claim against the Owner on that account other than for an extension of time. When two or more contracts are being executed at one time in such a manner that work on one contract may interfere with that of another, the Engineer-Architect shall decide which contractor shall cease work and which shall continue, or whether the work on both contracts shall progress at the same time, and in what manner. When the territory of one contract is the necessary or convenient means of access for the transportation or movement of employees, materials, or appliances required for the execution of another contract, such privileges of access or any other reasonable privilege may be granted by the Engineer-Architect to the Contractor so desiring, to the extent and amount, in the manner, and at the time, which may be reasonably necessary.

**GC-24 DEFENSE OF SUITS**

In case any action at law or suit in equity is brought against the Owner or any of its officers or agents for or on account of the failure, omission, or neglect of the Contractor to do and perform any of the covenants, acts, matters, or things by this Contract undertaken to be done or performed, or for any injury or damage caused by the negligence or alleged negligence, of the Contractor or their subcontractors, or their employees or agents, the Contractor shall indemnify and save harmless the Owner, and officers and agents of the Owner, of and from all losses, costs, damages, expenses, judgments, or decrees whatever arising out of such actions or suits as may be brought as aforesaid.

**GC-25 METHODS OF OPERATION**

The Contractor shall give to the Engineer-Architect full information in advance as to their Plans for carrying on any part of the work. If at any time before the beginning or during the progress of the work, any part of the Contractor's plant or equipment or any of their methods of executing the work, appear to the Engineer-Architect to be unsafe, inefficient, or inadequate to ensure the required quality, or rate of progress, of the work, they may order the Contractor to increase or improve their facilities or methods, and the Contractor shall promptly comply with such orders, but neither compliance with such orders nor failure of the Engineer-Architect to issue such orders shall relieve the Contractor from their obligations to secure the degree of safety, the quality of work, and the rate of progress required by this Contract. The Contractor alone shall be responsible for the safety, adequacy, and efficiency of their plant, equipment, and methods. The approval by the Engineer-Architect of any plan or method of work proposed by the Contractor shall not relieve the Contractor of any responsibility therefor, and such approval shall not be considered as an assumption by the Owner, or any officer, agent, or employee thereof, of any risk or liability, and the Contractor shall have no claim under this Contract on account of the failure or inefficiency of any plan or method so approved. Such approval shall be considered, and shall mean that the Engineer-Architect has no objection to the Contractor's use or adoption, at their risk and responsibility, of the plan or method so proposed by the Contractor.



**GC-26 SUGGESTION TO CONTRACTOR ADOPTED AT THEIR OWN RISK**

Any plan or method of work suggested by the Engineer-Architect, or other representative of the Owner, to the Contractor, but not specified or required, if adopted or followed by the Contractor in whole or in part, shall be used at the risk and responsibility of the Contractor, and the Engineer-Architect and the Owner will assume no responsibility therefor.

**GC-27 AUTHORITY AND DUTY OF THE ENGINEER-ARCHITECT**

It is mutually agreed by and between the parties to this Contract, that the Engineer-Architect shall inspect all work included herein. In order to prevent delays and disputes and to discourage litigation, it is further agreed by and between the parties to this Contract that the Engineer-Architect shall in all cases determine the amounts and quantities of the several kinds of work which are to be paid for under this Contract; that they shall determine all questions in relation to said work and the construction thereof; that they shall in all cases decide every question which may arise relative to the execution of this Contract on the part of said Contractor; that their decisions and findings shall be the conditions precedent to the right, of the parties hereto, to any action on the Contract, and to any rights of the Contractor to receive any money under this Contract provided, however, that should the Engineer-Architect render any decision or give any directions which, in the opinion of the Contractor, is not in accordance with the meaning and intent of this Contract, the Contractor may file with the Engineer-Architect within thirty (30) days, their written objection to the decision or direction so rendered. It is the intent of this agreement that there shall be no delay in the execution of the work, and the decision or directions of the Engineer-Architect as rendered shall be promptly carried out.

**GC-28 INSPECTION**

It is agreed by the Contractor that the Owner shall be and is hereby authorized to appoint or employ (either directly or through the Engineer-Architect) such architects, engineers, and inspectors as the Owner may deem proper, to inspect the materials furnished and the work performed under this Contract, and to see that the said materials are furnished, and the said work performed, in accordance with the Plans and technical specifications therefore. The Contractor shall furnish all reasonable aid and assistance required by the Engineer-Architect, or by the inspectors, for the proper inspection and examination of the work and all parts thereof. The Contractor shall regard and obey the directions and instructions of the Engineer-Architect, or any inspector so appointed, when the same are consistent with the obligations of this Contract and the Technical Specifications therefore, provided, however, that should the Contractor object to any order given by any subordinate architect, engineer, or inspector, the Contractor may make written appeal to the Engineer-Architect for their decision. Architects, engineers, inspectors and other properly authorized representatives of the Owner or Engineer-Architect shall be free at all times to perform their duties, and intimidation or attempted intimidation of any one of them by the Contractor or by any of their employees shall be sufficient reason, if the Owner so decides, to annul the Contract. Such inspection shall not relieve the Contractor from any obligation to perform said work strictly in accordance with the Plans and technical specifications or any modifications thereof as herein provided, and work not so constructed shall be removed and made good by the Contractor at their own expense, and free of all expenses to the Owner, whenever so ordered by the Engineer-Architect, without reference to any previous oversight or error in inspection. The Engineer-Architect does not assume any responsibility for work or action of the Contractor.

If work on any project is subject to the approval of the Federal Highway Administration, representatives of the Missouri Highways and Transportation Commission and the Federal Highway Administration shall have access to the project for the purpose of inspecting and reviewing work being performed by any contractor or subcontractor on the project. Contractors and subcontractors shall maintain books, account, ledgers, invoices, drafts, documents, pages, and other business records pertaining to the performance of this project and shall require that such materials be available at the Contractor's field or permanent business offices at all reasonable times during the performance of the Contract and for



three years from date of final FHWA voucher acceptance under the Contract, for inspection by authorized representatives of the Commission and/or the Federal Highway Administration.

**GC-29 NO WAIVER OF RIGHTS**

Neither the inspection by the Owner or any of the owner's officials, employees, or agents, nor any order by the owner for payment of money, nor any payment for, or acceptance of, the whole or any part of the work by the Owner or Engineer-Architect, nor any extension of time, nor any possession taken by the Owner or its employees, shall operate as a waiver of any provision of this Contract, or of any power herein reserved to the Owner, or any right to damages herein provided, or shall any waiver of any breach in this Contract be held to be a waiver of any other or subsequent breach.

**GC-30 SUPERINTENDENCE OF WORK**

The Contractor shall provide and maintain, continually on the site of the work during its progress, adequate and competent superintendent of all operations for and in connection with the work being performed under this Contract, either personal or by a duly authorized superintendent or other representative. The superintendent or other representative of the Contractor on the work, and who has charge thereof, shall be fully authorized to act for the Contractor and to receive whatever orders as may be given for the proper prosecution of the work, or notices in connection therewith.

**GC-31 ORDERS TO CONTRACTOR'S AGENT**

Whenever the Contractor is not present on any part of work where it may be desired to give directions, orders may be given by the Engineer-Architect or his representative, to, and shall be received and obeyed by, the superintendent or foreman who may have charge of the particular part of the work in reference to which such orders are given.

**GC-32 PROTECTION OF PROPERTY AND PUBLIC LIABILITY**

The Contractor shall assume full responsibility for the protection of all public and private property, structures, sewers, and utilities, both above and below ground, along, beneath, above, across, or near the site or sites of the work being performed under this Contract, or which are in any manner affected by the prosecution of the work or the transportation of employees or materials in connection therewith. Barriers shall be kept placed at all times to protect persons other than those engaged on or about the work from accident, and the Contractor will be held responsible for all accidents to persons or property through any negligence of themselves or their employees. The Contractor shall indemnify, defend, and save harmless the Owner against all damages to such property, structures, and utilities, together with all claims for damages for personal injury, including accidental death, arising out of their operations in connection with this Contract. All property so damaged shall be repaired or replaced to a condition equal to its condition immediately prior to the time of damage, and to the satisfaction of the owner thereof. The Contractor shall give reasonable notice to the owner or owners of public or private property and utilities when such property is liable to injury or damage through the performance of the work, and shall make all necessary arrangements with such owner or owners relative to the removal and replacement or protection of such property or utilities. All permits and licenses required in the prosecution of any and all parts of the work shall be obtained and paid for by the Contractor. The Contractor shall satisfactorily shore, support, and protect any and all structures, and all pipes, sewers, drains, conduits, and other facilities, and shall be responsible for any damage resulting thereto. The Contractor shall not be entitled to any damages or extra pay on account of any postponement, interference, or delay caused by any such structures and facilities being on the line of the work, whether they are shown on the Plans or not.





### **GC-34 MODIFICATIONS AND ALTERATIONS**

In executing the Contract Agreement, the Contractor agrees that the Owner shall have the right to make such modifications, changes, and alterations, as the Owner may see fit, in the line, grade, form, arrangements, dimensions, extent, or plan, of the work agreed to be done or any part thereof, or in the materials to be used therein, either before or after the beginning of construction thereof, without affecting the validity of the Contract and the performance, payment, and maintenance bond contained therein. Where any modification, change, or alteration increases the quantity of work to be performed and is within the scope of a fair interpretation thereof, such increase shall be paid for according to the quantity of the work actually done, either at unit prices included in the Contract, or, in the absence of such unit prices, as extra work. Modifications and alterations, which reduce the quantity of work to be done, shall not constitute a claim for damages or for anticipated profits on work involved in such reduction. The Engineer-Architect shall determine, on an equitable basis, the amount of:

- a. Credit due the Owner for Contract work not performed, as a result of modifications or alterations authorized hereunder, where the value of the omitted work is not fixed by unit prices in the Contract.
- b. Allowance to the Contractor for any actual loss incurred in connection with the purchase, delivery, and subsequent disposal of materials and equipment required for use on the work as originally planned but which could not be used in any part of the work as actually built.
- c. Any other adjustment of the contract amount where the method to be used in making such adjustment is not clearly defined in the Contract Documents. All orders for modifications, changes, or alterations in the work as herein provided shall be in writing, either by the Engineer-Architect under the authority of the Owner or by the Owner directly.

### **GC-35 EXTRA WORK**

The term "extra work" as used in this Contract, shall be understood to mean and to include all work that may be required by the Engineer-Architect or Owner to be performed by the Contractor to accomplish any change or alterations in, or addition to, the work shown by the Plans, or required or reasonably implied by the technical specifications, which is not covered by the proposal and not otherwise provided under "Modifications and Alterations" herein. It is agreed that the Contractor shall perform all extra work under the direction of the Engineer-Architect, when and as so ordered in writing by the Engineer-Architect or Owner. When such extra work is ordered, it shall be paid for either by a lump sum or by unit prices mutually agreed upon by the Owner and Contractor in writing, or if such agreement cannot be made, on a force account basis, to be compensated in the following manner:

- a. Labor. For all labor and foreman in direct charge of the specific operations, the Contractor shall receive the rate of wage (or scale) agreed upon in writing before beginning work for each and every hour that said labor and foreman are actually engaged in such work. The Contractor shall receive the actual costs paid to, or in behalf of, employees by reason of subsistence and travel allowances, health and welfare benefits, pension fund benefits or other benefits, when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work. An amount equal to twenty percent (20%) of the sum of the above items will also be paid the Contractor.
- b. Bond Insurance and Tax. For property damage, liability, and workmen's compensation insurance premiums, unemployment insurance contributions and social security taxes on the force account work, the Contractor shall receive the actual cost, to which cost six percent will be added. The Contractor shall furnish satisfactory evidence of the rates paid for such bond, insurance, and tax.



- c. **Materials.** For materials accepted by the Engineer-Architect and used, the Contractor shall receive the actual cost of such materials delivered on the work, including transportation charges paid by him (exclusive of machinery rentals as hereinafter set forth), to which cost 15 percent will be added.
- d. **Equipment.** For any machinery or special equipment (other than small tools) including fuel and lubricants, plus transportation costs, the use of which has been authorized by the Engineer-Architect, the Contractor shall receive the rental rates agreed upon in writing before such work is begun for the actual time that such equipment is in operation on the work, to which rental sum fifteen percent (15%) will be added.
- e. **Miscellaneous.** No additional allowance will be made for general superintendent, the use of small tools, or other costs for which no specific allowance is herein provided.
- f. **Compensation.** The Contractor's representative and the Engineer-Architect shall compare records of the cost of work done as ordered on a force account basis.
- g. **Statements.** No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer-Architect with duplicate itemized statements of the cost of such force account work detailed as follows:
  - (1) Name, classification, date, daily hours, total hours rate, and extension for each laborer and foreman.
  - (2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.
  - (3) Quantities of materials, prices, and extensions.
  - (4) Transportation of materials.
  - (5) Cost of property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions, and social security tax.
  - (6) Statements shall be accompanied and supported by received invoices for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices the Contractor shall furnish an affidavit certifying that such materials were taken from their stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

The Contractor shall not begin any work for which price payments under classifications are not provided in the contract without first bringing the matter to the attention of the Engineer-Architect and no bills or charges for "Extra Work" will be allowed except for that ordered in writing before its execution.

### **GC-36 PROVISION FOR EMERGENCIES**

Whenever, in the opinion of the Engineer-Architect, the Contractor has not taken sufficient precaution for the safety of the public or the protection of the work to be constructed under this contract, or of adjacent structures or property which may be injured by processes of construction on account of such neglect, and whenever, in the opinion of the Engineer-Architect, an emergency shall arise and immediate action shall be considered necessary in order to protect public or private, personal or property interests, then the Engineer-Architect, with or without notice to the Contractor, may provide suitable protection to the said interests by causing such work to be done and material to be furnished and placed as the Engineer-Architect may consider necessary and adequate. The cost and expense of such work and materials so furnished shall be borne by the Contractor, and, if the same shall not be paid on presentation of the bills therefore, such costs shall be deducted from any amounts due (or to become due) the Contractor. The performance of such emergency work under the direction of the Engineer-Architect shall in no way relieve the Contractor of responsibility for damages which may occur during or after such precaution has been duly taken by the Engineer-Architect.



**GC-38 RIGHT OF OWNER TO TERMINATE CONTRACT**

If the work to be done under this Contract shall be abandoned by the Contractor; or if this Contract shall be assigned by them otherwise than as herein provided; or if the Contractor should be adjudged a bankrupt, or if a general assignment of their assets be made for the benefit of their creditors, or if a receiver should be appointed for the Contractor or any of his property; or if at any time the Engineer-Architect shall certify in writing to the Owner that the performance of the work under this Contract is being unnecessarily delayed, or that the Contractor is willfully violating any of the conditions or covenants of this Contract or the technical specifications therefore, or that they are executing the same in bad faith or otherwise not in accordance with the terms of said Contract, or if the work be not substantially completed within the time to which such completion date may be extended; then the Owner may serve written notice upon the Contractor and their surety of said Owner's intention to terminate this Contract, and, unless within five (5) days after the serving of such notice upon the Contractor, a satisfactory arrangement be made for the continuance thereof, this Contract shall cease and terminate. In the event of such termination, the Owner shall immediately serve notice thereof upon the surety and the Contractor, and the surety shall have the right to take over and complete the work, provided, however, that if the surety does not commence performance thereof within thirty (30) days from the date of said notice of termination, the Owner may take over the work and prosecute same to completion, by Contract or otherwise, for the account of the Contractor. The Contractor and their surety shall be liable to the Owner for any and all excess cost sustained by the Owner by reason of such prosecution and completion including compensation for additional architectural, engineering, managerial and administrative expense; and in such event the Owner may take possession of, and utilize in completing the Work, all such materials, equipment, tools, and plant as may be on the site of the work and necessary therefore.

**GC-39 SUSPENSION OF WORK ON NOTICE**

The Contractor shall delay or suspend the progress of the Work or any part thereof, whenever they shall be so required by verbal order of the Owner or Engineer-Architect at the moment it is issued. Said verbal order will be confirmed by written order at the request of the Contractor which shall note the time the verbal order was issued. The Contractor shall delay or suspend the progress for such periods of time as required to comply with directions issued by Owner or Engineer-Architect, provided that, in the event such delay or suspension of the progress of the Work, or any part thereof, the time for completion of the Work so suspended or delayed by such suspensions shall be extended for a period equivalent to the time lost; however, such order of the Owner or Engineer-Architect shall not otherwise modify or invalidate any of the provisions of this Contract. In the event that the work shall be stopped by order of the Owner or Engineer-Architect, any expense which, in the opinion and judgment of the Engineer-Architect, is caused thereby shall be paid by the Owner to the Contractor.

**GC-40 LOSSES FROM NATURAL CAUSES**

All loss or damage arising out of the nature of the work to be done, or from the action of the elements, or from floods or overflows, or from ground water, or from unusual obstructions or difficulties, or any other natural or existing circumstance either known or unforeseen, which may be encountered in the prosecution of the said work shall be sustained and borne by the Contractor at their own cost and expense.

**GC-41 LAWS AND ORDINANCES**

The Contractor shall keep themselves fully informed of all existing and current regulations of the Owner and County, State and National laws which in any way limit or control the actions or operations of those engaged upon the work or affecting the materials supplied to or by them. The Contractor shall at all times observe and comply with all ordinances, laws, and regulations, and shall protect and indemnify



the Owner and the Owner's officers and agents against any claims or liability arising from or based on any violation of the same.

**GC-42 SANITARY REGULATIONS**

In general, the operations of the Contractor shall be in full conformity with all of the rules and regulations of boards and bodies having jurisdiction with respect to sanitation. The Contractor shall supply safe and sufficient drinking water to all of their employees. The Contractor shall obey and enforce all sanitary regulations and orders, and shall take precautions against infectious diseases and the spread of same.

**GC-43 CHARACTER OF EMPLOYEES**

The Contractor shall employ only employees, who are competent to perform the work assigned to them and (in the case of skilled labor), who are adequately trained and experienced in their respective trades and who do satisfactory work. In all cases, local labor shall be given preference when available. Whenever the Engineer-Architect shall notify the Contractor that any employee on the work is, in their opinion, incompetent, unfaithful, or disorderly, or who uses threatening or abusive language when on the work to any person representing the Owner, such employee shall be immediately discharged from the work and shall not be reemploy thereon except with the consent of the Engineer-Architect.

**GC-44 SATURDAY, SUNDAY, HOLIDAY, AND NIGHT WORK**

No work shall be done between the hours of 6:00 p.m. and 8:00 a.m., nor on Saturdays, Sundays, or legal holidays, without the written approval or permission of the Engineer-Architect in each case, except such work as may be necessary for proper care, maintenance, and protection of work already done or equipment, or in the case of an emergency. The Contractor may establish night work as a regular procedure, with the written permission of the Engineer-Architect. The Engineer-Architect, however, may revoke such permission, at any time if the Contractor fails to maintain at night, adequate equipment for the proper prosecution and control of the work, and all operations performed thereunder.

**GC-45 UNFAVORABLE CONSTRUCTION CONDITIONS**

During unfavorable weather, wet ground, or other unsuitable construction condition, the Contractor shall confine their operations to work, which will not be affected adversely thereby. No portion of the work shall be constructed under conditions, which would affect adversely the quality of efficiency thereof unless, by special means or precautions approved by the Engineer-Architect, the Contractor shall be able to perform the work in a proper and satisfactory manner.

**GC-46 BEGINNING, PROGRESS, AND TIME OF COMPLETION OF WORK**

The Contractor shall, within ten (10) days after being instructed to do so in a written notice from the Owner, commence the work to be done under this Contract; and the rate of progress shall be such that the work shall have been completed in accordance with the terms of the Contract on or before the termination of the construction period named in the bid, subject to any extension or extensions of such time made as hereinafter provided. The Contractor may be required to furnish the Engineer-Architect with a tentative schedule setting forth in detail the procedure they propose to follow, and giving the dates on which they expect to start and to complete separate portions of the work. If at any time, in the opinion of the Engineer-Architect, proper progress is not being maintained, such changes shall be made in the schedule of operations as the Engineer-Architect shall direct or approve.

**GC-47 HINDRANCES AND DELAYS**

In executing the Contract Agreement, the Contractor expressly covenants and agrees that, in undertaking to complete the work within the time therein fixed, they have taken into consideration and made allowances for all hindrances and delays incident to such work, whether growing out of delays in



securing materials or employees or otherwise. The Contractor shall make no charge for hindrances or delays from any cause during the progress of the work, or any portion thereof, embraced in this Contract, except as provided in "GC-39 Suspension of Work on Notice".

#### **GC-48 EXTENSION OF TIME**

Should the Contractor be delayed in the final completion of the Work by any act or neglect of the Owner or Engineer-Architect, or of any employee of either, or by any other Contractor employed by the Owner, or by strikes, fire, or other cause or causes outside of and beyond the control of the Contractor and which could have been neither anticipated nor avoided, then an extension of time sufficient to compensate for the delay shall be granted by the Owner provided, however, that the Contractor shall give the Owner, and the Engineer-Architect, within ten (10) consecutive days from the start of such delay, notice in writing of the cause of delay in each case. Extensions of time will not be granted for delays caused by unfavorable weather, unsuitable ground conditions, inadequate construction force, or the failure of the Contractor to place orders for equipment or materials a sufficient time in advance to ensure delivery when needed.

#### **GC-49 LIQUIDATED DAMAGES**

It is mutually understood and agreed by and between the parties to this Contract, in signing the agreement thereof, that time is of the essence of this Contract, and that in the event that the said Contractor shall fail in the performance of the work specified and required to be performed within the period of time stipulated therefor in the Contract agreement binding said parties, after due allowance for any extension or extensions of time which may be granted under the provisions of the preceding paragraph, the said Contractor shall pay unto the said Owner, as stipulated liquidated damages and not as a penalty, the sum indicated in the Special Conditions for each and every calendar day that the Contractor shall be in default. In case of joint responsibility for any delay in the final completion of the work covered by this Contract, where two or more separate contracts are in force at the same time and cover work on the same project and at the same site, the total amount of liquidated damages assessed against all contractors under such contracts, for any one (1) day of delay in the final completion of the work, will not be greater than the amount listed in Special Conditions, and the amount assessed against any one Contractor for one (1) day of delay will be based upon the individual responsibility of such Contractor for the aforesaid delay as determined by, and in judgment of the Owner. The Owner shall have the right to deduct said liquidated damages from any moneys in its hands, otherwise due, or to become due, to said Contractor, or to sue for and recover compensation for damage for nonperformance of this Contract at the time stipulated herein and provided for.

#### **GC-50 TESTS OF MATERIALS OFFERED BY CONTRACTOR**

All specified and required tests for approval of source of materials shall be made at the expense of the Contractor by a properly equipped laboratory of established reputation, whose work and testing facilities shall be approved by the Owner. Approval of materials based on acceptable tests will apply only while such materials as furnished equal or exceed the tested samples or test specimens in quality and minimum requirements. Any change in origin, method of preparation, or manufacture of such materials will require new tests and approval thereof. Reports of all tests shall be furnished to the Owner in as many certified counterparts as may be required by the said owner.

#### **GC-51 TESTING OF COMPLETED WORK**

Before final acceptance, all parts of the work shall be tested and each part shall be in good condition and working order and shall be placed in such condition and order, at the expense of the Contractor. All tests of completed work required under this Contract shall be made under the direction of the Engineer-Architect by and at the expense of the Contractor, whom shall repair at their own expense all damage resulting from the testing.



### **GC-52 REMOVAL OF CONDEMNED MATERIALS AND STRUCTURES**

The Contractor shall remove from the site of the work, without delay, all rejected and condemned materials or structures of any kind brought to or incorporated in the work, and upon their failure to do so, or to make satisfactory progress in so doing, within forty-eight (48) hours after the serving of a written notice from the Engineer-Architect ordering such removal, the condemned material or structures may be removed by the owner and the cost of such removal be taken out of the money that may be due or may become due the Contractor on account of or by virtue of this Contract. No such rejected or condemned material shall again be offered for use by the Contractor under this or any other contract under this project.

### **GC-53 PLACING WORK IN SERVICE**

If desired by the Owner, portions of the work may be placed in service when completed and the Contractor shall give proper access to the work for this purpose, but such use and operation shall not constitute an acceptance of the work, and the Contractor shall be liable for defects due to faulty construction until the entire work under this Contract is finally accepted and for a year thereafter as stipulated in paragraph GC-55.

### **GC-54 DISPOSAL OF TRASH AND DEBRIS**

The Contractor shall not allow the site of the work to become littered with trash and waste materials but shall maintain the same in a neat and orderly condition throughout the construction period. The Engineer-Architect shall have the right to determine what is or is not waste material or rubbish and manner and place of disposal. On or before the completion of the work the Contractor shall (without charge) carefully clean out all pits, pipes, chambers, or conduits, and shall tear down and remove all temporary structures built by them and shall remove all rubbish of every kind from the tracts or grounds which they have occupied and shall leave them in a first class condition.

### **GC-55 DEFECTIVE WORKMANSHIP AND MATERIALS**

During a period of one (1) year from and after the date the final acceptance by the Owner of the work embraced by this Contract, the Contractor shall make all needed repairs arising out of defective workmanship or materials, or both, which, in the judgment of the Owner, shall become necessary during such period. If within ten (10) days after the mailing of a notice in writing to the Contractor, or their agent, the said Contractor shall neglect to make, or undertake with due diligence to make, the aforesaid repairs, the Owner is hereby authorized to make such repairs at the Contractor's expense providing, however, that in case of an emergency where, in the judgment of the Owner, delay would cause serious loss or damage, repairs may be made without notice being sent to the Contractor, and the Contractor shall pay the cost thereof.

### **GC-56 EQUIPMENT GUARANTY**

All mechanical and electrical equipment and devices, and every part thereof, which are furnished by the Contractor under the terms of this Contract shall be guaranteed by the Contractor and their surety against defective workmanship, faulty design, mechanical and physical defects, leakage, breakage, and other damage or failure, under normal operation of the equipment and devices under specified conditions, for a period of one (1) year, unless specified in the Technical Specifications for a longer period from and after the date of acceptance thereof by the Owner, and each item of equipment or part thereof thus proving to be defective within the specified period of the guaranty shall be replaced (without cost to the Owner) by the manufacturer of the defective item of equipment, by the Contractor, or by their surety under the terms of the performance, payment and maintenance bond. This equipment guaranty shall also apply to, and shall include, any and all replacements of defective



equipment or parts made thereunder, and the period of the guaranty of each such replacement shall be from and after the date of installation thereof.

**GC-57 CLAIMS FOR LABOR AND MATERIALS**

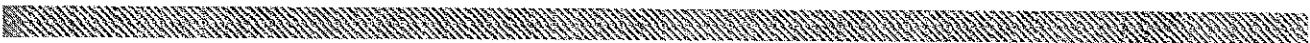
The Contractor shall indemnify and save harmless the Owner from all claims for labor and materials furnished under this Contract, or any alterations or modifications thereof, and shall furnish the owner with satisfactory evidence, when called for by it, and that all persons, firms, or corporations, who have done work or furnished materials under this Contract, for which the Owner may become liable under the laws of the State, have been fully paid or satisfactorily secured, and in case such evidence is not furnished, an amount necessary or sufficient, within the discretion of the Owner, to meet the claims of the persons, firms and corporations, aforesaid, in addition to any other moneys that are to be retained, as herein specified, from the money due the Contractor under this Contract, shall be retained until the liabilities aforesaid shall be fully discharged or satisfactorily secured.

**GC-59 ESTIMATED QUANTITIES**

The Contractor agrees that the quantities of work as stated in their Invitation to Bid, or indicated on the Plans, are accurate for the construction shown, and that during the progress of the work the Owner may find it advisable, and it shall have the right, to omit portions of the Work and to increase or decrease the quantities, and that the Owner reserves the right to add to or take from any items as may be deemed necessary or desirable. Under no circumstances or conditions will the Contractor be paid anything on account of anticipated profits upon the work or any portion thereof covered by this Contract, which has not actually entered into the construction of said improvements.

**GC-60 MONTHLY ESTIMATES AND PAYMENTS**

- a. Unit Price Contracts: On or about the first day of each month, the Engineer-Architect will make an approximate estimate of the value of the work done and unused materials delivered for, and stored on, the site of the work during the previous calendar month. The Contractor shall furnish to the Engineer-Architect such detailed information as requested to aid them as a guide in the preparation of monthly estimates.
- b. Lump Sum Contracts: On or about the first day of each month the Contractor shall submit to the Engineer - Architect an itemized application for payment, supported to the extent required by the Engineer-Architect by receipts or other vouchers, showing payments for materials and labor, payments to subcontractors and such other evidence of the Contractor's right to payment as the Engineer-Architect may direct. If payments are made on valuation of work done, the Contractor shall, before the first application, submit to the Engineer-Architect a schedule of values of the various parts of the work, including quantities, aggregating the total sum of the Contract, divided so as to facilitate payments to subcontractors in accordance with such forms as the Engineer-Architect and the Contractor may agree upon, and, if required, supported by such evidence as to its correctness as the Engineer-Architect may direct. This schedule, when approved by the Engineer-Architect shall be used as a basis for Certificates for Payment, unless it is found to be in error. In applying for payments, the Contractor shall submit a statement based upon this schedule. If payments are made on account of materials not incorporated in the work but delivered and suitably stored at the site, or at some other location agreed upon in writing, such payments shall be conditioned upon submission by the Contractor of bills of sale or such other procedure as will establish the Owner's title to such material or otherwise adequately protect the Owner's interest including applicable insurance.
- c. Certification for Payments: On or about the 10th day of the month the Engineer-Architect shall submit payment estimates or certificates of payment to the Owner. After the Owner shall have approved each such estimate, the Owner shall pay to the Contractor ninety-five percent (95%)



of the amount of such estimated sum within thirty (30) days after receipt of payment certificate. If the Owner shall at any time fail to make the Contractor a monthly estimate at the time herein specified, such failure shall not be held to vitiate or void this Contract.

**GC-61 LIENS**

Neither the final payment nor any part of the retained percentage shall become due until the Contractor shall deliver to the Owner a complete release of all liens arising out of the Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as they have knowledge or information the releases and receipts include all the labor and material for which a lien could be filed, but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Owner, to indemnify themselves against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all moneys that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

**GC-62 COMPLETION AND ACCEPTANCE OF WORK**

The Contractor shall make final corrections promptly as instructed and/or listed in writing by the Engineer-Architect. Upon completion of the work the Engineer-Architect shall satisfy themselves, by examination and test, that the work has been finally and fully completed in accordance with the Plans, Technical Specifications, and Contract and report such completion to the Owner.

**GC-63 FINAL ESTIMATE AND PAYMENT**

After official approval and acceptance of the work by the Owner, the Engineer-Architect shall be authorized to prepare a final estimate of the work done under this Contract and the value thereof. Such final estimate shall be submitted to the Owner within ten (10) days after its preparation has been authorized as aforesaid, and the Owner shall within thirty (30) days after said final estimate is made and certified, pay the entire sum found to be due hereunder, after deducting all amounts to be kept and retained under any provision of this Contract. All prior estimates and payments shall be subject to correction in the final estimate and payment, but in the absence of error or manifest mistake, it is agreed that all estimates, when approved by the Owner, shall be conclusive evidence of the work done and materials furnished.

**GC-64 RELEASE OF LIABILITY**

The acceptance by the Contractor of the last payment shall operate as, and shall be, a release to the Owner and every officer and agent thereof, from all claims and liability to the Contractor for anything done or furnished for, or relating to the work, or for any act or neglect of the Owner or any person relating to or affecting the work, and following such acceptance, no persons, firm, or corporation, other than the signer of this Contract as Contractor, will have any interest hereunder, and no claim shall be made or be valid, and neither the Owner nor any employee or agent thereof shall be liable or be held to pay any money, except as herein provided.

**GC-65 CLAIMS FOR ADJUSTMENT AND DISPUTES**

If for any reason the Contractor deems that additional compensation is due to them for work or materials not clearly provided for in the Contract, Plans, or Technical Specifications, or previously authorized as extra work, they shall notify the Engineer in writing of their intention to claim such additional compensation before they begin the work on which they base the claim. If such notification is not given or the Engineer is not afforded proper opportunity by the Contractor for keeping strict account of actual cost as required, then the Contractor hereby agrees to waive any claim for such additional compensation.





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Such notice by the Contractor and the fact that the Engineer has kept account of the cost of the work shall not in any way be construed as proving or substantiating the validity of the claim.

When the work, on which the claim for additional compensation is based, is work that has been completed, the Contractor shall, within fifteen (15) calendar days after completion of the work in question, submit their written claim to the Engineer who will present it to the Owner for consideration. Claims submitted at times other than those herein specified will not be considered. Each notice of claim shall contain an itemized statement showing completely and fully the items and amounts forming the basis of the claim.

Nothing in this subsection shall be construed as a waiver of the Contractor's right to dispute final payment based on differences in measurements or computations.

**GC-67 HOMELAND SECURITY AFFIDAVIT**

As a condition for the award of any contract or grant in excess of five thousand dollars (\$5,000) by the County to a business entity, the business entity 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 business entity 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. Any entity contracting with the County shall only be required to provide the affidavits required in this subsection to the County on an annual basis.

END OF SECTION



## **PUBLIC WORKS SPECIAL CONDITIONS**

These Special Conditions constitute modifications, deletions and additions to the General Conditions (GC). Where any part of the General Conditions is so modified by these Special Conditions the unaltered provision shall remain in effect.

### **SC-1 SCOPE OF WORK (GC-1)**

The work provided for in these specifications shall consist of furnishing all labor, materials, equipment, and other services necessary to complete the work as described herein.

### **SC-6 COPIES OF CONTRACT (GC-6)**

Six (6) copies of the contract documents will be prepared by the County. All copies will be submitted to the Contractor and the Contractor shall execute the Contract Agreements, insert executed copies of the required Performance Bonds, Certificate of Liability Insurances, Power of Attorney, and submit all copies to the County. THE DATE OF THE CONTRACT AGREEMENT AND BOND FORMS SHALL BE LEFT BLANK FOR FILLING IN BY THE COUNTY.

The County will execute all copies, insert the date of contract on the Performance Bonds and Power of Attorney, retain four (4) copies, and forward two (2) copies to the Contractor, one of which should be forwarded to the surety company.

### **SC-7 SCOPE, NATURE AND INTENT OF SPECIFICATIONS AND PLANS (GC-7)**

- (1) All work on this project shall conform to the project drawings Jackson County, Missouri Invitation to Bid No. 89-22 and to the Contract Documents.
- (2) The work shall also conform to referenced standard drawings and to other drawings or information thereto as may be furnished by the Owner prior to the opening of the bids or during construction.
- (3) The following specifications are hereby incorporated into the Contract Documents:
  - a. The "Missouri Standard Specifications for Highway Construction", 2022 edition plus quarterly supplements as published by the Missouri Department of Transportation (MoDOT) are hereby incorporated into the Contract Documents.
- (4) All work shall be in accordance with the Technical Specifications incorporated into this Project Manual except where a conflict occurs. Should any conflict arise in the Contract Documents, Standard Specifications or Plans the following order of precedence shall be used:
  - a. Plans – or Appendix sheets
  - b. Technical Specifications
  - c. Special Conditions

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d. General Conditions

- (5) The Contractor, Subcontractors, and fabricators shall be in compliance with all Local, State and Federal Regulations:
- a. Occupational Safety and Health Act of 1970, (29CFR1910) Public Law #91-956, current provisions and regulations as pertains to Work being performed on this project. (OSHA)
  - b. Occupational Safety and Health Standards, Part 1910, Chapter 17 of Title 29, Code of Federal Regulations, current provisions and regulations as pertains to Work being performed on this project.
  - c. The Consumer Product Safety Act as it relates to building materials and construction.
  - d. Safety and Health Regulations for Construction, Part 1518, Chapter 13 of Title 29, Code of Federal Regulations, current provisions and regulations as pertains to Work being performed on this project.

**SC-9 CONTRACTOR TO CHECK PLANS AND SCHEDULE (GC-9)**

Modify GC-9 as follows:

- (1) The Contractor shall submit a proposed progress schedule for all work in the Contract. Scheduling shall provide for the least practical inconvenience to the traveling public and to the residents along the project.
- (2) The construction schedule shall be in a form approved by the Owner and shall include at least the following information for each significant work item:
  - a. Beginning date.
  - b. Scheduled percentage of completion at the end of each calendar month.
  - c. Ending date.

The schedule shall also show the scheduled percentage complete for the entire contract at monthly intervals.

- (1) The Owner will review the proposed progress schedule and may require the Contractor to revise it if, in the Owner's judgment, changes are required to accurately reflect the scheduled progress of the work or provide for completion of the project within the contract time. The revised schedule shall be submitted to the Owner for his approval within fourteen (14) days of notification to the Contractor that a revised schedule is required.
- (2) The Contractor will be required to revise his original approved progress schedules any time actual progress of the Work on the Contract lags the schedule progress by fifteen percent or more. A revised schedule shall be submitted to the Owner for their approval within

fourteen (14) days of written notification to the Contractor that a revised schedule is required. Prior to the beginning or during the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and the affected work is performed.

- (3) Upon written notification the County will investigate the conditions and if they determine that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment will be made and the contract modified in writing accordingly. The County will notify the Contractor of their determination whether or not an adjustment of the Contract is warranted.
- (4) No contract adjustment, which results in a benefit to the Contractor, will be allowed unless the Contractor has provided the required written notice.
- (5) The County may withhold monthly Progress Payments otherwise due to the Contractor in the event that progress falls fifteen (15) percent behind the approved progress schedule for two consecutive months, and may continue to withhold payments until the Contractor has submitted an acceptable revised schedule and shown a good faith effort to implement same. The County's decision either to withhold or not withhold progress payment shall not waive or release any right the County has to withhold any subsequent progress payments, nor does it relieve the Contractor of their responsibility to complete the project within the contract time.
- (6) No alteration to project schedule will be allowed for this contract by the contractor unless approved by the County.**

#### **SC-12 OWNERSHIP OF DRAWINGS (GC-12)**

General Conditions GC-12 is modified as follows:

All drawings, specifications, calculations, electronic files and copies developed by the Contractor and/or their subcontractors for components of the project are the property of the County. They are not to be used on work unrelated to this project, and, with exception of the Contractor's signed contract sets, are to be returned to the County on request, upon completion of the work.

#### **SC-14 CONTRACTOR TO FURNISH STAKES AND HELP (GC-14)**

The Contractor shall provide all construction staking and shall supply all equipment, materials and competent manpower necessary to accurately complete the work. No construction shall commence without the approval of the County construction staking. The contractor shall notify

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the County in writing of any and all discrepancies with the staking. Any modifications shall be approved by the County. **Direct payment will be made for construction staking.** See Technical Specifications of this contract for "Contractor Furnished Surveying & Staking" of the Right-of-Way and Easements as Lump Sum.

**SC-15 LINES AND GRADES (GC-15)**

Add the following to GC-15

- (1) The Engineer has established control points and benchmarks in a preliminary survey, which are shown on the construction plans for reference in layouts and staking of the work.
- (2) The Contractor shall furnish competent surveyors to lay out and stake all of the work from control points and benchmarks shown on the plans, and make all measurements and elevation determinations required for construction of all work in this contract. The detailed staking shall be to the satisfaction of the Engineer.
- (3) The Contractor shall be responsible for the cost of re-establishing control points and benchmarks, which may have been placed by the Engineer and are damaged or in any way disturbed by the Contractor's operations.
- (4) At the locations indicated on the drawings, the Contractor, by using a Missouri Registered Land Surveyor, shall establish suitable reference points from which these control points may be accurately re-established following construction. These reference points shall be carefully preserved during construction.
- (5) Direct payment will be made for construction staking. See Technical Specifications of this contract for "Contractor Furnished Surveying & Staking" of the Right-of-Way and Easements as Lump Sum.

**SC-19 CONTRACTOR'S OFFICE AT SITE OF WORK (GC-19)**

General Conditions GC-19 is modified by adding the following:

- (1) **The Contractor is not required to have a field office at the project site** and no conditions have been made by the County for the field office, shops, or storage areas to be used by the Contractor. However, if desired, the Contractor may, on their own initiative, provide for any or all of the above items. The Contractor may store a limited amount of material and equipment in the ROW area in a specified location with the permission of the County, if applicable.
- (2) **No direct payment will be made for the Contractor's office, shops or storage areas.**
- (3) Common-Use Field Office: Of sufficient size to accommodate needs of County, Engineer and construction personnel office activities and to accommodate Project meetings. Keep office clean and orderly.
- (4) Storage and Fabrication Sheds: None allowed on site. Use interior space as approved by the County only as necessary.

**SC-20 RESPONSIBILITY OF CONTRACTOR (GC-20)**

General Conditions GC-20 is modified by adding the following:

Modify GC-20, Responsibility of Contractor, by adding the following:

- (1) Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- (2) Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire prevention program.
- (3) The Contractor shall take the necessary precautions to keep loose aggregate, mud and debris from being deposited onto open lanes of the existing, or offsite, paving during construction operations. Should aggregate mud and debris become deposited upon such open lanes of existing paving, the Contractor shall promptly remove it at no additional cost to the County.
- (4) Before the work will be accepted by the County, the Contractor shall be required to remove all aggregate and debris resulting from their operation, which also includes cleaning of streets, ditches, creeks, and driveways of earth, sod or other objectionable material and shall dispose of such debris off the project. This cleanup shall be limited to the project limits.
- (5) It is the responsibility of the Contractor to coordinate all removal and construction activities with Utility Owners.
- (6) Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- (7) The Contractor at their sole cost and expense will provide all potable and non-potable water, power, and telephone service required along the project route in connection with the work to be performed.
- (8) All power for lighting, operation of the Contractor's equipment, or for any other use by the Contractor, shall be provided by the Contractor at their sole cost and expenses.
- (9) Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary and permanent utility before use. Obtain required certifications and permits.
- (10) Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

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- (11) Locate facilities within the building where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
  
- (12) Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install one telephone line(s) for each field office.
  - a. Provide additional telephone lines for the following:
    - i. Provide a dedicated telephone line for each facsimile machine in each field office.
  - b. At each telephone, post a list of important telephone numbers.
    - i. Police and fire departments.
    - ii. Ambulance service.
    - iii. Contractor's home office.
    - iv. Contractor's emergency after-hours telephone number.
    - v. Engineers' offices.
    - vi. Owner's office.
    - vii. Principal subcontractors' field and home offices.
  - c. Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.
  
- (13) Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
  - a. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
  - b. Remove snow and ice as required to minimize accumulations.
  
- (14) Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction.
  
- (15) SECURITY AND PROTECTION FACILITIES INSTALLATION
  - a. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

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- b. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- c. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.
- d. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- e. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weather-tight enclosure for building exterior.
  - i. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.
- f. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire prevention program.
  - i. Prohibit smoking at Project site.
  - ii. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
  - iii. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

(16) MOISTURE AND MOLD CONTROL

- a. Contractor's Moisture Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.

(17) OPERATION, TERMINATION, AND REMOVAL

- a. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- b. Maintenance: Maintain facilities in good operating condition until removal.



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- i. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
  - ii. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
  - iii. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
    1. Materials and facilities that constitute temporary facilities are property of Contractor.
    2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period.
- (18) Temporary Traffic Control:
- (1) Flagging and traffic control signing shall be in accordance with the contract documents and the MUTCD. It shall be the contractor's responsibility to check the traffic control devices each evening to make sure they are in place before leaving the jobsite.
  - (2) As an obligation of the contract, the Contractor shall sign all road closures and establish such detours as needed and as approved by the County.
  - (3) **Direct payment will be made for Traffic Control. See Technical Specifications of this contract for "Traffic Control" as Lump Sum.**
  - (4) Additionally the Contractor shall install proper signage to warn motorists of loose gravel and oil.
  - (5) All personnel utilized in traffic control shall be fluent in English. Fluency shall be as determined by the Engineer in the Field Personnel not meeting this requirement shall not be utilized in the work.
  - (6) Additionally drivers operating vehicles or equipment on public roads shall possess valid driver's licenses issued in the United States. The driver's license must be appropriate to the vehicle they are operating.

(19) WATER, POWER AND SANITATION:

- (1) Arrange with utility company and Owner for time when service can be interrupted, if necessary, to make connections for temporary services. Contractor must secure all necessary permits to cut and/or cap all utilities including water, gas, electricity, and sewer. Contact Missouri One Call System (1-800-344-7483 (DIG-RITE) and coordinate identification of ALL underground

utilities. Consult with Evergy to coordinate the protection of power lines adjacent to the project.

- (2) Water: All water required along the project route in connection with the work to be performed by the Contractor at their sole cost and expense. If the project is performed during the Winter, the Contractor at their sole expense will provide all water required along the project route in connection with the work to be performed. **Contractor shall coordinate with Public Water Supply District No. 17 prior to start of construction.** Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- (3) Power: All power for lighting, operation of the Contractor's office or equipment, or for any other use by the Contractor, shall be provided by the Contractor at their sole cost and expense. Contractor shall coordinate with the Evergy prior to start of construction. Provide connections and extensions of services as required for construction operations.
- (4) Sanitation: The Contractor and subcontractor shall provide sanitary facilities at the job site.
- (5) The Contractor is to note that there are utilities on the project site, see Construction Plan sheets. The plans show the approximate horizontal and vertical locations of the known utilities by the designer and Owner. The contractor is responsible for ALL field verification of existing utilities prior to start of work. Any and ALL disruptions of utility service during construction caused by the Contractor shall be coordinated, repaired, and fixed by the contractor, in accordance with the utility company standards and permits. The Owner shall not incur any additional costs of the utility work repairs or fixes by the contractor. All repairs and fixes of utility work shall be the sole expense of the contractor.

(20) SALVAGING DEMOLITION WASTE

- (1) Salvaged Items for Reuse in the Work:
  - i. Clean salvaged items.
  - ii. Inventory, photograph, pack or crate items after cleaning. Identify contents of containers.
  - iii. Store items in a secure area until installation.
  - iv. Protect items from damage during transport and storage.
  - v. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- (2) Salvaged Items for Sale and/or Donation: Not Permitted on Project site.

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(3) Salvaged Items for Owner's Use:

- i. Clean salvaged items.
- ii. Inventory, photographs, pack or crate items after cleaning. Identify contents of containers.
- iii. Store items in a secure area until delivery to Owner.
- iv. Transport items to Owner's storage area designated by Owner.
- v. Protect items from damage during transport and storage.

(21) RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

(1) General: Recycle paper and beverage containers used by on-site personnel.

(2) Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall be shared equally by Owner and Contractor.

(3) Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.

- i. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
- ii. Inspect containers and bins for contamination and remove contaminated materials if found.
- iii. Stockpile processed materials on-site without intermixing with other materials.
- iv. Remove recyclable waste from Owner's property and transport to recycling receiver or processor.

(22) RECYCLING DEMOLITION WASTE

(1) Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.

(2) Metals: Separate metals by type.

- i. Structural Steel: Stack members according to size, type of member, and length.
- ii. Remove and dispose of bolts, nuts, washers, and other rough hardware.
- iii. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.
- iv. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.
- v. Conduit: Reduce conduit to straight lengths and store by type and size.

(23) DISPOSAL OF WASTE

- (1) General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
  - i. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
  - ii. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

**(2) Burning: Do not burn waste materials.**

- (3) Disposal: Remove waste materials from Owner's property and legally dispose of them.
- (4) Storage: Offsite Storage of materials and equipment shall conform to manufacturer's recommendations. Offsite storage arrangements shall be approved by the County. Such offsite storage arrangements shall be presented in writing and shall afford adequate and satisfactory security and protection by the contractor. Offsite storage facilities shall be bonded and accessible to the County. Onsite storage of materials and equipment shall conform to manufacture's recommendations. Onsite Storage shall not interfere with public access and/or safety.

- (24) **Smoking is NOT permitted any time by the General Contractor and their Sub-contractor(s) at the construction site on Jackson County, MO. property before or during the duration of the construction.**

**SC-25 METHODS OF OPERATION (GC-25)**

- (01) General Conditions GC-25 is modified by adding the following: In accordance with generally accepted construction practices, the Contractor shall assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property.
- (02) Provide temporary barricades, as required to protect the public from harm due to construction activities.

**SC-27 AUTHORITY AND DUTY OF THE ENGINEER-ARCHITECT (GC-27)**

The progression of the project will be observed by the County personnel and will provide the inspection.

**SC-28 INSPECTION (GC-28)**

- A. This project will be observed by the County personnel and will provide the inspection.
- B. This project will use MODOT standard inspections protocol. Also, the contractor shall follow the MODOT Standards for Traffic Safety.

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- C. All personnel within Jackson County Buildings (inside or outside existing or new buildings having new construction work), Jackson County, MO. Right-of-Way, Jackson County Parking Lots, Jackson County Sites (Demolition areas or new work) who are exposed to traffic or construction activities or construction equipment shall wear at ALL times High-Visibility Safety Apparel meeting Class 2 or Class 3 requirements of ANSI/ISEA 107-2004 Publication Entitled, "American National Standard for High-Visibility Safety Apparel and Headwear".
- D. Contractor shall follow all Occupational Safety and Health Administration (OSHA) construction safety standards and requirements.
- E. Contractor shall notify their subcontractors, Owner and all Contractors and subcontractors under the Owner, when they are ready for them to install their portions of their work and see that they comply within a reasonable amount of time. Neither enclose nor cover any piping, wiring, ducts, equipment or other items until proper tests, observations and/or inspections have been made by the Owner, and/or proper authorities.
- F. Contractor or subcontractor may not put in place any work which will prevent observation and approval of previous work without first notifying the Owner, and/or proper authorities.

**SC-29 NO WAIVER OF RIGHT (GC-29)**

Neither the inspection or evaluations by the County or any of the County's officials, employees, or agents, nor any order by the County for payment of money, nor any payment for, or acceptance of, the whole or any part of the work by the County or Engineer-Architect, nor any extension of time, nor any possession taken by the County or its personnel, shall operate as a waiver of any provision of this contract, or of any power herein reserved to the County, or any right to damages herein provided, or shall any waiver of any breach in this contract be held to be a waiver of any other or subsequent breach.

**SC-32 PROTECTION OF PROPERTY AND PUBLIC LIABILITY (GC-32)**

General Condition GC-32 is modified by adding the following:

- A. The Contractor shall be liable for any and all damage caused by Contractor to County's premises. The Contractor shall hold and save the County, agents and representatives, free and harmless from liability of any nature or any kind arising from any use, trespass or damage occasioned by Contractor's operations on premises or third persons.
- B. The Contractor shall confine all work, equipment and personnel within the limits of the existing project Right-of-Ways, Easements, and Construction Limits noted on the Construction Plans. The Contractor shall make no claim for additional payment for confining their operations within these areas.
- C. If the Contractor negotiates, pays, and acquires additional working area from the property Owner(s), then the Contractor shall provide to the County a copy of the signed negotiated working areas between both parties prior to construction.

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- D. The Contractor shall take all precautions required to preserve and protect all existing trees, shrubs, and other improvements located within the project right-of-way and easements designated to be saved by this contract.
- E. The Contractor shall protect and preserve the Control Point survey pins as shown on the Construction Plans. If disturbed it is the contractor's responsibility to reset the pin by a licensed surveyor at the Contractor's expense.
- F. The Contractor is responsible for contacting the local property owners for any additional access areas they feel are necessary to complete the listed work. No direct payment will be made for the Contractor's securing additional access areas.
- G. The Contractor shall be responsible for the restoration of any paved, graveled, or grassed areas disturbed by construction. Any areas so affected shall be restored to a condition as nearly as possible to that existing prior to construction. Paved and graveled areas shall be resurfaced with materials meeting the requirements of the technical specifications, and grassed areas shall be seeded and mulched. No direct measurement or payment will be made for restoration of areas disturbed by activities outside of the limits designated on the Drawings.

#### **SC-34 MODIFICATIONS AND ALTERATIONS (GC-34)**

General Conditions GC-34 is modified by adding the following:

The Contractor may submit to the County, in writing, bids for modifying the plans, specifications or other requirements of this contract for the sole purpose of reducing the total cost of construction. The cost reduction bid shall not impair, in any manner, the essential functions or characteristics of the project, including but not limited to service life, economy of operation, and ease of maintenance, desired appearance, or design and safety standards.

Cost reduction bids shall contain the following information:

- A. A description of both the existing contract requirements for performing the work and the proposed changes.
- B. An itemization of the contract requirements that must be changed if the bid is adopted.
- C. A detailed estimate of the cost of performing the work under the existing contract and under the proposed change.
- D. A statement of the time within which the County must make a decision thereon.
- E. The contract items of work affected by the proposed changes, including any quantity variation attributable thereto.
- F. This Special Condition shall not be construed to require the County to consider any cost reduction bid which may be submitted hereunder; proposed change in basic design of a bridge or of a pavement type will not be considered as an acceptable cost reduction bid; the Owner

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will not be liable to the Contractor for failure to accept or act upon any cost reduction bid submitted pursuant to this section nor for any delays to the work attributable to any such bid. If a cost reduction bid is similar to a change in the plans or specifications for the project under consideration by the Owner at the time said bid is submitted, the County will not accept such bid and the Owner reserves the right to make such changes without compensation to the Contractor under the provisions of this article.

- G. The Contractor shall continue to perform the work in accordance with the requirements of the contract until an executed change order incorporating the cost reduction bid has been issued. If an executed change order has not been issued by the date upon which the Contractor's cost reduction bid specified that a decision thereon should be made, or such other date as the Contractor may subsequently have specified in writing, such cost reduction bid shall be deemed rejected.
- H. The County shall be the sole judge of the acceptability of a cost reduction bid and of the estimated net savings in construction costs from the adoption of all or any part of such bid. In determining the estimated net savings, the right is reserved to disregard the contract bid prices if, in the judgment of the County, such prices do not represent a fair measure of the value of work to be performed or to be deleted.
- I. The Owner reserves the right where it deems such action appropriate to require the Contractor to share in the Owner's cost of investigating a cost reduction bid submitted by the Contractor as a condition of considering such bid. Where such a condition is imposed, the Contractor shall indicate acceptance thereof in writing, and such acceptance shall constitute full authority for the Owner to deduct amounts payable to the Owner from any moneys due or that may become due to the Contractor under the contract.
- J. If the Contractor's cost reduction bid is accepted in whole or in part, such acceptance will be by a contract change order, which shall specifically state that it is executed pursuant to this Article. Such change order shall incorporate the changes in the plans and specifications which are necessary to permit the cost reduction bid or such part of it as has been accepted to be put into effect, and shall include any conditions upon which the Owner's approval thereof is based if the approval of the Owner is conditional. The change order shall also set forth the estimated net savings in the cost of performing the work attributable to the cost reduction bid effectuated by the change order and shall further provide the Contractor be paid fifty (50) percent of said estimated net savings amount.
- K. Acceptance of the cost reduction bid and performance of the work there under shall not extend the time of completion of the contract unless specifically provided for in the contract change order authorizing the use of the cost reduction bid.
- L. The amount specified to be paid to the Contractor in the change order which effectuates a cost reduction bid shall constitute full compensation to the Contractor for the cost reduction bid and the performance of the work thereof pursuant to the said change orders.
- M. The Owner expressly reserves the right to adopt a cost reduction bid for general use on contracts administered by the Owner when it determines that said bid is suitable for application

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to other contracts. When an accepted cost reduction bid is adopted for general use, only the Contractor who first submitted such bid will be eligible for compensation pursuant to this section, and, in that case, only as to those contracts awarded to them prior to submission of the accepted cost reduction bid. Cost reduction bids identical or similar to previously submitted bids will be eligible for consideration and compensation under the provisions of this article if the identical or similar previously submitted bids were not adopted for general application to other contracts administered by the Owner. Subject to the provisions contained herein, the Owner shall have the right to use all or any part of any submitted cost reduction bid without obligation or compensation of any kind to the Contractor.

- N. This article of the specifications shall apply only to contracts awarded to the lowest bidder pursuant to competitive bidding.
- (1) The County reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the Contract nor release the surety, and the Contractor agrees to perform the work as altered.
  - (2) If the alterations or changes in quantities significantly change the character of the work under the Contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the Contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contract in such an amount as the County may determine to be fair and equitable.
  - (3) If the alterations or changes in quantities do not significantly change the character of the work to be performed under the Contract, the altered work will be paid for as provided elsewhere in the Contract.
- O. The term "significant change" shall be construed to apply only to the following circumstances:
- a. When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction or;
  - b. When a major item of work, as defined elsewhere in the Contract is increased in excess of 125 percent or decrease below 75 percent of the original Contract quantity. Any allowance for an increase in quantity shall apply only to the portion of the work in excess of 125 percent of original Contract item quantity, or in the case of decrease below 75 percent, to the actual amount of work performed.
  - c. The Contractor's attention is called to the **BID FORM** and/or bid which allows the County to adjust the quantities upward or downward to be based upon the available funding. This may be in excess of the percentages noted above.



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- P. COST REDUCTION INCENTIVE: The Contractor may submit to the Engineer, in writing, bids for modifying the plans, specifications or other requirements of this contract for the sole purpose of reducing the total cost of construction. The cost reduction bid shall not impair, in any manner, the essential functions or characteristics of the project, including but not limited to service life, economy of operation, and ease of maintenance, desired appearance, or design and safety standards.
- a. Cost reduction bids shall contain the following information:
    - i. A description of both the existing contract requirements for performing the work and the proposed changes.
    - ii. An itemization of the contract requirements that must be changed if the bid is adopted.
    - iii. A detailed estimate of the cost of performing the work under the existing contract and under the proposed change.
    - iv. A statement of the time within which the Engineer must make a decision thereon.
    - v. The contract items of work affected by the proposed changes, including any quantity variation attributable thereto.
  - b. The provisions of this Article shall not be construed to require the Engineer to consider any cost reduction bid which may be submitted hereunder; proposed change in basic design of a bridge or of a pavement type will not be considered as an acceptable cost reduction bid; the Owner will not be liable to the Contractor for failure to accept or act upon any cost reduction bid submitted pursuant to this section nor for any delays to the work attributable to any such bid. If a cost reduction bid is similar to a change in the plans or specifications for the project under consideration by the Owner at the time said bid is submitted, the Engineer will not accept such bid and the Owner reserves the right to make such changes without compensation to the Contractor under the provisions of this article.
  - c. The Contractor shall continue to perform the work in accordance with the requirements of the contract until an executed change order incorporating the cost reduction bid has been issued. If an executed change order has not been issued by the date upon which the Contractor's cost reduction bid specified that a decision thereon should be made, or such other date as the Contractor may subsequently have specified in writing, such cost reduction bid shall be deemed rejected.
  - d. The Engineer shall be the sole judge of the acceptability of a cost reduction bid and of the estimated net savings in construction costs from the adoption of all or any part of such bid. In determining the estimated net savings, the right is reserved to disregard the contract bid prices if, in the judgment of the Engineer, such prices do not represent a fair measure of the value of work to be performed or to be deleted.
  - e. The Owner reserves the right where deemed such action appropriate to require the Contractor to share in the Owner's cost of investigating a cost reduction bid submitted by the Contractor as a condition of considering such bid. Where such a condition is imposed, the Contractor shall indicate their acceptance thereof in writing, and such acceptance shall constitute full authority for the Owner to deduct amounts payable to the Owner from any

moneys due or that may become due to the Contractor under the contract.

- f. If the Contractor's cost reduction bid is accepted in whole or in part, such acceptance will be by a contract change order, which shall specifically state that it is executed pursuant to this Article. Such change order shall incorporate the changes in the plans and specifications which are necessary to permit the cost reduction bid or such part of it as has been accepted to be put into effect, and shall include any conditions upon which the Owner's approval thereof is based if the approval of the Owner is conditional. The change order shall also set forth the estimated net savings in the cost of performing the work attributable to the cost reduction bid effectuated by the change order and shall further provide the Contractor be paid fifty (50) percent of said estimated net savings amount.
- g. Acceptance of the cost reduction bid and performance of the work there under shall not extend the time of completion of the contract unless specifically provided for in the contract change order authorizing the use of the cost reduction bid.
- h. The amount specified to be paid to the Contractor in the change order which effectuates a cost reduction bid shall constitute full compensation to the Contractor for the cost reduction bid and the performance of the work thereof pursuant to the said change orders.
- i. The Owner expressly reserves the right to adopt a cost reduction bid for general use on contracts administered by the Owner when it determines that said bid is suitable for application to other contracts. When an accepted cost reduction bid is adopted for general use, only the Contractor who first submitted such bid will be eligible for compensation pursuant to this section, and, in that case, only as to those contracts awarded to them prior to submission of the accepted cost reduction bid. Cost reduction bids identical or similar to previously submitted bids will be eligible for consideration and compensation under the provisions of this article if the identical or similar previously submitted bids were not adopted for general application to other contracts administered by the Owner. Subject to the provisions contained herein, the Owner shall have the right to use all or any part of any submitted cost reduction bid without obligation or compensation of any kind to the Contractor.
- j. This article of the specifications shall apply only to contracts awarded to the lowest bidder pursuant to competitive bidding

**SC-35 EXTRA WORK (GC-35)**

General Conditions GC-35 is modified as follows for numbers 2, 3 and 4 of GC-35 as follows:

- A. An amount equal to 20% percent will be added to the bond, insurance and taxes and not the 6% noted in the General Condition.
- B. An amount equal to 20% percent will be added to the materials and not the 15% noted in the General Condition.
- C. An amount equal to 20% percent will be added to all rental costs and not the 15% noted in the General Condition.

**SC-37 ASSIGNMENT AND SUBLETTING OF CONTRACT (GC-37)**

Add to GC-37 the following requirement.

- A. "No Second-Tier subcontracting will be permitted. It shall be the responsibility of the Contractor to ensure that his/her subcontractors do not in turn subcontract any portion of the work."
- B. **The 50% of the contract work, noted in the General Conditions, shall not be reduced for this project.**
- C. Assigning, transferring or subletting, even though consented to, shall not relieve the Contractor of his liabilities under their contract. The Contractor shall give their personal attention to any and all portions of the contract which has been sublet and shall be responsible for its proper construction.
- D. The prime Contractor, as a condition of this contract, is responsible for assuring submission of proof or documentation regarding Affirmative Action compliance by his subcontractors and for the subsequent Affirmative Action performance by such subcontractors.

**SC-39 SUSPENSION OF WORK ON NOTICE (GC-39)**

General Conditions GC-39 is modified by adding the following:

- A. If the performance of all or any portion of the work is suspended or delayed by the Engineer in writing for an unreasonable length of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to Engineer, in writing, a request for adjustment within seven (7) calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.
- B. Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the engineer will make an adjustment (excluding profit) and notify the contractor of his/her determination whether or not an adjustment of the contract is warranted.
- C. No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed.
- D. No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term or condition of this contract. No contract adjustment will be made for utility delays.

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**SC-41 LAWS AND ORDINANCES (GC-41)**

The following is added to GC-41:

No burning will be allowed.

**SC-43 CHARACTER OF PERSONNEL (GC-43)**

Add the following to GC-43:

Personnel who may have occasion to speak with the general public (i.e. flaggers, plumber, electrician) must be able to communicate in clear English.

**SC-45 UNFAVORABLE CONSTRUCTION CONDITIONS (GC-45)**

Modify GC-45, Unfavorable construction conditions, by adding the following:

Contractor shall take precautions by watering or other means to ensure that excessive dust or lime does not become airborne during construction.

**SC-46 BEGINNING, PROGRESS, AND TIME OF COMPLETION OF WORK (GC-46)**

Modify GC-46 by adding the following:

- A. The time for completion of the work is an essential part of the Contract. It shall begin on the date stated in the Notice to Proceed, and shall be the number of working days as stated in the Bid and in accordance with MoDOT Standard Specification Section 108, except as follows: "No working days will be counted from December 15 to March 15, both days inclusive unless work may proceed on a continuous basis beyond December 15 or may start or restart on a continuous basis before March 15. Working days will not be counted within this time frame after continuous work stops or before continuous work begins. Saturdays, Sundays, national holidays and holidays established by the laws of the state will not be counted as working days any time during the year."
- B. Contractor's attention is directed to conditions of GC-44 and GC-46. Holidays: Saturdays, Sundays, and holidays established by the laws of the County will not be counted as working days.

**2022 List of Jackson County, Missouri Holidays**

New Year's Day	Saturday, January 1 <sup>st</sup> (Observed Friday, December 31 <sup>st</sup> )
Martin Luther King, Jr Day	Monday, January 17 <sup>th</sup>
Presidents' Day	Monday, February 21 <sup>st</sup>
Truman's Birthday	Sunday, May 8 <sup>th</sup> (Observed Monday, May 9 <sup>th</sup> )
Memorial Day	Monday, May 30 <sup>th</sup>

Juneteenth	Sunday, June 19 <sup>th</sup> (Observed Friday, June 17 <sup>th</sup> )
Independence Day	Monday, July 4 <sup>th</sup>
Labor Day	Monday, September 5 <sup>th</sup>
Veterans' Day	Friday, November 11 <sup>th</sup>
Thanksgiving Day	Thursday, November 24 <sup>th</sup>
Thanksgiving Friday	Friday, November 25 <sup>th</sup>
Christmas Day	Sunday, December 25 <sup>th</sup> (Observed Monday, December 26 <sup>th</sup> )

- C. In the event that a holiday falls on a Saturday, the preceding Friday shall be observed as a holiday. If a holiday falls on a Sunday, the following Monday shall be observed as a holiday.
- D. The Contractor will need to coordinate with the County, and/or their designated representative on the after-work week hours and weekend schedules. The standard work week hours that the Contractor can work are from 7:30 A.M. to 6:00 P.M.
- E. Weekend work schedule(s) shall be coordinated and approved with the County prior to any construction. The Contractor shall take, at no additional cost to the Owner, whatever means are necessary including, but not necessarily limited to, working nights and weekends and double shifts, and providing temporary weather enclosures and temporary heat/ventilation during inclement weather to assure substantial completion of all work during the Contract Time.
- F. The Contractor shall take, at no additional cost to the County, whatever means are necessary including, but not necessarily limited to, working nights and weekends and double shifts, and providing temporary weather enclosures and temporary heat/ventilation during inclement weather to assure substantial completion of all work during the Contract Time.
- G. Prior to starting work, a PRE-CONSTRUCTION CONFERENCE will be held to discuss the project, its scheduling, and its coordination with the work of others. It is expected that this conference will be attended by representatives of the County, the Engineer, the Contractor and their subcontractors, and the Utilities, as well as representatives of any other affected agencies which the Owner may wish to invite.
- H. Substantial Completion shall be the stage in the progress of the Work where the Work is sufficiently complete in accordance with the Contract Documents so that the County can occupy or utilize the Work for its intended user.

**SC-48 EXTENSION OF TIME (GC-48)**

Add to GC-48 by adding the following:

- A. The County has shown on the Plans, from the information available, existing aboveground and underground installations and structures which may be affected by the work but there is no guarantee that all such facilities are shown. The location, depth and size of each facility shown on the Plans are approximate only and are not guaranteed correct. If utilities are damaged

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through carelessness or neglectful action by the Contractor, they will be repaired by the Contractor or authorities having control of the same, but the cost of such repairs shall be paid by the Contractor.

- B. Delays due to utility conflicts will not be cause for extension of time or adjustments in contract amount.
- C. The Contractor shall contact each utility agency or other owner of public or private property in advance of any operations which may affect any of the agencies' or property owners' facilities and shall enlist their assistance in the location of their existing or relocated utilities.
- D. The Contractor shall make every effort to locate all existing facilities, which may be affected by the work, including prospecting or excavating beneath the surface. No payment will be made to the Contractor in connection with location of existing facilities.
- E. All fire hydrants and water control valves shall be kept free from obstructions and available for use at all times, except as herein allowed.
- F. In the event of interruption to utility services as a result of accidental breakage or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority and shall cooperate with the said authority in the restoration of service. If utility service is interrupted, continuous cooperation will be required until the service is restored.
- G. **If the Work is delayed by reason of fire, casualty, inclement weather, changes ordered in the Work, labor disputes, epidemic, pandemic, government orders or embargoes, material or equipment delays, shortages or unavailability, supply chain disruptions or delays or any other cause beyond Contractor's and Owner's agreed upon reasonable control, Owner shall grant an extension of time for completion of the Work commensurate with the period of such delay.**

**SC-49 LIQUIDATED DAMAGES (GC-49)**

In accordance with GC-49, Liquidated Damages (also referred to as "Schedule of Deductions"), the Contractor will be assessed liquidated damages for each calendar day of delay in completion of work. See the following schedule:

<u>Contract Amount</u>		<u>Calendar Day</u> <u>Assessment</u>
\$ 0	\$ 25,000	\$ 475
\$ 25,001	\$ 50,000	\$ 475
\$ 50,001	\$ 100,000	\$ 500
\$ 100,001	\$ 500,000	\$ 700
\$ 500,001	\$ 1,000,000	\$ 950
\$ 1,000,001	\$ 2,000,000	\$ 1,100

\$ 2,000,001	\$ 3,000,000	\$ 1,225
\$ 3,000,001	\$ 4,000,000	\$ 1,625
\$ 4,000,001	\$ 5,000,000	\$ 2,025
\$ 5,000,001	\$ 6,000,000	\$ 2,425
\$ 6,000,001	\$ 7,000,000	\$ 2,825
\$ 7,000,001	\$ 8,000,000	\$ 3,225
\$ 8,000,001	\$ 9,000,000	\$ 3,625
\$ 9,000,001	\$ 10,000,000	\$ 4,025
\$ 10,000,001	\$ 70,000,000	\$ 4,300

**SC-50 TEST OF MATERIALS OFFERED BY CONTRACTOR (GC-50)**

Modify GC-50, Tests of Materials offered by Contractor, by adding the following:

- A. Submission of all Compliance Submittals shall be scheduled to permit review, fabrication, and delivery in time to cause no delay in the Work of Contractor or their subcontractors or any other contractors as described herein. Contractor shall allow fifteen (15) days in County's office for reviewing original submittals and fifteen (15) days in County's office for reviewing re-submittals.
- B. Compliance submittals of materials furnished by subcontractors, manufacturers, and suppliers shall be submitted by the Prime Contractor.
- C. In general, the Specifications identify required materials and equipment by naming one or more manufacturer's brand, model, catalog number and/or other identification; first-named manufacturer's product used as the basis for design; other named brands considered equivalent. Equivalent brand manufacturers named must furnish products consistent with Specifications for first-named product, as determined by County. Base Bid shall include only those brands named, except as hereinafter provided.
- D. Where materials or equipment are described but not named, Contractor shall provide required first quality items, adequate in every respect for intended use, such items subject to County's approval prior to procurement.

A. Submit certificates for the following materials:

- 1) Aggregates for Portland Cement Concrete
- 2) Portland cement
- 3) Hydrated Lime
- 4) Geogrid, **if applicable within project**
- 5) Geotextile
- 6) Hydro Seeding, Mulch, and Fertilizer
- 7) Permanent Erosion Control Blanket (C-350), **if applicable within project**
- 8) Reinforcing steel
- 9) 2 Inch Type 5-01 Asphaltic Concrete Surface (Virgin Mix)

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- 10) 8 Inch Type 5-01 Asphaltic Concrete Base (Virgin Mix)
- 11) Aggregates for MODOT Type 5 Aggregate Base (6" Thick)
- 12) Prime Coat (MC-30)
- 13) Seal Coat
- 14) Erosion Control Materials
- 15) Silt Fence
- 16) Permanent Erosion Control Fabric
- 17) Rock Ditch Check
- 18) Rock Blanket (Type 2)
- 19) 2" Red Sunset Maple Tree Calipers
- 20) Concrete for RCB and Retaining Wall
- 21) Guardrail
- 22) Guardrail End Terminal Section
- 23) Paint Striping pavement marking material
- 24) Steel Sign Posts
- 25) Reflective Sheeting for Signs
- 26) Flexible Delineators
- 27) Aggregate Backfill for RCB and Retaining Walls
- 28) Granular bedding material for RCB and Retaining Walls, if required
- 29) Portland cement concrete and admixtures

- E. Submit gradation for the following materials:
- a. Aggregates
  - b. Reinforcing for Reinforced Concrete Box and Concrete Retaining Walls
  - c. Falsework/Formwork for Concrete Structures
  - d. Concrete mixes
  - e. Asphalt mixes
- F. Submit shop drawings, submittals, specification sheet, certificates, warranties, and manufacturing installation recommendations for all products.
- G. Engineer's Selection and Approval of Materials
- a. Where approval of Engineer for material or equipment is required, secure such approval before procurement.
  - b. The esthetic values of every material and installation, such as shape, proportion, texture, finish and color, will be an important consideration to Engineer and their decisions concerning same shall be final.
- H. County's Selection and Approval of Materials: Where approval of County for material or equipment is required, secure such approval before procurement.
- I. Laboratory tests of materials and equipment, which are normally conducted by the manufacturer or material supplier, and tests shall be furnished by the Contractor and approved by the County.



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- J. All quality control testing not specified to be performed by the Contractor will be performed by an independent testing laboratory, selected by the Owner, or by the Owner's designee. All such tests performed by the independent testing laboratory shall be paid by the Owner.
- K. Assigning, transferring or subletting, even though consented to, shall not relieve the Contractor of their liabilities under this contract. The Contractor shall give their personal attention to any and all portions of the contract which have been sublet and they shall be responsible for its proper construction.
- L. Receiving and Storing Materials: Remove from premises materials showing deterioration or damage and replace with new.
  - a. On receipt of materials, check for in-transit damage in ample time to replace any damaged materials prior to installation time.
  - b. Where possible, deliver materials and equipment to project site in manufacturer's original packages, keeping labels intact until final cleaning. Where items are to be job assembled label, tag, mark or otherwise properly identify each component part until incorporated in building.
  - c. Store materials in manner to prevent deterioration, staining, soiling and intrusion of foreign materials. Provide waterproof well-ventilated enclosures for material subject to deterioration by dampness. Protect materials subject to damage by freezing and frost.
  - d. Remove from premises materials showing deterioration or damage and replace with new.
- M. Equipment Verification
  - a. Contractor shall check physical sizes of all equipment furnished under this contract or furnished by Owner and require other contractors to verify sizes of their equipment, in time to allow ample room for transporting equipment to and installing in its final location before enclosing spaces for it. Notify Engineer in writing of any required openings or ceiling heights; such notice in ample time for Engineer to direct necessary adjustments before such openings, ceilings or enclosures are placed.
  - b. Before construction proceeds to point that would prevent necessary modifications, Contractor shall check Drawings, Specifications, shop drawings and change orders and notify Engineer in writing of any mechanical/electrical services and/or connections required but not indicated, or incorrectly indicated, for equipment furnished. Failing to do so, Contractor furnishing equipment provide required services and/or connections at their own expense.
  - c. Contractor shall provide to the County pictures verifications of ALL the products delivered to the site prior to installation.
- N. Unless Owner grants permission to repair any defective work, remove defective work from project and replace with new work in accordance with contract documents. Permission to repair such work shall not constitute a waiver of Contractor's right to require complete replacement of defective work if repair operation does not restore quality and appearance

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of member or surface to Owner's satisfaction. If permission is granted, repair according to Owner's directions.

- O. The Prime Contractor shall submit compliance submittals of materials furnished by subcontractors, manufacturers, and suppliers.
- P. The Prime Contractor, as a condition of this contract, is responsible for assuring submission of proof or documentation regarding Affirmative Action compliance by their Subcontractors and for the subsequent Affirmative Action performance by such Subcontractors.
- Q. In accordance with the Code of Federal Regulation, Title 23, all steel or iron products to be permanently incorporated into the contract work shall be manufactured in the USA except for "minor usage" as described in MoDOT Standard Specifications, Section 106.9 **BUY AMERICA REQUIREMENTS.**

**SC-54 DISPOSAL OF TRASH AND DEBRIS (GC-54)**

The following is added to GC-54:

- A. The Contractor shall take the necessary precautions to keep aggregate, mud, debris from being deposited onto sidewalks, parking areas driveways, roadway and private entrances during construction operations. Should debris become deposited on such areas, the Contractor shall promptly remove it at no additional cost to the Owner. Debris shall be disposed of in accordance with all local codes.
- B. Keep covered materials, cavities and holes subject to damage by falling materials or deposits of water, snow or ice.
- C. Transport, handle, store and erect materials in a manner to keep from injury.
- D. Protect previously placed work by suitable coverings or other protection during installation of subsequent work. Clean off foreign materials accidentally deposited on finish surfaces and, where such would stain, corrode or otherwise disfigure, clean same immediately with material that will not damage finished work.
- E. Before the work will be accepted by the Owner, the Contractor shall be required to remove all aggregate and debris resulting from their operation, which also includes, cleaning the work area within this contract, cleaning streets, ditches, creek, driveways of earth, sod or other objectionable material and shall dispose of such debris off the project. This cleanup shall be limited to the project limits.
- F. **Final Cleanup shall be at no additional cost to the Owner.**

**SC-56 EQUIPMENT GUARANTY (GC-56).**

The General Conditions GC-56 is amended by adding the following:

- A. Delete Section GC-56 EQUIPMENT GUARANTY. No equipment is being supplied as a part of the contract and thus a guaranty of equipment is not required.
- B. Provide temporary ladders, scaffolding, shoring, bracing, tarps and other equipment required for progress of work and remove such at work completion at no additional cost to the County

**SC-58 PERFORMANCE AND LABOR AND MATERIALS PAYMENT, AND MAINTENANCE BOND (GC-58)**

Delete the first paragraph of GC-58 and replace it with the following:

- A. **PERFORMANCE AND LABOR AND MATERIALS BOND REQUIRED:** The Contractor is required to submit to the Purchasing Department a Performance Bond and Labor and Materials Payment Bond in the amount of 100% of the contract award within ten business days after Notification of Award. The bond must be in a form acceptable to the Director of Finance and Purchasing and executed by a Surety Company registered to do business in the State of Missouri and listed on the Federal Register. Bonds must be received by the Purchasing Department prior to the commencement of any work on this project.
- B. **MAINTENANCE BOND REQUIRED:** The Contractor is required to submit a Maintenance Bond on the work being performed for a **Two Year Maintenance Period**. The bond must be in a form acceptable to the Director of Finance and Purchasing, executed by a Surety Company authorized to do business in the State of Missouri and listed on the Federal Register. Contractor shall submit the Maintenance Bond to the Jackson County, Missouri Public Works Department (JCPW) upon the Final Acceptance by the County.
- C. The Final Acceptance Letter from JCPW Engineering staff member will be certified mailed to the Contractor. The Final Completion Date stated on the Final Acceptance Letter will be the start date of the Maintenance Bond. The Contractor is required to use this date on the Maintenance Bond.
- D. **The Maintenance Bond forms shall be signed and sealed prior to giving the County Purchasing Department the originals.**

**SC-59 ESTIMATED QUANTITIES (GC-59)**

Add the following to bottom of GC-59:

It is the intent of the contract documents that the total bid, as submitted, shall cover all work required by the contract documents. All costs in connection with the work, including furnishing of all materials, equipment, supplies and appurtenances; providing all necessary labor to fully complete the work shall be included in the unit and lump sum prices named in the bid. No item of work that is required by the contract documents for the proper and successful completion of the contract will be paid for outside of, or in addition to, the prices submitted in the bid. All such work not specifically set forth in the bid as a pay item shall be considered a **SUBSIDIARY** obligation of the Contractor and all costs in connection therewith shall be included in the prices named in the bid. On the plans, or in the specifications, certain quantities may be given which do not appear in the bid. These quantities are

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given for the convenience of the contractor only and are considered **SUBSIDIARY** for payment purposes as given above.

**SC-60 MONTHLY ESTIMATES AND PAYMENTS (GC-60)**

Modify GC-60, Monthly Estimates and Payments, by adding the following:

- a. **Owner shall retain ten percent (10%) of each partial payment until completion and acceptance of the Work covered by the Contract and final payment is due.**
- b. The method of measurement and basis of payment for each item as listed in the Bid will be as stipulated in the sections of the Technical Specifications and on the Plans and in this article.
- c. There shall be no measurement or separate payment for any item of work which is not specifically identified and listed in the Bid and all costs pertaining thereto shall be included in the contract unit prices for related items which are listed in the bid.
- d. Pay limits given in the Specifications and Plans are maximum. Where actual quantities are less than as computed by said pay limits, the Contractor will be paid only for the actual quantities.
- e. All work completed under the Contract will be measured according to United States Imperial system. The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the Contract will be those methods generally recognized as conforming to good engineering practices.
- f. All materials, which are measured or proportioned by weight, shall be weighed on platform scales furnished by the Contractor, or on public scales at the Contractor's expense. The scales shall comply with all state laws governing the use of scales and shall be tested and sealed by an authorized public official, at the expense of the Contractor, as often as the Engineer may deem it necessary to ensure their accuracy. The Contractor shall furnish the Engineer a waybill for each truckload, signed by the weigh master and truck driver.
- g. The Contractor shall maintain a running balance of weights of materials versus areas covered, furnishing this data to the County, in order that corrections for overrun or under run may be made when desired.
- h. The County will not pay for, or be responsible for, unused materials, which may have been ordered by the Contractor in accordance with the quantities listed in the bid.
- i. The Contractor shall make an approximate estimate of the value of the work done and unused materials delivered for, and stored on, the site of the work during the previous calendar month. The Contractor shall furnish to the Engineer such detailed information as requested to aid them as a guide in the review of the payment application.
- j. The Contractor shall submit payment estimates or certificates of payment to the County.

**SC-62 COMPLETION AND ACCEPTANCE OF WORK (GC-62)**

- A. "Substantial Completion" shall be the stage in the progress of the Work where the Work is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended user.

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- B. The Contractor shall be responsible for the restoration of any paved, graveled, or grassed areas disturbed by construction. Any areas so affected shall be restored to a condition as nearly as possible to that existing prior to construction. Paved and graveled areas shall be resurfaced with materials meeting the requirements of the technical specifications, and grassed areas shall be seeded and mulched. No direct measurement or payment will be made for restoration of areas disturbed by the construction which are outside of the limits designated on the Drawings.

**SC-63 FINAL ESTIMATE AND PAYMENT (GC-63)**

General Conditions GC-63 is modified by adding the following:

- A. Contractor shall notify the County when they have completed all work in accordance with the Drawings and Specifications. Contractor shall avail themselves for an on-site inspection of the project with the Owner and the County. Any items found to be incomplete or improperly constructed shall be listed, and the Contractor shall take prompt action to correct such items. Upon completion of all such work, a final inspection will be scheduled to include the Contractor's representative, the Owner's representative, and the County. Should the Contractor fail to complete the items listed (thereby causing final inspection to be repeated), the cost of engineering or any other costs incurred by the Owner, due to such repeated inspections, shall be at the expense of the Contractor and will be deducted from the final contract amount.
- B. Clean surfaces using appropriate materials and methods that will thoroughly clean but not damage materials, nor damage or adversely affect other materials in the project.
- C. **Prior to the Final Inspection, the Contractor shall provide to Jackson County Public Works the AS-BUILTS drawings and based on any and all redlines, modifications, addition or deletions, and changes to the project.**
- D. Prior to Project Closeout and Final Payment, the Contractor shall provide to Jackson County Public Works the Operation & Maintenance Manuals for ALL material products used in this project.

**SC-65 CLAIMS FOR ADJUSTMENT AND DISPUTES (GC-65)**

General Conditions GC-65 is modified by adding the following:

- A. Each Contractor must form their own opinion of the character and condition of materials to be encountered from an inspection of the site and from other such investigations as they may desire to undertake.
- B. The Contractor is solely responsible for determination of existing conditions. All claims for adjustments in contract price or quantity of removals shall be denied.

**SC-68 DIFFERING SITE CONDITIONS (GC-68)**

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The following requirement is hereby added to the contract:

- A. Prior to the beginning or during the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and the affected work is performed.
- B. Upon written notification the County will investigate the conditions and if he/she determines that the conditions of the pavement materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment will be made and the contract modified in writing accordingly. The County will notify the Contractor of their determination whether or not an adjustment of the contract is warranted.
- C. No contract adjustment, which results in a benefit to the Contractor, will be allowed unless the Contractor has provided the required written notice.

#### **SC-69 CLEAN UP**

- A. Final Cleanup of roadway right-of-way shall be in accordance with Missouri Standard Specifications for Highway Construction, Section 104 Scope of Work, Subsection 104.11 Final Clean-Up except as herein modified: Before the work will be accepted by the Owner, the Contractor shall be required to remove all aggregate and debris resulting from operations, which also includes cleaning streets, ditches creeks, and driveways of earth, sod or other objectionable material and shall dispose of such debris off the project. This cleanup shall be limited to the project limits.
- B. Contractor's clean up shall include wiping down exposed surfaces, washing bathroom floors, washing stairwells and landings, wiping down all dispensers, windows, and vacuuming or thoroughly sweeping floors.
- C. Final Cleanup shall be at no additional cost to the Owner.

#### **SC-70 SURFACE RESTORATION**

The Contractor shall be responsible for the restoration of any paved, graveled, or grassed areas disturbed by construction. Any areas so affected shall be restored to a condition as nearly as possible to that existing prior to construction. Paved and graveled areas shall be resurfaced with materials meeting the requirements of the technical specifications, and grassed areas shall be seeded and mulched. No direct measurement or payment will be made for restoration of areas disturbed by the construction which are outside of the limits designated on the Drawings. Re-establishment of any disturbed areas on public rights of way will be accomplished by the Contractor. Should the Contractor elect to use private property to stockpile materials, restoration shall be by the Contractor with no direct payment being made.

#### **SC-71 SUBSTANTIAL COMPLETION**

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"Substantial Completion" shall be the stage in the progress of the Work where the Work is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended user.

**SC-72 SAFETY TRAINING REQUIREMENTS FOR ALL ON-SITE PERSONNEL**

The Contractor to whom the contract is awarded and any subcontractor under such contractor shall require all on-site personnel to complete a ten-hour Occupational Safety and Health Administration (OSHA) construction safety program for their on-site personnel 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 OSHA program. All personnel are required to complete the program within sixty days of beginning work on such construction project. The Contractor shall provide certification of compliance with this condition following the award of the contract and before work commences on the project. Copies of the minimum OSHA 10 Cards shall be provided to Jackson County, MO. to be reviewed by the JCMO Compliance Office. The requirement is that before anyone is allowed to work on the project, their OSHA 10 minimum certification cards must have been submitted to the County. This includes subcontractors that will be working on the site. It does not include suppliers or truck drivers. Personal Protective Equipment (PPE) per OSHA requirements shall be followed for this project.

**END OF SECTION**

## **PUBLIC WORKS TECHNICAL SPECIFICATIONS**

### **TS-1 EMERGENCY PROVISIONS AND INCIDENT MANAGEMENT**

- A. 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, the Contractor shall notify the Sheriff's Office or other emergency agencies immediately as needed. The County shall also be notified when the Contractor requests emergency assistance.
- B. 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 with the project limits.
- a. Sheriff's Office: 816-541-8017
  - b. City of Blue Springs Police Department: 816-228-0151
  - c. Missouri Highway Patrol, Troop A (Lee's Summit): 816-622-0800
  - d. Central Jackson County Fire Protection District Sta. 4: 816-229-2522

This list is not 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 on the status of incident management.

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

### **TS-2 GENERAL**

- A. Contract Specifications: The detailed specifications, which follow shall govern the materials furnished and work performed in the construction of the work covered by this contract. No attempt has been made in the foregoing designated specifications to segregate work to be performed by any trade, subcontract, or bid item, under any one section of the specifications.
- B. Any segregation between trade or craft jurisdiction limits, and the establishment of subcontract limits, will be solely a matter of agreement between the Contractor and their personnel and their Subcontractors. The specifications will govern the construction of the entire work, and the provisions thereof shall govern each item and unit of work to which such provisions apply.
- C. The latest editions of the following specifications are incorporated into the Contract Documents by reference:
- The "Missouri Standard Specifications for Highway Construction", 4<sup>th</sup> Edition, April 2022 edition plus quarterly supplements as published by the Missouri Highways and Transportation Commission are hereby incorporated into the Contract Documents



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- "Standard Specifications and Design Criteria", Current Edition as published by the Kansas City Metropolitan Chapter of the American Public Works Association (APWA), Sections 2000 through 2900.
  - Federal Highway Administration, Manual on Uniform Traffic Control Devices (MUTCD), current edition.
- D. Technical Specifications for the work shall consist of the above referenced specifications with such revisions, amendments, and supplements as are contained herein. The work shall be constructed in accordance with these technical specifications and any attached plans or drawings. Any omission found in these Technical Specifications, and/or the appropriate Standard Specification, shall govern the plans where applicable sections in the Standard Specifications are found.

Missouri Standard Specifications for Highway Construction

Section 0106	Control of Material
Section 0203	Roadway and Drainage Excavation, Embankment ...
Section 0204	Embankment Monitoring
Section 0206	Excavation for Structures
Section 0210	Subgrade Compaction
Section 0304	Aggregate Base Course
Section 0407	Tack Coat
Section 0408	Prime Coat
Section 0606	Guardrail, Crashworthy End Terminals, One-Strand ...
Section 0610	Pavement Smoothness
Section 0611	Embankment Protection
Section 0616	Temporary Traffic Control
Section 0620	Pavement Marking
Section 0627	Contractor Surveying and Staking
Section 0703	Concrete Masonry Construction
Section 0706	Reinforcing Steel for Concrete Structures
Section 0710	Epoxy Coated Reinforcing Steel
Section 1001	General Requirements for Materials
Section 1005	Aggregate for Concrete
Section 1006	Aggregate for Surfacing
Section 1007	Aggregate for Subbase
Section 1010	Select Granular Backfill for Structural
Section 1011	Geotextile
Section 1019	Cement
Section 1036	Reinforcing Steel for Concrete
Section 1040	Guardrail, End Terminals, One-Strand Access Restraint...
Section 1053	Concrete Sealer
Section 1054	Concrete Admixtures
Section 1055	Concrete Curing Material
Section 1057	Material for Joints
Section 1058	Polyethylene Sheeting
Section 1066	Mortars and Grout
Section 1070	Water

Section 1073 Joint Material for Structures

APWA's Technical Specifications

Section 2100	Grading and Site Preparation
Section 2150	Erosion and Sediment Control
Section 2200	Paving
Section 2300	Incidental Construction
Section 2400	Seeding and Sodding
Section 2700	Structures

- E. Applicable Codes and Standards: Where referred to in the technical specifications or plans, portions of organizations' specifications are incorporated into the Contract. Wherever a part of any standard specification (ASTM, AASHTO, etc.) is referred to in the technical specifications or plans, the following conditions shall apply unless otherwise provided in the technical specifications or plans:

Only the specifically referred to part of the standard specification shall apply to this Contract. Whenever any provision of a standard specification conflicts with any of the Contract Documents, said Contract Documents shall govern.

- F. Construction Testing: All sampling and testing deemed necessary by the County to determine if materials or methods are in compliance with the specifications shall be performed by a testing laboratory selected by the County. The cost of all such tests showing compliance with the specifications shall be paid by the County unless otherwise noted in the technical specifications. In the event that any test indicates non-compliance with specifications, at least one (1) additional test will be paid for by the Contractor to determine acceptability of material or methods. All documentation verifying compliance shall be submitted to the County for compliance review.
- G. Construction Schedule: Before work is started, the Contractor shall prepare a detailed schedule of all construction operations that shall indicate the sequence of the work and also the time of starting and completing each part. The schedule shall be submitted to the County for their approval.
- H. Losses From Natural Causes: All loss or damage arising out of the nature of the work to be done, or from the action of the elements, or from floods or overflows, or from ground water, or from unusual obstructions or difficulties, or any other natural or existing circumstances either known or unforeseen, which may be encountered in the prosecution of the said work shall be sustained and borne by the Contractor at their own cost and expense.
- I. Unfavorable Construction Conditions: During unfavorable weather, or other unfavorable conditions for construction operations, the Contractor shall pursue only such portions of the work as will not be damaged thereby. No portions of the work, the satisfactory quality or efficiency of which will be affected by any unfavorable conditions, shall be constructed while these conditions exist, unless by special means or precautions approved by County, the Contractor shall be able to perform the work in a proper and satisfactory manner.
- J. Protection and Maintenance of Public and Private Property: All existing underground utilities

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shown in the Plans were provided by each utility company. Before starting work, the Contractor shall notify all utilities involved, and shall request them for cooperation in locating lines in advance of the work. The Contractor shall make reasonable effort to avoid breaking utility lines. The utility shall be notified immediately should a break occur in a line during construction under this Contract.

- K. Any lines that are broken by the Contractor shall be repaired according to the utility company's standards at the expense of the Contractor. Wherever the work is along existing pavement which is to be retained, traction equipment with lugs will not be permitted. The Contractor shall use utmost care not to damage or destroy any existing pavement. Any pavement damaged or destroyed due to the operations of the Contractor, which is not within the construction limits shall be replaced in accordance with these specifications.
- L. The Contractor shall be held responsible for all damage to buildings, roads, highways, shoulders, ditches, bridges, and other property, caused by them or their subcontractors in transporting materials to or from the site of work, regardless of location of such damage, and shall pay for or place such damaged property to the satisfaction of the owner of such property.
- M. Clearing and Cleaning Up: The Contractor shall do all necessary clearing and demolition work prior to excavation for the proposed construction. The Contractor shall not allow the site of the work to become littered with trash and waste material but shall maintain same in a neat and orderly condition during the process of the work to completion. The Contractor shall clean up all dirt from paved surfaces, not allow same to pack on the roadway or create a traffic nuisance.

**TS-3 UTILITIES**

- A. Description: For informational purposes only, the following is a list of names, addresses, and telephone numbers of the known utility companies in the area for the construction work for this project.

<u>Utility Name</u>	<u>Known Required Adjustment</u>
Evergy 1105 E 40 Highway Blue Springs, MO 64014 Janet Waddell (816) 729-5128 Michelle Arps (816) 769-4765	No Adjustment
AT&T 2121 E. 63 <sup>rd</sup> Street Kansas City, MO 64130 JCPW Ron Gipfert (816) 772-0318	Moving overhead aerial line on south side to be further away from edge of pavement. Work to be completed by AT&T prior to start of RCB construction project.
PWSD No. 17 PO Box 256 Grain Valley, MO 64082 Jason Herman (816) 229-3838	PWSD is installing a new water main north of the new culvert and retaining walls. Work to be done by PWSD No. 17 during JCPW RCB construction project.

- B. The existence and approximate location of the 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 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 list above indicating existence, location, and status of any facility. Such verification includes direct contact with the listed utilities.

- C. 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 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 provided Contractor notifies the County in writing of the delay at the time it occurs. 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.
- D. 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 subcontractors operation.
- E. The Contractor shall coordinate their operations with the work of utility owners making necessary adjustments, removals, or construction of new fixtures, and shall permit free access to the site for such work.
- F. It is understood and agreed that the Contractor has considered in their bid all of the permanent and temporary utility appurtenances in their present or relocated positions whether or not shown on the Plans and that no additional compensation will be allowed for any delays, inconvenience, or damage sustained by them due to any interference from the said utility appurtenances or the operation of moving them.
- G. The general location of railroad facilities, of principal water mains, sewer pipes, telephone conduits, gas mains, pipe lines, pole lines, and other public and private utility facilities which will affect construction operations are indicated on the Plans based on One-Call utility locates. Some of these utilities may remain in place; others may be removed entirely or in part by the facility owners for relocation elsewhere.
- H. When the failure of the facility owners to cooperate and coordinate their work with that of the Contractor results in actual delay to the Contractor in the over-all completion of their work, such delay will be considered in the count of construction days or date specified for completion, provided the Contractor notifies the County's Representative in writing of the delay at the time it occurs.
- I. Should there be located within the right-of-way any public or private utility facilities which are to remain in place and which will interfere with the Contractor's proposed operation, the Contractor shall make all necessary arrangements with the facility owners for any temporary or permanent removal or relocation of such facilities desired for their convenience. Any cost

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involved shall be borne by the Contractor.

- J. The Contractor shall use every precaution necessary to prevent damage to all public and private utility wires, lines, pipes, poles, cables, and conduits within the right-of-way. The Contractor shall be responsible for all damage to any utility facility due directly to their operations regardless of location and they shall repair and replace as necessary any such damaged facility or make payment to the facility owner for repair or replacement. See cover sheet of Plans for list of utility companies and contact information.
- K. No direct pay will be made to the Contractor to recover the cost of coordination with the utility companies. All costs pertaining to this item shall be included in the contract prices of other items.
- L. Care should be taken when removing trees that intertwine with the overhead lines. DO NOT DAMAGE.

#### **TS-4 PROTECTION OF PROPERTY**

- A. The Contractor shall protect existing public and private property from damage by construction operations.
  - a. Confine all work, equipment, and personnel within the limits of the project right-of-way and easements shown on the Plans.
  - b. Take all precautions required to preserve and protect all existing trees, shrubs, and other improvements located within the project right-of-way and easements, except those items designated to be removed.
  - c. Where fences are to be breached on private property, the property owners shall be contacted and arrangements made to ensure proper protection of any property and livestock exposed to the open condition.
  - d. Before acceptance of the Work by County, Contractor shall replace or repair all existing improvements damaged by their operations. This shall include, but not be limited to; damage to existing pavement beyond the immediate project limits, side roads, curbs, and entrances.
  - e. All property pins removed or displaced shall be reset to its original location by a licensed Surveyor registered in the State of Missouri.
- B. No separate payment will be made for the protection of property. All costs pertaining to this item shall be included in the contract prices of other items

#### **TS-5 JOB SITE ADMINISTRATION**

- A. The Contractor shall give the Work the constant attention necessary to facilitate the progress thereof, and shall cooperate with the County and other contractors in every way possible.
- B. The Contractor shall have on the work site at all times, as it's agent, a competent superintendent capable of reading and thoroughly understanding the plans and Specifications and thoroughly experienced in the type of work being performed, who shall receive instructions from the County. The superintendent shall have full authority to execute orders or directions of the County without delay, and to promptly supply such materials, equipment, tools, labor, and incidentals as may be required. Such superintendence shall be furnished regardless of the

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quantity of work sublet.

- C. The Superintendent shall not be removed or replaced without prior written consent of the Owner.
- D. No separate payment will be made for job site administration. All costs pertaining thereto shall be included in the contract prices for other items.

**TS-6 PRECONSTRUCTION MEETING**

- A. Prior to starting work, a preconstruction conference will be held to discuss the project, its scheduling and its coordination with the work of others. It is expected that this conference will be attended by representatives of the County, the Contractor, and subcontractors, utility representatives, as well as representatives of any other affected agencies that the County may wish to invite. The Contractor shall bring to the conference a tentative schedule of construction progress, materials lead time for delivery to job sites from suppliers or manufacturers, shop drawing submittals and other required submittals and certifications. Discussion items of significance that could affect project progress may include the following:
  - a. Tentative construction schedule.
  - b. Lead times of materials from suppliers and/or manufacturers
  - c. Critical work sequencing.
  - d. Coordination with the County.
  - e. Designation of responsible personnel.
  - f. Procedures for processing field decisions and change orders.
  - g. Procedures for processing Applications for Payment.
  - h. Distribution of contract documents.
  - i. Submittal of shop drawings and product data.
  - j. Preparation of record documents.
  - k. Use of the premises.
  - l. Working hours.
- B. The County will schedule a Preconstruction Conference at location to be determined, no later than 20 days after the effective date of the Agreement and prior to commencement of construction activities. The County will conduct the meeting to review responsibilities and personnel assignments.
- C. Attendees will include representative from the County, the Contractor, subcontractors, manufacturers, suppliers, utility companies, and other concerned parties shall be represented at the conference by persons familiar with and authorized to conclude matters relating to the Work.
- D. The agenda will review items of significance that could affect progress, including topics such as

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the following:

- a. Introduction of attendees.
  - b. Distribution of Contract Documents.
  - c. Designation of responsible personnel.
  - d. Tentative construction schedule, including critical work sequencing.
  - e. Critical work sequencing.
  - f. Designation of responsible personnel.
  - g. Coordination with County.
  - h. Submittal of certified payrolls, wage interviews, and compliance with minority participation.
  - i. Procedures for processing field decisions and change orders.
  - j. Submittal of shop drawings and product data.
  - k. Procedures for processing Applications for Payment.
  - l. Distribution of contract documents.
  - m. Preparation of record documents by the Contractor.
  - n. Use of the premises (right-of-way and easements) and easements).
  - o. Working hours and holidays.
- E. No separate payment will be made for the preparation, attendance of the preconstruction meeting, or maintenance of the construction schedule. All costs pertaining to this item shall be included in the contract prices of other items.

#### **TS-7 BUY AMERICA REQUIREMENT**

- A. On all County, state, and federal-aid projects, the Contractor's attention is directed to Title 23 CFR 635.410 Buy America Requirements. Where steel or iron products are to be permanently incorporated into the contract work, steel and iron material shall be manufactured in the USA except for "minor usage" as described herein. Furthermore, any coating process of the steel or iron shall be performed in the USA. The use of pig iron and processed, pelletized and reduced iron ore manufactured outside of the USA will be permitted in the domestic manufacturing process for steel or iron material.
- B. Any sources other than the USA as defined will be considered foreign. The required domestic manufacturing process shall include formation of ingots and any subsequent process. Coatings shall include any surface finish that protects or adds value to the product.
- C. "Minor usage" of foreign steel, iron or coating processes will be permitted, provided the cost of such products does not exceed 1/10 of one percent of the total contract cost or \$2,500.00, whichever is greater. If foreign steel, iron or coating processes are used, invoices to document the cost of the foreign portion, as delivered to the project, shall be provided and the engineer's written approval obtained prior to placing the material in any work.
- D. Buy America requirements include a step certification for all fabrication processes of all steel or iron materials that are accepted per MoDOT Specification Section 1000.
- E. Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and

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certifications documenting the manufacturing process for all subsequent fabrication, including coatings. The certification shall include language that certifies the following. That all steel and iron materials permanently incorporated in this project was procured and processed domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.

- F. Items designated as Category 2 will include all other steel or iron products not in Category 1 and permanently incorporated in the project. Category 2 items shall consist of, but not be limited to items such as fencing, guardrail, signing, lighting and signal supports. The prime contractor is required to submit a material of origin form certification prior to incorporation into the project from the fabricator for each item that the product is domestic. The Certificate of Materials Origin form ([https://epg.modot.org/forms/CM/CERTIFICATE\\_OF\\_MATERIALS\\_ORIGIN.pdf](https://epg.modot.org/forms/CM/CERTIFICATE_OF_MATERIALS_ORIGIN.pdf)) from the fabricator must show all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements and be signed by a fabricator representative. The Engineer reserves the right to request additional information and documentation to verify that all Buy America requirements have been satisfied. These documents shall be submitted upon request by the Engineer and retained for a period of 3 years after the last reimbursement of the material.
- G. Any minor miscellaneous steel or iron items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. Examples of these items would be bolts for sign posts, anchorage inserts, etc. The certification shall read "I certify that all steel and iron materials permanently incorporated in this project during all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements procured and processed domestically in accordance with CFR Title 23 Section 635.410 Buy America Requirements. Any foreign steel used was submitted and accepted under minor usage". The certification shall be signed by an authorized representative of the prime contractor.
- H. When permitted in the contract, alternate bids may be submitted for foreign steel and iron products. The award of the contract when alternate bids are permitted will be based on the lowest total bid of the contract based on furnishing domestic steel or iron products or 125 percent of the lowest total bid based on furnishing foreign steel or iron products. If foreign steel or iron products are awarded the contract, domestic steel or iron products may be used; however, payment will be at the contract unit price for foreign steel or iron products.

#### **TS-8 SUBMITTALS**

- A. General: The Contractor is required to provide documentation for the performance of the Work. These submittals are divided into administrative and procedural categories. They



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include, but are limited to the following:

- a. Administrative Submittals
  1. Permits
  2. Applications for payment
  3. Performance and maintenance bonds
  4. Insurance certificates
  5. List of approved subcontractors
  6. M/W/VBE compliance
  7. OSHA 10 Cards
  8. Certified payrolls (Contractor and subcontractors)
- b. Procedural Submittals
  1. Contractor's project schedule
  2. Shop drawings
  3. Product data certifications

**B. Submittal Procedures:**

- a. Coordinate preparation and processing of submittals with performance or construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

Coordinate each submittal with fabrication, purchasing, testing of submittals for related activities that require sequential activity.

Coordinate transmittal of difference types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.

The County reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

- b. Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.
  1. Allow two (2) weeks for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The County will promptly advise the Contractor when a submittal being processed must be delayed for coordination.
  2. If an intermediate submittal is necessary, process the same as the initial submittal.
  3. Allow two (2) weeks for reprocessing each submittal.
  4. No extension of Contract Time will be authorized because of failure to transmit submittals to the County sufficiently in advance of the Work to permit processing.
- c. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. The transmittal form should have the following information. Submittals received from sources other than the Contractor will be returned without action.

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1. Project name
2. Project number
3. Date
4. Name and address of contractor
5. Name and address of subcontractor (if needed)
6. Name and address of supplier/manufacturer
7. Number and title of appropriate specification section
8. Drawing number and detail reference

C. Shop Drawings: Submit newly prepared information drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered a Shop Drawing. The Contractor shall not use any Shop Drawing without an appropriate final stamp indicating action taken in connection with construction.

a. Shop Drawings include fabrication and installation drawings, layout drawings for reinforcing steel, falsework/forms, schedules, patterns, templates, and similar drawings. Include the following information:

1. Dimensions
2. Identification of products and materials included
3. Compliance with specified standards
4. Notation of coordination requirements
5. Notation of dimensions established by field measurement

b. Sheet Size: except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 22" x 34".

c. Quantity Requirements: Except as otherwise specified, transmit six (6) copies all manufacturer's or fabricator's Shop Drawings to the County. Three (3) copies will be returned to Contractor.

d. Construction Record Drawings: The Contractor shall supply one full size (34" x 22") and one half size (17" x 11") AS-Built Construction Plans that includes AS-Built Surveyed drawings and electronic PDF (Portable Document Format) and AutoCadd drawings, current version, to the County. The AS-Built Construction Plans shall be provide to the County upon the completion of the construction project.

D. Product Data: Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."

a. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:

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1. Manufacturer's printed recommendations
  2. Compliance with recognized testing agency standards
  3. Application of testing agency labels and seals
  4. Notation of dimensions verified by field measurement
  5. Notation of coordination requirements
- b. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
- c. Quantity Requirements: Except as otherwise specified, transmit six (6) copies all submittals of product data to the County. Three (3) copies will be returned to Contractor.
- d. Distribution: Furnish copies of final submittal to installers, Subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
1. Do not proceed with installation until an approved copy of the applicable Product Data is in the installer's possession.
  2. Do not permit use of unmarked copies of Product Data in connection with construction.
- E. County's Action: Except for submittals for record, information, or similar purposes where action and return is required or requested, the County will review each submittal, mark to indicate action taken, and return promptly. Compliance with specified characteristics is the Contractor's responsibility.
- a. Action Stamp: The County will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:
1. Approved: Where submittals are marked "Approved", that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.
  2. Approved As Noted: When submittals are marked "Approved as Noted", that part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
  3. Revise and Resubmit: When submittals are marked "Revise and Resubmit", do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat, if necessary, to obtain a different action mark. Do not permit submittals marked "Revise and Resubmit" to be used at the Project site, or elsewhere where Work is in progress.
  4. Rejected: When submittals are marked "Rejected", do not proceed with that part of the Work covered by the submittal. The information provided does not comply with the parameters noted in the Plans. The submittal shall be revised to meet the design requirements and resubmitted to the County for review.
  5. Not Subject To Review: When submittals are marked "Not Subject To Review", the information provided is accepted as additional data for the files. No further action is required.
- b. Regardless of how the submittal is stamped, the review and approval neither extends

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nor alters any contractual obligations of the County of the Contractor.

- F. Contractor may submit electronic submittals as an option, if approved by the County. County can request hard copies of any and all submittals throughout the project.**
- G. All necessary and applicable permits shall be secured for any work contemplated on public properties before commencing any activity. In all instances the applicant agrees to perform all work in accordance with the permit and to indemnify and hold harmless the County from all liability, judgments, costs, expenses and claims growing out of damages or alleged damages, of any nature to any person to property arising out of performance or non-performance of said work or the existence of facilities and/or appurtenances thereof.
- H. No separate payment will be made for any of the submittals associated with the completion of the Work. All costs pertaining to these items shall be included in the other contract prices.
- I. After execution of contract, substitution of product brands for those named in Specifications will be considered only if (1) request is received within thirty days after contract date and request includes statement showing credit due Owner, if any, if substitution product is used, or (2) Owner requests consideration be given to substitute brands.
- J. Materials and equipment proposed for substitution shall be equal or superior to that specified in construction efficiency, utility, esthetic design, and color, as determined by Architect whose decision shall be final without further recourse. Physical size of substitute brand shall not be larger than the space provided for it. Physical size and arrangement of components shall be such that there will be provided the clearances, reach range dimensions, approach space, and maneuvering space required by the Americans with Disabilities Act Accessibility Guidelines. Requests must be accompanied by full description and technical data, in three copies, including manufacturer's name, model, catalog number, photographs or cuts, physical dimensions, capacity, load rating, operating characteristics, and other information necessary for comparison.
- K. In proposing a substitution prior to or subsequent to receipt of bids, Contractor shall include in such proposal the cost of altering other elements of the project, including adjustments in mechanical-electrical service requirements, as necessary to accommodate such substitution; whether such affected elements be under this contract or under separate contracts.
- L. In preparing bid, Contractor shall check their sources of supply verifying catalog numbers and availability of materials and equipment specified. If later, any materials or equipment are discovered to be discontinued, unavailable or their catalog numbers have been changed, are incorrect or ambiguous, Contractor shall consult Owner and, without an increase in contract sum, provide equivalent materials or equipment as selected by Owner.
- M. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
- a. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance

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with these requirements:

- i. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
  - ii. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
  - iii. Evidence that proposed product provides specified warranty.
  - iv. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
  - v. Samples, if requested.
- N. In preparing bid, if the Contractor encounters any redundancy or needs clarifications of products within the Specifications, then the contractor shall notify the Owner and/or Architect.
- O. Unless a delay is caused in whole, or in part, by acts or omissions within the control of the Owner or persons acting on behalf thereof (other than the Contractor or persons acting on behalf of the Contractor), the only remedy available to the Contractor for a delay shall be an extension of time. Unless a delay is caused in whole, or in part, by acts or omissions within the control of the Owner or persons acting on behalf thereof (other than the Contractor or persons acting on behalf of the Contractor), the Contractor agrees that whether or not any delay shall be the basis for an extension of time, the Contractor shall have no claim against the Owner or Architect/Engineer for:
- a. An increase in the Contract Sum;
  - b. A payment or allowance of any kind for damage, loss or expense, resulting from delays;  
or
  - c. Any damage, loss or expenses, resulting from interruptions, accelerations, inefficiencies or suspensions of its work.
- Nothing herein shall be construed as granting an extension of time for delays caused, in whole or in part, by the Contractor or persons acting on behalf thereof.

#### **TS-9 QUALITY REQUIREMENTS**

- A. General: The Contractor will be fully responsible for complying with the Technical Specifications, Plans and other Contract Documents and shall obtain such certificates of compliance and have such tests made as will assure full compliance. Copies of such certificates and test reports shall be furnished to the County, prior to payment of pay items.
- a. Related Sections:
    1. General Conditions: responsibilities of inspection, correction, removal and acceptance
    2. Supplemental Conditions: responsibilities of testing
    3. Technical Specifications: submittal procedures
  - b. References:
    1. American Society for Testing and Materials (ASTM): technical standards for the

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- various materials used on the project, including testing procedures
2. Federal Highway Administration (FHWA): specifications and details for traffic control and safety
  3. American Association of State Highway and Transportation Officials (AASHTO): guidelines, specifications, and details for roadway safety
  4. Missouri Department of Transportation (MoDOT): standard details, specifications, guidelines, and procedures for roadway and structures
  5. Kansas City Chapter of American Public Works Association (KCAPWA): standard details, specifications, guidelines, and procedures for roadway and structures
- c. Testing Agency: Prior to start of the Work, the County will identify the testing agency that will be used on the project from their Term & Supply Contract.
- d. Test Reports: After each test inspection two (2) copies of the report to the County to share with the Contractor. The report shall include:
1. Date issued
  2. Project title and number
  3. Name of inspector
  4. Date and time of sampling or inspection
  5. Identification of product and specifications section
  6. Location in the Project
  7. Type of test/inspection
  8. Date of test/inspection
  9. Results of test/inspection
  10. Conformance with Contract Documents
- e. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor to the County, in quantities specified for Product Data.
- f. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the County's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- g. Manufacturer's Field Reports: Submit reports for the County's benefit as contract administrator. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
- B. Control of Installation:
- a. The Contractor shall notify the County a minimum of 48 hours prior to expected time for operations requiring inspection and laboratory testing services. Such testing, or failure to test, on the part of the County shall in no way relieve the Contractor of complete responsibility for furnishing materials and constructing the Project in accordance with all of the Contract Documents. Testing services arranged and paid by the County.
  - b. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
  - c. Comply with manufacturers' instructions, including each step in sequence. If manufacturer's instructions conflict with Contract Documents, request clarification from

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the County before proceeding.

- d. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- e. Have Work performed by persons qualified to produce required and specified quality.
- f. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer. Once installed, secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

C. Certificates of Compliance:

- a. The Contractor, prior to payment for the pay items, shall submit, in triplicate, certificate of compliance from manufacturers, producers, fabricators and suppliers of items to be incorporated in the work attesting that all items and materials supplied in connection with the work conform to the requirements of the Specifications, as provided in the various sections of these Contract Documents.
  - b. Whenever the items so certified deviate from the requirements of the Technical Specifications, Plans and other Contract Documents, then the Contractor shall point out such deviation in the letter of transmittal. Unless this procedure is followed and such deviations are specifically approved by the County in writing, then the County's approval of such certifications will not constitute approval of the deviations.
  - c. Said certificates may be accepted by the County as adequate evidence of compliance with the Contract Documents. However, at its option, the County may test any or all of said items for compliance. If found to be in compliance with the Contract Documents, the cost of testing will be borne by the County. If found to be not in compliance, the Contractor shall pay for such testing.
- D. Payment for testing shall be paid by the County in conformance with the Special Conditions. Retesting required because of non-conformance to specified requirements shall be performed by the same testing firm on instructions by the County. The Contractor shall bear all costs from such retesting at no additional cost to the County.

**TS-10 TEMPORARY FACILITIES AND CONTROLS**

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, testing agencies, and authorities having jurisdiction.
- B. Water: Any water required to prepare concrete, mortar, for the project, or other construction products shall be from a potable source. Water from a stream, pond, etc. is unacceptable.

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- C. **Electrical Power Service from Existing System:** All power for lighting, operations of the Contractor's equipment, or for any other use which may be required for proper completion of the Work shall be provided by the Contractor. Provide connections and extensions of services as required for construction operations. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- D. **Sanitary Facilities:** Contractor shall furnish temporary sanitary facilities at the site, as provided herein, for the needs of all construction workers and others performing work or furnishing services on the Project.

Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 persons. Contractor shall enforce the use of such sanitary facilities by all personnel at the site.

- E. **Site Plan:** Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- F. **Fire-Safety Program:** Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire prevention program.
- G. **Tests and Inspections:** Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- H. **Temporary Use of Permanent Facilities:** Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.
- I. **Fire Extinguishers:** Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- J. **Fences:** All existing fences affected by the Work shall be maintained by Contractor until completion of the Work. Where fences must be maintained across the construction easement, adequate gates shall be installed. Gates shall be kept closed and locked at all times when not in use.

On completion of the Work across any tract of land, Contractor shall restore all fences to their original or to better condition and to their original location.

- K. **Traffic Controls:** Comply with requirements of authorities having jurisdiction. Protect existing site improvements including curbs, pavement, and utilities. Maintain access for fire-fighting equipment and access to fire hydrants.
- L. **Parking:** Contractor shall provide and maintain suitable parking areas for the use of all construction workers and others performing work or furnishing services in connection with the



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Project, as required to avoid any need for parking personal vehicles where they may interfere with public traffic, County's operations, or construction activities.

- M. Noise Control: Contractor shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound levels in the area during working hours. All construction machinery and vehicles shall be equipped with practical sound-muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the Work.

Construction activities, such as excavation, demolition, installation, erection, alteration, or repairs, adjacent to residential areas shall be limited to 7:00 a.m. and 8:00 p.m. on weekdays. In the case of urgent necessity in the interest of public safety, the Contractor may request a letter of permission from the County.

- N. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
- a. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
  - b. Remove snow and ice as required to minimize accumulations.
- O. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Waste Disposal Facilities shall be removed from project site on days indicated by City and/or County for full use of site and surrounding parking.
- P. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- Q. Dust Control: Contractor shall take reasonable measures to prevent unnecessary dust. Earth surfaces subject to dusting shall be kept moist with water or by application of a chemical suppressant. When practicable, dusty materials in piles or in transit shall be covered to prevent blowing.
- R. Pollution Control: Contractor shall prevent the pollution of watercourses by sanitary wastes, sediment, debris, and other substances resulting from the construction activities. No sanitary wastes will be permitted to enter any watercourse other than sanitary sewers. No sediment, debris, or other substance will be permitted to enter sanitary sewers, and reasonable measures will be taken to prevent such materials from entering any watercourse.
- S. GUIDELINES FOR OPEN EXCAVATIONS
- a. Required excavations shall be restored to the level of the adjacent surfaces as soon as practicable. Unsupervised open excavations on public properties are not permitted. Every person who for any purpose makes or causes to be made any excavation in, upon, under, through or adjoining any street, sidewalk, alley, park, boulevard, parkway or any other public properties, and shall leave any part or portion thereof open shall provide effective protection to the public.
  - b. All excavations in roadways shall be protected and secured in compliance with existing federal, state and local codes and standards, including, but not limited to the most

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current edition of the Manual of Uniform Traffic Control Devices.

- c. All unsupervised excavations not within roadways shall be protected and secured. A protective cover over an excavation shall be installed so that it can sustain the weight of any persons and/or objects placed upon it. The cover shall be fixed to the ground so it cannot be moved. Protective covers shall have no opening(s) or protuberance(s) of sufficient size to cause a fall and/or injury. Protective coverings shall meet OSHA requirements. Advance warning devices shall be installed as necessary.
  - d. Any excavation that is not covered shall be fenced in such a way that it surrounds that entire area under excavation so as to prevent entry by any person day or night. **The protective fencing shall be a minimum of 48" in height and Orange color.** The protective fence shall be constructed in such a manner that it is adequately secured and will remain upright at all times under normal site conditions. Protective fencing shall meet OSHA requirements.
  - e. All protective coverings and/or fences on excavations shall be inspected at least daily to assure integrity. Protective coverings and/or fences in heavily trafficked areas shall be inspected more often as necessary.
  - f. The site shall be kept in a safe condition whenever the contractor is not active on the site. Public access to the site shall be restricted by the placement of "Temporary Plastic Safety Fence (Orange Plastic Mesh, 48-inches High)". Installation shall be according to manufactures specifications and locations shown on the plans. The Contractor shall place the 48" high orange plastic mesh fencing around the construction project areas that are open or will be exposed during the day and/or for the entire night.
- T. No separate payment will be made for furnishing, the installation of all materials and appurtenant work, maintenance, and removal of any Temporary Facility needed for the completion of the Work. All costs pertaining to these items of the Temporary Facilities shall be included in the other contract prices.

#### **TS-11 DEBRIS CONTROL**

- A. During construction, care shall be taken to ensure public safety in the project area. The Contractor shall maintain the project area so that it is free of debris at all times. As each major component of work is completed, excess materials and unnecessary equipment shall be removed from the project area and corresponding backfilling and clean up shall be done promptly.
- B. No separate payment will be made for the debris control. All costs pertaining to this item shall be included in the contract prices of other items.

#### **TS-12 MOBILIZATION**

- A. Description: This item shall consist of the preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site, for the establishment of construction offices and other facilities necessary for work on the project, including contract bonds and insurance, and for all other work and operations that must be performed or costs incurred prior to beginning work on the various items on the project site.

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- B. Mobilization shall conform to Section 618 of the MoDOT Standard Specifications.
- C. Basis of Payment: Payment for mobilization will be made incrementally. Payment item for Mobilization will be Lump Sum.
- a. Partial Payments. Each partial payment will be 25 percent (25%) of the contract price for mobilization. For purposes of this calculation, the original contract price will be construed as the total dollar value of all contract line items. The partial payments for mobilization will be paid incrementally as follows:
1. The first partial payment will be made when five percent (5%) of the original contract amount is earned.
  2. The second partial payment will be made when ten (10%) percent of the original contract amount is earned.
  3. The third partial payment will be made when 25 percent (25%) of the original contract amount is earned.
  4. The fourth partial payment will be made when 50 percent (50%) of the original contract amount is earned.

#### **TS-13 ACCESS AND RESTORATION**

Re-establishment of any disturbed areas within public right-of-way will be accomplished by the Contractor. Should the Contractor elect to use private property to stockpile materials, restoration shall be by the Contractor with no direct payment being made. Contractor shall obtain written permission via temporary easement from private property owners and provide a copy of this documentation to the County, if necessary.

#### **TS-14 DISPOSAL OF EXCESS MATERIAL**

Excess materials shall be legally disposed of at locations outside the right-of-way and provided by the Contractor. No direct payment will be made for this work.

#### **TS-15 FORCE ACCOUNT**

- A. Force Account shall conform to Section 105.1.1 Authority of Engineer, Section 109.4.3 Equitable Adjustment, Section 109.4.4 Application of Force Account, and Section 109.5 Force Account Computation of the Missouri Standard Specifications for Highway Construction (2022).
- B. The Contractor shall perform other unforeseen work, for which there is no condition included in the contract, whenever it is deemed necessary or desirable to complete the work as designated by the County. Such work shall be performed in accordance with the Standard Specifications and as directed by the County.
- C. Payment for the work performed under this Technical Specification shall be made in accordance with the bid unit prices where the requested work is covered by an item listed in the bid. If the work is not represented by a unit price listed in the bid, payment will be in

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accordance with the General Conditions and more specifically GC-35 "Extra Work".

#### **TS-16 ITEMS NOT LISTED IN THE BID**

There will be no measurement or separate payment for any items of work not specifically identified and listed in the Bid, and all costs pertaining thereto will be included in the contract unit prices for other items listed in the Bid.

#### **TS-17 SUBSIDIARY WORK**

All work shown in the plans or referred to in the Technical Specifications and not specifically set forth in the Itemized Bid as a pay item shall be considered a **SUBSIDIARY** obligation of the Contractor and all costs in connection therewith shall be included in the prices named in the bid.

#### **TS-18 ESTIMATED QUANTITIES**

- A. Payment for the following listed items will be based on the contract quantity shown on the plans. No final measurement of quantities will be made.
- a. Clearing and Grubbing
  - b. Earthwork
  - c. Removal of Improvements
  - d. Removal of Structure
  - e. Traffic Control
  - f. Diversion Dam
  - g. Erosion Control
  - h. Hydro Seed and Mulch
  - i. Seal Course (3" Concrete Grade Slab)
- B. In the event of authorized changes, during construction, or appreciable error found in an estimated quantity, the Contractor may request in writing that a final measurement for payment be made of that item. Additionally for the above noted reasons the Engineer may make a final measurement for payment. If a measurement and re-computation of the quantity is done it shall be accordance with these Technical Specifications and the Standard Specifications and payment made based on the unit price noted in the bid.

#### **TS-19 CLEARING AND GRUBBING**

- A. Clearing and grubbing shall conform to Section 2101, "Clearing and Grubbing", a subsection of Section 2100 "Grading and Site Preparation", and 2101, Clearing and Grubbing", of the APWA Standard Specifications except as herein modified. Measurement and Payment shall be in accordance with Section 2103, "Measurement and Payment".
- B. Add to Section 2101.3.A, "Clearing, Grubbing and Site Preparation", a subsection of "Definitions", the following:
- a. Jackson County Public Works has existing channel easements for this project.
  - b. Right-of-way and easement lines, as shown on the Plans, shall be set by the Contractor prior to beginning clearing, grubbing, and demolition operations.

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- c. The limits of clearing and grubbing for the roadway and channel construction shall be the construction limits where practical but in no case shall they extend beyond the easement and/or Right-of-Way lines. For isolated areas such as pipe runs the area shall be limited to the minimum practical area of construction. The Contractor shall establish all right of way and easement lines and will designate all trees, shrubs, and plants that are to remain. The County will review the trees that are marked for removal and approve the selection. No removals shall be made until this review has been made. See Special Conditions for more information on construction staking.
- C. Add to Section 2101.3.E., "Trees", the following:
- a. Individual trees shall not be classified or measured. All tree removals shall be **SUBSIDIARY** to the unit price bid for Clearing and Grubbing.
  - b. The drawing may not show all trees, the Contractor shall make his own determination as to the number, types and sizes of trees to be removed.
  - c. If the Contractor chips or grinds the timber debris the Contractor shall dispose of the material, legally, in approved disposal sites at no additional cost to the County.
- D. Add to Section 2101.3. "Brush" the following:
- a. Brush shall not be classified or measured. All brush removals shall be **SUBSIDIARY** to the unit price bid for Clearing and Grubbing per Acre.
  - b. Open burning will not be permitted. Controlled burning will be permitted. Contractor will need to acquire permit from Missouri Department to Natural Resources and from **Central Jackson County Fire Protection District**. The County does not issue burning permits. The applications and approvals for a burning permit on this project shall be made to **Central Jackson County Fire Protection District at (816) 229-2522**. The permit shall be posted at the project site prior to and during any burning operations.
- E. Modify Section 2103.2, "Method of Measurement", by adding the following:
- No Measurement will be made of "Clearing and Grubbing".
- F. Modify Section 2103.3, Basis of Payment, by adding the following:
- Payment for "Clearing and Grubbing" will be at the plan quantities and unit bid price per Acre. Tree removal for the project shall be **SUBSIDIARY** to the bid item, "Clearing and Grubbing".

#### **TS-20 CONSTRUCTION STAKING**

- A. Construction Staking shall be in accordance with the MoDOT Standard Specifications Section 627, "Contractor Surveying and Staking".
- B. Construction Staking shall follow the provisions of Section 627 and the Special Provisions 8 (SP-8) Position, Grade, and Alignment of this contract.

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- C. Modify Section 627.2, "Staking Requirements", by adding the following:
- a. "Upon the completion of the Construction, a Survey Staking of the New and Existing Right-of-Ways shall be staked after the Construction of this project has been finalized.
  - b. The Staking of the Right-of-Way is for the Property Owner's fencing company on relocating existing fencing or installing new fence and gates.
- D. Contractor shall survey the finish grade and set the stakes for the County's portion.
- E. All the drawings shall be signed and sealed by a registered Missouri Professional Land Survey (PLS) prior to submitting to the Owner.
- F. Construction Survey shall include all labor and equipment required to 1) layout the proposed improvements in accordance with the plans; 2) engage a Licensed Surveyor to perform Legal Property Survey and mark property corners with #4 flagged rebar. A drawing of the survey with ties, Northing and Easting coordinates based on Mo State Plane Coordinates of 1983 and Elevations, to each bar shall be sealed by a Licensed Surveyor and delivered to the Owner prior to completion of the project. An AutoCaD drawings (current edition by the Owner or comparable) of the survey shall be provided to the Owner as part of the submittals.

**G. MEASUREMENT AND PAYMENT**

- a. "Contractor Furnished Surveying and Staking" will not be paid by measurement, pay item will be Lump Sum (LS).
- b. Equipment, materials, etc. shall be **SUBSIDIARY** to the "Contractor Furnished Surveying and Staking" unit bid item.

**TS-21 REMOVAL OF IMPROVEMENTS**

- A. Removal of the existing structure shall conform to the requirements of Section 202, "Removal of Roadways and Buildings", of the MoDOT Standard Specifications except as herein modified.
- a. Removal of all other existing improvements on the project shall conform to the requirements of Section 202.30, "Removal of Improvements for Roadway Contracts", except as herein modified.
  - b. Add to Section 202.30.1, "Description", the following:
    - 1. This work shall include the removal of remnants of construction from the existing asphaltic concrete surface roadway to allow for a new roadway pavement and new structure.
  - c. Add to Section 202.30.1.1, a subsection of "Disposal of Materials", Section 202.3 "Construction Requirements", the following:
    - 1. All material removed shall become the property of the Contractor and shall be

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removed and disposed of by the Contractor.

2. The Contractor shall remove the existing fencing in the right-of-way to the limits as specified in the Plans.
  3. Contractor shall notify the Property Owner(s) in such case, **72 hours before removal**. No additional payment shall be made for this work.
  4. If the Contractor encounters an Existing standard UPS Mailbox near an Existing Driveway within the work area that is in the way of construction, then the Existing Mailbox will be temporarily removed to a location as agreed upon by the UPS and Property Owner. If the Existing Mailbox is a non-standard UPS Mailbox (custom), then the Contractor shall communicate with the County prior to any and all relocations. The removal, relocating and installation of the Existing Mailbox shall be **SUBSIDIARY** to unit price for "Removal of Improvements".
- d. Add to Section 202.30.1.2, "Description", subsection of Section 202.30 "Removal of Improvements for Roadway Contracts", the following:

The Plans may not show all items to be removed. Other removals, necessary for construction of the proposed improvements, shall be as approved or directed by the Engineer. No additional compensation will be made for such removals.

**B. Measurement**

- a. Modify Section 202.30.2, Method of Measurement, by adding the following:
  1. No Measurement will be made of Removal of Improvements.

**C. Payment**

- a. Modify Section 202.30.3, Basis of Payment, by adding the following:
  1. Payment for Removal of Improvements will be at the plan quantities and contract Lump Sum price.

**TS-22 REMOVAL OF STRUCTURE**

- A. Removal of the existing bridge, concrete wingwalls, and stacked stone wingwalls shall conform to the requirements of Section 216, "Removal for Bridge Structures," of the MoDOT Standard Specifications except as herein modified.
- B. Add to Section 216.10.1, "Description", a subsection of "Removal of Bridges", the following:
  - a. This work shall also include the removal of remnants of construction from structures that were in place prior to the construction of the existing Bridge including but not limited to existing Bridge structure, foundations, seal courses, toewalls, concrete wingwalls, stacked stone wingwalls, excavation, traffic signs/posts, unseen falsework or permanent piling, stone abutments, reinforced concrete scour supports along bottom of the stone walls, reinforced concrete top slab, reinforced concrete hub guard walls, stone

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wingwalls, miscellaneous rubble, concrete deposits, tree branch removal, and backfill to allow for installation of a new structure on suitable subgrade.

b. Amend Section 216.10.2 with the following:

1. The Plans may not show all items to be removed. Other removals, necessary for construction of the proposed improvements, shall be as approved or directed by the County. No additional compensation will be made for such removals.
2. All material removed shall become the property of the Contractor and shall be removed and disposed of by the Contractor.

C. Measurement

a. Modify Section 216.10.3, "Method of Measurement", by adding the following:

1. No Measurement will be made of Removal of Structure.

D. Payment

a. Modify Section 216.10.4, Basis of Payment, by adding the following:

1. Payment for Removal of Structure will be at the contract Lump Sum price.

**TS-23 TYPE 5 AGGREGATE FOR SUBBASE (6 IN. THICK)**

A. Compacted aggregate subbase course for roadway shall be in accordance with the MoDOT Standard Specifications Section 304, "Aggregate Base Course", Section 310 "Aggregate Surface", Section 1006 "Aggregate for Surfacing, and Section 1007 "Aggregate for Base", except as herein modified.

a. Modify Section 310.2, "Material", read as follows:

The aggregate base shall be a MoDOT Type 5 Aggregate for Base. Material shall be delivered to the site pugged.

b. The Contractor will be required to supply a field laboratory. The quarry operator shall allow the County inspector or his agent full access and use of the laboratory at the quarry.

c. Modify Section 304.3.4.2, a subsection of "Shaping and Compacting", by adding the following:

Compaction to 95% of Standard Maximum density shall be obtained.

B. Measurement

a. Modify Section 310.5, "Method of Measurement", by adding the following:



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No field measurement will be made of Type 5 Aggregate for Base (6 In. Thick). The County will pay the plan quantity as shown in the bid.

C. Payment

- a. Modify Section 304.6, "Basis of Payment", by adding the following:

Type 5 Aggregate for Base (6 In. Thick) shall be paid per Square Yard.

**TS-24 PRIME COAT**

- A. Prime Coat shall be in accordance with the APWA Standard Specifications 2204, "Prime Coat", except as modified by these Provisions.

- a. Modify section 408.2, "Material", with the following:

1. The Prime Coat shall consist of preparing, treating and covering the top of the MoDOT Type 5 Compacted Aggregate base.
2. The prime coat shall conform to Section 2204.3 Materials. Liquid asphalt may be changed one grade by the engineer during construction at no change in unit price. The Contractor shall uniformly apply the liquid asphalt on the top surface of the 6" aggregate base.

B. Measurement

- a. Modify Section 2204.5, "Method of Measurement", by adding the following:

No field measurement will be made of Prime Coat.

C. Payment

- a. Modify Section 2204.6, "Basis of Payment", by adding the following:

Prime Coat shall be **SUBSIDIARY** to the bid item for Type 5 Aggregate for Base (6 In. Thick).

**TS-25 ASPHALTIC CONCRETE MIXTURE APWA TYPE 5-01 SURFACE AND 5-01 BASE**

- A. Asphaltic Concrete Mixture APWA Type 5-01 Surface and 5-01 Base

- a. Asphaltic Concrete shall conform to the applicable requirements of APWA Section 2205 except as modified by the Plans or this Technical Provision.

1. The Material shall be in accordance with the following:

- i. The base course shall consist of a 8" thick, RC Type 5-01 mixture meeting the requirements of Standard Specification Section 2205.3, paragraph A.

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- ii. The surface course shall consist of a 2" thick, RC Type 5-01 mixture meeting the requirements of Standard Specification Section 2205.3, paragraph A.
2. Add the following paragraph to Section 2205.7.A.1
  - i. In the event the automatic screed controls on the paving machine fails, the Contractor shall be allowed to continue placing mix only until the material in route to the project has been placed.
3. Modify Section 2205.8 by adding the following
  - i. The maximum temperature of the mix placed shall be 350° F. Asphaltic concrete pavement received onto the jobsite above this temperature shall be rejected.
4. The density requirements of Standard Specification 2205.8, paragraph E, are revised as follows:
  - i. The completed asphalt concrete paving shall have a density equal to or greater than 96 percent for the base course and 98 percent for surface course.
5. Modify Section 2205.8.A. by adding:
  - i. All existing pavements shall be saw cut full depth and the edges tacked before any new material is placed adjacent to it.
  - ii. All existing surfaces shall be tacked in accordance with Section 2204 prior to paving.
  - iii. All costs for tacking the existing asphaltic concrete surface shall be considered **SUBSIDIARY** to the unit price bid for Asphaltic Concrete Surface.
  - iv. The subgrade shall be prepared in accordance with Section 2201.
6. Modify section 2205.9. by adding:
  - i. Asphaltic concrete base shall be measure from edge of pavement to edge of pavement and remaining base underneath curb and gutter shall be **SUBSIDIARY** to unit price cost.
7. Temporary Asphalt surfacing:
  - i. Temporary asphalt surfacing is to be placed at the tie-in points on either end of the project as needed to maintain the flow of traffic between the project and other locations as directed by the engineer.
8. Recycled asphalt shingles (RAS) are not permitted for use.

B. Measurement

- a. The quantities of accepted work for asphaltic concrete base and surface shall be measured per Ton.

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C. Payment

- a. Payment for this work will be made at the respective contract unit bid price for "Asphaltic Concrete Mixture APWA Type 5-01 Surface" and "Asphaltic Concrete Mixture APWA Type 5-01 Base" per Ton.

**TS-26 TACK COAT**

A. Tack Coat shall be in accordance with the APWA Standard Specifications 2204, "Tack Coat", except as modified by these Provisions.

- a. Add to Section 2204.2, "Materials," the following:

The bituminous tack coat shall be asphalt emulsion grade SS-1h and care shall be exercised to make sure that the tack coat materials are kept on the asphaltic concrete surface. The application rate between lifts of base course shall be between 0.03 and 0.05 gallons per Square Yard. The application rate between the base course and the surface course shall be between 0.05 and 0.10 gallons per Square Yard. All pavements shall be tacked. When weather conditions require, the County may direct a different type of asphalt tack material be used.

- b. Add the following provision to Section 2204.7:

Tack coat shall be applied between each layer of new asphaltic concrete to assure bond unless the previously laid surface is absolutely clean and the Engineer is satisfied that proper bonding will occur without tack coat. Tack coating between layers of new asphaltic concrete may be omitted only with the Engineer's permission. Emulsified asphalt, Type SS-1h, shall be diluted one (1) part water emulsion, to (1) part asphalt and mixed uniformly and heated to within the range of 6 F, and 160 degrees F, prior to application

B. Measurement:

- a. Tack Coat will be measured per Gallon.

C. Payment:

- a. Tack Coat shall be paid per Gallon.

**TS-27 EARTHWORK**

A. This item generally consists of excavation, hauling, placement of earthwork, staging/stockpiling, backfilling, compacting embankment and grading. All materials and labor necessary to excavate and remove materials, provide suitable soils or granular backfill shall be in accordance with MoDOT Standard Specifications Section 203. All subgrade compaction shall be completed in accordance with MoDOT Standard Specifications Section 210.

B. Modify Section 203.5.3, "Top Lift Thickness", by adding the following:

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- a. "Suitable material for the top 18" of earth subgrade shall be entirely imperishable soil. Where rubbery conditions exist at the time the aggregate surface is to be placed, the Contractor shall rework or remove such material as directed by the Engineer and replace it with a suitable subgrade material compacted in accordance with these specifications. All rework or removal and replacement shall be **SUBSIDIARY** to the unit bid price for **Earthwork.**"
- b. "The top 6" of soil outside the roadbed shall be of sufficient fertile nature to support the independent growth of grass. The Contractor at their own cost shall be liable to add nutrients, modify the soil or replace the soil if in 6 months a flourishing stand of grass is not obtained."
- C. Section 203.5.4, "Structure Approach", shall be considered applicable to this contract; i.e. all roadway and channel embankment shall be compacted to 95% plus or minus 5 per cent of the Standard Proctor (ASTM D698) maximum dry density at a moisture content within 3 percent plus or 1 percent minus of optimum moisture content.
- D. Compacting in cut, as required by Section 203.5.8 through 203.5.8.2, subsections of "Compacting in Cut", will not be paid for separately and shall be considered **SUBSIDIARY** to the items of work for which direct payment will be made.
- E. Daylight offset and elevation callouts are approximate and for information only. Plan dimension, section grades, and site conditions shall govern the final construction limits.
- F. Shrinkage and swell factors are assumed to be zero.
- G. Contractor should anticipate that the bottom of the channel is rock. Excavation work on this project will include rock excavation, however, no special measurement or payment will be made for rock excavation.
- H. Sloped fill areas must be benched prior to the placement of fill. These benches are to be horizontal or slightly slope into the hillside to stabilize the fill, which must be properly cut and compacted. In general, the maximum vertical height between benches should be limited to less than three feet.
- I. The Contractor shall excavate a minimum of 3" below the bottom slab of the culvert and shall pour a 3" min. thick concrete grade slab to form a working base for construction of the culvert slab. The concrete grade slab shall be poured on a sound rock or improved subgrade material as necessary and depicted in the plans. The majority of the excavation material below 790.0 is unknown and shall be field determined by the Contractor.
- J. Modify Section 206.1.2, "Description", subsection of Section 206 "Excavation for Structures", by adding the following:
  - a. "No material excavated from the project shall be deposited within any "floodway" or "floodplain" as defined by the FEMA Flood Insurance Maps unless a permit to do so has been obtained. These maps are available for review at the offices of the Engineer."
- K. Measurement:
  - a. No field measurement will be made for Earthwork.

b. Modify Section 203.8.1 subsection of "Method of Measurement", by adding the following:

1. No measurement will be made of the amount of excavation, embankment, compaction or borrow will be made. It is the responsibility of the Contractor to appraise the site and it's embankments to determine the amount of borrow will be required to complete the project. The cross sections in the plans have the calculated areas of the cuts and fills for the Contractors' use.

L. Payment:

- a. Payment for this work will be made at the Lump Sum price for "Earthwork".
- b. Structural Excavation (Class 4) shall be **SUBSIDIARY** to the unit price for "Earthwork".
- c. Hauling, stockpiling, and transportation costs for earthwork materials are **SUBSIDIARY** to the respective item.
- d. "No claim for extra work will be considered after excavation operations have commenced on the project."
- e. The backfill materials and requirements of the new structure (aggregate and soil) shall be **SUBSIDIARY** to this bid item.
- f. Backfilling and compacting the materials for the RCB and retaining walls shall be **SUBSIDIARY** to unit price for "Earthwork".

**TS-28 KCMMB 5K CONCRETE (CULVERTS)**

- A. The structure shall be Cast-In-Place construction.
- B. The standard specifications for the design and installation of the Reinforced Concrete Box Bridge are as follows:
  - a. Structural concrete shall be in accordance with Section 501, "Concrete," Section 703, "Concrete Masonry Construction," and Section 1005 "Aggregate for Concrete" of the MoDOT Standard Specifications.
  - b. Modify Section 501.3.2, a subsection of "Mix Design", by adding the following:
    1. "The Cast-in-Place RCB shall be KCMMB 5K Concrete Mixture. Modified to the extent that the concrete strength shall be  $f'c = 5,000$  PSI."
  - c. Modify Section 501.10, "Air Entrained Concrete", by adding the following:
    1. "All concrete shall be air entrained."
  - d. Modify Section 501.10.2, a subsection of "Air Entrained Concrete", by adding the following:
    1. "Air- entrainment shall be within a 4% to 7% range."
  - e. Modify Section 501.15, Commercial Mixture, by adding the following:
    1. "Total amount of water (in gallons) in the mixture."

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- f. MoDOT Section 703, Concrete Masonry Construction for means and methods. Concrete shall be KCMMB 5K with granite aggregate.
  - g. Add to Section 703.3.6, "Curing Concrete", the following:
    - 1. "The wall pours and all slabs shall be moist cured by use of white polyethylene sheeting with wet jute, cotton, or burlap mats."
  - h. Modify Section 703.3.6.3.6, a subsection of "Curing Concrete", to read:
    - 1. Concrete Slabs and Walls shall not be significantly loaded until the concrete has reached 3,000 psi compressive strength.
    - 2. "Any heavy materials shall not be placed on any component of the structure until the components have reached the following compressive strength."
      - i. Bottom Slab 3,000 PSI
      - ii. Walls 3,500 PSI
    - 3. "In addition, placement of backfill behind the Cast-in-Place RCB and Retaining Wall walls shall not begin until the retaining wall has reached a compressive strength of 3,000 PSI."
  - i. Reinforcing Steel: All reinforcing steel shall be epoxy coated in accordance with MoDOT Section 710.
- C. Areas of damaged or honeycombed concrete areas shall be repaired as directed by the Engineer and in accordance with the following:
- a. "In general the defective concrete shall be removed to sound concrete, the are cleaned and repaired with an approved sand cement mixture to which "Acryl-60" (or equal) has been added in accordance with the manufacturer's recommendation. The affected area shall be coated immediately prior to repair with an approved bonding agent. The repair shall be performed at no additional cost to the Owner."
- D. The Contractor shall submit Shop Drawing Plans and specifications of the Cast-In-Place Concrete Reinforced Concrete Box and Retaining Walls that is signed and sealed by a licensed Missouri Professional Engineer. The drawings shall be submitted to the Engineer. It shall include details of the structural steel rebars similar to the Construction Plan sheets.
- a. Shop Drawings will be prepared following Jackson County standards and will consist of 1 Full size D-Size (22" x 34") and 2 Half Size (11"x17").
  - b. Contractor shall provide with the shop drawings the Bill of Reinforcing for RCB and Wingwalls reinforcing steel work to JCPW Engineering for review and approval prior to construction.
  - c. ALL Structural Design shop drawings and calculations will be **SUBSIDIARY** to unit price for **"KCMMB 5K Concrete (Culverts)" and "KCMMB 5K Concrete (Retaining Wall)"**
- E. General: The Contractor is responsible for the construction of the proposed Reinforced Concrete Box Culvert.
- F. Minimum Waterway Area: The Reinforced Concrete Box Culvert shall have a minimum waterway area of 336 SF. This meets the hydraulic requirements for the design storm, per the Plans. Embedding of the RCB is allowed with engineer approval.
- G. Design Load: The Reinforced Concrete Box Culvert is designed for an HL-93 loading.
- H. Cover Requirements: Minimum Cover: 1 feet

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- I. Backfill Material: Backfill material shall adhere to MoDOT Std. Specifications – Sections 206, 733, and 1007, 1010 unless otherwise noted in Plans. This requires suitable material meeting compaction and density requirements in 2020 MoDOT Std. Specifications – Section 203. Backfill for the culvert shall be in compliance with the plan documents which depict limited vertical excavation and aggregate backfill in conjunction with Select Granular backfill to minimize the possibility of soil settlement. Contractor shall coordinate placement of Select Granular Backfill with finished subgrade elevation to ensure the minimum aggregate base and asphalt thicknesses shown on the plans are obtained.
- J. Subgrade Preparation and Bedding: The excavation and backfilling for the box culvert shall be in accordance with Class 4 Excavation and Embankment. The granular material shall be MoDOT Type 1 aggregate for base (upper 6”) and Select Granular (below 6”, where necessary) and shall be placed to extend at least 18-inches on each side and bottom of the structure. Outside of the Class 4 Excavation of the sides of the RCB will have a bench grade of Unclassified Excavation starting from the 18” bottom, extend out a minimum of 1.5’ and vertically 4’ to a 1:1 side slope to the bottom of the new aggregate base. The bedding shall be compacted to provide uniform support for the bottom of the box. The leveling pad for the cast-in-place section shall be a combination of three (3) inches of KCMMB concrete over the necessary thickness of MoDOT Type 1 aggregate base to provide a uniform surface.
- K. Granular Backfilling for the RCB shall be **SUBDIARY** to unit price for “KCMMB 5K Concrete (Culverts)”.
- L. Sealant: Contractor use Dayton Superior Weather Worker 40% J29 sealant for the Retaining Walls and RCB Hubbs, OR APPROVED EQUAL, Appendix AP-C. The contractor shall apply the sealant on the front face of the Retaining Walls prior to adding the riprap, and all the exposed concrete of the Retaining Wall, RCB and RCB hubguard. The 28-day curing period on sealer shall be waived, and a 7-day curing period utilized.
- M. Cast-In-Place Concrete Toewalls: Design and installation shall adhere to MoDOT Std. Specifications Section 604 unless otherwise noted in Plans.
- N. Site Review: Prior to bidding the work, the Contractor shall examine, investigate, and inspect the construction site as to the nature and location of the work, and general and local conditions at the construction site, including both surface and subsurface conditions, obstacles that could interfere with the work, the general construction site, and shall make additional investigations as they deem necessary for the planning and proper execution of the work.
- O. Differing Site Conditions: If the site conditions differ from those shown on the Plans, the Contractor shall immediately notify the County. The Contractor shall refer to the Special Conditions SC-34, Item D, which governs assessment and resolution of differing site conditions.
- P. Measurement:
  - a. There will be no field measurement of the KCMMB 5K Concrete used to build the 14’ x 12’ Double Cell RCB. The County will pay the plan quantity as shown in the bid.

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Q. Payment:

- a. "KCMMB 5K Concrete (Culverts)" will be paid for plan quantity at the contract unit bid price per Cubic Yard.
- b. "KCMMB 5K Concrete (Culverts)" includes, but is not limited to, the following **SUBSIDIARY** items: providing all materials and labor that shall include but be limited to; concrete, ALL Reinforcing Steel, Shop Drawings, structural calculations, sealant, formwork, installation, dewatering, toewalls, backfill, and excavation (including any necessary rock excavation).

**TS-29 KCMMB 5K CONCRETE (RETAINING WALLS)**

- A. The standard specifications for the design and installation of the retaining walls are as follows:
  - a. MoDOT Section 703, Concrete Masonry Construction for means and methods. Concrete shall be KCMMB 5K with granite aggregate and an approved high early strength admixture. **Portland Cement Type III meeting "ASTM C 494 Type C" is not required**, but may be utilized. Contractor may utilize accelerating additives in lieu of Type III cement. Modified to the extent that the concrete strength shall be  $f'c = 5,000$  PSI."
  - b. Reinforcing Steel: All reinforcing steel shall be epoxy coated in accordance with MoDOT Section 710.
- B. General: The Contractor is responsible for the construction of the proposed reinforced concrete retaining walls.
- C. Backfill Material: Backfill material shall adhere to MoDOT Std. Specifications – Sections 206, 733, and 1007 unless otherwise noted in Plans. This requires suitable material meeting compaction and density requirements in 2020 MoDOT Std. Specifications – Section 203. Aggregate backfill beyond the 12" layer for drainage is not required, but may be used to meet these requirements. Granular Backfilling for the walls shall be **SUBSIDIARY** to unit price for "KCMMB 5K Concrete (Retaining Wall)".
- D. Concrete Walls shall not be significantly loaded until the concrete has reached 3,000 psi compressive strength.
- E. Placement of backfill behind the Cast-in-Place RCB and Retaining Wall walls shall not begin until the retaining wall has reached a compressive strength of 3,000 PSI.
- F. Site Review: Prior to bidding the work, the Contractor shall examine, investigate, and inspect the construction site as to the nature and location of the work, and general and local conditions at the construction site, including both surface and subsurface conditions, obstacles that could interfere with the work, the general construction site, and shall make additional investigations as they deem necessary for the planning and proper execution of the work.
- G. Differing Site Conditions: If the site conditions differ from those shown on the Plans, the Contractor shall immediately notify the County. The Contractor shall refer to the Special



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Conditions SC-34, Item D, which governs assessment and resolution of differing site conditions.

H. Sealant: Contractor use Dayton Superior Weather Worker 40% J29 sealant for the Retaining Walls and RCB Hubbs, OR APPROVED EQUAL, Appendix AP-C. The contractor shall apply the sealant on the front face of the Retaining Walls prior to adding the riprap, and all the exposed concrete of the Retaining Wall, RCB and RCB hubguard. The 28-day curing period on sealer shall be waived, and a 7-day curing period utilized.

I. Measurement:

a. There will be no field measurement of the KCMMB 5K Concrete used to build the retaining walls. The County will pay the plan quantity as shown in the bid.

J. Payment:

a. "KCMMB 5K Concrete (Retaining Walls)" will be paid for in-place construction at the contract unit bid price per Cubic Yard.

b. "KCMMB 5K Concrete (Retaining Walls)" includes, but is not limited to, the following **SUBSIDIARY** items: providing all materials and labor that shall include but be limited to; concrete, ALL Reinforcing Steel, Shop Drawings, structural calculations, drains, screens, sealer, formwork, installation, dewatering, joint filler, subgrade compaction, backfill, and excavation (including any necessary rock excavation).

### **TS-30 REINFORCING STEEL**

Reinforcing steel shall be in accordance with Section 706, "Reinforcing Steel for Concrete Structures," of the MoDOT Standard specifications, except as herein modified.

A. Reinforcing Steel (Epoxy Coated): All reinforcing steel shall be epoxy coated in accordance with MoDOT Section 710. The material shall be in accordance with ASTM A775/A 775M except as otherwise specified herein or shown on the plans.

B. Modify Section 706.2, "Material", to the extent that all reinforcing shall be Grade 60  $f_y = 60,000$  psi.

C. Add to Section 706.3.1, a subsection of "Construction Requirements", the following:

a. "All chairs and bar supported on the formwork of exposed surfaces shall be coated with plastic tipped feet. Unless otherwise approved all reinforcing placed shall be chaired in place.

b. Support chairs shall be considered subsidiary to the pay items "Reinforcing Steel and Reinforcing Epoxy Coated" and shall not be measured.

D. Contractor shall provide with the shop drawings the Bill of Reinforcing for RCB and Wingwalls reinforcing steel work to JCPW Engineering for review and approval prior to construction. The shop drawings for the steel reinforcement shall be signed and sealed by a Missouri Registered Engineer. Design calculations of the RCB and Wingwalls shall be provided to JCPW both by paper and electronic versions such as spreadsheets, AutoCAD (using current version as

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specified by JCPW) and PDF files (All three preferred).

E. Measurement:

- a. Delete Section 706.4, "Method of Measurement", and Section 706.5, "Basis of Payment", and add the following:
  - i. Reinforcing steel shall be measured in accordance with the Shop Drawings.
  - ii. "Reinforcing steel shall be considered subsidiary to the pay items "KCMMB 5K Concrete (Culverts)", and "KCMMB 5K Concrete (Retaining Wall)".

**TS-31 DIVERSION DAM**

- A. Contractor shall furnish all materials, labor, equipment, staged installation/relocation of diversion dam bypass and dewatering system(s) to complete construction of the box Bridge and retaining walls. Diversion dam efforts may include any necessary dewatering required to provide a dry surface for construction of the seal course and structural concrete. Dewatering methods used in conjunction with the diversion dam may include but not be limited to; well point systems, temporary pipe (diversion) bypasses, benched excavations, cofferdams, temporary shoring, sheet piling, etc. The Contractor is responsible for devising the means and methods for dewatering the construction area, submitting a plan for approval by the Engineer three (3) weeks prior to construction, providing an approved erosion control method to eliminate uncontrolled discharges of sediment and rocky material into the stream, maintenance, and restoration of the streambed and streambanks.
- B. All costs for furnishing material, labor, equipment, construction, drainage and any other incidental work necessary to complete the diversion dam and dewatering; and subsequent removal of any temporary works and any other features as identified by the Engineer will be considered **SUBSIDIARY** to "Diversion Dam" regardless of construction method.
- C. No additional payment for excavation will be made for a contractor proposed method of dewatering/diversion dam.
- D. The method proposed by the Contractor shall stay within the right of way and/or permanent channel easement limits provided in the Contract. Constructions that have tilted or moved laterally during construction shall be repaired and maintained until structures can be backfilled safely.
- E. The Contractor's systems shall be constructed to protect the work against damage from sudden rising waters and to prevent damage to the foundation by erosion. The temporary works shall be removed after the completion of the structure(s), unless specific authority is given for the temporary works to remain in place. The Contractor is responsible for the safety and performance of the contractor's proposed system.
- F. Measurement:
  - a. There will be no field measurement for "Diversion Dam".
- G. Payment:
  - a. The Contractor will be paid the Lump Sum bid price for "Diversion Dam".

**TS-32 SEAL COURSE (3" CONCRETE GRADE SLAB)**

- A. Where shown on the Plans, Contractor shall furnish all materials, labor, equipment necessary to complete a seal course to adequately dewater the site for construction of the box culvert and retaining walls. The seal course may also be warranted to protect exposed shale bedrock upon excavation. Seal courses shall be installed by the Contractor in accordance with the provisions of MoDOT Section 206.
- B. Upon completion of the subgrade stabilization aggregate, the contractor shall pour a 3" minimum thick concrete grade slab. The top of the grade slab shall be at the bottom of the bottom slab elevation of the RCB, and shall extend 6" outside of the outside face of the RCB. The grade slab may be commercial grade concrete.
- C. The Concrete Grade Slab for RCB (3" Thick) shall be un-reinforced (3,000 psi compressive strength) concrete mix with limestone aggregate.
- D. No special measurement or payment for excavation or subgrade compaction will be made to install the seal course.
- E. Measurement:
  - a. There will be no field measurement for "Seal Course (3" Concrete Grade Slab)".
- F. Payment:
  - a. The Contractor will be paid the Lump Sum bid price for "Seal Course (3" Concrete Grade Slab)".

**TS-33 GRANULAR BEDDING MATERIAL**

- A. Where shown on the Plans and as directed by the Engineer, Contractor shall furnish all materials, labor, equipment necessary to provide the granular bedding material to ensure a suitable and compacted subgrade is provided for construction of the culvert and retaining walls. The granular material shall be in accordance with MoDOT Standard Specifications Section 1010 for Select Granular Backfill, as modified herein, and Section 1007 for Type 1 aggregate.
- B. The upper 6" of bedding material shall consist of the Type 1 aggregate. Where the bedding material is necessary to be thicker than 6", the Contractor may utilize Select Granular Backfill (see Section 1010), except, that the upper end of the gradation shall be 6" instead of being limited to aggregate passing a 4" screen.
- C. The bedding material shall be placed to extend at least 18 inches on each side of the structure.
- D. The bedding shall be compacted to provide uniform support for the bottom of the structure.

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E. Measurement:

- a. Field measurement for "Granular Bedding Material" shall be made to the nearest Cubic Yard.

F. Payment:

- a. The Contractor will be paid the Contract unit bid price for "Granular Bedding Material" per Cubic Yard.

**TS-34 TRAFFIC CONTROL**

- A. Traffic Control and Traffic Control signs and devices shall conform to the Manual of Uniform Traffic Control Devices (MUTCD), latest edition, and to the requirements of Section 612, "Impact Attenuators", 616, "Temporary Traffic Control", 1042, "Highway Sign Material", 1044 "Posts for Markers and Delineators", and 1063, "Temporary Traffic Control Devices", of the Missouri Department of Transportation Standard Specifications except as herein modified.
- B. The Contractor shall obtain a MoDOT permit for the traffic control plan prior to construction.
- C. Modify Section 616.3.1, subsection of Safety Requirements for Section 616, Temporary Traffic Control, to read as follows:
  - a. The Contractor shall furnish, install, maintain, clean and relocate all signs, drums, cones, barricades, delineators, object markers, flashing arrow panels, channeling devices, lights and other traffic control devices shown on the Plans, or as directed by the County. All Traffic Control devices shall meet the requirements of the Manual on Uniform Traffic Control Devices (MUTCD), latest edition. The contractor shall replace any unacceptable device as soon as possible but not to exceed 24 hours after the contractor had been notified.
  - b. The Ryan Road work zone within the immediate vicinity of the culvert shall be closed to traffic for the limits of the project.
  - c. **The entire project has 90 Working Days.**
  - d. Contractor must notify the Sheriff Department and Fire Department in writing 14 days in advance of the proposed closure date in order to allow sufficient time for public notification.
  - e. Contractor shall be required to maintain access to all properties served by streets affected by the construction work, unless otherwise stated on the Plans.
  - f. Before road closure is allowed all detour signing shall be in place and accepted by the County.
- D. Add to Section 616.4.1.1, subsection of "Construction Requirements", the following:

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- a. Care shall be exercised in removal of the existing signs and traffic control devices. No removals shall be made until the construction signs and barricades are in place and accepted. All signs removed shall be stockpiled for the County to salvage.
- E. Contractor shall be required at the time of the pre-construction conference to designate a specific employee (with cell phone number) to be responsible for the maintenance of the traffic regulation devices and establish a method of contacting this person during both working and non-working hours. This information shall be provided to the County's inspector. Contractor may, at their option, establish a maintenance agreement with a qualified firm, approved by the County, to supply, install, and maintain the required traffic regulation devices throughout the duration of this project.
- F. The County inspector on this project will make daily inspections of the traffic control devices installed to help assure compliance of the traffic control plan and the safety of the contract. In addition, the Contractor's representative on this project shall make daily inspections of the traffic regulation devices installed as part of this contract and maintain records of any maintenance required and the date on which it was completed. These records will be maintained for the duration of the project and be incorporated as part of the final records. It shall be Contractor's responsibility to maintain all traffic regulation devices in proper working condition and placement at all times. Contractor shall promptly correct any deficiencies in traffic regulation.
- G. All existing traffic signs, stop signs, and street signs in the way of the work shall be carefully removed or bagged (where applicable) by the Contractor. Where removed they shall be salvaged and saved for the County. No separate payment will be made for this work.
- H. It shall be the responsibility of the Contractor to perform the necessary maintenance and provide additional traffic control devices as necessary for the safety of the traffic.
- I. Signs shall be mounted on sign posts of approved materials and in accordance with the MUTCD and the Plans. The sign posts and their foundation shall be so constructed as to hold the signs in a proper and permanent position, to resist swaying in the wind. Installations on tripods or similar installation is prohibited unless specifically authorized. When such installations are allowed the Contractor shall place adequate sand bags on the device supporting the sign to ensure that the sign remains in place.
- J. Contractor shall take all proper precautions to guard against injury to persons or damage to property until final acceptance of the work by the Director of Public Works. These precautions should include, but not be limited to, protection of vehicular and pedestrian traffic from injury or damage due to open excavations by the proper placement of appropriate safety devices. Contractor shall maintain safety devices and their proper placement throughout the construction time. Construction practices should be followed that will eliminate all safety hazards as quickly as possible or practicable.
- K. All open trenches and other excavations shall be provided with suitable barriers, signs, lights and other protective devices to the extent that adequate protection is provided to the public against accident by reason of such open construction. Obstructions such as material piles and equipment shall be provided with similar warning lights and signs.
- L. Contractor shall provide all barricades, cones, drums, construction warning signs, flagmen,

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and incidental devices to protect, warn, and guide vehicular and pedestrian traffic, and to protect his personnel and equipment on the job site. During all phases of construction, Contractor shall display the required signs. Any traffic regulation device not in use shall be covered, removed, or turned away from view of oncoming traffic. Whenever the work area changes all construction-warning signs and traffic channelization devices shall be made current in both legend and function.

- M. All traffic regulation devices shall conform to the current Manual on Uniform Traffic Control Devices. No substitutions for the devices required by the above referenced manual or changes in the methods of traffic regulation as outlined herein will be allowed without the written approval of the Engineer.
- N. Contractor's representative on this project shall make daily inspections of the traffic regulation devices installed as part of this contract and maintain records of any maintenance required and the date on which it was completed. These records will be maintained for the duration of the project and be incorporated as part of the final records. It shall be Contractor's responsibility to maintain all traffic regulation devices in proper working condition and placement at all times. Contractor shall promptly correct any deficiencies in traffic regulation
- O. Damage to existing utilities during construction of this project which require immediate repair may be considered as an "emergency", and as such may not be subject to all of the restrictions contained herein. Therefore, Contractor should immediately contact the utility company whose facilities are involved and Jackson County Public Works whenever any utilities are damaged, which may require immediate repair. Any costs incurred by Contractor for such "emergency" utility repair, including the cost of any additional traffic regulation that may be required, will be Contractor's sole responsibility.
- P. If Contractor encounters conditions that require a change in method of traffic regulation Contractor shall immediately notify the inspector. At least 48 hours before the start of the proposed change, the inspector will request approval of the change from the Jackson County Public Works.
- Q. If the Contractor wishes to modify the traffic control, the Contractor shall submit in writing 14 days in advance of beginning of construction to Jackson County Public Works for review. This suggested change cannot increase the cost of the contract.
- R. Contractor shall sign the County's traffic control permit with MoDOT and provide a 24-hour contact to the County and MoDOT for purposes of ensuring a contact is provided that can ensure the traffic control is maintained.
- S. The Contractor shall install Type III Barricades with Flashers (T3B) as shown on the Traffic Control Plans. The barricades installation and maintaining shall be **SUBSIDIARY** to the unit price of "Temporary Traffic Control".
- T. Measurement:
  - a. There will be no field measurement of the Temporary Traffic Control. The Contractor shall utilize the minimum dimensions and sizes of the Signs and Traffic Control Devices as specified in the Traffic Control Plans.

U. Payment:

- a. The Contractor will be paid the Lump Sum unit price bid. All labor and materials needed to obtain a MoDOT permit (including any fees), provide, maintain, remove or reset temporary signage shown in the Traffic Control Plan complete-in-place or otherwise needed by way of the project specifications or site specific requirements shall be considered **SUBSIDIARY** to "Temporary Traffic Control" per Lump Sum. Interim payments for Temporary Traffic Control shall be paid based on the percent complete (based on contract value).

**TS-35 FURNISHING AND PLACING TYPE 2 ROCK BLANKET AND GEOTEXTILE FABRIC**

- A. Contractor shall furnish all materials, labor, and equipment necessary to install the rock blankets. Type 2 Rock Blanket shall be installed by the Contractor in accordance with the provisions of MoDOT Section 611.
- B. Thickness of rock blanket shall be as directed in the Plans.
- C. Modify Section 611.30.2, "Material", subsection of Section 611.30, "Rock Blanket", by adding the following:
  - a. "No broken concrete shall be used for Rock Blanket."
- D. Modify section 611.30.2 by stating that the Rock Blanket shall be Type II.
  - a. "The Contractor shall install under the Rock Blanket a Class 2, Type H Geotextile material that is similar to Mirafi 1100N geotextile OR APPROVED EQUAL, see Appendix AP-B, 10 oz. per Square Yard non-woven polypropylene, by Tancate or approved equal by the Engineer, and shall be spread over the leveled surface with overlaps as recommended by the fabric manufacturer. The Geotextile shall be in accordance with Sections 624, "Geotextile Construction", and 1011.3.3, "Permanent Erosion Control Geotextile", of the Standard Specifications. Installation shall be in accordance with the Standard Specifications and the manufacturer's recommendations.
    - iii. The Geotextile shall not be exposed to the elements beyond 14 days and shall be protected from shipping and storage damage by the envelopment of the product in a wrapping material which protects the fabric from water, sunlight and contaminants.
    - iv. The Geotextile shall be laid upon a smooth surface without any voids underneath the fabric and shall be free of wrinkles and folds.
    - v. The fabric shall be placed in accordance with the manufacturer's recommendations.
    - vi. The minimum overlap, in both directions, shall be one foot.
    - vii. The manufacturer shall certify that all materials delivered to the project meet or exceed the specifications."
- E. **SUBSIDIARY** to the unit price bid for "**Furnishing and Placing Type 2 Rock Blanket and Geotextile Fabric**" shall be the excavation, backfill, the rock in the tow trenches, scour hole areas to be filled, and cost for providing and installing the Geotextile and any expense incurred for hand placement of Rock Blanket adjacent to pipes, structures, and the thrie

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beam rail posts, etc.

- F. If suitable, and acceptable onsite materials are excavated the contractor may utilize these materials in the rock blanket installation.
- G. No special measurement or payment for excavation, backfilling or subgrade compaction to install the rock blanket.
- H. Measurement:
  - a. Measurement will be made to the nearest Cubic Yard of material in place in the completed blanket.
- I. Payment:
  - a. See Section 611.30.5 Basis of Payment.
  - b. The Contractor will be paid the contract unit bid price per Cubic Yard for "**Furnishing and Placing Type 2 Rock Blanket and Geotextile Fabric**". No direct payment will be made for excavating the trench or for backfilling. These items shall be considered **SUBSIDIARY** to the bid items "**Furnishing and Placing Type 2 Rock Blanket and Geotextile Fabric**".

**TS-36 GUARDRAIL AND MSKT TL-3 END TERMINALS**

- A. Contractor shall furnish all materials, labor, equipment necessary to install the guardrail and end terminals. Guardrail and end terminals shall be installed by the Contractor in accordance with the provisions of MoDOT Sections 606 and 1040, except the end terminals shall be MSKT TL-3 with no offset.
- B. Modify sub section 606.3.3.1 of section 606.3.3 "Posts for Guardrail and One-Strand Access Restraint Cable" by noting that **all POSTS shall be STEEL and all 12" BLOCKS shall be PLASTIC.**
- C. The MSKT-SP-MGS Terminal End Sections for the 12" Blocks shall be Test Level 3 from Road Systems, Inc. (RSI) or APPROVED EQUAL.
- D. Where necessary, posts shall be mounted to the lid of the new RCB. No special measurement or payment will be made. All labor and materials necessary to complete the connection points will be considered subsidiary to the unit bid price per Lineal Foot for "Guardrail".
- E. No special measurement or payment for excavation, backfilling or subgrade compaction to install the guardrail items.
- F. Measurement:
  - a. Measurement for "Guardrail" will be made to the nearest Lineal Foot complete-in-place.
  - b. Measurement for "MSKT TL-3 End Terminals" will be made per each.



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- c. Measurement for "Terminal Anchor End" will be made per each.

G. Payment:

- a. The Contractor will be paid the contract unit bid price Lineal Foot for "Guardrail".
- b. The Contractor will be paid the contract unit bid price per each for "MSKT TL-3 End Terminals".
- c. The Contractor will be paid the contract unit bid price per each for "Terminal Anchor End".

**TS-37 EROSION AND SEDIMENT CONTROL DEVICES**

- A. This work shall consist of furnishing, installing, maintaining, and removing temporary control measures as ordered by the County. This work shall conform to the general requirements of Division 800, "Roadside Development", of the MoDOT Standard Specifications as modified by this Technical Specification. The control of water pollution will be accomplished with Silt Fences, Rock Ditch Checks, Wattle Logs, and Biodegradable Log Inlet Protection in accordance with these specifications.
- B. The temporary pollution control provisions contained herein shall be coordinated with the permanent erosion control features specified elsewhere in the contract to assure economical, effective, and continuous erosion control. These provisions shall also apply to work within easements designated by the Engineer.
- C. The purpose of these specifications is to set forth certain temporary water pollution control measures, which shall be required of the contractor. The contractor shall exercise best management practices throughout the life of the project to control water pollution. Pollutants such as chemicals, fuels, lubricants, bitumens, concrete wash water or deleterious construction materials, raw sewage, or other harmful material shall not be discharged from the project.
- D. Prior to the pre-construction conference and prior to the start of construction the contractor shall submit for acceptance their schedules for the implementation of temporary and permanent erosion control work, as are applicable for each phase of construction. No work shall be started until the appropriate erosion control measures have been installed and approved by the County.
- E. Measurement:
  - a. No special measurement will be made for Rock Ditch Checks, Silt Fence, Wattle Log, and Biodegradable Log Inlet Protection.
- F. Payment:
  - a. Contractor will be paid for Rock Ditch Checks, Silt Fence, Wattle Log, and Biodegradable Log Inlet Protection by the Contract bid price per lump sum.

**TS-38 TEMPORARY SEEDING AND MULCHING**

- A. When directed by the Engineer, the Contractor shall apply temporary seeding to all areas to

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minimize erosion control measures.

- B. Temporary seeding and mulching shall be in accordance with APWA Standard Specification Section 2153.5. The Contractor shall apply the Type "TR" Seed or Type "TM" Seed based on the time of year that the seed and mulch are being applied.
- C. Temporary seeding and mulching including any necessary site preparation work and watering shall be **SUBSIDIARY** to the contract unit price for "Hydro Seed & Mulch". No direct measurement or payment will be made for temporary seeding and mulching.

**TS-39 SEEDING**

- A. This work shall consist of seeding, fertilizing and mulching all disturbed areas within the project limits unless otherwise directed by the County. This work shall be in accordance with the APWA Standard Specifications Section 2404, "Hydroseeding". The seed mix for steeper slope projects (Type 1) is as follows:

<b>PLS Rate: Lbs/Ac</b>	<b>Seed Name</b>
50	Indiangrass (Cheyenne)
55	Little Bluestem (Cimarron)
45	Switchgrass (Alamo)
55	Annual Ryegrass
25	Perennial Ryegrass
15	Partridge Pea (Comanche)
25	White Prairie Clover
85	Side Oats Gramma (El Reno)
25	Coreopsis
55	Creeping Red Fescue
435	= Pounds Seed / Acres
10 Lbs/1,000 SF	= Minimum Application Rate
Per Manufacturer	Fertilizer (13-13-13)

- B. Unless otherwise noted in Plans, Erosion control blanket to be installed in these areas per current APWA requirements.
- C. Type 2 seeding shall be used in areas with flatter slopes (4:1 slope or flatter). The seed mix for turf areas (Type 2) consists of the following:

Festuca arundinacea, Fineleaf Tall Fescue. Varieties- Hounddog V, Rebel Jr., Rebel III, Rebel 3D, Barlexas, Millennium, Southern Choice, Tar Heel, Wolf Pack, Bonsai 2000, Shortstop II Coyote, or other pre-approved substitutes.....	87.5%
Lolium multiflorum – annual ryegrass.....	12.5%

- A. Mix required to meet percentage by weight of pure live seed in each lot of seed, as listed above.
- D. Measurement:

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- a. Seeding will not be measured. There will be no measurement or separate payment for any items of work not specifically identified and listed in the Contract Documents.

E. Payment:

- a. All labor and materials (including but not limited to; seed, mulch, tackifier, fertilizer, water, herbicides, etc) needed to prepare the soil, scalp existing vegetation, compaction, provide, maintain, repair, clean-up and re-seed shall be considered **SUBSIDIARY** to the lump sum bid item "Hydro Seed & Mulch".
- b. County approval is required before final payment will be made. Seeded areas shall be observed to consist of a healthy stand of green grass.

**TS-40 PAVEMENT MARKING (PAINT)**

- A. Pavement Marking shall be installed in accordance with MoDOT Section 620, Pavement Marking.
- B. "All paint shall be Acrylic Waterborne MSP-94-06J." The Contractor shall submit to the Engineer, certification from the manufacturer that all paint used on the project is in compliance with the specifications listed in the Appendix of this Contract.
- C. The painted markings shall be applied with a truck-mounted striping machine capable of heating the materials to approximately 140°F and spraying onto the pavement in a uniform dimension strip. The machine shall be capable of applying either a continuous or intermittent lines in any pattern prescribed for longitudinal pavement markings in the M.U.T.C.D. Glass spheres shall be applied by automatic dispensers which are synchronized with the paint spray equipment. Paint shall be applied at a rate of at least 17 gal./mile of 4" continuous line so that a wet film thickness of at least 15 mil will be achieved.
- D. Reflective glass spheres shall be applied at a rate of 6 lb./gal. Spheres shall be uniformly distributed across the width of the line. Intermittent skip lines shall be painted as 10-foot segments with 30-foot gaps. Double centerlines should consist of 4" lines separated by a 4" space.
- E. Completed traffic stripes shall have clean and well defined edges, shall be uniform, shall be straight on tangent alignment, and shall be on a true arc on curved alignment. The widths of completed traffic stripes shall not deviate more than ¼ inch on tangent nor more than ½ inch on curves from the required widths. Broken traffic stripes shall also conform to the following requirements.
- F. The lengths of the gaps and individual stripes that form broken traffic stripes shall not deviate more than two inches from the lengths required. The lengths of the gaps and individual stripes shall be of such uniformity throughout the entire length of each broken traffic stripe that a normal striping machine will be able to repeat the pattern and superimpose additional coats of paint upon the traffic stripe being painted.
  - a. Drips, over spray, improper markings, and paint tracked by traffic shall be immediately removed from the pavement surface by methods approved by the engineer. All such removal work shall be at the contractor's expense.

- b. Traffic stripes and pavement markings shall be applied only on dry surfaces and only during periods of favorable weather.
  - c. Painting shall not be performed when the atmospheric temperature is below 40°F, when freshly painted surfaces may become damaged by rain, fog, or condensation, nor when it can be anticipated during the drying period.
  - d. Surfaces which are to receive traffic stripes and pavement markings shall be cleaned of all dirt and loose material.
  - e. The volume of paint applied shall be measured by stabbing the paint tank with a calibrated rod. At the option of the engineer, if the striping machine is provided with air atomized spray units (not airless) and is equipped with paint gauges, the volume of paint may be determined by using such gauges.
  - f. All equipment used in the application of traffic stripes and pavement markings shall produce stripes and pavement markings of uniform quality that conform to the specified requirements. The striping machine shall be capable of accurately superimposing succeeding coats of traffic paint upon the first coat and upon existing stripes at a speed of at least five miles per hour.
  - g. Each coat of paint for any traffic stripe shall be applied in one pass of the striping machine, regardless of the number, widths, and types of individual stripes involved.
  - h. All spray equipment shall be of a proper type and of adequate capacity for the work. Air atomized spray equipment shall be equipped with oil and water extractors and pressure regulators and shall have adequate air volume and compressor recovery capacity. Spray gun tip needle assemblies and orifices shall be of the proper sizes.
  - i. Newly painted traffic stripes and pavement markings shall be protected from damage by traffic or other causes until the paint is thoroughly dry.
- G. The contractor will, at their own expense, be required to maintain traffic. Traffic control shall be in accordance with the M.U.T.C.D. and with directions issued by the engineer. The engineer shall determine the adequacy of the traffic control procedures or devices in use and may halt the marking operations until adequate protective measures are taken.
- H. Striping work on this project shall be scheduled and completed in a manner to provide the least interference with vehicular traffic without complete street closures or detours. Pavement marking work must be scheduled to avoid congestion, or hazard to the public and to provide the most satisfactory appearance of the work.
- I. Separate payment for compliance with traffic handling requirements will not be made and this item will be considered incidental to completion of the project.
- J. The contractor shall provide a pilot vehicle to lead and a chase vehicle to follow the paint truck while paint is being applied. The pilot vehicle and the chase vehicle shall have an arrow board and appropriate signs in accordance to the M.U.T.C.D.

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K. Marking Definition for the Painted Striping.

- a. **4" White Edge Line** (white longitudinal marking): A solid white line on the right and left edge of a roadway.
- b. **4" Yellow Centerline** (yellow longitudinal marking): Two solid yellow lines at the center of a roadway where two direction no passing is required.

L. Materials:

- a. Fast-drying traffic paint and reflectorizing glass spheres shall fully comply with all of the requirements of the attached specifications appendices. No allowance for mixing losses shall be made in determining percentages of pigment. The mixed paint will be required to contain the stated percentage of pigment on analysis.
- b. The engineer reserves the right to take reasonable samples from the contractor's stock of materials at any time during the project and submit same for testing. Substitutions of materials or changes in the supplier will not be allowed without written consent of the engineer.
- c. Installation shall be in accordance with the manufacturers specifications as shown in for the following:
- d. Appendix B: White and Yellow Acrylic Waterborne Traffic Marking Paint MSP-94-06J and Glass Beads
- e. All Painted Striping shall be directed and approved by the Engineer.

M. Measurement:

- a. "4" Solid White Edge Line" and "4" Solid Yellow Centerline" striping shall be measured per Lineal Foot.

N. Payment:

- a. The Contractor will be paid the contract unit bid price per Lineal Foot for "4" Solid White Edge Line" and "4" Solid Yellow Centerline".

END OF SECTION

**IN THE COUNTY LEGISLATURE OF JACKSON COUNTY, MISSOURI**

**AN ORDINANCE** repealing section 1072., Jackson County Code, 1984, relating to construction projects, and enacting, in lieu thereof, one new section relating to the same subject.

**ORDINANCE No. 4465**, October 15, 2012

**INTRODUCED BY** James D. Tindall, Dan Tarwater, Theresa Garza Ruiz, and Dennis Waits, County Legislators

WHEREAS, the County has a strong commitment to Missouri's Prevailing Wage Law and, in support of this commitment, has undertaken a systematic review of the County ordinances and contracts relating to construction projects; and,

WHEREAS, the Legislature has determined that, section 1072. of the County Code, which governs prevailing wage enforcement on County construction projects, as currently written, works a hardship on some small and minority and women-owned trucking companies; and,

WHEREAS, an amendment to section 1072. may ease this hardship, while remaining consistent with State law; and,

WHEREAS, this amendment is in the best interest of the health, welfare, and safety of the citizens of Jackson County; now therefore,

**BE IT ORDAINED** by the County Legislature of Jackson County, Missouri, as follows:

Section A. Enacting Clause. Section 1072., Jackson County Code, 1984, is hereby repealed and one new schedule enacted in lieu thereof, to be known as section 1072., to read as follows:

1072. Construction Projects - Requirements To Bid - Wages and Benefits - Certain Employers.

Jackson County reaffirms its long-standing policy that no less than the prevailing hourly rate of wages shall be paid to all workers performing work on construction projects on behalf of Jackson County. As a condition of eligibility to bid for or perform work on any Jackson County construction project funded in whole or in part by the County, producers or suppliers of dirt, sand, rock, asphalt, fly ash and/or concrete must pay their delivery employees no less than the prevailing rate of wages for work associated with the county construction project, as defined by section 290.210(5), RSMo, and the occupational titles listed in 8 CSR 30-3.060(Z). Wage rates for delivery employees shall be derived from the Missouri Annual Wage Order incorporated into the bid for the construction work. Delivery employees are covered under this section when delivering from an off-site location or a designated site location to the work site as outlined under 8 CSR-30-3.020(1) and (2). This section shall not apply to owners/operators of trucks hauling millings or delivering asphalt on a County construction project.

1072.1 Compliance Review Officer.

In addition to the duties set forth in chapter 6 of this code, it shall be the duty of the Compliance Review Officer to monitor the producers or suppliers of the

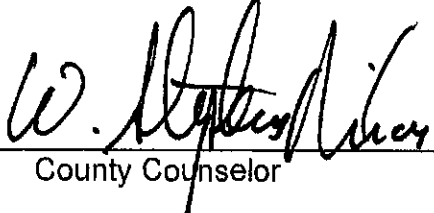
commodities enumerated in this section awarded County contracts to insure compliance with the prevailing rate of wages.



Effective Date: This Ordinance shall be effective immediately upon its signature by the County Executive.

APPROVED AS TO FORM:

  
\_\_\_\_\_  
Chief Deputy County Counselor


  
\_\_\_\_\_  
County Counselor

I hereby certify that the attached Ordinance, Ordinance No. 4465 introduced on October , 2012 was duly passed on October 15, 2012 by the Jackson County Legislature. The votes thereon were as follows:

Yeas 9                      Nays 0  
Abstaining 0                Absents 0

This Ordinance is hereby transmitted to the County Executive for his signature.

10-15-12  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Mary Jo Spino, Clerk of Legislature

I hereby approve the attached Ordinance No. 4465.

10-16-2012  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Michael D. Sanders, County Executive

# **GEOTECHNICAL ENGINEERING REPORT**

## **RYAN ROAD RCB REPLACEMENT**

**Prepared for:**

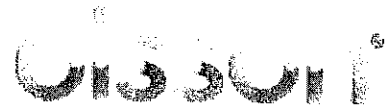
Jackson County, Missouri

Kansas City, Missouri

March, 2022

Olsson Project No. H18-1897





March 15, 2022

Jackson County, Missouri  
Attn: Mr. Earl Newill  
22807 Woods Chapel Road  
Blue Springs, Missouri 64015

Re: Geotechnical Engineering Report  
Ryan Road RCB Replacement  
Jackson County, Missouri  
Olsson Project No. H18-1897

Dear Mr. Newill,

Olsson has completed the geotechnical engineering report for the RCB Replacement project on Ryan Road in Jackson County, Missouri. The enclosed report summarizes our understanding of the project, presents the findings of the borings and laboratory tests, discusses the observed subsurface conditions, and based on those conditions, provides geotechnical engineering recommendations for this project.

We appreciate the opportunity to provide our geotechnical engineering services for this project. If you have any questions or need further assistance, please contact us at your convenience.

Respectfully submitted,  
*Olsson, Inc.*

A handwritten signature in black ink, appearing to read "JD Putnam". The signature is fluid and cursive, with a large loop at the end.

JD Putnam, E.I.  
Assistant Engineer



Ian A. Dillon, P.E.  
Senior Geotechnical Engineer

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- Appendix B Borehole Reports Symbols and Nomenclature
- Appendix C Global Stability Analysis

# 1. PROJECT UNDERSTANDING

## 1.1 Project Scope

This Geotechnical Engineering Report presents the results of the subsurface exploration performed for Jackson County's Reinforced Concrete Box (RCB) replacement project in Blue Springs, Missouri. We drilled four borings at the four corners of the existing RCB along Ryan Road over Blue Branch. The locations of the borings are presented in Appendix A, while the associated Borehole Reports are presented in Appendix B. The purpose of this report is to discuss the conditions encountered at the borings, and based on those conditions, provide geotechnical engineering recommendations for the preparation of the site, subgrade improvements for the proposed RCB and recommendations for allowable bearing pressures, lateral earth pressures and anticipated settlements of the new Cast-in-Place concrete retaining walls. In addition, a Global Stability Analysis on the proposed retaining walls was performed.

## 1.2 Project Site

The existing RCB is located along Ryan Road at Blue Branch, approximately ½ mile east of the intersection of Ryan Road and SE Adams Dairy Parkway in Blue Springs, Missouri (Figure 1). According to an *Olsson* site survey, dated September 30, 2021, Blue Branch flows from the southwest to the northeast. The existing RCB consists of a single 16' x 12' box with a flow line of around 818.5 feet.

Ryan Road is a two-lane, asphaltic concrete roadway that runs southeast to northwest. The existing roadway elevations, within the limits of the new RCB location, range from 931 feet in the northwest to 929 feet in the southeast.

We understand the roadway will be reconstructed as part of this project. Details regarding pavement subgrades or thicknesses are beyond the scope of this report.

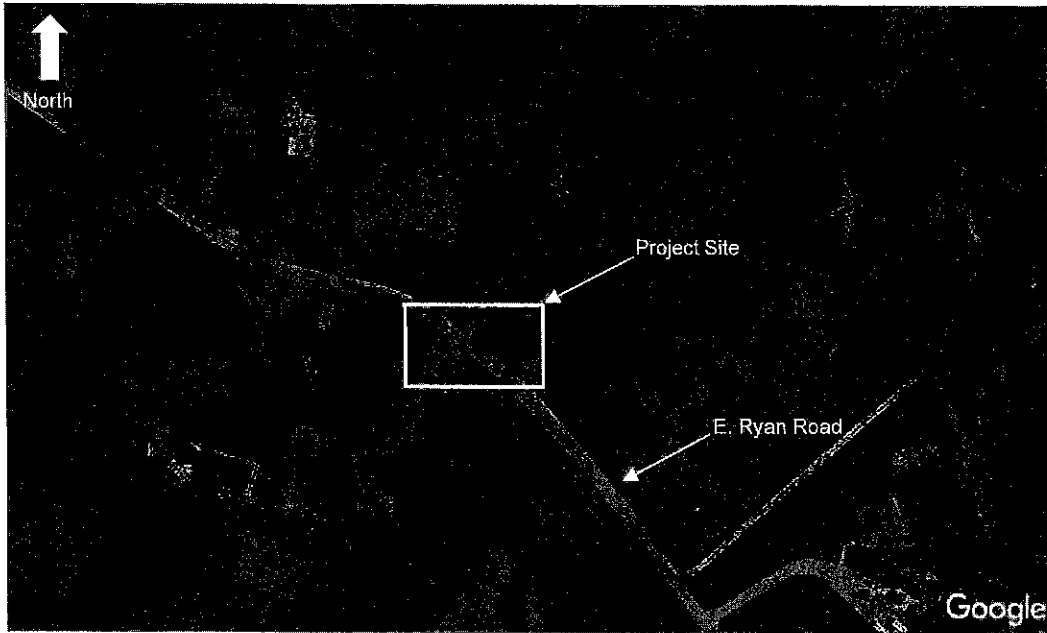


Figure 1. Project Site Location

### 1.3 Project Information

We understand the project consists of the replacement of the existing RCB as described above. The new RCB is planned to be a double 14' x 12' box with a flow line of around 817 feet. Figures 2 and 3 show the profile and cross-section views of the planned culvert.

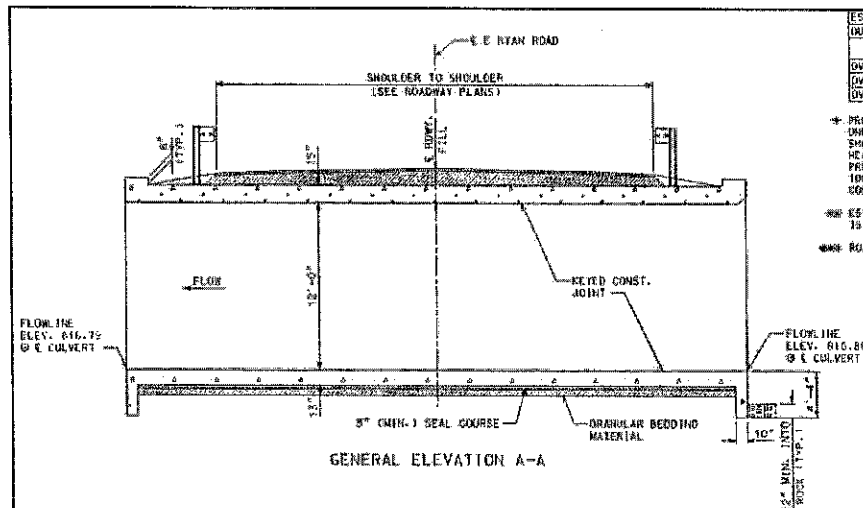


Figure 2. Replacement Culvert NW Elevation

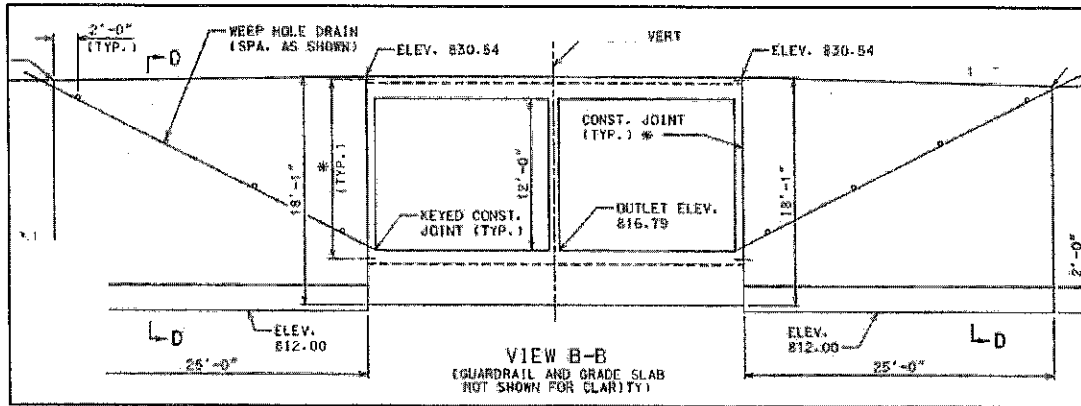


Figure 3. Replacement RCB West Elevation



## **2. FIELD EXPLORATION AND LABORATORY TESTING**

### **2.1 Field Exploration**

The drill crew used a truck mounted CME-55 drill rig equipped with continuous flight augers to advance the four borings at the site. The borings were advanced into the shale at an approximate depth of 28.5 feet. The borings were placed along the shoulders of Ryan Road near the four corners of the existing RCB. The drill crew located the borings in the field using a handheld GPS application. The elevations reported on the borehole reports were obtained by plotting the approximate boring locations on a site topography map, dated September 30, 2021, and interpolating between the contour lines. These interpolated elevations are reported to the nearest 1-foot on the appended logs. The actual boring locations and elevations shown could vary and should be considered accurate only to the degree in which they were measured.

The drill crew obtained samples from the boreholes using thin-walled sampling tubes hydraulically pushed into the soil and split-barreled sampling tubes during the performance of the Standard Penetration Test (SPT). These samples were sealed and returned to our laboratory for testing and classification. The sampling depths and SPT blow counts (N-values) are shown on the appended Borehole Reports.

The crew prepared a field log for each boring. These field logs include visual classifications of the materials encountered during the drilling process as well as the drillers' interpretation of the subsurface conditions between the samples. Water level observations were made in the borings at the times and conditions noted on the Borehole Reports.

### **2.2 Laboratory Testing**

At our laboratory, we visually classified the soil samples in general accordance with the Unified Soil Classification System (USCS). We measured the moisture content of each sample and measured the dry density and unconfined compressive strength test of each tube sample. Two Atterberg Limits tests were performed on selective samples. Based on the laboratory test results we modified the field logs that were prepared by the drill crew. Results of the laboratory tests are shown on the appended Borehole Reports.

## **4. CONCLUSIONS AND RECOMMENDATIONS**

### **4.1 Excavations**

Site preparation should commence with the demolition of the existing box culvert and the portions of Ryan Road that will be replaced and/or removed. Construction debris should be completely removed from the site and not introduced into fill areas.

Outside the structures, site preparation should consist of stripping all vegetation, root systems, organic soils, and any loose, soft or otherwise unsuitable material from the construction limits. Any required tree removal should also be accomplished at this time. Care should be taken thoroughly remove all related root systems. Materials disturbed during removal of stumps and related root systems should be undercut and replaced with approved structural fill. A zone of desiccated soils may exist in the vicinity of the trees. The desiccated soils have a higher swell potential and should be undercut and replaced with approved structural fill. Site clearing, stripping and grubbing operations should be performed during dry weather conditions. Operation of heavy equipment on the site during wet weather conditions could result in excessive rutting and mixing of organic debris with the underlying soils.

Construction site safety is the sole responsibility of the contractor. The contractor is responsible for the means, methods, techniques, sequencing, and operations during construction. The contractor should be aware that slope height, slope inclination, and excavation depths should in no case exceed those specified in local, state or federal safety regulations, e.g., *OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926*, or successor regulations. If excavations are extended to depths of more than 20 feet, OSHA requires that the slide slopes of such excavations be designed by registered professional engineer.

Excavations should be cut to a stable slope or temporarily brace, depending upon the excavation depths and subsurface conditions encountered. Temporary construction slopes should be designed in strict compliance with the most recent governing regulations. Stockpiles should be placed well away from the edge of the excavation and their heights should be controlled so they do not surcharge the sides of the excavation. Surface drainage should be carefully controlled to prevent flow of water into the excavation. Construction slopes should be closely observed for signs of mass movement. These signs include but are not limited to tension cracks near the crest, bulging at the toe. If potential stability problems are observed, a geotechnical engineer should be immediately contacted.

Based on our borings, we anticipate excavation for the proposed culvert replacement will be in fill and native clay soils underlain by shale bedrock at greater depths. Excavations within the clay soils should be possible with conventional excavation equipment. Excavation in rock can be more difficult and could require the use of other techniques such as hydraulic breakers or other

hard rock excavating techniques. Variations in the depth to bedrock can occur over relatively short distances and some variation should be anticipated across the site.

## 4.2 Backfill

Samples of all proposed backfill materials should be submitted to **Olsson** prior to use at the site. Laboratory Proctor compaction and classification tests should be performed on any fill placed at the stie.

We recommend that backfill be compacted in accordance with the criteria provided in Table 1 below. An **Olsson** representative should observe all fill placement operations and perform field density tests as required.

Area of Fill Placement	Material	ASTM D-698 Compaction Recommendation	Moisture Content (Percent of Optimum)
Granular Bedding Material – 6" below base of culvert	MoDOT Type 1 Baserock	95%	As necessary to obtain density
Select Granular Material - Up to 18" below the base of the Granular Bedding Material (4" Minus Material)	MoDOT Standard Specification Section 1010 baserock	95%	As necessary to obtain density
Structural Fill – Non-settlement sensitive areas	On-site cohesive soil	95%	0 to +4 percent
Structural Fill – Settlement Sensitive areas	MoDOT Type 5 Baserock*	95%	As necessary to obtain density

\*Or equivalent

**Table 1. Fill Placement and Compaction Recommendations**

Suitable fill materials should be placed in thin loose lifts of 8 inches or less. Within small excavations, such as in utility trenches, around manholes, or behind retaining walls, the use of vibrating plat compactors, jumping jack compactors or walk behind sheepsfoot compactors may be used to facilitate compaction in these areas. Loose lifts thicknesses of 4 inches or less are recommended where small compaction equipment is used.

The moisture content for suitable borrow soils at the time of compaction should generally be maintained between the ranges specified above. More stringent moisture limits may be necessary with certain soils and some adjustments to moistures contents may be necessary to achieve compaction in accordance with project specifications.

## 4.3 Drainage and Groundwater Considerations

Dewatering is solely the responsibility of the contractor. Provisions should be made to quickly remove accumulating seepage water or stormwater runoff from the excavations. Undercut or excavated areas should be sloped toward one core to allow for rainwater and/or surface water runoff to quickly be collected and gravity drained or pumped away from the construction areas.

## **5. STRUCTURES**

### **5.1 Box Culvert Subgrade Recommendations**

We understand the new culvert will bear on a granular leveling course on top of competent shale bedrock. In order to provide uniform bearing conditions along the box culvert, we recommend all existing clay (fill or native) be removed to the shale bedrock surface. At a minimum, a 3-inch seal course and 6 inches of granular bedding material (MoDOT Type 1 baserock) should be placed below the base of the RCB. If the shale is soft and wet, we recommend the shale bedrock will be undercut an additional 18 inches for the placement of a select granular backfill material. The select granular material should meet the gradation requirements outlined in the *MoDOT Standard Specification Section 1010*.

Groundwater is commonly found near the bedrock interface, which can soften and weather the upper portion of the shale bedrock. If unsuitable, weathered or wet shale is encountered below the base of the 18-inch excavation, the unsuitable shale bedrock should be removed and replaced with additional select granular material or a lean concrete mud mat placed over the exposed shale bedrock may be needed to protect the shale from further degradation.

### **5.2 Cast-in-place Retaining Wall Foundation Recommendations**

In our opinion, the new retaining walls should bear on competent shale bedrock. For the concrete cast-in-place retaining walls bearing on competent shale bedrock, a net allowable bearing pressure of 6 kips per square foot (ksf) can be used for design. In order to provide uniform bearing conditions, we recommend all existing clay (fill or native) and any weathered shale be removed to expose competent shale bedrock.

Groundwater is commonly found near the bedrock interface and can soften and weather the upper portion of the shale bedrock if left uncovered. If soft, weathered shale bedrock is encountered, the shale should be undercut to expose competent shale material. A lean concrete mud mat placed over the exposed shale bedrock may be needed to protect the shale from further degradation.

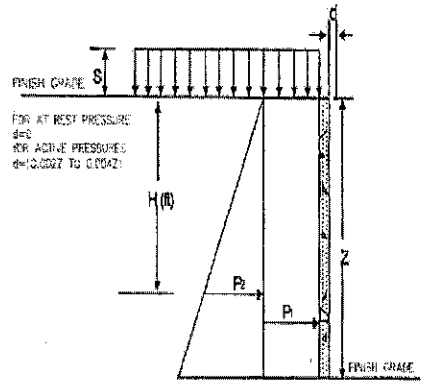
At a minimum, the foundations for the RCB should extend to 3 feet below the final adjacent surface to provide for frost protection and a minimum of 18 inches into the shale bedrock. For RCB foundations designed with the recommendations presented above, total post-construction settlements on the order of ½ inch and negligible differential settlements can be anticipated for the project site.

### 5.3 Lateral Earth Pressures

The following soil parameters are provided for use in designing the concrete cast-in-place retaining walls planned for the site. The parameters are based on the understanding that the retained soils used during construction will be similar in composition to the on-site soils encountered during this exploration. To ensure similarity, we recommend confirmation testing be performed during construction by *Olsson*.

Walls that are unrestrained at the top and are free to rotate slightly, such as Cast-in-Place concrete cantilever walls, may be designed for "active" earth pressure conditions. The "passive" earth pressure condition should be used to evaluate the resistance of soil to lateral loads. Table 2 presents recommended values of earth pressure coefficients based on our experience with soils in the area. Equivalent fluid densities are frequently used for the calculation of lateral earth pressures for the "at-rest" and "active" conditions and are therefore provided in Table 2.

Legend of Symbols				
Z	Wall Height (ft)			
H	Depth Below Surface (ft)			
D	Wall Displacement (ft)			
S	Surcharge Load (psf)			
P <sub>1</sub>	Surcharge Pressure (psf)			
P <sub>2</sub>	Earth Load (psf)			
K	Earth Pressure Coefficient			
G	Equivalent Fluid Density (pcf)			
Pressure Calculations				
Surcharge Pressure	$P_1 \text{ (psf)} = K * S$			
Earth Load	$P_2 \text{ (psf)} = G \text{ (pcf)} * H \text{ (ft)}$			
Earth Pressure Coefficient (K)		Equivalent Fluid Density (G)		
		Drained, pcf		
		Undrained, pcf		
<b>Active (K<sub>a</sub>)</b>	Cohesive	0.42	50	87
	Granular*	0.33	40	-
<b>Passive (K<sub>p</sub>)</b>	Cohesive	2.46	295	200
	Granular*	3.00	360	-



\*Granular backfill should be permanently drained

Table 2. Lateral Earth Pressures

The following assumptions were made:

- For active earth pressure, the wall must rotate about its' base, with top lateral movements of 0.002 Z to 0.004 Z, where Z is wall height.
- The equivalent fluid densities in Table 2 does not include the effects of surcharge loading.
- The equivalent fluid densities in Table 2 assume a level backslope. If a backslope is included, **Olsson** should be contacted to update the earth pressure coefficient and associated equivalent fluid density.
- The wall must "move" horizontally to mobilize passive resistance.
- Surcharges are uniform, where S is surcharge pressure, in psf.
- In-situ soil backfill has a maximum weight of 120 pcf.
- Horizontal backfill is compacted to 95% of standard Proctor maximum dry density.
- Heavy equipment and other concentrated load components are not included.
- No hydrostatic pressure acting on wall. Assumes a drained condition.
- No safety factor is included.
- Passive pressure in the frost zone or moisture fluctuation zone should be ignored.

Backfill placed against structures should consist of granular soils or low plasticity cohesive soils. For the granular values to be valid, the granular backfill must extend out from the base of the wall at an angle of at least 45 and 60 degrees from vertical for the active and passive cases, respectively. To calculate the resistance to sliding, an ultimate coefficient of friction value of 0.35 should be used where the footing bears on shale bedrock.

To intercept infiltrating surface water behind the wall, we recommend a perimeter drain be installed at the foundation level and/or weep holes be placed at regular intervals along the wall. The drain line invert should be below the finished subgrade elevation for the interior floor. The drain line should be sloped to provide positive gravity drainage and should be surrounded by free-draining granular material graded to prevent the intrusion of fines, or an alternative free-draining granular material encapsulated with suitable filter fabric. A minimum 1-foot-wide section of free-draining granular fill should be used for backfilling above the drain line and adjacent to the wall and should extend to within eighteen inches of final grade. The granular backfill should be capped with compacted cohesive fill to minimize infiltration of surface water into the drain system.

The lateral earth pressure recommendations recommended above are applicable to the design of rigid retaining walls subjected to no rotation or slight rotation, such as concrete, cantilever retaining walls. These recommendations are not applicable to the design of modular block - geogrid reinforced backfill walls. Recommendations covering these types of wall systems are beyond the scope of services for this report. However, upon request, **Olsson** can develop recommendations for the design of such wall systems.

## 6. GLOBAL STABILITY ANALYSIS

*Olsson* analyzed the long-term drained stability of the retaining walls using the computer program SLOPE/W developed by GeoStudio. The soil parameters using in our analysis are presented in Table 3; we estimated these parameters based on correlations with the laboratory data presented in the geotechnical report and our experience with subsurface conditions similar to the subsurface conditions encountered at this site. Confirmation testing, test pits and/or additional borings should be performed at the on-set of construction to confirm the subsurface conditions used in our analysis.

Material	Total Unit Weight, (pcf)	Effective Friction Angle, $\phi'$ (deg.)	Effective Cohesion, $c'$ (psf)
Clean Stone	110	36	0
Rip-Rap	125	45	0
Native Lean Clay Soil (CL)	120	26	100
Native Lean-to-Fat Clay Soil (CH)	120	24	50
Structural Fill	120	26	150
Weathered Shale Bedrock	135	18	0
Competent Shale Bedrock	135	40	0

Table 3. Shear Strength Parameters

We performed the analysis using Bishop's method for the effective stress, long term drained condition. The results of our analysis indicate a factor of safety of 1.6 and is shown in Appendix C.

## **7. CONCLUSIONS AND LIMITATIONS**

### **7.1 Construction Observations and Testing**

We recommend that all earthwork during construction be monitored by a representative of **Olsson**, including site preparation, placement of all structural fill and trench backfill, and pavement subgrades. The purpose of these services would be to provide **Olsson** the opportunity to observe the soil conditions encountered during construction, evaluate the applicability of the recommendations presented in this report to the soil conditions encountered, and recommend appropriate changes in design or construction procedures if conditions differ from those described herein.

### **7.2 Limitations**

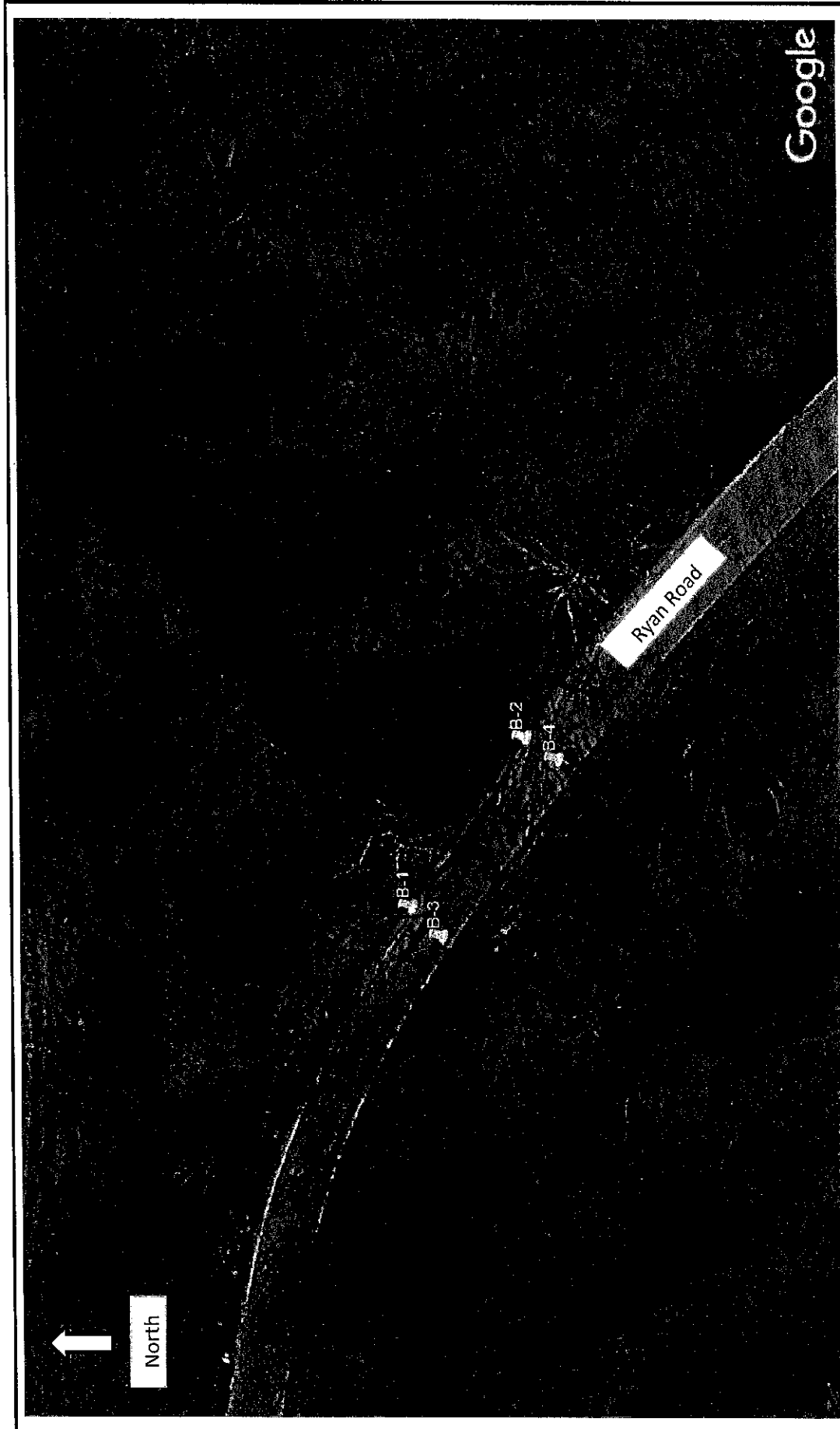
The conclusions and recommendations presented in this report are based on the information available regarding the proposed construction, the results obtained from our borings, laboratory testing program, and our experience with similar projects. The borings represent a very small statistical sampling of subsurface soils and it is possible that conditions may be encountered during construction that are substantially different from those indicated by the borings. In these instances, adjustments to design and construction may be necessary.

This geotechnical engineering report is based on the site plan and our understanding of the project's information as provided to **Olsson**. Changes in the location or design of new structures could significantly affect the conclusions and recommendations presented in this geotechnical report. **Olsson** should be contacted in the event of such changes to determine if the recommendations of this report remain appropriate for the revised site design.

This report was prepared under the direction and supervision of a Professional Engineer registered in the State of Missouri with the firm of **Olsson, Inc.** The conclusions and recommendations contained herein are based on generally accepted, professional, geotechnical engineering practices at the time of this report, within this geographic area. No warranty, express or implied, is intended or made. This report has been prepared for the exclusive use of **Jackson County, Missouri** and their authorized representatives for the specific application to the proposed project described herein.



**APPENDIX A**  
Boring Location Map



<b>Boring Location Plan</b>	<b>Scale: n.i.s.</b>
	<b>Project No. H18-1897</b>
<b>Ryan Road Culvert Blue Springs, Missouri</b>	<b>Approved by: JDP</b>
	<b>Date: 12/16/2021</b>

**oisson**

## **APPENDIX B**

### **Borehole Reports Symbols and Nomenclature**

**SYMBOLS AND NOMENCLATURE**

**DRILLING NOTES**

**DRILLING AND SAMPLING SYMBOLS**

SS: Split-Spoon Sample (1.375" ID, 2.0" OD)	HSA: Hollow Stem Auger	NE: Not Encountered
U: Thin-Walled Tube Sample (3.0" OD)	CFA: Continuous Flight Auger	NP: Not Performed
CS: Continuous Sample	HA: Hand Auger	NA: Not Applicable
BS: Bulk Sample	CPT: Cone Penetration Test	% Rec: Percent of Recovery
MC: Modified California Sampler	WB: Wash Bore	WD: While Drilling
GB: Grab Sample	FT: Fish Tail Bit	IAD: Immediately After Drilling
SPT: Standard Penetration Test Blows per 6.0"	RB: Rock Bit	AD: After Drilling
	PP: Pocket Penetrometer	CI: Cave In

**DRILLING PROCEDURES**

Soil samples designated as "U" samples on the boring logs were obtained in using Thin-Walled Tube Sampling techniques. Soil samples designated as "SS" samples were obtained during Penetration Test using a Split-Spoon Barrel sampler. The standard penetration resistance 'N' value is the number of blows of a 140 pound hammer falling 30 inches to drive the Split-Spoon sampler one foot. Soil samples designated as "MC" were obtained in using Thick-Walled, Ring-Lined, Split-Barrel Drive sampling techniques. Recovered samples were sealed in containers, labeled, and protected for transportation to the laboratory for testing.

**WATER LEVEL MEASUREMENTS**

Water levels indicated on the boring logs are levels measured in the borings at the times indicated. In relatively high permeable materials, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels is not possible with only short-term observations.

**SOIL PROPERTIES & DESCRIPTIONS**

Descriptions of the soils encountered in the soil test borings were prepared using Visual-Manual Procedures for Descriptions and Identification of Soils.

**PARTICLE SIZE**

Boulders	12 in. +	Coarse Sand	4.75mm-2.0mm	Silt	0.075mm-0.005mm
Cobbles	12 in.-3 in.	Medium Sand	2.0mm-0.425mm	Clay	<0.005mm
Gravel	3 in.-4.75mm	Fine Sand	0.425mm-0.075mm		

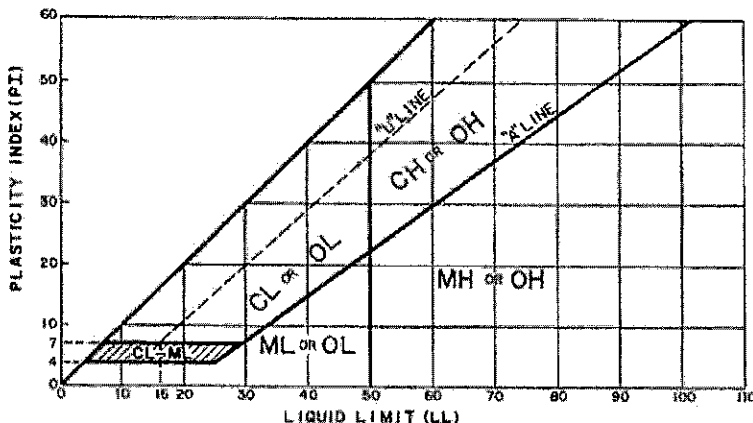
**COHESIVE SOILS**

**COHESIONLESS SOILS**

**COMPONENT %**

<u>Consistency</u>	<u>Unconfined Compressive Strength (Qu) (tsf)</u>	<u>Relative Density</u>	<u>'N' Value</u>	<u>Description</u>	<u>Percent (%)</u>
Very Soft	<0.25	Very Loose	0 - 3	Trace	<5
Soft	0.25 - 0.5	Loose	4 - 9	Few	5 - 10
Firm	0.5 - 1.0	Medium Dense	10 - 29	Little	15 - 25
Stiff	1.0 - 2.0	Dense	30 - 49	Some	30 - 45
Very Stiff	2.0 - 4.0	Very Dense	≥ 50	Mostly	50 - 100
Hard	> 4.0				

**PLASTICITY CHART**



**ROCK QUALITY DESIGNATION (RQD)**

<u>Description</u>	<u>RQD (%)</u>
Very Poor	0 - 25
Poor	25 - 50
Fair	50 - 75
Good	75 - 90
Excellent	90 - 100

**olsson**



**BOREHOLE REPORT NO. B-1**

**Sheet 1 of 2**

PROJECT NAME		CLIENT									
Ryan Road RCB Replacement		Jackson County, Missouri									
PROJECT NUMBER		LOCATION									
H18-1897		Blue Springs, Missouri									
ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/REMARKS
830	APPROX. SURFACE ELEV. (ft): 830		0								
	ASPHALT		0.7'								
	AGGREGATE BASE		1.5'	SS 1		13-7-4 N=11		7.5			
	LEAN CLAY <i>Stiff, brown, silty, moist</i>			U 2			1.5	21.1	100.4	40/20	
825			5								
			7.9'								
	<i>Sift, brown and gray, silty, moist</i>			SS 3		4-5-7 N=12		23.6			
820			10								
			11.5'								
	FAT CLAY <i>Stiff, brown, silty, very moist</i>			SS 4		2-4-5 N=9		29.6			
815			15								
	SHALE <i>Gray, moist, Pleasanton Group</i>		16.0'								
			19.0'								
810	<i>Gray, Pleasanton Group</i>		20	SS 5		50/1"		27.0			

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS

WD	▽ 12.0 ft
IAD	▽ 12.0 ft
AD	▽ Not Encountered

**OLSSON, INC.**  
1700 E. 123RD STREET  
OLATHE, KANSAS 66061

STARTED:	12/16/21	FINISHED:	12/16/21
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BH	LOGGED BY:	CR
METHOD: CONTINUOUS FLIGHT AUGER			



**BOREHOLE REPORT NO. B-1**

**Sheet 2 of 2**

PROJECT NAME <b>Ryan Road RCB Replacement</b>				CLIENT <b>Jackson County, Missouri</b>								
PROJECT NUMBER <b>H18-1897</b>				LOCATION <b>Blue Springs, Missouri</b>								
ELEVATION (ft)	<input checked="" type="checkbox"/> Split Spoon	<input type="checkbox"/> Shelby Tube	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/REMARKS
	MATERIAL DESCRIPTION											
810	Gray, Pleasanton Group (continued)			20								
805				25	SS 6		50/1"		9.6			
				28.6'	SS 7		50/1"					

BASE OF BORING AT 28.6 FEET

WATER LEVEL OBSERVATIONS		<b>OLSSON, INC.</b> <b>1700 E. 123RD STREET</b> <b>OLATHE, KANSAS 66061</b>	STARTED: 12/16/21	FINISHED: 12/16/21
WD	▽ 12.0 ft		DRILL CO.: KCTE	DRILL RIG: CME 55
IAD	▼ 12.0 ft		DRILLER: BH	LOGGED BY: CR
AD	▽ Not Encountered		METHOD: CONTINUOUS FLIGHT AUGER	



**BOREHOLE REPORT NO. B-2**

**Sheet 1 of 2**

PROJECT NAME: **Ryan Road RCB Replacement** CLIENT: **Jackson County, Missouri**

PROJECT NUMBER: **H18-1897** LOCATION: **Blue Springs, Missouri**

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/REMARKS
830	APPROX. SURFACE ELEV. (ft): 830		0								
	ASPHALT		0.7'								
	AGGREGATE BASE		1.5'	SS 1		12-9-8 N=17		2.8			
	LEAN CLAY <i>Stiff, brown, silty, moist</i>			U 2			1.6	21.3	100.1		
825			5								
	FAT CLAY <i>Firm, brown with gray, silty, very moist</i>		7.0'								
			10	SS 3		3-3-4 N=7		31.4			
820											
			15	SS 4		1-3-5 N=8		31.7			
815											
	SHALE <i>Gray, moist, Pleasanton Group</i>		16.5'								
			19.0'	SS 5		50/1"		24.5			
810	<i>Gray, Pleasanton Group</i>		20								

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS

WD	▽ 12.0 ft
IAD	▽ 12.5 ft
AD	▽ Not Encountered

**OLSSON, INC.**  
1700 E. 123RD STREET  
OLATHE, KANSAS 66061

STARTED:	12/16/21	FINISHED:	12/16/21
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BH	LOGGED BY:	CR
METHOD: CONTINUOUS FLIGHT AUGER			



**BOREHOLE REPORT NO. B-2**

**Sheet 2 of 2**

PROJECT NAME: **Ryan Road RCB Replacement** CLIENT: **Jackson County, Missouri**

PROJECT NUMBER: **H18-1897** LOCATION: **Blue Springs, Missouri**

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/REMARKS
810	Gray, Pleasanton Group (continued)		20								
805			25	SS 6		50/1"		11.3			
			28.6'	SS 7		50/1"					

BASE OF BORING AT 28.6 FEET

WATER LEVEL OBSERVATIONS		<b>OLSSON, INC.</b> 1700 E. 123RD STREET OLATHE, KANSAS 66061	STARTED: 12/16/21	FINISHED: 12/16/21
WD	▽ 12.0 ft		DRILL CO.: KCTE	DRILL RIG: CME 55
IAD	▼ 12.5 ft		DRILLER: BH	LOGGED BY: CR
AD	▽ Not Encountered		METHOD: CONTINUOUS FLIGHT AUGER	





**BOREHOLE REPORT NO. B-3**

**Sheet 1 of 2**

PROJECT NAME		CLIENT									
Ryan Road RCB Replacement		Jackson County, Missouri									
PROJECT NUMBER		LOCATION									
H18-1897		Blue Springs, Missouri									
ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/REMARKS
830	APPROX. SURFACE ELEV. (ft): 830		0								
	ASPHALT	0.7'									
	AGGREGATE BASE	1.5'									
	LEAN TO FAT CLAY <i>Stiff, brown with gray, silty, moist</i>			SS 1		12-6-5 N=11		3.5			
825			5	U 2			1.2	26.0	94.5		
	FAT CLAY <i>Firm, brown with gray, silty, very moist</i>	7.0'									
820			10	SS 3		1-3-5 N=8		31.2			
	Stiff, brown with gray, silty, moist	11.0'									
815			15	SS 4		1-3-8 N=11		25.4			
	SHALE <i>Gray, Pleasanton Group</i>	16.0'									
810			20	SS 5		50/1"		12.5			

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS

WD	▽ 12.0 ft
IAD	▽ 12.0 ft
AD	▽ Not Encountered

**OLSSON, INC.**  
1700 E. 123RD STREET  
OLATHE, KANSAS 66061

STARTED:	12/16/21	FINISHED:	12/16/21
DRILL CO.:	KCTE	DRILL RIG:	GME 55
DRILLER:	BH	LOGGED BY:	CR
METHOD: CONTINUOUS FLIGHT AUGER			



**BOREHOLE REPORT NO. B-3**

**Sheet 2 of 2**

PROJECT NAME <b>Ryan Road RCB Replacement</b>				CLIENT <b>Jackson County, Missouri</b>							
PROJECT NUMBER <b>H18-1897</b>				LOCATION <b>Blue Springs, Missouri</b>							
ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
810	<b>SHALE</b> <i>Gray, Pleasanton Group (continued)</i>		20								
805			25	SS 6		50/1"		15.8			
			28.5'								

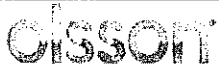
**BASE OF BORING AT 28.5 FEET**

WATER LEVEL OBSERVATIONS

WD	▽ 12.0 ft
IAD	▼ 12.0 ft
AD	▽ Not Encountered

**OLSSON, INC.**  
1700 E. 123RD STREET  
OLATHE, KANSAS 66061

STARTED:	12/16/21	FINISHED:	12/16/21
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BH	LOGGED BY:	CR
METHOD: CONTINUOUS FLIGHT AUGER			



**BOREHOLE REPORT NO. B-4**

**Sheet 1 of 2**

PROJECT NAME <b>Ryan Road RCB Replacement</b>		CLIENT <b>Jackson County, Missouri</b>	
PROJECT NUMBER <b>H18-1897</b>		LOCATION <b>Blue Springs, Missouri</b>	

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/REMARKS
830	APPROX. SURFACE ELEV. (ft): 830		0								
	ASPHALT		0.7'								
	AGGREGATE BASE		1.5'								
	LEAN TO FAT CLAY <i>Firm, brown with gray, silty, moist</i>			SS 1				4.6			
				U 2			0.7	21.0	98.5		
825	FAT CLAY <i>Stiff, brown with gray, moist, trace sand</i>		5.0'								
				SS 3		4-5-7 N=12		28.8			
820			10								
	LEAN CLAY <i>Stiff, brown, silty, moist</i>		13.0'								
				SS 4		2-4-5 N=9		28.9		43/25	
815			15								
	SHALE <i>Gray, moist, Pleasanton Group</i>		16.0'								
				SS 5		50/2"		20.0			
810	Gray, Pleasanton Group		19.0'								
	<b>CONTINUED NEXT PAGE</b>										

WATER LEVEL OBSERVATIONS		<b>OLSSON, INC.</b> 1700 E. 123RD STREET OLATHE, KANSAS 66061	STARTED: 12/16/21	FINISHED: 12/16/21
WD	▽ 12.0 ft		DRILL CO.: KCTE	DRILL RIG: CME 55
IAD	▽ 12.5 ft		DRILLER: BH	LOGGED BY: CR
AD	▽ Not Encountered		METHOD: CONTINUOUS FLIGHT AUGER	



**BOREHOLE REPORT NO. B-4**

**Sheet 2 of 2**

PROJECT NAME <b>Ryan Road RCB Replacement</b>				CLIENT <b>Jackson County, Missouri</b>							
PROJECT NUMBER <b>H18-1897</b>				LOCATION <b>Blue Springs, Missouri</b>							
ELEVATION (ft)	<input checked="" type="checkbox"/> Split Spoon <input type="checkbox"/> Shelby Tube  MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/REMARKS
	Gray, Pleasanton Group (continued)										
805			25	SS 6		50/1"		9.4			
			28.5'								

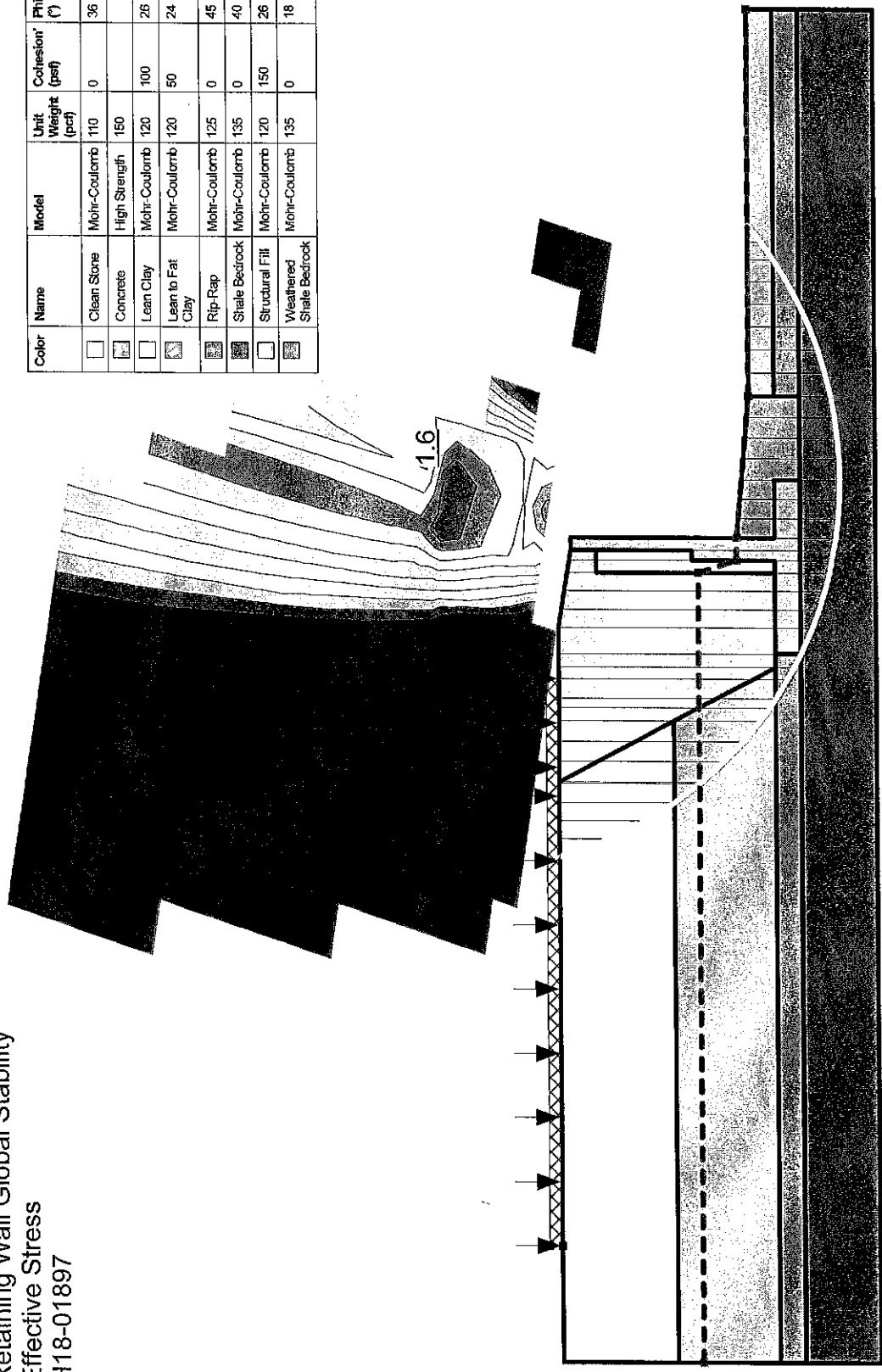
**BASE OF BORING AT 28.5 FEET**

WATER LEVEL OBSERVATIONS		<b>OLSSON, INC.</b> 1700 E. 123RD STREET OLATHE, KANSAS 66061	STARTED: 12/16/21	FINISHED: 12/16/21
WD	∇ 12.0 ft		DRILL CO.: KCTE	DRILL RIG: CME 55
IAD	∇ 12.5 ft		DRILLER: BH	LOGGED BY: CR
AD	∇ Not Encountered		METHOD: CONTINUOUS FLIGHT AUGER	

**APPENDIX C**  
Global Stability Analysis

Ryan Road RCB Replacement  
 Retaining Wall Global Stability  
 Effective Stress  
 H18-01897

Color	Name	Model	Unit Weight (pcf)	Cohesion (psf)	Phi (°)	Piezometric Line
	Clean Stone	Mohr-Coulomb	110	0	36	1
	Concrete	High Strength	150			1
	Lean Clay	Mohr-Coulomb	120	100	26	1
	Lean to Fat Clay	Mohr-Coulomb	120	50	24	1
	Rip-Rap	Mohr-Coulomb	125	0	45	1
	Shale Bedrock	Mohr-Coulomb	135	0	40	1
	Structural Fill	Mohr-Coulomb	120	150	26	1
	Weathered Shale Bedrock	Mohr-Coulomb	135	0	18	1



SLOPE/W Analysis

Section D-D.gsz

03/14/2022

1:148

# SLOPE/W Analysis

Report generated using GeoStudio 2020. Copyright © 1991-2019 GEOSLOPE International Ltd.

## File Information

File Version: 10.02  
Created By: Ian Dillon  
Last Edited By: Ian Dillon  
Revision Number: 6  
Date: 03/14/2022  
Time: 03:50:41 PM  
Tool Version: 10.2.0.19483  
File Name: Section D-D.gsz  
Directory: F:\2018\1501-2000\018-1897-H\40-Design\Reports\FOPS\Design Calculations\  
Last Solved Date: 03/14/2022  
Last Solved Time: 03:57:00 PM

## Project Settings

Unit System: U.S. Customary Units

## Analysis Settings

### SLOPE/W Analysis

Description: Section D-D

Kind: SLOPE/W

Method: Bishop

#### Settings

PWP Conditions from: Piezometric Line

Apply Phreatic Correction: No

Use Staged Rapid Drawdown: No

Unit Weight of Water: 62.430189 pcf

#### Slip Surface

Direction of movement: Left to Right

Use Passive Mode: No

Slip Surface Option: Grid and Radius

Critical slip surfaces saved: 1

Optimize Critical Slip Surface Location: No

Tension Crack Option: (none)

#### Distribution

F of S Calculation Option: Constant

#### Advanced

##### Geometry Settings

Minimum Slip Surface Depth: 0.1 ft

Number of Slices: 30

##### Factor of Safety Convergence Settings

Maximum Number of Iterations: 100

Tolerable difference in F of S: 0.001

### Materials

#### Lean to Fat Clay

Model: Mohr-Coulomb  
Unit Weight: 120 pcf  
Cohesion': 50 psf  
Phi': 24 °  
Phi-B: 0 °  
Pore Water Pressure  
Piezometric Line: 1

#### Lean Clay

Model: Mohr-Coulomb  
Unit Weight: 120 pcf  
Cohesion': 100 psf  
Phi': 26 °  
Phi-B: 0 °  
Pore Water Pressure  
Piezometric Line: 1

#### Structural Fill

Model: Mohr-Coulomb  
Unit Weight: 120 pcf  
Cohesion': 150 psf  
Phi': 26 °  
Phi-B: 0 °  
Pore Water Pressure  
Piezometric Line: 1

#### Clean Stone

Model: Mohr-Coulomb  
Unit Weight: 110 pcf  
Cohesion': 0 psf  
Phi': 36 °  
Phi-B: 0 °  
Pore Water Pressure  
Piezometric Line: 1

#### Concrete

Model: High Strength  
Unit Weight: 150 pcf  
Pore Water Pressure  
Piezometric Line: 1

#### Weathered Shale Bedrock

Model: Mohr-Coulomb  
Unit Weight: 135 pcf  
Cohesion': 0 psf  
Phi': 18 °  
Phi-B: 0 °  
Pore Water Pressure  
Piezometric Line: 1

#### Shale Bedrock



Model: Mohr-Coulomb  
 Unit Weight: 135 pcf  
 Cohesion': 0 psf  
 Phi': 40 °  
 Phi-B: 0 °  
 Pore Water Pressure  
 Piezometric Line: 1

**Rip-Rap**

Model: Mohr-Coulomb  
 Unit Weight: 125 pcf  
 Cohesion': 0 psf  
 Phi': 45 °  
 Phi-B: 0 °  
 Pore Water Pressure  
 Piezometric Line: 1

**Slip Surface Grid**

Upper Left: (-24, 63) ft  
 Lower Left: (-37, 25) ft  
 Lower Right: (49, 12) ft  
 Grid Horizontal Increment: 20  
 Grid Vertical Increment: 20

**Slip Surface Radius**

Upper Left Coordinate: (-55, 55) ft  
 Upper Right Coordinate: (62, 60) ft  
 Lower Left Coordinate: (-55, -6) ft  
 Lower Right Coordinate: (62, -6) ft  
 Number of Increments: 20  
 Use Left Projection: No  
 Left Projection Angle: 135 °  
 Use Right Projection: No  
 Right Projection Angle: 45 °

**Slip Surface Limits**

Left Coordinate: (-55, 19) ft  
 Right Coordinate: (50, 4) ft

**Piezometric Lines**

**Piezometric Line 1**

**Coordinates**

	X	Y
Coordinate 1	-55 ft	8 ft
Coordinate 2	6.25 ft	8 ft
Coordinate 3	7.25 ft	5 ft

Coordinate 4	9 ft	5 ft
Coordinate 5	20 ft	4 ft
Coordinate 6	50 ft	4 ft

### Surcharge Loads

#### Surcharge Load 1

Surcharge (Unit Weight): 200 pcf  
Direction: Vertical

#### Coordinates

	X	Y
	-46 ft	19 ft
	-46 ft	20 ft
	-2 ft	20 ft

### Geometry

Name: 2D Geometry

#### Settings

View: 2D  
Element Thickness: 1 ft

#### Points

	X	Y
Point 1	0 ft	0 ft
Point 2	0 ft	2 ft
Point 3	13.5 ft	2 ft
Point 4	13.5 ft	0 ft
Point 5	7.25 ft	2 ft
Point 6	7.25 ft	8.5 ft
Point 7	8 ft	8.5 ft
Point 8	8 ft	18 ft
Point 9	9 ft	18 ft
Point 10	9 ft	2 ft
Point 11	6.25 ft	2 ft
Point 12	6.25 ft	16 ft
Point 13	8 ft	16 ft
Point 14	-10 ft	19 ft
Point 15	-1.052632 ft	2 ft
Point 16	-55 ft	2 ft
Point 17	-55 ft	0 ft
Point 18	-55 ft	-6 ft
Point 19	50 ft	-6 ft
Point 20	50 ft	0 ft
Point 21	9 ft	5 ft
Point 22	20 ft	4 ft
Point 23	20 ft	0 ft

Point 24	50 ft	4 ft
Point 25	50 ft	2 ft
Point 26	20 ft	2 ft
Point 27	-55 ft	19 ft
Point 28	-55 ft	10 ft
Point 29	-5.263158 ft	10 ft
Point 30	2 ft	19 ft

**Regions**

	Material	Points	Area
Region 1	Concrete	1,4,3,10,21,9,8,13,7,6,5,11,2	47.875 ft <sup>2</sup>
Region 2	Clean Stone	5,6,7,13,12,11	19.625 ft <sup>2</sup>
Region 3	Structural Fill	8,30,14,29,15,2,11,12,13	202.45 ft <sup>2</sup>
Region 4	Shale Bedrock	17,18,19,20,23,4,1	630 ft <sup>2</sup>
Region 5	Rip-Rap	21,22,26,23,4,3,10	40.5 ft <sup>2</sup>
Region 6	Lean to Fat Clay	22,24,25,26	60 ft <sup>2</sup>
Region 7	Weathered Shale Bedrock	26,23,20,25	60 ft <sup>2</sup>
Region 8	Lean Clay	14,27,28,29	426.32 ft <sup>2</sup>
Region 9	Lean to Fat Clay	28,16,15,29	414.74 ft <sup>2</sup>
Region 10	Weathered Shale Bedrock	16,15,2,1,17	110 ft <sup>2</sup>

**Slip Results**

Slip Surfaces Analysed: 621 of 9261 converged

**Current Slip Surface**

Slip Surface: 2,437  
 Factor of Safety: 1.6  
 Volume: 510.73758 ft<sup>3</sup>  
 Weight: 63,935.294 lbf  
 Resisting Moment: 1,043,709.4 lbf-ft  
 Activating Moment: 641,864.59 lbf-ft  
 Slip Rank: 1 of 9,261 slip surfaces  
 Exit: (33.25223, 4) ft  
 Entry: (-15.838397, 19) ft  
 Radius: 30.551602 ft  
 Center: (13.55, 27.35) ft

**Slip Slices**

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	-15.131518 ft	17.034562 ft	-564.0294 psf	144.44418 psf	70.450136 psf	100 psf	0 psf	Lean Clay
Slice 2	-13.717761 ft	13.661053 ft	-353.42063 psf	449.60613 psf	219.28756 psf	100 psf	0 psf	Lean Clay
Slice 3	-12.304003 ft	11.126492 ft	-195.18746 psf	708.31511 psf	345.46836 psf	100 psf	0 psf	Lean Clay
Slice 4	-10.844919 ft	9 ft	-62.430189 psf	996.46793 psf	443.65611 psf	50 psf	0 psf	Lean to Fat Clay

Slice 5	-10.046357 ft	7.9436347 ft	3.5188961 psf	1,118.3039 psf	496.33428 psf	50 psf	0 psf	Lean to Fat Clay
Slice 6	-9.2105263 ft	7.0041019 ft	62.174106 psf	1,243.3712 psf	525.90285 psf	50 psf	0 psf	Lean to Fat Clay
Slice 7	-7.631579 ft	5.360468 ft	164.78648 psf	1,464.4134 psf	578.6312 psf	50 psf	0 psf	Lean to Fat Clay
Slice 8	-6.0526317 ft	3.9389564 ft	253.53172 psf	1,659.3339 psf	625.90343 psf	50 psf	0 psf	Lean to Fat Clay
Slice 9	-4.7368422 ft	2.8845138 ft	319.36077 psf	1,806.5606 psf	662.14405 psf	50 psf	0 psf	Lean to Fat Clay
Slice 10	-3.8563685 ft	2.2455583 ft	359.25088 psf	1,897.2759 psf	684.77285 psf	50 psf	0 psf	Lean to Fat Clay
Slice 11	-2.7511052 ft	1.5258757 ft	404.1808 psf	2,091.2469 psf	548.16099 psf	0 psf	0 psf	Weathered Shale Bedrock
Slice 12	-1.526316 ft	0.78294438 ft	450.56214 psf	2,025.7188 psf	511.79942 psf	0 psf	0 psf	Weathered Shale Bedrock
Slice 13	-0.55899332 ft	0.25706871 ft	483.39266 psf	2,106.4324 psf	527.35756 psf	0 psf	0 psf	Weathered Shale Bedrock
Slice 14	0.96732268 ft	-0.4671169 ft	528.6037 psf	2,048.3756 psf	1,275.24 psf	0 psf	0 psf	Shale Bedrock
Slice 15	2.7083333 ft	-1.2031885 ft	574.55679 psf	2,174.7735 psf	1,342.7413 psf	0 psf	0 psf	Shale Bedrock
Slice 16	4.125 ft	-1.7019399 ft	605.69394 psf	2,251.7423 psf	1,381.1985 psf	0 psf	0 psf	Shale Bedrock
Slice 17	5.5416667 ft	-2.1241955 ft	632.05544 psf	2,319.3924 psf	1,415.8438 psf	0 psf	0 psf	Shale Bedrock
Slice 18	6.75 ft	-2.4308218 ft	557.55289 psf	2,235.4864 psf	1,407.9534 psf	0 psf	0 psf	Shale Bedrock
Slice 19	7.625 ft	-2.619128 ft	475.6636 psf	2,495.0921 psf	1,694.5017 psf	0 psf	0 psf	Shale Bedrock
Slice 20	8.5 ft	-2.7770785 ft	485.52448 psf	2,868.7901 psf	1,999.7973 psf	0 psf	0 psf	Shale Bedrock
Slice 21	9.75 ft	-2.9549342 ft	492.37144 psf	1,030.5741 psf	451.60566 psf	0 psf	0 psf	Shale Bedrock
Slice 22	11.25 ft	-3.1056181 ft	493.26546 psf	1,047.1102 psf	464.73094 psf	0 psf	0 psf	Shale Bedrock
Slice 23	12.75 ft	-3.1819095 ft	489.51513 psf	1,054.3088 psf	473.91814 psf	0 psf	0 psf	Shale Bedrock
Slice 24	14.3125 ft	-3.1812693 ft	480.60724 psf	1,000.805 psf	436.49776 psf	0 psf	0 psf	Shale Bedrock
Slice 25	15.9375 ft	-3.0972661 ft	466.14026 psf	985.29957 psf	435.62638 psf	0 psf	0 psf	Shale Bedrock
Slice 26	17.5625 ft	-2.9258728 ft	446.21751 psf	957.66383 psf	429.15442 psf	0 psf	0 psf	Shale Bedrock
Slice 27	19.1875 ft	-2.6655881 ft	420.74525 psf	917.19557 psf	416.57129 psf	0 psf	0 psf	Shale Bedrock
Slice 28	20.895669 ft	-2.2910194 ft	392.74953 psf	881.8214 psf	410.38003 psf	0 psf	0 psf	Shale Bedrock
Slice 29	22.687008 ft	-1.7881942 ft	361.35806 psf	826.69136 psf	390.461 psf	0 psf	0 psf	Shale Bedrock

Slice 30	24.478347 ft	-1.164059 ft	322.39318 psf	752.12381 psf	360.58682 psf	0 psf	0 psf	Shale Bedrock
Slice 31	26.269685 ft	-0.41039162 ft	275.34158 psf	655.20375 psf	318.7422 psf	0 psf	0 psf	Shale Bedrock
Slice 32	28.024569 ft	0.46254854 ft	220.84376 psf	474.87808 psf	82.540755 psf	0 psf	0 psf	Weathered Shale Bedrock
Slice 33	29.742997 ft	1.4625485 ft	158.41357 psf	334.57016 psf	57.236743 psf	0 psf	0 psf	Weathered Shale Bedrock
Slice 34	31.264715 ft	2.4717407 ft	95.409517 psf	231.88658 psf	60.763504 psf	50 psf	0 psf	Lean to Fat Clay
Slice 35	32.589725 ft	3.4717407 ft	32.979328 psf	103.24315 psf	31.283469 psf	50 psf	0 psf	Lean to Fat Clay

**RYAN ROAD RCB REPLACEMENT**

Jackson County, Missouri - 2022

March, 2022

Olsson Project No. H18-1897



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, KANSAS CITY DISTRICT  
601 E. 12<sup>TH</sup> STREET, 635 FEDERAL BUILDING  
KANSAS CITY, MO 64106-2824

April 5, 2022

Regulatory Branch  
NWK-2021-00710  
Jackson, MO, NWP 14

Mr. Earl Newill  
Jackson County Missouri  
303 West Walnut  
Independence, MO 64050

Dear Mr. Newill:

This letter pertains to an application received on February 28, 2022, for a Department of the Army permit. The proposed work concerns the replacement of the Ryan Road culvert which will involve the placement of fill material within Blue Branch. The project is located in Section 5, Township 48 North, Range 30 West, Jackson County, Missouri.

The Corps of Engineers has jurisdiction over all waters of the United States. Discharges of dredged or fill material in waters of the United States, including wetlands, require prior authorization from the Corps under Section 404 of the Clean Water Act (33 USC 1344). The implementing regulation for this Act is found at 33 CFR 320-332.

We have reviewed the information furnished and have determined that your project is authorized by nationwide permit (NWP) 14, provided you ensure that the conditions listed in the enclosed copy of excerpts from the January 13, 2021, U.S. Army Corps of Engineers (Corps) (86 FR 2744 and the correction at 86 FR 27274), Reissuance and Modification of Nationwide Permits, are met. You must also comply with the Kansas City District Regional NWP Conditions posted at:  
<http://www.nwk.usace.army.mil/Missions/RegulatoryBranch/NationWidePermits.aspx>.

The Missouri Department of Natural Resources has certified that this NWP will not violate existing state water quality standards provided you comply with the conditions included in the attached Missouri Section 401 Water Quality Certification (WQC) document. All conditions included in the WQC are conditions of the NWP authorization. Please review all conditions associated with this NWP. Per 40 CFR Part 121.11(c) the Corps is responsible for enforcing WQC conditions that are incorporated into this permit verification. If you have any questions concerning state WQC standards or compliance issues with the associated certification conditions, please contact the project manager at the phone number and/or email provided below.

**General condition 30** requires you to sign and submit the enclosed "Compliance Certification" within 30 days of completing the authorized activity or the completion of the implementation of any required compensatory mitigation.

This NWP verification is valid until March 14, 2026. Should your project plans change or if your activity is not complete within the specified verification term, you must contact this office for another permit determination. Although the Corps has verified your project would meet the terms and conditions of a nationwide permit, other Federal, state and/or local permits may be required. You should verify this yourself.

Please be aware that the endangered Indiana bat (*Myotis sodalis*), Gray Bat (*Myotis grisescens*) and the threatened northern long-eared bat (*Myotis septentrionalis*) may be present within your project area. To "not

adversely affect” these listed species, you must not cut or clear trees during the bats’ active season, April 1 – October 31. If implementation of the seasonal tree cutting restriction is not possible, please contact the Corps of Engineers, Regulatory Branch, for further consultation with the United States Fish and Wildlife Service (USFWS).

The USFWS has provided this comment: “The USFWS encourages the applicant to minimize tree clearing and fragmentation and maintain as many travel/riparian corridors as possible. The applicant is responsible for compliance with the Endangered Species Act outside the Corps’ action area and suitable habitat for federally listed bats species may occur in their project area beyond the Corps’ action area. Therefore, we recommend the applicant contact the U.S. Fish and Wildlife, Missouri Ecological Service Field Office (101 Park DeVillie Drive, Columbia, Missouri 65203, (573) 234-2132) for additional coordination to reduce or avoid adverse effects to listed bat species outside the Corps defined action area.”

We are interested in your thoughts and opinions concerning your experience with the Kansas City District, Corps of Engineers Regulatory Program. Please feel free to Complete our Customer Service Survey form on our website at: <https://regulatory.ops.usace.army.mil/customer-service-survey/>. You may also call and request a paper copy of the survey which you may complete and return to us by mail.

Mr. Jesse Cochran, Project Manager, reviewed the information furnished and made this determination. If you have any questions concerning this matter, please feel free to contact Mr. Cochran at 816-389-3739 or by email at [jesse.s.cochran@usace.army.mil](mailto:jesse.s.cochran@usace.army.mil). Please reference Permit No. NWK-2021-00710 in all comments and/or inquiries relating to this project. This letter is only being provided to you electronically at: [ENewill@jacksongov.org](mailto:ENewill@jacksongov.org).

Enclosures

cc (electronically w/o enclosures):

Environmental Protection Agency,  
Watershed and Grants Branch  
U.S. Fish and Wildlife Service, Columbia, Missouri  
Missouri Department of Natural Resources,  
Water Protection Program  
State Historic Preservation Office  
Missouri Department of Conservation



### COMPLIANCE CERTIFICATION

General condition 30 of this Nationwide Permit requires that you submit a signed certification regarding the completed work and any required mitigation. This certification page satisfies this condition if it is provided to the Kansas City District at the address shown at the bottom of this page within 30 days of completing the authorized activity or the completion of the implementation of any required compensatory mitigation

**APPLICATION NUMBER:** NWK-2021-00710

**APPLICANT:** Jackson County Missouri  
303 West Walnut,  
Independence, MO 64050

**PROJECT LOCATION:** Within Blue Branch, located in Section 5, Township 48 North, Range 30 West, Jackson County, Missouri.

- a. I certify that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions.
- b. I certify that any required mitigation was completed in accordance with the permit conditions.
- c. Your signature below, as permittee, indicates that you have completed the authorized project as certified in paragraphs a and b above.

\_\_\_\_\_  
(PERMITTEE)

\_\_\_\_\_  
(DATE)

Return this certification to:

U.S. Army Corps of Engineers  
Kansas City District, ODR  
601 East 12<sup>th</sup> Street, Suite 402  
Kansas City, MO 64106-2824  
Email: [Regulatory.KansasCity@usace.army.mil](mailto:Regulatory.KansasCity@usace.army.mil)



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Kansas City District

### **NWP 14 Linear Transportation Projects**

14. Linear Transportation Projects. 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, driveways, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge of dredged or fill material 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 of dredged or fill material 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 of dredged or fill material, 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 of dredged or fill material 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).



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Note 2: Some discharges of dredged or fill material 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)(4) 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).

**Excerpts for 2021 Nationwide Permits  
General Conditions, District Engineer's Decision, & Further Information<sup>1</sup>**

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 330.1 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 or her 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.

<sup>1</sup>The 2021 Nationwide Permits, General Conditions, District Engineer's Decision, Further Information, and Definitions were published in the *Federal Register* on January 13, 2021 (86 FR 2744, and the correction at 86 FR 27274) and December 27, 2021 (86 FR 73522).

**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 Structures and Fills.** Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. 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. Permittees 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 activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

**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 designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical

habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). 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 species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, 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 species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) 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. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) 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 species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference 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 or conference 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 that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects 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) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places 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 (see 33 CFR 330.4(g)(1)). 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 commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or 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.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has 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. 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.** Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

**22. Designated Critical Resource Waters.** Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 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 by permittees in the designated critical resource waters including wetlands adjacent to

those waters. The district engineer may authorize activities under these NWP's only after she or he determines 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) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-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. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-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. 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. If restoring riparian areas

involves planting vegetation, only native species should be planted. 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)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal

agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

**24. Safety of Impoundment Structures.** To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, 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.** (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority 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)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. 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 CWA 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 authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed

the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 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 review by, or 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 and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review 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. 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) (i) 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.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, 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 (including those single and complete crossings authorized by an NWP but do not require PCNs).

This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) 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 and intermittent 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 or 3/100-acre of stream bed 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 species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) 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 NWP activity that requires permission from, or review by, 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, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification:* The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. 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 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 (iii) 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 that 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.

### **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 single and complete crossings of waters of the United States that require PCNs 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 of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, 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.

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 an 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 or 3/100-acre of stream bed, 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. 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 that 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), 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.

### **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).

**GENERAL CONDITIONS**

1. 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. This will ensure compliance with the Missouri Water Quality Standards general criterion requiring waters to be free from physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)].
2. Channelization of streams is not allowed under this precertification. 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. Unless necessary for a stream crossing associated with infrastructure projects and contained within an associated right-of-way, construction easement, or permanent easement, bank stabilization activities only along one bank of a stream are permitted, including but not limited to bank sloping and riprapping. The redirection of flow by excavation of the opposite bank or a streambed is considered a channel modification and is not authorized by this WQC. This will ensure compliance with the Missouri Water Quality Standards general criterion requiring waters to be free from physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)].
3. 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. This will ensure compliance with the Missouri Water Quality Standards general criterion requiring waters to be free from physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)].
4. Only clean, nonpolluting fill shall be used. The following materials are not suitable where contact with water is expected and shall not be used due to their potential to cause violations of the general criteria of Missouri's Water Quality Standards [10 CSR 20-7.031(4)]:
  - a. Earthen fill, gravel and broken concrete where the material does not meet the Suitable Material specifications stated in the "Missouri Nationwide Permit Regional Conditions" (<https://usace.contentdm.oclc.org/digital/collection/p16021coll11/id/2662/>) in locations where erosive flows are expected to occur on a regular basis, such as streambanks and/or lake shorelines.
  - b. Asphalt.
  - c. Concrete with exposed rebar.
  - d. Tires, vehicles or vehicle bodies, and construction or demolition debris are solid waste and are excluded from placement in the waters of the state. Properly sized, broken concrete without exposed rebar is allowed.
  - e. Liquid concrete, including grouted riprap, if not placed in forms as part of an engineered structure.
  - f. Any material containing chemicals that would result in violation of Missouri Water Quality Standards general criteria [10 CSR 20-7.031(4)] or specific criteria [10 CSR 20-7.031(5)].
5. Waste concrete or concrete rinsate shall be disposed of in a manner that does not result in discharge to any jurisdictional water ways. This will ensure compliance with the Missouri Water Quality Standards general criteria requiring waters be free from unsightly bottom deposits [10 CSR 20-7.031(4)(A)]; substances resulting in toxicity to human, animal, or aquatic life [10 CSR 20-7.031(4)(D)]; and physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)].
6. Missouri Water Quality Standards 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 [10 CSR 20-7.031(3)(D)]. 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)]; <https://www.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-7a.pdf>

7. 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. This will ensure compliance with the Missouri Water Quality Standards antidegradation requirement for Best Management Practices [10 CSR 20-7.031(3)(B)].
8. 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. This will ensure compliance with the Missouri Water Quality Standards antidegradation requirement for Best Management Practices [10 CSR 20-7.031(3)(B)] and Missouri Water Quality Standards general criteria requiring waters be free from substances preventing beneficial uses [10 CSR 20-7.031(3)(A)]; substances causing unsightly color or turbidity [10 CSR 20-7.031(4)(C)]; and physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)].
9. 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>. This will ensure compliance with Missouri Environmental Improvement Authority to provide for the conservation of state water resources by the prevention of pollution and proper methods of disposal [Section 260.015, RSMo] and Missouri Water Quality Standards general criteria requiring waters be free from substances that prevent maintenance of beneficial uses; cause unsightly bottom deposits, color, turbidity or toxicity; and/or impair the natural biological community [10 CSR 20-7.031(4)(A), -(B), and -(H)].
10. All efforts shall be made to minimize exposure of unprotected soils. To the best of the project proponent's ability, project activity shall be conducted at times of little or no rainfall to limit the amount of overland flow and sediment disturbance caused by heavy equipment. This will ensure compliance with Missouri antidegradation requirements for Best Management Practices [10 CSR 20-7.031(3)(B)].
11. Programmatic WQC is denied for any NWP issued on a water that is listed for a sediment-related impairment, aquatic habitat alteration, channelization, or unknown impairment as listed in the most current Water Quality Report (Section 305(b) Report) at <https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/impaired-waters>. Although intended to result in minimal impacts, NWP authorizations in these waters may contribute to impairments and result in noncompliance with Missouri's general water quality criteria requiring waters be free from physical, chemical, and hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)] or exceedance of Missouri Water Quality Standards specific criteria [10 CSR 20-7.031(5)]. Since WQC General or Specific Conditions cannot be established to address all concerns from the variety of impairments and activities authorized by NWPs, individual review for WQC will be required. Requirements for individual WQC will be determined on a case-by-case basis based on the specific impairments, and additional testing, design, disposal, or BMP considerations may be required.

To determine the location of the waters noted above, the Department's geospatial data is available upon request, and all published data is available on the Missouri Spatial Data Information Services website at [msdis.missouri.edu/](https://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's Water Protection Program at 573-522-4502.



12. Programmatic WQC is denied for projects authorized by NWP's 17, 21, 32, 34, 37, 38, 44, 48, 49, 50, 51, 52, 55, and 56. Although intended to result in minimal impacts, these NWP's authorize activities that may contribute to impairments and result in noncompliance with Missouri's general water quality criteria [10 CSR 20-7.031(4)], including the requirement that all waters of the state shall be free from physical, chemical, and hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)], or noncompliance with Missouri's specific water quality criteria [10 CSR 20-7.031(5)]. Because programmatic WQC General or Specific Conditions cannot be established to address all concerns from the variety of impairments and activities authorized by these NWP's, the Department requires individual review for WQC for these NWP's. Requirements for individual WQC will be determined on a case-by-case basis based on the specific projects, and additional testing, design, disposal, or BMP considerations may be required.
13. Mitigation for loss of stream resources should be in conformance with the compensatory mitigation guidance currently approved for use in Missouri, including guidance provided by the Missouri Stream Mitigation Method. Stream impacts shall require compensatory mitigation with only instream or riparian corridor credits. Compensatory mitigation shall be within the state of Missouri. This will ensure compliance with the Missouri Water Quality Standards antidegradation requirement for maintenance and protection of designated uses [10 CSR 20-7.031(3)] Mitigation guidance documents can be located online at [www.nwk.usace.army.mil/Missions/RegulatoryBranch/StateofMissouri](http://www.nwk.usace.army.mil/Missions/RegulatoryBranch/StateofMissouri).

## SPECIFIC CONDITIONS

14. Nationwide Permit 3 *Maintenance*
  - a. Silt, sediment, and debris removal shall be limited to a maximum of 200 LF upstream and 200 LF downstream of structures. This will ensure compliance with the Missouri Water Quality Standards antidegradation requirement for maintenance and protection of designated uses [10 CSR 20-7.031(3)].
15. 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. This will ensure compliance with the Missouri's Water Quality Standards general criteria that waters shall be free from unsightly bottom deposits [10 CSR 20-7.031(4)(A)] and solid waste [10 CSR 20-7.031(4)(I)].
16. Nationwide Permit 12 *Oil and Natural Gas Pipeline Activities*,  
Nationwide Permit 57 *Electric Utility Line and Telecommunications Activities*, and  
Nationwide Permit 58 *Utility Line Activities for Water and Other Substances*
  - a. For project crossings that must disturb a water body, work shall be conducted in such a manner as to seal off the work area from flow and minimize sediment transport. Material resulting from the activity shall not be sidecast into waters of the state for more than one month. This will ensure compliance with the Missouri Water Quality Standards antidegradation requirement for Best Management Practices [10 CSR 20-7.031(3)(B)] and general criteria requiring waters be free from substances that prevent maintenance of beneficial uses; cause unsightly color, turbidity, or toxicity; and/or impair the natural biological community [10 CSR 20-7.031(4)(B), -(C), and -(H)].
  - b. If Horizontal Directional Drilling is used, 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 573-634-2436. This will ensure compliance with Missouri Water Quality Standards antidegradation requirement for Best Management Practices [10 CSR 20-7.031(3)(B)] and Missouri Environmental Improvement Authority [Section 260.015, RSMo] to provide for the conservation of state air, land and water resources by the prevention of pollution and proper methods of disposal.
  - c. Project crossings shall be placed as close to perpendicular as possible and shall be limited to a maximum crossing length of no more than one and one-half times the width of the stream. This will ensure compliance with the Missouri antidegradation requirement for maintenance and protection of designated uses [10 CSR 20-7.031(3)] and Best Management Practices [10 CSR 20-7.031(3)(B)].

17. Nationwide Permit 14 Linear Transportation Projects

- a. The permittee shall 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. This will ensure compliance with the Missouri Water Quality Standards general criteria requiring waters be free from substances causing unsightly color or turbidity [10 CSR 20-7.031(4)(C)] and physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)]. 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 shall be limited to a maximum of 200 feet upstream and a maximum of 200 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. This will ensure compliance with the Missouri antidegradation requirement for maintenance and protection of designated uses [10 CSR 20-7.031(3)] and the Missouri Water Quality Standards general criterion requiring waters be free from physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)].

18. Nationwide Permit 20 Response Operations for Oil and Hazardous Substances

Oil and hazardous substance releases shall 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. This will ensure compliance with Missouri Environmental Improvement Authority [Section 260.015, RSMo] to provide for the conservation of state water resources by the prevention of pollution and proper methods of disposal.

19. 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. This will ensure compliance with the Missouri Water Quality Standards antidegradation requirements for maintenance and protection of designated uses [10 CSR 20-7.031(3)]
- 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. This will ensure compliance with the Missouri Water Quality Standards general criteria requiring waters be free from substances causing unsightly color or turbidity [10 CSR 20-7.031(4)(C)] and physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)].

20. Nationwide Permit 41 Reshaping Existing Drainage Ditches

In-channel disposal of excavated material not used for reshaping activities is prohibited. This will ensure compliance with the Missouri Water Quality Standards antidegradation requirement for Best Management Practices [10 CSR 20-7.031(3)(B)] and general criteria requiring waters be free from substances that prevent maintenance of beneficial uses; cause unsightly color, turbidity or toxicity; and/or impair the natural biological community [10 CSR 20-7.031(4)(B), -(C), and -(H)].

21. 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. This will ensure compliance with the Missouri Water Quality Standards general criteria requiring waters be free from substances causing unsightly color or turbidity [10 CSR 20-7.031(4)(C)] and physical chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)]. 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 shall be limited to a maximum of 100 feet upstream and a maximum of 100 feet downstream of the dam. This will ensure compliance with the Missouri Water Quality Standards antidegradation requirement for maintenance and protection of designated uses [10 CSR 20-7.031(3)] and the Missouri Water Quality Standards general criterion requiring waters to be free from physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)].
- c. Restoration of the stream channel to its former, natural state is authorized. Individual WQC is required for non-natural channel modifications. This will ensure compliance with the Missouri Water Quality Standards general criteria requiring waters be free from physical chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(H)]. For purposes of this condition, a channel modification is any activity that alters the width, depth, length and/or sinuosity of a water way.

Unless the Department agrees to an alternative, requests for WQC should be sent electronically to [wpsc401cert@dnr.mo.gov](mailto:wpsc401cert@dnr.mo.gov) [Section 644.026.1(26), RSMo and 10 CSR 20-6.060(5)]. A request for WQC shall include all required information for a complete request for certification in compliance with 40 CFR Part 121. The Department may request additional information prior to providing a WQC decision to ensure Missouri water quality requirements are met, such as a response to comments from the Department, other resource agencies, and/or the public; planned compensatory mitigation; and/or an analysis of practicable alternatives.

An issued WQC, whether programmatically or individually issued, becomes part of and expires with the Section 404 and/or Section 10 permit unless explicitly stated in the WQC.

Acquisition of NFPs 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 required under Missouri Clean Water Law [Sections 644.026.1 and 644.051, RSMo] for land disturbance or return water from material deposition. Permits or any other requirements shall remain in effect. Project proponents with questions are encouraged to contact the Department of Natural Resources' regional office in the project area. A regional office map with contact information is located at <https://dnr.mo.gov/about-us/division-environmental-quality/regional-office>.

Some localities are covered pursuant to Municipal Separate Storm Sewer System Permits with measures to control and possibly treat stormwater. If the project is located within one of these localities, project proponents must comply with all stormwater requirements of the locality's Stormwater Management Plan and any related ordinances. This ensures compliance with CWA Section 402 National Pollutant Discharge Elimination System Permit requirements and the Missouri Clean Water Law [Chapter 644, RSMo].

The Department encourages, but does not require, permittees 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 using porous pavement or creating vegetated swales and/or rain gardens. More information can be found at these websites: [www.epa.gov/owow/NPS/lid/](http://www.epa.gov/owow/NPS/lid/) and [www.lid-stormwater.net/lid\\_techniques.htm](http://www.lid-stormwater.net/lid_techniques.htm).

The Department 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 recommends a minimum riparian buffer strip width of 50 feet as measured from top of bank.

The Department encourages the use of Horizontal Directional Drilling for stream and wetland crossings when practicable. If properly utilized, Horizontal Directional Drilling is an alternative to more traditional, open-trench methods and can result in significant minimization and/or complete avoidance of aquatic resource impacts.

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 <https://dnr.mo.gov/document-search/protecting-water-quality-field-guide>.

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 project proponent is encouraged to visit:

- Missouri Department of Conservation's "Natural Heritage Review" website at <https://naturalheritagereview.mdc.mo.gov/>.
- 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 promptly report it to the Missouri Department of Conservation and the U.S. Fish and Wildlife Service.

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For more information  
Missouri Department of Natural Resources  
Water Protection Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
[wpsc401cert@dnr.mo.gov](mailto:wpsc401cert@dnr.mo.gov)  
800-361-4827 or 573-522-4502  
<https://dnr.mo.gov/water>

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