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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 12th 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
 OSHA 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.

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

a _____ 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: **Reinforced Concrete Box Culvert Replacement on Ryan Road, 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, 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 in the attached General Conditions, Special Conditions, and Technical Specifications, said documents forming the contract 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

_____ (\$ _____)
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 itsequivalent, 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 bid.

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 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 Resolution No. _____

of _____, 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

Date

Frank White, Jr.
County Executive

Date

Approved to form this _____ day of _____, 2022.

County Counselor

Attest: _____
Clerk of the Legislature

By: _____
Second Party

Attest: _____

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.



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

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

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.

- (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.

- 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.

- 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.

(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 manufacturer'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.

- 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.

- 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

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

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.

- 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.

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 st (Observed Friday, December 31 st)
Martin Luther King, Jr Day	Monday, January 17 th
Presidents' Day	Monday, February 21 st
Truman's Birthday	Sunday, May 8 th (Observed Monday, May 9 th)
Memorial Day	Monday, May 30 th

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

- 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

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)

- 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.

- 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

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

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.

- 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)

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

“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", 4th Edition, April 2022 edition plus quarterly supplements as published by the Missouri Highways and Transportation Commission are hereby incorporated into the Contract Documents

- "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

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 rd 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

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

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

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)ay 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

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) 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

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.

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/manufacturere
 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:

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

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

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

- 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

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.

- 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

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

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.

- 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

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.

- 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.

- 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

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

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:

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.

- 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.

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:

- 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 its 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 KCM MB 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 KCM MB 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."

- 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

- 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.

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

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

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.

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:

- 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,

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

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.

- 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

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:

PLS Rate: Lbs/Ac	Seed Name
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:

- 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.

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