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## 1.0 INTRODUCTION

- 1.1 Jackson County, Missouri is seeking bids from qualified contractors for the **2024 Pavement Maintenance Program – Mill and Overlay** for the Jackson County, Missouri Public Works Department.
- 1.2 This is Jackson County, Missouri Invitation to Bid No. 24-036. Response Deadline is 2:00 PM on June 11, 2024.
- 1.3 Submission of Bids: Bids must be submitted on-line through the Bonfire Portal at <http://jacksongov.bonfirehub.com>. Bids submitted by any other method will not be accepted.
- 1.4 Point of Contact: The Point of Contact for this Invitation to Bid is Barbara Casamento, Purchasing Administrator for Jackson County, Missouri.
- 1.5 Project Location: Please see Appendix C of this Invitation to Bid.
- 1.6 Project Number: This is Jackson County, Missouri Public Works Project Number 3285.
- 1.7 Project Completion: The project shall be completed by **September 15, 2024**.
- 1.8 Construction Management: This project will be inspected and managed by the Jackson County Public Works Department – Engineering Division.
- 1.9 Construction Phase Contacts: Contacts for the Public Works Department – Engineering Division will be furnished upon award of the project.

## 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 on the Invitation to Bid.
- 2.2 All Questions must be received on the Bonfire Portal by 5:00 PM, CST on June 4, 2024.
- 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 Addenda if they have obtained the Invitation to Bid through Bonfire.
- 2.5 Bidders and their agents (including subcontractors, associates, consultants, or their agents **may not contact any other County associate, staff or elected official** 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 Responsible Bidders Ordinance Compliance: **Compliance with Jackson County,**

**Missouri Ordinance No. 5825 for Responsible Bidder will be required for this bid. Responsible Bidders Affidavit, included with the Purchasing Forms, Attachment B, must be read, completed, notarized, and included with your bid response. Failure to attach the notarized form with your bid response will result in the REJECTION OF YOUR BID.**

**3.2 Bid Bond Required:**

3.2.1 A Bid Bond in the amount of five percent (5%) of the total bid amount must be turned into the Purchasing Department, Jackson County Courthouse, 415 East 12th Street, Ground Floor, Room G-1, Kansas City, Missouri 64106 before the Response Deadline for this Invitation to Bid.

3.2.2 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.

**3.2.3 Failure to provide a Bid Bond on or 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 Purchasing General Conditions and Exhibit A of the Purchasing Information and Forms included herein, within ten (10) business days after receiving 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 Payment Bond Required:** The Successful Bidder will be required to submit to the Purchasing Department a Performance and 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 Bidder shall be required to submit a Maintenance Bond on the completed work being for a **One-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. The Bond must be received by the Public Works Department at the final acceptance of the work.

**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 PURCHASING INFORMATION AND FORMS:**

**5.1** Purchasing Information:

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

**5.2** Purchasing Forms to be downloaded, filled out and submitted with your bid:

- Responsible Bidder Affidavit
- Affidavit
- Acknowledgement of Addenda Exceptions
- Contractor's Utilization Plan
- Exceptions Page

**6.0 PUBLIC WORKS INFORMATION AND FORMS:**

- 6.1 Proposed Work:** A total of 137,328 square yards of 1.5" cold milling, 13,087 tons of asphaltic concrete overlay (1.5")(APWA Type 5-01)(30% RC), 18,324 tons of asphaltic concrete overlay (3")(APWA Type 5-01)(30% RC), 511 LF full depth sawcut, 311 cubic yards of chip seal excavation, and associated pavement markings.
- 6.2 Bid Quantities:** The County reserves the right to adjust the quantities up or down to any and all bid items to accommodate the available funds.
- 6.3 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.
- 6.4 Equipment Questionnaire:** The Bidder will need to provide this document to the County to demonstrate that they have the necessary equipment to complete the proposed work tasks.
- 6.5 List of Contracts On Hand:** The Bidder will need to provide this document to the County

to show the current work load. The purpose is to show that they are not over committed to other projects and will be able to devote the necessary time to complete the proposed work tasks.

- 6.6 List of Intended Subcontractors:** The Bidder will need to provide this document to the County to show the list of intended subcontractors.
- 6.7 OSHA Ten Hour and 30 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.

In accordance with JCMO Ordinance No. 5825 adopted January 18, 2024, **all Supervisors will be 30-Hour OSHA certified.**

Copies of their certifications shall be provided to the County’s Compliance Review Office and the Engineering Division of the County’s Public Works Department.

- 6.8 Performance and Payment Bond:** The County has provided a bond form for the successful Bidder to use. This document will need to be executed along with the other contract documents. The amount to be bonded shall be the full amount indicated in the Contract Agreement.
- 6.9 Maintenance Bond:** The County has provided a bond form for the Contractor to provide when the project is complete. The bond amount will be the final payment cost. This number shall reflect any and all change orders that affect the contract amount.
- 6.10 Bid Evaluation:** The County will determine the best total point bid. Price will not be the only consideration in the selection process. The County shall let the contract to the best total points Bidder, however, the County may reject any or all bids, including without limitation all non-conforming, non-responsive, unbalanced, or conditional bids, and may reject the bid of any bidder if the County believes that it would be in the best interest of the County to contract with that bidder. The County reserves the right to waive any irregularities and/or formalities as deemed appropriate. The bid evaluation will be weighted as follows:

Subcontractors Submitted with Bid.....	20 points maximum
List of Contracts On Hand .....	10 points maximum
Equipment Availability .....	10 points maximum
Price Submittal .....	<u>60 points maximum</u>
TOTAL BID.....	100 points maximum

- a. Subcontractors Submitted with Bid: The reviewer will score the subcontractors submitted with the bid. Did the Contractor comply with the minority requirements

established for this project? Has the County worked with the submitted subcontractors on previous projects and did they provide a quality service?

- b. List of Contracts On Hand: Does the Contractor have the availability to complete the Project based on the current work under contract and schedule to complete those jobs?
- c. Equipment Availability: Does the Contractor have enough equipment to properly complete the Work?
- d. Price Submittal: The scored points will be prorated based on the apparent low bid. For example, the low bidder submits a bid of \$100,000 and the second lowest bidder submits a bid of \$120,000. The low bidder will receive the full 60 points. The second lowest bidder will receive 50 points based on low bid divided by the 2nd low bid times the total points available ( $(\$100,000 \div \$120,000) \times 60 \text{ points} = 50 \text{ points}$ ).

**6.11 Public Works Forms to be downloaded, filled out and submitted with your bid:**

- Equipment Questionnaire
- List of Contracts On Hand
- List of Intended Subcontractors

**6.12 Project Award:** This project will be awarded to the lowest, responsive, responsible Bidder.



## **GENERAL CONDITIONS**

### **GC-1 SCOPE**

The contract stipulations which follow are general in scope and may refer to conditions which will not be encountered in the performance of the work included in this Contract, and which are not applicable thereto. Any requirement, provision, or other stipulation of these General Conditions which pertains to a nonexistent condition and is not applicable to the work to be performed hereunder, shall have no meaning in the Contract.

### **GC-2 CONTRACT DOCUMENTS**

It is understood and agreed that the Advertisement, Instruction to Bidders, Proposal, Bond Form(s), Contract Agreement, General Conditions, Special Conditions, Technical Specifications, Plans, Addenda thereto, and duly authorized change orders, together with any and all supplementary drawings furnished by the Engineer as and when required to make clear, and to define in greater detail, the intent of the Plans and Technical Specifications, other drawings, specifications, and engineering data furnished by the Contractor (when and as approved by the Owner or Engineer), and instructions furnished by the manufacturers of equipment for the installation thereof are each and all included in this Contract, and the work shall be done in full compliance and accord therewith.

### **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 enumerated above in paragraph GC-2.
- 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 this Contract for the performance of the work covered thereby, and its, his, or their duly authorized agents and other legal representatives.
- d. "Engineer" or "A-E" shall mean the Director of the Jackson County Public Works Department, or their authorized agent.
- e. "Inspector" shall mean the engineering, technical inspector, or inspectors duly authorized by the Owner or Engineer, 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 to be prepared as a basis for proposals.
  - (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 and
  - (3) All drawings submitted by the Owner or Engineer 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 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.

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**

Five (5) copies of the Contractor's Proposal as submitted, Bond Form(s), a Statutory Bond where required, 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. 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. 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 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 the 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.

**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 and shall notify the Engineer 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 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, 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 for their check and approval, together with the same number of copies of each drawing required by the Engineer to be revised. On final approval, the Engineer 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, all such drawings shall become a part of the 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'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. Said materials; appliances, equipment, etc. can only be used as approved equal after receipt from the Engineer of written approval thereof. If the Engineer 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 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. The Engineer 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 perform staking, the Contractor shall furnish without charge, competent men from their force and such tools, stakes, and other materials as the Engineer 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 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 and of delay to the Contractor. This paragraph applies to projects for which the Engineer 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, benchmarks, or other basic reference points located, established, or checked by the Engineer, 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, benchmarks, 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, benchmarks, 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-18 LEGAL ADDRESS OF CONTRACTOR**

Both the business address of the Contractor given in the bid or proposal upon which this Contract is founded, and the Contractor's office in the vicinity of the work, are hereby designated as the places to which all notices, letters, and other communications to the Contractor may be mailed or delivered. The delivering at either of the above-named addresses, or depositing in any mail box regularly maintained by the post office of any notice, letter, or other communication to the Contractor, shall be deemed sufficient service thereof upon the Contractor, and the date of said service shall be the date of such delivery or mailing. Such addresses may be changed at any time by an instrument in writing, executed by the Contractor and presented and delivered to the Engineer and to the Owner. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter, or communication upon the Contractor personally.

**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 themselves 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-21 PATENTS**

It is mutually agreed by and between the parties to this Contract that all royalties and fees for and in connection with patents or patent infringement claims for materials, articles, apparatus, devices or equipment (as distinguished from processes) used in or furnished for the work, shall be included in the contract amount and the Contractor shall satisfy all demands that may be made at any time for such, and they shall be liable for any damage or claims for patent infringements. The Contractor shall at their own cost and expense defend all suits or proceeding that may be instituted at any time against the Owner for infringement or alleged infringement of any such patents involved in the work, and, in case of an award of damages, the said Contractor shall pay such award. Final payment to the Contractor by the Owner will not be made while any such suit or claim remains unsettled. The Contractor, however, shall not be liable for the defense of any suit or other proceedings, nor for the payment of any damages or other costs in connection therewith, for the infringement or alleged infringement of any patented process required by the owner in the design of the work to be done under this Contract or by the Technical Specifications therefor.

**GC-22 INDEPENDENT CONTRACTOR**

The right of general inspection of the Owner shall not make the Contractor an agent of the Owner, and the liability of the Contractor for all damages to persons, firms and corporations, arising from the Contractor's execution of the work, shall not be lessened because of such general supervision, but as to all such persons, firms, and corporations, and the damages, if any, to them or their property, the Contractor herein is an independent Contractor in respect to the work.

**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 workmen. They 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 workmen of the Owner, regarding their work shall be adjusted and determined by the Engineer. 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 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 men, 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 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 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 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 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 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 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 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, 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 and the Owner will assume no responsibility therefor.

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

It is mutually agreed by and between the parties to this Contract, that the Engineer 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 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 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 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 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) such 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, 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, 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 engineer or inspector the Contractor may make written appeal to the Engineer for their decision. Engineers, inspectors, and other properly authorized representatives of the Owner or Engineer 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, without reference to any previous oversight or error in inspection. The Engineer 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, 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 or their 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 men 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 all parts of the work shall be obtained and paid for by the Contractor. The Contractor shall satisfactorily shore, support, and protect 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-33 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 shall determine, on an equitable basis, the amount of:

- 6.12.1 Credit due the Owner for Contract work not performed, because of modifications or alterations authorized hereunder, where the value of the omitted work is not fixed by unit prices in the Contract.
- 6.12.2 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.



- 6.12.3 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 under the authority of the Owner or by the Owner directly.

**GC-34 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 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, when and as so ordered in writing by the Engineer 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 engaged in such work.

The Contractor shall receive the actual costs paid to, or on behalf of, workmen 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 and used, the Contractor shall receive the actual cost of such materials delivered on the work, including transportation charges paid by them (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, 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 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 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 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 and no bills or charges for "Extra Work" will be allowed except for that ordered in writing before its execution.

#### **GC-35 PROVISION FOR EMERGENCIES**

Whenever, in the opinion of the Engineer, 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, 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, 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 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 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.

#### **GC-36 ASSIGNMENT AND SUBLETTING OF CONTRACT**

Except for the furnishing and transportation of materials, the Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of any portion of their Contract to any individual firm or corporation without written consent of the Owner. This consent of the Owner will not be given unless, and until, the Contractor has submitted satisfactory evidence that the proposed subcontractor is qualified to execute the work and has an Affirmative Action Plan acceptable to the County, together with a complete copy of the subcontract if so requested by the Engineer. The subcontract shall bind the subcontractor to comply with all requirements of this Contract, for example, wage rates, equal employment opportunity regulations, submittal of payrolls, etc. Assignment of the entire Contract may be made only upon written consent of the Owner. The Contractor's own forces and equipment shall perform not less than fifty percent (50%) of the contract work.

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

The Contractor shall give their personal attention to any portion of their contract which has been sublet, and they shall be responsible for its proper construction.

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.

**GC-37 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 their property; or if at any time the Engineer 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 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-38 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 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, 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 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, any expense which, in the opinion and judgment of the Engineer, is caused thereby shall be paid by the Owner to the Contractor.

**GC-39 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-40 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. They shall always 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-41 SANITARY REGULATIONS**

In general, the operations of the Contractor shall be in full conformity with all 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 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-42 CHARACTER OF WORKERS**

The Contractor shall employ only workers, 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 shall notify the Contractor that any worker on the jobsite is, in their opinion, incompetent, unfaithful, or disorderly, or who uses threatening or abusive language when on the jobsite to any person representing the Owner, such worker shall be immediately discharged from the project and shall not be reemploy thereon except with the consent of the Engineer.

**GC-43 SATURDAY, SUNDAY, HOLIDAY, AND NIGHT WORK**

No work shall be done between the hours of 6:00 P.M. to 8:00 A.M., nor on Saturdays, Sundays, or legal holidays, without the written approval or permission of the Engineer 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. The Engineer, however, may revoke such permission at any time if the Contractor fails to maintain adequate equipment at night for the proper prosecution and control of the work, and all operations performed thereunder.

**GC-44 UNFAVORABLE CONSTRUCTION CONDITIONS**

During unfavorable weather, wet ground, or other unsuitable construction conditions, 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, the Contractor shall be able to perform the work in a proper and satisfactory manner.

**GC-45 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 proposal, subject to any extension or extensions of such time made as hereinafter provided. The Contractor may be required to furnish the Engineer with a tentative schedule setting forth in detail the procedure they propose to follow, and giving the dates they expect to start and to complete separate portions of the work. If at any time, in the opinion of the Engineer, proper progress is not being maintained, such changes shall be made in the schedule of operations as the Engineer shall direct or approve.

**GC-46 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 workmen 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-38 Suspension of Work on Notice".

**GC-47 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, 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, 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-48 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-49 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-50 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 by and at the expense of the Contractor, who shall repair at their own expense all damage resulting from the testing.

**GC-51 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 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-52 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 54.

**GC-53 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 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-54 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-55 EQUIPMENT GUARANTY**

The Contractor is not required to provide a guaranty or warranty on any equipment installed.

**GC-56 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-57 PERFORMANCE, PAYMENT, AND MAINTENANCE BONDS**

The Performance and Payment, and Maintenance bonds shall be executed by the Contractor with a surety company which: (1) meets the minimum standard for an insurance carrier which currently is in effect for all coverages purchased by Jackson County; and (2) is on the most current United States Treasury list as a surety whose bonds are acceptable to the United States Government.

- a. For the faithful performance and completion of the work in strict accordance with the terms of the Contract, and each and every covenant, condition, and part thereof, according to the true intent and meaning of Contract Documents and herein defined; and
- b. For payment of all just claims for labor performed and material furnished; and
- c. For the repair, or replacement where required, or the cost thereof, of all work performed under the terms of the Contract, where such repair or replacement is required because of defective workmanship or materials, or both, and for the replacement of defective equipment or parts thereof, within a period of one (1) year after the date of acceptance as herein provided. The Owner agrees to mail a notice to the Contractor, calling their attention to any failure to comply with the requirements of the bond, not less than ten (10) days before notifying their surety of such failure.

**GC-58 ESTIMATED QUANTITIES**

The Contractor agrees that the quantities of work as stated in their Proposal and 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 on the work or any portion thereof covered by this Contract, which has not actually entered into the construction of said improvements.

**GC-59 MONTHLY ESTIMATES AND PAYMENTS**

- a. Unit Price Contracts: On or about the first day of each month, the Engineer 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 the Engineer 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 an itemized application for payment, supported to the extent required by the Engineer 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 may direct. If payments are made on valuation of work done, the Contractor shall, before the first application, submit to the Engineer 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 and the Contractor may agree upon, and, if required, supported by such evidence as to its correctness as the Engineer may direct. This schedule, when approved by the Engineer, 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 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-60 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 them 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-61 COMPLETION AND ACCEPTANCE OF WORK**

The Contractor shall make final corrections promptly as instructed and/or listed in writing by the Engineer. Upon completion of the work the Engineer 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-62 FINAL ESTIMATE AND PAYMENT**

After official approval and acceptance of the work by the Owner, the Engineer 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-63 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-64 CLAIMS FOR ADJUSTMENT AND DISPUTES**

If for any reason the Contractor deems that additional compensation is due 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 should be construed as a waiver of the Contractor's right to dispute final payment based on differences in measurements or computations.

**GC-65 SAFETY TRAINING REQUIREMENT FOR ALL ON-SITE EMPLOYEES**

The Contractor to whom the Contract is awarded and any subcontractor under such Contractor shall require all on-site employees to complete a ten-hour Occupational Safety and Health Administration (OSHA) construction safety program for their on-site employees which includes a course in construction safety and health approved by OSHA, or a similar program approved by the department which is at least as stringent as an approved OSHA program. In addition, all Supervisors shall have completed a 30-hour OSHA construction safety program. All employees are required to complete the program within sixty (60) days of beginning work on such a 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.

**END OF SECTION**

## **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-6 COPIES OF CONTRACT (GC-6).** The General Conditions GC-6 is amended by deleting the entire paragraph and replacing it with the following:

- a. 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.
- b. 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).** The General Conditions GC-7 is amended by adding the following:

- A. All work on this project shall conform to the project drawings and to the Contract Documents.
- B. The Work shall also conform to referenced standard drawings and to other drawings or information thereto as may be furnished by the County prior to the opening of the bids or during construction.
- C. All work shall be in accordance with these Standard Specifications. Should any conflict arise between the Contract Documents, Standard Specifications or Plans, the following order of precedence shall be used:
  1. Plans – or Appendix sheets
  2. Technical Specifications
  3. Special Conditions
  4. General Conditions
- D. The Contractor, subcontractors, and fabricators shall be in compliance with all Local, State, and Federal regulations.

**SC-9 CONTRACTOR TO CHECK PLANS AND SCHEDULE (GC-9).** The General Conditions GC-9 is amended by adding the following:

- A. 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.
- B. The construction progress schedule shall be in a form approved by the County and shall include at least the following information for each significant work item:
  1. Beginning date.

2. Scheduled percentage of completion at the end of each calendar month.
3. Ending date.

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

The County will review the proposed progress schedule and may require the Contractor to revise it if, in the County'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 County for their approval within fourteen (14) days of notification to the Contractor that a revised schedule is required.

- C. The Contractor will be required to revise their original approved progress schedules any time actual progress of the Work on the Contract lags the scheduled progress by fifteen percent or more. A revised schedule shall be submitted to the County for their approval within fourteen (14) days of written notification to the Contractor that a revised schedule is required.
- D. 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.

**SC-12 OWNERSHIP OF DRAWINGS (GC-12).** The General Conditions GC-12 is modified by adding the following:

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 except for the Contractor's signed contract sets, are to be returned to the County on request, upon completion of the Work.

**SC-19 CONTRACTOR'S OFFICE AT SITE OF WORK (GC-19).** The General Conditions GC-19 is modified by adding the following:

- A. 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 inside of the building in a specified location with the permission of the County, if applicable.
- B. No direct payment will be made for the Contractor's office, shops, or storage areas.
- C. Common-Use Field Office: Of sufficient size to accommodate the needs of the County, Engineer and construction personnel, office activities, and to accommodate Project meetings. Keep the office clean and orderly.
- D. 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).** The General Conditions GC-20 is modified by adding the following:

- A. 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.
- B. 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.
- C. It is the responsibility of the Contractor to coordinate all removal and construction activities with Utility Owners.
- D. The Contractor at their sole cost and expense will provide any water required along the project route in connection with the work to be performed.
- E. 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.

**SC-25 METHODS OF OPERATION (GC-25).** The 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 construction of the project, including safety of all persons and property.

**SC-27 AUTHORITY AND DUTY OF THE ENGINEER (GC-27).** The General Conditions GC-27 is amended by deleting the entire paragraph and replacing it with the following:

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

**SC-28 INSPECTION (GC-28).** The General Conditions GC-28 is modified by adding the following:

- A. This project will be observed by County personnel.
- B. The Contractor shall notify their subcontractors, the County and all contractors and subcontractors under the County, 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 County and/or proper authorities.
- C. The Contractor and their subcontractors may not put in place any work which will prevent observation and approval of previous work without first notifying the County, and/or proper authorities.

**SC-29 NO WAIVER OF RIGHT (GC-29).** The General Conditions GC-29 is modified by adding the following:

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, nor any extension of time, nor any possession taken by the County or its employees, 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).** The General Conditions GC-32 is modified by adding the following:

- A. The Contractor shall confine all work, equipment and personnel within the limits of the existing project rights-of-way and construction limits noted. The Contractor shall make no claim for additional payment for confining their operations within these areas.

**SC-33 MODIFICATIONS AND ALTERATIONS (GC-33).** The General Conditions GC-33 is modified by adding the following:

The Contractor may submit to the Engineer, in writing, proposals 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 proposal 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 proposals shall contain the following information:

1. A description of both the existing Contract requirements for performing the work and the proposed changes.
2. An itemization of the Contract requirements that must be changed if the proposal is adopted.
3. A detailed estimate of the cost of performing the Work under the existing Contract and under the proposed change.
4. A statement of the time within which the Engineer must make a decision thereon.
5. The Contract items of work affected by the proposed changes, including any quantity variation attributable thereto.

This Special Condition shall not be construed to require the Engineer to consider any cost reduction proposal 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 proposal; the County will not be liable to the Contractor for failure to accept or act upon any cost reduction proposal submitted pursuant to this section nor for any delays to the work attributable to any such proposal. If a cost reduction proposal is like a change in the Plans or Specifications for the project under consideration by the County at the time said proposal is submitted, the Engineer will not accept such proposal and the County reserves the right to make such changes without compensation to the Contractor under the provisions of this article.

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 proposal has been issued. If an executed change order has not been issued by the date upon which the Contractor's cost reduction proposal specified that a decision thereon should be made, or such other date as the Contractor may subsequently have specified in writing, such cost reduction proposal shall be deemed rejected.

The Engineer shall be the sole judge of the acceptability of a cost reduction proposal and of the estimated net savings in construction costs from the adoption of all or any part of such proposal. 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.

The County reserves the right where they deem such action appropriate to require the Contractor to share in the County's cost of investigating a cost reduction proposal submitted by the Contractor as a condition of considering such proposal. Where such a condition is imposed, the Contractor shall indicate their acceptance thereof in writing, and such acceptance shall constitute full authority for the County to deduct amounts payable to the County from any moneys due or that may become due to the Contractor under the Contract.

If the Contractor's cost reduction proposal 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 Special Condition. Such change order shall incorporate the changes in the Plans and Specifications which are necessary to permit the cost reduction proposal or such part of it as has been accepted to be put into effect and shall include any conditions upon which the County's approval thereof is based on if the approval of the County 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 proposal effectuated by the change order and shall further provide the Contractor be paid fifty percent (50%) of said estimated net savings amount.

Acceptance of the cost reduction proposal 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 proposal.

The amount specified to be paid to the Contractor in the change order which effectuates a cost reduction proposal shall constitute full compensation to the Contractor for the cost reduction proposal and the performance of the work thereof pursuant to the said change orders.

The County expressly reserves the right to adopt a cost reduction proposal for general use on contracts administered by the County when it determines that said proposal is suitable for application to other contracts. When an accepted cost reduction proposal is adopted for general use, only the Contractor who first submitted such proposal 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 proposal. Cost reduction proposals identical or like previously submitted proposals will be eligible for consideration and compensation under the provisions of this article if the identical or similar previously submitted proposals were not adopted for general application to other contracts administered by the County. Subject to the provisions contained herein, the County shall have the right to use all or any part of any submitted cost reduction proposal without obligation or compensation of any kind to the Contractor. This article of the Specifications shall apply only to contracts awarded to the lowest bidder pursuant to competitive bidding.

The Engineer reserves the right to make, in writing, at any time during the Work, such changes in quantities and such alterations in the Work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the Contract nor release the surety, and the Contractor agrees to perform the Work as altered.

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 Engineer may determine to be fair and equitable.

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.

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 more than 125 percent or decreased below 75 percent of the original Contract quantity. Any allowance for an increase in quantity shall apply only to the portion of the work more than 125 percent of the original contract item quantity, or in the case of a decrease below 75 percent, to the actual amount of work performed.
- c. The Contractor's attention is called to the Bid Form which allows the County to adjust the quantities upward or downward based upon the available funding. This may be more than the percentages noted above.

**SC-34 EXTRA WORK (GC-34).** The General Conditions GC-34 is modified as follows for numbers 2, 3 and 4:

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

**SC-38 SUSPENSION OF WORK ON NOTICE (GC-38).** The General Conditions GC-38 is modified by adding the following:

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 the 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. 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 their determination whether or not an adjustment of the Contract is warranted.

No contract adjustment will be allowed unless the Contractor has submitted the request for adjustment within the time prescribed.

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-40 LAWS AND ORDINANCES (GC-40).** The General Conditions GC-410 is modified by adding the following:

No burning will be allowed.

**SC-42 CHARACTER OF EMPLOYEES (GC-42).** The General Conditions GC-42 is modified by adding the following:

Employees who may have occasion to speak with the general public must be able to communicate in clear English.

**SC-44 UNFAVORABLE CONSTRUCTION CONDITIONS (GC-44).** The General Conditions GC-44 is modified by adding the following:

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

**SC-45 BEGINNING, PROGRESS, AND TIME OF COMPLETION OF WORK (GC-45).** The General Conditions GC-45 is modified 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 Proposal 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."

The Contractor's attention is directed to the conditions of GC-43 and GC-45. Holidays: Saturdays, Sundays, and holidays established by the laws of the County will not be counted as working days.

**2024 List of Jackson County, Missouri Holidays**

President's Day	Monday, February 20
Truman's Birthday	Monday, May 8
Memorial Day	Monday, May 29
Juneteenth	Monday, June 19
Independence Day	Tuesday, July 4
Columbus Day	Monday, October 9
Veteran's Day	Friday, November 10

- B. 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 AM to 4:30 PM.
- C. Weekend work schedule(s) shall be coordinated and approved with the County prior to any construction.
- D. 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.

- E. 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 striping contractor that is to accomplish the permanent striping, if applicable, as well as representatives of any other affected agencies which the County may wish to invite.
- F. 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 LIQUIDATED DAMAGES (GC-48)**

In accordance with GC-48, 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 Assessment</u>
\$25,000 to \$50,000 .....	\$475
\$50,001 to \$100,000 .....	\$500
\$100,001 to \$500,000 .....	\$700
\$500,001 to \$1,000,000.....	\$950
\$1,000,001 to \$2,000,000 .....	\$1,100

**SC-49 TEST OF MATERIALS OFFERED BY CONTRACTOR (GC-49)**

Modify GC-49, Tests of Materials Offered by Contractor, by adding the following:

- A. Testing and quality control shall be in accordance with the Technical Specifications. All testing shall be provided and paid for by the County except as outlined in the Technical Specifications.
- B. Submission of all Compliance Submittals shall be scheduled to permit review, fabrication, and delivery in time to cause no delay in the Work of the Contractor or their subcontractors or any other contractors as described herein. The Contractor shall allow fifteen (15) days for the County to review original submittals and/or re-submittals. However, the County will make every effort to promptly review such submittals and transmit comments to the Contractor.
- C. The Prime Contractor shall submit compliance submittals of materials furnished by subcontractors, manufacturers, and suppliers.

**SC-53 DISPOSAL OF TRASH AND DEBRIS (GC-53)**

The following is added to GC-53:

- A. 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 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. Final Cleanup shall be at no additional cost to the County.

**SC-58 ESTIMATED QUANTITIES (GC-58)**

Add the following to the end of GC-58:

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-59 MONTHLY ESTIMATES AND PAYMENTS (GC-59)**

Modify GC-59, Monthly Estimates and Payments, by adding the following:

- d. The method of measurement and basis of payment for each item as listed in the Proposal will be as stipulated in the sections of the Technical Specifications and on the Plans and in this article.
- e. There shall be no measurement or separate payment for any item of work which is not specifically identified and listed in the Proposal and all costs pertaining thereto shall be included in the contract unit prices for related items which are listed in the Proposal.
- f. 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.
- g. 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.
- h. 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 County may deem it necessary to ensure their accuracy. The Contractor shall furnish the County a waybill for each truckload, signed by the weigh master and truck driver.
- i. 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.
- j. 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 Proposal.
- k. 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 the County with such detailed information as requested to aid them as a guide in the review of the payment application.
- l. The Contractor shall submit payment estimates or certificates of payment to the County.
- m. The County 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.

**SC-62 FINAL ESTIMATE AND PAYMENT (GC-62)**

General Conditions GC-62 is modified by adding the following:

The Contractor shall notify the Engineer when they have completed all work in accordance with the Specifications. 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 County's representative, and the Engineer. 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 County, due to such repeated inspections, shall be at the expense of the Contractor and will be deducted from the final contract amount.

**SC-64 CLAIMS FOR ADJUSTMENT AND DISPUTES (GC-64)**

General Conditions GC-64 is modified by adding the following:

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.

The Contractor is solely responsible for determination of existing conditions. All claims for adjustments in contract price or quantity of removals shall be denied.

**END OF SECTION**

## **TECHNICAL SPECIFICATIONS**

### **TS-1 GENERAL**

The latest editions of the following specifications are incorporated into the Contract Documents by reference:

- American Public Works Association (APWA) Kansas City Metropolitan Chapter Standard Specifications, Sections 2000 through 2900, current edition.
- Manual on Uniform Traffic Control Devices (MUTCD), current edition.

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, the appropriate Standard Specification, shall govern the plans where applicable sections in the Standard Specifications are found.

### **TS-2 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. Basis of Payment: No direct payment will be made for Mobilization and shall be **SUBSIDIARY** other bid items.

### **TS-3 DIFFERING SITE CONDITIONS**

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 they determine 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 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.

#### **TS-4 TRAFFIC CONTROL AND CONSTRUCTION SIGNING**

A. The project shall be constructed open to through traffic. All advance-warning signs will be installed and maintained by the Contractor. Vehicular access to the driveways shall be maintained and facilitated to the best of the Contractor's ability.

B. Traffic control and traffic control signs and devices shall conform to the Manual on Uniform Traffic Control Devices (MUTCD), latest edition.

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), 2009 Edition. The Contractor shall replace any unacceptable device as soon as possible but not to exceed 24 hours after the Contractor had been notified.

The Contractor shall pay for all labor, equipment, and materials to maintain traffic at the worksite. Said traffic control shall be in accordance with Chapter 6C, Temporary Traffic Control Elements (MUTCD 2009 Edition) and may include pilot vehicles and flagmen, radios, signage, etc.

Temporary Markings are required and shall be in accordance with Section 6F.78 of the 2009 Edition of the MUTCD. The Contractor shall coordinate all paving operations with the County so that the placement of the permanent pavement markings, which will be provided by the County or its agent, can be placed in a timely fashion. Placement of the temporary pavement markings shall be considered **SUBSIDIARY** to other bid items.

The Contractor shall submit a Traffic Control Plan for approval prior to the issuance of the Notice to Proceed. The plan shall show and explain in detail the Contractor's intent as to handling and maintaining traffic through the construction zones.

C. All temporary traffic control devices specified in the traffic control plan or authorized by the County will be **SUBSIDIARY** to other bid items.

#### **TS-5 RESIDENT AND BUSINESS NOTIFICATION**

The Contractor is responsible for posting door hangers (See Appendix A) notifying residents (a minimum of 24 hours in advance) of upcoming construction. If vehicles have not been moved after being notified, the Contractor shall be responsible for checking nearby residents to move the vehicle. If the vehicle remains an obstruction to construction activities, the County shall be responsible for contacting the Sheriffs' Department to alert them to the situation. The County will also arrange for towing service of the vehicle. Cars not moved will be towed to a nearby street out of the way of construction work. Resident and business notifications are **SUBSIDIARY** to other bid items.

#### **TS-6 ROAD PREPARATION**

Jackson County Public Works Road & Bridge Division will provide all the road preparation such as base repair and patching prior to the asphalt overlay. It is the County's goal to have all this work completed prior to the Notice to Proceed.

### **TS-7 COLD MILLING**

A. General: This work shall consist of furnishing of all labor, materials, and equipment for the performance of cold milling pavement surfaces as shown on the Plans. This work will consist of the removal of the existing surface, loading, hauling, and stockpiling, if required, of the milled material and the cleaning of the milled surface.

B. Construction.

1. Cold Milling Machine: The cold milling machine shall be self-propelled and able to automatically control grade and slope of the milled surface. Operate the automatic grade and slope control from a travelling stringline a minimum of 30 feet long, attached to the milling machine and operating parallel to the direction of travel. Other methods of positive grade control may be used if approved by the County. The machine shall have the means of milling without damaging the remaining pavement (torn, gouged, shoved, broken, etc.). The machine shall be capable of blading the cuttings into a single windrow or depositing them directly into a truck.

It is desirable that the cutting width be greater than 6 feet. In the event the cutting width is less than 6 feet, a system of electronic grade control for consecutive passes will be required. The usage of cold milling machines of a lesser width will be allowed in areas necessitating it and electronic controls will not be required in these areas.

2. Methods of Operations for Milling: Street surfaces adjacent to manholes, water valves and other utility extensions shall be completely removed to the full depth of cut specified for the street unless otherwise specified by the County.

The drum lacing patterns shall produce a smooth surface finish after milling, with groove depths not to exceed 1/4 inch and groove spacing not to exceed 1 inch unless otherwise approved by the County.

3. Type of Cuts to be made by Milling: Sufficient passes shall be made such that all irregularities or high spots are eliminated, and that 100% of the surface is milled. In addition, the curb cut depth at the edge of the curb and at headers will be 1.5" where applicable.
4. Material Disposal: Pavement millings are the property of the County and shall be hauled to the locations indicated in Appendix B. Any changes to the haul locations shall be communicated with the County Inspector prior to making any changes.
5. Cleanup: All loose asphalt and debris shall be removed from the street surface and curb and gutter. Any material and debris that adheres to the curb and gutter shall be removed.
6. Opening to Traffic: If the milled area will be opened to traffic prior to surfacing, provide a smooth riding surface by either milling or placing a wedge of hot mix asphalt or other approved material of a thickness and design that will remain in place under traffic. The transition between the milled area and transverse joints shall be a minimum of 1 vertical to 24 horizontal. The transition between the milled surface and manholes, utility fixtures or other appurtenances shall be a minimum of 1 vertical to 12 horizontal. Transitions shall be removed prior to surfacing.

C. Measurement: Cold milling shall be measured per square yard or tenth part thereof for the specified depth.

D. Payment: Cold Milling will be made at the contract unit bid price for “1.5” Cold Milling”.

**TS-8 1.5” ASPHALTIC CONCRETE OVERLAY**

A. Asphaltic concrete pavement shall be in accordance with APWA Standard Specifications Section 2205, current edition.

B. The asphaltic concrete mix for the overlay shall be APWA RC Type 5-01 and meet the requirements of APWA Section 2205. The maximum recycled material used for the surface mix shall not exceed 30%.

C. Measurement shall be in accordance with Section 2205.10.B. This states that asphaltic concrete pavement will be measured per ton or tenth part thereof.

D. Payment for the asphaltic concrete mixture used in the Work will be made at the contract unit price bid for “Asphaltic Concrete Overlay (1.5”)(RC Type 5-01)(30%)”. The unit price bid shall include all costs associated with the procurement, production, hauling, preparing surface for placement, tack coating, paving operation, temporary traffic control, compaction, and all other miscellaneous work required.

**TS-9 TACK COAT**

A. General: This work shall consist of treating a milled roadway base with bituminous material in accordance with these specifications, as shown on the Plans, or as directed by the County.

B. Asphalt Material: The type and grade of asphalt material to be used as tack coat shall be SS-1h or approved equal. The rate of application shall be 0.05 to 0.15 gallons per square yard.

Asphalt materials shall be approved by the County prior to use in the work. The County may accept a certified analysis by the material supplier laboratory when a copy of the certified analysis accompanies each shipment of asphalt to the project. The County reserves the right to perform tests of the asphalt material received on the job.

C. Construction:

1. Preparation of Existing Surface: The existing surface shall be free of dust, loose material, grease or other foreign material at the time the tack is applied. Preparation of the surface is to be performed by the Contractor before the tack is applied.
2. Application of Asphalt Material: Asphalt emulsion shall be applied uniformly with a pressure distributor at the rate specified above. Water may be added to the asphalt emulsion and mixed therewith in such proportion that the resulting mixture will contain no more than 50% of added water, the quantity of added water to be approved by the County. The application of the resulting mixture shall be such that the original emulsion will be spread at the specified rate. The asphalt emulsion shall be heated at the time of application to a temperature in accordance with the manufacturer’s recommendation. The tack shall be properly cured, and the tacked surface shall be cleaned of dirt and other foreign material before the next course is placed.

The tack coat shall be applied in such manner as to cause the least inconvenience to traffic and to permit one-way traffic without pickup or tracking of the asphalt emulsion.

D. Measurement: Tack coat for the project will not be measured.

E. Payment: The placement of tack coat, including the labor, materials, and roadway preparation, shall be **SUBSIDIARY** to Asphaltic Concrete Overlay (1.5")(RC Type 5-01).

**TS-10 3" APHALTIC CONCRETE OVERLAY**

A. General: This work shall consist of furnishing of all labor, materials, and equipment for the performance of placing asphaltic concrete material over an existing chip sealed roadway as shown on the Plans. This work will consist of saw cutting the existing chip seal surface to create a uniform header, removing a portion of the existing roadway surface to allow for the installation of the new asphaltic concrete pavement, and placement of the asphaltic concrete pavement in accordance with APWA Standard Specifications Section 2205, current edition.

B. Saw Cutting.

1. Where the existing chip seal road surface is to be removed, the roadway shall be cut with a pavement saw to a minimum depth of five (5) inches (see 3" Overlay Transition Details in Appendix C). Water shall be used as required to control dust during sawing operations. In order to provide a true alignment and vertical face against which the new pavement will be placed, a greater depth of cut may be necessary.
2. Measurement: Sawcut shall be measured at the nearest 0.1 linear foot.
3. Payment: Sawcut shall be full compensation for all labor, materials, and equipment necessary to complete the work at the unit price provided in the bid.

C. Wedge Excavation.

1. The Contractor shall remove a portion of the existing chip seal roadway surface to allow for the placement of the new asphaltic concrete surface (see 3" Overlay Transition Details in Appendix C).
2. Once completed, the Contactor shall roll subgrade to a smooth and flat condition prior to applying tack coat.
3. Measurement: No measurement will be made for the Wedge Excavation.
4. Payment: Wedge Excavation shall be paid at the plan quantity as shown in the bid.

D. 3" Asphaltic Concrete Overlay.

1. The Contractor shall sweep the roadway surface to remove any loose material. The use of an air compressor may be needed to remove any material that cannot be removed by standard sweeping procedures.
2. A tack coat shall be applied prior to the existing roadway prior to paving operations. The tack coat material shall be SS-1h or and approved equal and applied at a rate of 0.05 to 0.15 gallons per square yard.
3. The asphaltic concrete mix for the overlay shall be APWA RC Type 5-01. The maximum recycled material used for the surface mix shall not exceed 30%.
4. The asphaltic concrete surface shall be placed in accordance with APWA Section 2205. The Contractor may place the 3" overlay as a single lift.
5. Measurement: The asphaltic concrete pavement will be measured per the nearest 0.01 tons.
6. Payment: Payment for the asphaltic concrete mixture used in the Work will be made at the contract unit price bid for "Asphaltic Concrete Overlay (3")(RC Type 5-01)(30%)". The unit price bid shall include all costs associated with the procurement, production, hauling, preparing surface for placement, tack coating, paving operation, temporary traffic control, compaction, and all other miscellaneous work required.



## **TS-11 PAVEMENT MARKING**

Permanent pavement markings shall conform to the "Manual on Uniform Traffic Control Devices," (MUTCD) 2009 edition including Revision 1 dated May 2012 and Revision 2 dated May 2012. Permanent pavement markings shall conform to APWA Standard Specifications Section 2306, current edition, except as modified by these Technical Specifications:

### A. Pavement Marking Removal:

1. All pavement marking designated for removal, regardless of the type of existing marking, shall be completely removed to the satisfaction of the County with minimal damage to the pavement. No more than five percent (5%) of the existing marking shall remain upon completion of the work. The pavement surface shall not be left scarred to such an extent that, in the opinion of the engineer, the obliterated area is misleading to motorists. Any excess damage or scarring of the pavement shall be repaired at the contractor's expense.
2. Measurement: There shall be no measurement for the removal of any existing pavement markings that may conflict with the Work.
3. Payment: Pavement Marking Removals shall be **SUBSIDIARY** to the payments for the contract unit price bid for various types of paint lines, arrows, etc.

### B. Pavement Marking Materials:

#### 7. Marking Definition for Striping.

- a) 4" White/Yellow Edge Line (white/yellow longitudinal marking): A solid line on the right and left edge of a roadway.
- b) 4" Yellow/White Dashed: A broken line at the center of the roadway which consists of 10-foot-long stripes separated by 30-foot-long gaps.
- c) 4" One Side No Passing (NP): The combination of a solid yellow line where no passing is required and a broken yellow line where passing is permitted.
- d) 4" Double Yellow (yellow longitudinal marking): Two solid yellow lines at the center of a roadway where two direction no passing is required. Double centerlines should consist of 4" lines separated by a 4" space.
- e) 4" Yellow Lines with 4" Dashed Lines (Broken Intermittent Median Lines) for Two-Way Left Turn Lanes TWLTL shall be placed in accordance with Appendix plans.
- f) 6" White Dotted Edge Line: A broken line on the right edge of the roadway. The line consists of 2-foot line segments and 2- to 6-foot gaps.
- g) 6" Solid White Crosswalk: Two solid transverse white lines that extend the full width of the pavement. The lines are separated by a minimum of 6-feet (see plans).
- h) 18" Solid Yellow Diagonal Median Lines: Diagonal transverse lines placed at 20-foot intervals. Spacing may be increased to 40-feet if the median island is greater than 200-feet in longitudinal length.
- i) 24" Solid White Stop Bar: A solid white line that extends from the centerline to the

edge of pavement.

- j) Type P Drop-On Glass Beads: Type P beads shall be manufactured from glass of a composition that is highly resistant to traffic wear and to the effects of weathering. If coating is required to meet the performance requirements for the specific marking material used, the beads shall be coated to ensure satisfactory embedment and adhesion. The glass beads shall be applied at the minimum rate of 10 lbs. per 100 square feet of surface area of pavement marking material. Drop-on glass beads shall be **SUBSIDIARY** to other unit price items on the bid form.
2. Aggressive Bond Preformed Thermoplastic Pavement Markings shall be in accordance with APWA Standard Specification Section 2306.7.D except as modified herein: This specification covers a white and yellow adhesive Preformed Thermoplastic reflectorized pavement marking material that is applied to road surfaces, including Portland Cement Concrete (PCC) and aged asphalt without need of a primer/sealer. The material is applied to the road surface in a molten state by mechanical means with surface application of glass beads. Upon cooling to normal pavement temperature, it produces an adherent reflectorized stripe of specified thickness and width with limited thermal/seasonal deformation. To qualify as a non-sealer Preformed Thermoplastic that can be applied to concrete surfaces without a sealer, the material must meet or exceed the requirements listed below.
- a) Characteristics: The Preformed Thermoplastic material shall be homogeneously composed of pigments, resins, polymers (adhesive constituent), glass reflectorizing spheres and other fillers. The Preformed Thermoplastic material shall be available in a variety of surface delineation colors from the same manufacturer. The manufacturer shall have the option of formulating the material according to their own specifications.
- However, certain physical and chemical requirements specified must be satisfied to qualify as a non-primed striping application for PCC and aged asphalt surfaces.
- The material shall not exude fumes which are toxic or injurious to persons or properties upon heating to application temperature.
- b) Specific Gravity: The specific gravity of the white and yellow Preformed Thermoplastic pavement marking material shall not exceed 2.15.
- c) Composition: The pigment, intermix reflectorizing spheres, and fillers shall be uniformly dispersed in the resin and polymer upon heating to application temperature. The material shall be free of dirt and foreign matter and must meet or exceed the compositional requirements (percentage by weight) indicated below. The total resin/binder content must be 22% min. - 26% max. (weight) of total product ingredients.
- d) Measurement: Aggressive bond Preformed Thermoplastic pavement markings for each specific type will be measured per linear foot. Skip pattern lines shall be measured upon length of marked section. Dual pattern lines shall be measured at two times the marked section.
- e) Payment: Pavement markings shall be paid at the unit prices per the bid.
3. Preformed Thermoplastic Pavement Marking Symbols shall be in accordance with

APWA Standard Specification Section 2306.7.E except as modified herein: This specification is for the furnishing of retroreflective Preformed Thermoplastic pavement marking symbol materials that can be adhered to asphalt, concrete, and Portland cement concrete pavements by means of heat fusion. The applied markings shall be very durable, oil and grease impervious and provide immediate and continuing retroreflectivity.

- a) Characteristics: The preformed marking material shall consist of a resilient white and yellow polymer Preformed Thermoplastic with uniformly distributed glass beads throughout its entire cross section.

Preformed words and symbols shall conform to the applicable shapes and sizes as prescribed in the latest revision of the Manual on Uniform Traffic Control Devices (MUTCD).

The preformed markings shall be fusible to asphalt concrete and Portland cement concrete pavements by means of the normal heat of a propane type of torch. Adhesives, primers or sealers shall not be used prior to the preformed marking application on asphalt concrete and Portland cement concrete pavements.

The preformed markings shall conform to pavement contours, breaks and faults through the action of traffic at normal pavement temperatures. The markings shall have resealing characteristics and be capable of fusing to itself and previously applied worn hydrocarbon and/or alkyd Preformed Thermoplastic pavement markings.

The preformed markings shall be capable of application on new, dense and open graded asphalt concrete wearing courses during the paving operation in accordance with the manufacturer's instructions. After application, the markings shall be immediately ready for traffic. The preformed markings shall be suitable for use for one year after the date of receipt when stored in accordance with the manufacturer's recommendations.

The Preformed Thermoplastic markings shall not be brittle and must be sufficiently cohesive and flexible at temperatures exceeding 50° F for one person to carry without the danger of fracturing the material prior to application.

Temperature for Preformed Thermoplastic pavement markings: For the Preformed Thermoplastic Reflectorized Permanent Pavement Marking the pavement and ambient air temperatures shall be 50° F and rising, and the thermoplastic material shall be applied in a melted state at a temperature of 400° F to 425° F. The temperature of the thermoplastic in the shaping die shall be maintained at the manufacturer's recommended application temperature, but in no case shall the temperature fall below 400° F or exceed 450° F.

Preformed Thermoplastic minimum thickness: The finished lines shall have well defined edges and be free of waviness. All lines will have minimal dribbles, runs and overlaps. In the event that thermoplastic long lines must stop and then continue, the restart shall line up to within 0.5 inches of the existing long line and maintain a totally straight line. The minimum thickness of thermoplastic cross-section of lines shall be not less than 90 mils near the edges, nor less than 125 mils at the center, which shall be continuous and uniform in shape, and have clear and sharp dimensions. The drop-on glass beads shall be applied at a rate of one pound per 20 square feet of line.

- b) **Composition:** The retroreflective pliant polymer Preformed Thermoplastic pavement markings shall consist of a homogeneous mixture of high quality polymeric Preformed Thermoplastic binders, pigments, fillers and glass beads. The Preformed Thermoplastic material must conform to AASHTO M 249 except for the relevant differences due to the material being supplied in a preformed state.
  - b) **Retroreflectivity:** The Preformed Thermoplastic marking shall upon application exhibit uniform adequate nighttime retroreflectivity when tested in accordance with ASTM E 1710. At 86 degree 30-foot incidence angle and 1 degree 30-foot divergence angle, the markings shall have average minimum intensities of 350 millicandelas for white and 175 millicandelas for yellow as measured with a Mirolux or LTL-2000 retroreflectometer. Follow manufacturer's instructions for use.

Using a Taber Abraser with an H-18 wheel and a 4.4-ounce load, the sample shall be inspected at 200 cycles, under a microscope, to observe the extent and type of bead failure. No more than 15% of the beads shall be lost due to popout and the predominant mode of failure shall be "wear down" of the beads.
  - d) **Measurement:** Preformed Thermoplastic pavement marking symbols for each specific type will be measured per Each for the Durable Pavement Marking and Durable Intersection Pavement Markings Materials in accordance with MODOT Standard Specifications.
  - e) **Payment:** Pavement markings shall be paid at the unit prices per the bid.
4. **Lead-Free, Water-Borne Emulsion Based White and Yellow Traffic Paint:** The pavement marking paint shall be rapid dry. The traffic paint shall provide optimum adhesion for glass spheres when both binder and glass spheres are applied in the recommended quantities.
- a) **Drying Time:** When applied at a wet film thickness of 15 mils with a top dressing of 6-10 pounds of glass spheres per gallon of paint and when the pavement temperature is between 50<sup>o</sup> F and 120<sup>o</sup> F and the relative humidity doesn't exceed 80%, the binder shall dry to a no-tracking condition in a minimum of 20 seconds and a maximum of 60 seconds.

These dry times shall not be exceeded when the paint is applied with specialized equipment to have the pigmented binder at a temperature of 150<sup>o</sup> F to 170<sup>o</sup> F at the spray gun.

The no-tracking condition shall be determined by passing over the applied line in a simulated passing maneuver with a passenger car traveling 35 MPH. There shall be no visual deposition of the paint to the pavement surface when viewed from a distance of 50 feet. Furthermore, the pigmented binder, without glass spheres, shall dry to no-tracking condition in 180 seconds or less when tested in accordance with ASTM D 711.
  - b) **Directional Reflectance:** The daylight directional reflectance of white pigmented binder (without glass spheres) shall be not less than 85% relative to magnesium oxide when tested in accordance with Federal Test Method Standard No. 141d, Method 6242. If yellow, after drying shall suitably match color 13538 of Federal

Standard 595.

- c) The paint for the pavement markings shall contain no lead and/or chromium and shall have volatile organic content conforming to the latest Environmental Protection Agency regulations.
  - d) Measurement: Lead-Free, Waterborne pavement markings for each specific type will be measured per linear foot and symbols per each. Dual pattern lines shall be measured upon the length of marked section.
  - e) Payment: Pavement markings shall be paid at the unit prices per the bid.
- A. 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 1/4-inch on tangent nor more than 1/2-inch on curves from the required widths. Broken traffic stripes shall also conform to these requirements.
  - B. 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.
  - C. Drips, over spray, improper markings, and paint tracked by traffic shall be immediately removed from the pavement surface by methods approved by the County. All such removal work shall be at the contractor's expense.
  - D. Traffic stripes and pavement markings shall be applied only on dry surfaces and only during periods of favorable weather.
  - E. Surfaces which are to receive traffic stripes and pavement markings shall be cleaned of all dirt and loose material. Newly chip sealed roads shall be swept to remove any loose chips but not damage the chip seal surface.
  - F. All equipment used in the application of pavement markings and symbols shall produce uniform quality that conform to the specified requirements. The striping machine shall be capable of accurately superimposing succeeding coats upon the first coat and upon existing markings at a speed of at least five miles per hour.
  - G. Newly placed pavement markings shall be protected from damage by traffic or other causes until they are thoroughly dry and set.
  - H. Traffic control shall be in accordance with the MUTCD and with directions issued by the County. The County 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. Traffic Control shall be **SUBSIDIARY** to unit price bid for the various pavement markings items.
  - I. The pavement marking 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.

- J. The pavement surface temperature and air temperature as specified for both Paint and Preformed Thermoplastic within these Technical Specifications shall be determined before the start of each day of marking operation and at any other time deemed necessary by the County. Temperatures shall be obtained with appropriate devices using the manufacturer's recommended procedure. The pavement markings shall not be applied if the pavement shows any visible signs of moisture or it is anticipated that damage causing moisture, such as rain showers, may occur during the installation and curing periods.
- K. The surface on which markings are to be placed shall be clean and dry. The street surface shall be cleaned of debris, sand, or any other deleterious material by sweeping and or use of jets of compressed air immediately preceding the application of markings. New Asphaltic Concrete Overlay Surfaces and New Chip Seal pavements shall be blast-cleaned to remove all curing compounds.
- L. The County 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 County.

#### **TS-12 FORCE ACCOUNT**

- A. 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 Engineer.
- B. Payment for the work performed under this Technical Specification shall be made in accordance with the Proposal unit prices where the requested work is covered by an item listed in the Proposal. If the work is not represented by a unit price listed in the Proposal, payment will be in accordance with the General Conditions and more specifically GC-35, "Extra Work".

#### **TS-13 ASPHALT CEMENT PRICE INDEX**

A price adjustment will be applied to the percent of virgin asphalt binder used in the mix design of the asphaltic concrete approved for the project. Payment or deduction will be made through the Force Account line item. This price adjustment applies to only bid items "Asphaltic Concrete Overlay (1.5")(RC Type 5-01)". The Force Account (Asphalt Index) is a **NOT TO BE EXCEEDED** line item for this price adjustment.

The price index adjustment will use the following formula: Adjustment for Mix Placed During the

$$\text{Month} = (B \times C) \times (D - E)$$

B = Tons of mix placed during the month of the average index period  
C = % of asphalt binder shown in the job mix formula

D = Monthly average price at time of placement  
E = Monthly average price at time of bid

**The price index adjustment ("D - E" in above equation) will be based on pricing from the MoDOT Asphalt Price Index.**

**END OF SECTION**