

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

CONSTRUCTION AGREEMENT

JEFFERSON COUNTY, a political subdivision of the State of Florida, by and through its Board of County Commissioners, situated at 435 West Walnut Street, Monticello, Florida 32344 (the "County"), hereby contracts with **[INSERT CONTRACTOR'S NAME]** (the "Contractor") of _____, a contractor licensed to perform all work in the State of Florida in connection with the County's Project **Jefferson County Road Bond Paving Project, Project No. #01-4102-150323** (the "Project"), as said work is set forth in the Scope of Work prepared by **[Consultant/Engineer]**, the County Project Manager, and other Contract Documents hereafter specified (the "Work").

The County and the Contractor, for the consideration herein set forth, agree as follows:

Section 1. Contract Documents.

A. The Contract Documents consist of this Agreement, the Exhibits described in Section 30 hereof, the Legal Advertisement, the Instructions to Bidders, the Contractor's Bid proposal and any duly executed and issued addenda, Change Orders, Field Orders, Contractor Services Authorizations, and amendments relating thereto. All of the foregoing Contract Documents are incorporated by reference and made a part of this Agreement (all of said documents including the Agreement sometimes being referred to herein as the "Contract Documents" and sometimes as the "Agreement"). A copy of the Contract Documents shall be maintained by Contractor at the Project site at all times during the performance of the Work.

B. Any Work that may be reasonably inferred from the scope of work as being required to produce the intended result shall be supplied whether or not it is specifically called for. In case of any inconsistency or conflict among the provisions of the Agreement and any other terms and conditions of any documents comprising the Contract Documents, the provisions of the Agreement shall control. Concerning the Contract Documents, the order of precedence shall be as follows: (1) Change Orders; (2) the Agreement, including amendments and Exhibits; (3) Field Orders; (4) the solicitation documents, including any addenda. The Contract Documents listed above represent the entire and integrated Agreement between the parties hereto, and supersede prior negotiations, representations, or agreements, either written or oral.

C. Work, materials or equipment described in words which have a well-known technical or trade meaning, shall be deemed to refer to such recognized standards.

D. The County shall furnish to the Contractor up to three (3) sets of the Contract Documents as are reasonably necessary for execution of the Work. Additional copies of the Contract Documents shall be furnished, upon request, at the cost of reproduction.

E. The Contractor agrees to bind specifically every Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the County.

F. Construction services provided by Contractor for the Project shall be under the general direction of **Shannon Metty**, or their successor, who shall act as the County's representative during the term of this Agreement (the "County Project Manager"). If the County's

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representative is not a County employee, then County's representative is not authorized to issue changes to the Contract Amount, Contract Time, or Scope of Work without express approval by the Department Director, County Manager, or Board of County Commissioners.

G. The County Project Manager, within the authority conferred by the Board of County Commissioners, shall initiate written Change Orders, and notification to the Contractor of any and all changes approved by the County in the Contractor's: (1) compensation; (2) time and/or schedule of service delivery; (3) and any amendment (s) or other change(s) relative to the Work pursuant to this Contract or Change Orders pertaining thereto. Following County approval, the County Project Manager shall coordinate issuance of any such documents. The County Project Manager shall be responsible for acting on the County's behalf to administer, coordinate, interpret and otherwise manage the contractual provisions and requirements set forth in this Contract or any amendments, or Change Orders issued hereunder.

H. Neither the Contractor nor any Subcontractor, Supplier, or other person or organization performing or furnishing any of the Work under a direct or indirect contract with the County shall have or acquire any title to or ownership rights to any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of the Design Professional; and they shall not reuse any of them on extensions of the Project or any other project without written consent of the County or the County Project Manager.

Section 2. Scope of Work.

A. The Project consists of paving and grading up to 40 secondary roads in Jefferson County. The Contractor agrees to furnish and pay for all management, supervision, financing, labor, materials, tools, transportation, fuel, supplies, utilities, equipment and services of every kind and type necessary to diligently, timely, and fully perform and complete in a good and workmanlike manner the work required by this Agreement to complete the Project, which work will be authorized by the County through subsequent Contractor Services Authorization ("CSA") in the form attached hereto as Exhibit I (the "Work")..

B. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturers, fabricator or processors except as otherwise provided in the Contract Documents.

C. When Work on a specific identified road is authorized through a CSA, all provisions of this Agreement apply to the CSA with full force and effect as if appearing in full within each CSA. Each CSA will set forth a specific Scope of Services, maximum limit of compensation, schedule, liquidated damages and completion date, and shall become effective upon the due execution after approval by the Board.

D. The Contractor is not authorized to provide services or materials to the County or undertake any project or work provided for in this Agreement prior to the County having first issued a Notice to Proceed pursuant to an approved CSA.

E. When the Contractor and the County enter into an CSA where the term of the CSA

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expires on a date that is later than the date that this Agreement expires, the Contractor and the County agree that the terms of this Agreement and any amendments, attachments or provisions thereof are automatically extended until the expiration or full completion of the requirements of the CSA have been performed. Cancellation by the County of any remaining work prior to the full completion of the requirements of the CSA shall cause the terms of this Agreement to terminate at the same time. This provision only applies when the expiration of the CSA extends beyond the expiration of this Agreement. It does not apply when a CSA expires or is cancelled prior to the expiration of this Agreement.

F. It is the intent of the Contract Documents for a functionally complete project (or portion thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association or to the laws or regulations of any governmental authority having jurisdiction over the Project, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, law or regulation in effect at the time the Work is performed, except as may be otherwise specifically stated herein.

G. If before or during the performance of the Work, Contractor discovers a conflict, error or discrepancy in the Contract Documents, Contractor immediately shall report same to the County Project Manager in writing and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from the County Project Manager. If required, a Field Order or amendment to the CSA will be issued pursuant to Section 10 of this Agreement. If the Contractor performs any Construction activity knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the County, the Contractor shall assume responsibility for such performance and shall share in all costs. Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to Contractor with the Contract Documents before commencing any portion of the Work.

Section 3. Contract Amount.

A. In consideration of the faithful performance by the Contractor of the covenants in this Agreement and each CSA to the full satisfaction and acceptance of the County, the County agrees to pay the Contractor in accordance with the following fee schedule; provided that the total amount of compensation shall not not-to-exceed \$ _____ or in words: _____ (the "Contract Amount"):

[INSERT BID PRICE SHEET]

B. Based upon the above fee schedule and within the allowable Contract Amount, each CSA will establish an appropriate project fee for the Work to be performed for that CSA.

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C. Invoices must reference the applicable CSA and PO number and should further include the Contractor's name, address, contact information, dates of service, quantities of materials and descriptions of work performed, as applicable. Payment will not be made until an acceptable invoice and required documentation are provided by Contractor and accepted by the County.

D. Each individual invoice shall be due and payable in accordance with the Florida Prompt Payment Act set forth in Chapter 218, Florida Statutes. All invoices shall be delivered to the County Project Manager at the following address:

Shannon Metty
445 W. Palmer Mill Road
Monticello, FL 32344

E. In order for both parties herein to close their books and records, the Contractor will clearly state "Final Invoice" on the Contractor's final/last billing to the County. This certifies that all services have been properly performed and all charges and costs have been invoiced to the County. Since this account will thereupon be closed, any other further charges if not properly included on this final invoice are waived by the Contractor.

F. Payment of the final invoice shall not constitute evidence of the County's acceptance of the work. For final acceptance of any services provided hereunder, the Contractor will submit an acceptance document to the County for approval.

G. If compensation is based upon time and materials, invoices shall be accompanied by time and task records for all billable hours appearing on the invoice. If compensation is based upon a lump sum price, invoices shall be accompanied by tasks and percentage of work. Additional documents may be requested by the County, and if so requested, shall be furnished by the Contractor to the County Clerk's satisfaction.

H. The County Project Manager or designated payroll officer shall, by affidavit, attest to the correctness and accuracy of time charges and requested reimbursements.

I. If the Contract Amount includes an allowance, the Contractor shall cause the Work covered by the allowance to be done for such sums within the limits of the allowance as the County may approve. The Contractor agrees that the Contract Amount includes such sums as they deem proper for costs and any profit on account of any allowances. No demands for an additional sum for overhead or profit will be allowed.

J. Any agreed upon changes to the Contract Amount must be accomplished by an approved, written Change Order in the form attached to this Agreement. Any agreed upon changes to the project fee included in a specific CSA must be accomplished by an approved amendment to the CSA.

K. The County may subsequently identify items eligible for direct purchase for sales tax savings. The County shall, at its sole discretion, have the option to purchase directly from the

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supplier or vendor, any supplies, materials or equipment included in the Contractor's bid for the Contract. The County reserves the right to require Contractor to assign to the County agreements with suppliers for such goods. Contractor shall, from time to time submit, update and keep current, for consideration by the County, a list of all materials, supplies and equipment to be purchased, organized by supplier or vendor. Such list shall include a brief description of the materials, supplies and equipment and the name and address of the supplier or vendor. Suppliers or vendors reasonably anticipated to furnish material, supplies and equipment with an aggregate purchase value of less than \$10,000 need not be listed. Goods not required for the performance of the Contract shall not be purchased under this Agreement. The County reserves the right to delete or add items from this Agreement when it is in the County's best interest. Upon approval by the County, the Contractor will provide a worksheet by electronic means which will include a proposal from the vendor detailing the description of the item to be purchased, total price and sales tax to be deducted. The County will then issue a purchase order directly to the vendor for the cost of the item less the sales tax. Upon completion of all direct purchases the Contractor will prepare a deductive Change Order or an amended CSA, as applicable, reducing the compensation by the total amount of the purchases, inclusive of all sales tax, shipping, handling, insurance, and other similar charges paid by Owner. Administrative costs incurred by the Contractor with this Agreement, including administering the purchases in the name of the County, shall be considered to be included in the base bid proposal for work. No addition shall be added to the Contract Amount because of the service provided by the Contractor in the purchase of property, materials, et cetera, in the name of the County.

Section 4. Bonds.

A. The Contractor shall provide Performance and Payment Bonds, in the form prescribed in the Exhibits to the Agreement, in the amount of 100% of the Contract Amount, the costs of which are to be paid by Contractor. If approved by the County Project Manager, the Contractor may post individual Performance and Payment Bonds for each CSA in the amount of 100% of the Contract Amount to be paid under that CSA. If the Contract is increased by a Change Order, it shall be the Contractor's responsibility to ensure that the Performance and Payment Bonds are amended accordingly, and a copy of the amendment forwarded to the County. The Performance and Payment Bonds shall be underwritten by a surety authorized to do business in the State of Florida and otherwise acceptable to the County; provided, however, the surety shall be rated as "A-" or better as to general policy holders rating and Class V or higher rating as to financial size category and the amount required shall not exceed 5% of the reported policy holders surplus, all as reported in the most current Best Key Rating Guide, published by A.M. Best Company, Inc. of 75 Fulton Street, New York, New York 10038.

B. If the surety for any bond furnished by Contractor is declared bankrupt, becomes insolvent, its right to do business is terminated in the State of Florida, or it ceases to meet the requirements imposed by the Contract Documents, the Contractor shall, within five (5) calendar days thereafter, substitute another bond and surety, both of which shall be subject to the County's approval.

Section 5. Contract Term; Time is of the Essence

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A. The term of this Agreement shall commence on the date of its execution by the Chairman of the Board of County Commissioners and continue until _____, unless otherwise terminated as provided herein.

B. Time is of the essence in the performance of the Work under this Agreement. The "Commencement Date" is established in the Notice to Proceed to be issued by the County. Written Notice to Proceed is contingent upon and will be done subsequent to the Contractor fully satisfying the County's stated insurance and Bond submittal requirements. The Contractor shall commence the Work within ten (10) calendar days from the Commencement Date. No Work shall be performed at the Project site prior to the Commencement Date. Any Work performed by the Contractor prior to the Commencement Date shall be at the sole risk of the Contractor.

C. Contractor shall diligently pursue the completion of the Work and coordinate the Work being done on the Project by its subcontractors and materialmen, as well as coordinating its Work with all work of others at the Project Site, so that its Work or the work of others shall not be delayed or impaired by any act or omission by Contractor. Contractor shall be solely responsible for all construction means, methods, techniques, sequences, and procedures, as well as coordination of all portions of the Work under the Contract Documents, and the coordination of the County's suppliers and contractors as set forth in Section 12.B. herein.

D. Should Contractor be obstructed or delayed in the prosecution of or completion of the Work as a result of unforeseeable causes beyond the control of Contractor, and not due to its fault or neglect, including but not restricted to acts of God or of the public enemy, acts of government, fires, floods, epidemics, quarantine regulation, strikes or lockouts, Contractor shall notify the County in writing within forty-eight (48) hours after the commencement of such delay, stating the cause or causes thereof, or be deemed to have waived any right which Contractor may have had to request a time extension.

E. No interruption, interference, inefficiency, suspension or delay in the commencement or progress of the Work from any cause whatever, including those for which the County may be responsible, in whole or in part, shall relieve Contractor of his duty to perform or give rise to any right to damages or additional compensation from the County. Contractor expressly acknowledges and agrees that it shall receive no damages for delay. Contractor's sole remedy, if any, against the County will be the right to seek an extension to the Contract Time; provided, however, the granting of any such time extension shall not be a condition precedent to the aforementioned "No Damage For Delay" provision. This paragraph shall expressly apply to claims for early completion, as well as to claims based on late completion.

Section 6. Investigation and Utilities

A. Contractor shall have the sole responsibility of satisfying itself concerning the nature and location of the Work and the general and local conditions, and particularly, but without limitation, with respect to the following: those affecting transportation, access, disposal, handling and storage of materials; availability and quality of labor; water, sewer, and electric power; availability and condition of roads; work area; living facilities; climatic conditions and seasons; physical conditions at the work-site and the project area as a whole; topography and ground surface

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conditions; nature and quantity of the surface materials to be encountered; subsurface conditions; equipment and facilities needed preliminary to and during performance of the Work; and all other costs associated with such performance. The failure of Contractor to acquaint itself with any applicable conditions shall not relieve Contractor from any of its responsibilities to perform under the Contract Documents, nor shall it be considered the basis for any claim for additional time or compensation. The County shall not be responsible for relocation fees of any utilities.

B. Contractor shall locate all existing roadways, railways, drainage facilities and utility services above, upon, or under the Project site, said roadways, railways, drainage facilities and utilities (surface and subsurface) being referred to in this Sub-Section 6.B. as the "Utilities". Contractor shall contact the owners of all Utilities to determine the necessity for relocating or temporarily interrupting any Utilities during the construction of the Project. Contractor shall schedule and coordinate its Work around any such relocation or temporary service interruption. Contractor shall be responsible for properly shoring, supporting and protecting all Utilities at all times during the course of the Work. Relocation or shutdown of County facilities must be requested by the Contractor in writing a minimum of ten (10) calendar days prior to the proposed Work. The County shall have the final decision with respect to whether the relocation or shutdown is required and when the relocation or shutdown of facilities may take place. The Work may need to be performed at night or on weekends to minimize the interruption of service or to meet the operational needs of the County's facilities.

Section 7. Payment Provisions

A. Prior to submitting its first monthly Application for Payment, Contractor shall submit to the County and the County Project Manager a complete list of all its proposed subcontractors and materialmen, showing the work and materials involved and the dollar amount of each proposed subcontract and purchase order. The first Application for Payment shall be submitted no earlier than thirty (30) days after the Commencement Date.

B. If payment is requested on the basis of materials and equipment not incorporated into the Project, but delivered and suitably stored at the site or at another location agreed to by the County in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that the County has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances, together with evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect the County's interest therein, all of which shall be subject to the County's satisfaction.

C. Contractor shall submit two (2) copies of its monthly Application for Payment to the County Project Manager on or before the 25th day of each month for work performed during the previous month. Invoices received after the 25th day of each month shall be considered for payment as part of the next month's application. Within ten (10) calendar days after receipt of each Application for Payment, the County Project Manager shall either:

C.1 indicate his approval of the requested payment;

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C.2 indicate his approval of only a portion of the requested payment, stating in writing his reasons therefore; or

C.3 return the Application for Payment to the Contractor indicating, in writing, the reason for refusing to approve payment and the action necessary to make the payment request proper.

In the event of a total denial and return of the Application for Payment by the County Project Manager, the Contractor may make the necessary corrections and resubmit the Application for Payment. The County shall, within thirty (30) calendar days after County approval of an Application for Payment, pay the Contractor the amounts so approved. Provided, however, in no event shall the County be obligated to pay any amount greater than that portion of the Application for Payment approved by the County Project Manager.

D. The County shall retain five percent (5%) of the gross amount of each monthly payment request or five percent (5%) of the portion thereof approved by the County Project Manager for payment, whichever is less. Such sums shall be accumulated and released to Contractor with final payment.

E. Monthly payments to Contractor shall in no way imply or constitute approval or acceptance of Contractor's work.

F. Each Application for Payment shall be accompanied by a Release and Affidavit, in the form attached to this Agreement, showing that all materials, labor, equipment and other bills associated with that portion of the Work for which payment is being requested have been paid in full. The County shall not be required to make payment until and unless these affidavits are furnished by the Contractor.

G. The County Project Manager or the County may decline to approve any Application for Payment, or portions thereof, because of subsequently discovered evidence or subsequent inspections. The County Project Manager or the County may nullify the whole or any part of any approval for payment previously issued and the County may withhold any payments otherwise due Contractor under this Agreement or any other agreement between the County and Contractor, to such extent as may be necessary in the County's opinion to protect it from loss because of:

G.1 Defective Work not remedied;

G.2 Third party claims filed or reasonable evidence indicating probable filing of such claims;

G.3 Failure of Contractor to make payment properly to subcontractors or for labor, materials or equipment;

G.4 Reasonable doubt that the Work can be completed for the unpaid balance of the Contract Amount;

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G.5 Unsatisfactory prosecution of the Work by the Contractor;

G.6 Any other material breach of the Contract Documents.

H. If these conditions in Subsection 7.G are not remedied or removed, the County may, after three (3) days written notice, rectify the same at Contractor's expense. The County also may offset against any sums due Contractor the amount of any liquidated or unliquidated obligations of Contractor to the County, whether relating to or arising out of this Agreement or any other agreement between Contractor and the County.

I. The County shall make final payment to Contractor in accordance with the Florida Prompt Payment Act set forth in Chapter 218, Florida Statutes, after the Work is finally inspected and accepted by both the County and the County Project Manager in accordance with Section 21.A. herein, provided that Contractor first, and as an explicit condition precedent to the accrual of Contractor's right to final payment, shall have furnished the County with a properly executed and notarized copy of the Release and Affidavit, as well as, a duly executed copy of the Surety's consent to final payment and such other documentation that may be required by the Contract Documents and the County.

J. Contractor's acceptance of final payment shall constitute a full waiver of any and all claims by Contractor against the County arising out of this Agreement or otherwise relating to the Project, except those previously made in writing and identified by Contractor as unsettled at the time of the final Application for Payment. Neither the acceptance of the Work nor payment by the County shall be deemed to be a waiver of the County's right to enforce any obligations of Contractor hereunder or to the recovery of damages for defective Work not discovered by the County Project Manager or the County at the time of final inspection.

Section 8. Submittals and Substitutions

A. Contractor shall carefully examine the Contract Documents for all requirements for approval of materials to be submitted. Contractor shall submit all such materials at its own expense and in such form as required by the Contract Documents in sufficient time to prevent any delay in the delivery of such materials and the installation thereof.

B. Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other suppliers may be accepted by the County if sufficient information is submitted by Contractor to allow the County to determine that the material or equipment proposed is equivalent or better than to that named. Requests for review of substitute items of material and equipment will not be accepted by the County from anyone other than Contractor and all such requests must be submitted by Contractor to County Project Manager within thirty (30) calendar days after Notice of Award is received by Contractor.

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C. If Contractor wishes to furnish or use a substitute item of material or equipment, Contractor shall make application to the County Project Manager for acceptance thereof, certifying that the proposed substitute shall perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application shall state that the evaluation and acceptance of the proposed substitute will not prejudice Contractor's achievement of substantial completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with the County for the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service shall be indicated. The application also shall contain an itemized estimate of all costs that will result, directly or indirectly, from acceptance of such substitute, including costs for redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the County Project Manager in evaluating the proposed substitute. The County Project Manager may require Contractor to furnish at Contractor's expense additional data about the proposed substitute.

D. If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to the County Project Manager, if Contractor submits sufficient information to allow the County Project Manager to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedures for submission to and review by the County Project Manager shall be the same as those provided herein for substitute materials and equipment.

E. The County Project Manager shall be allowed a reasonable time within which to evaluate each proposed substitute. The County Project Manager shall be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without the County Project Manager's and the County's prior written acceptance which shall be evidenced by a Change Order. The County may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute. The County Project Manager will record time required by the County Project Manager in evaluating substitutions proposed by Contractor and making changes in the Contract Documents occasioned thereby. Whether or not the County accepts a proposed substitute, Contractor shall reimburse the County for the charges of the County Project Manager for evaluating each proposed substitute, or such charges may be deducted from an application for payment, at the County's sole discretion.

Section 9. Ownership of Documents

A. The Contractor shall be required to cooperate with the County and other Contractors relative to providing information requested in a timely manner and in the specified form. Any and all documents, records, disks, original drawings, or other information shall become the property of the County for its use and/or distribution as may be deemed appropriate by the County. The Contractor is not liable for any damages, injury or costs associated with the County

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use or distribution of these documents for purposes other than those originally intended by the Contractor.

B. The Contractor shall comply with public records laws embodied in chapter 119, Florida Statutes, and specifically shall:

B.1. Keep and maintain public records required by the County in order to perform the Scope of Services described herein.

B.2. Upon request from the County provide the County with any requested public records or allow the requested records to be inspected or copied within a reasonable time by the County.

B.3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term, and thereafter if the Contractor does not transfer all records to the County.

B.4. Transfer, at no cost, to County all public records in possession of the Contractor upon termination of this Agreement, and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the County, upon request from the County, in a format that is compatible with the information technology systems of the County. If the Contractor keeps and maintains public records upon the conclusion of this Agreement, the Contractor shall meet all applicable requirements for retaining public records that would apply to the County.

B.5. If the Contractor does not comply with a public records request, the County shall treat that omission as breach of this Agreement and enforce the contract provisions accordingly. Additionally, if the Contractor fails to provide records when requested, the Contractor may be subject to penalties under section 119.10, Florida Statutes and reasonable costs of enforcement, including attorney fees.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS SHANNON METTY, COUNTY MANAGER, 1484 S. JEFFERSON ST., MONTICELLO, FL 32344, (850) 997-3083, SMETTY@JEFFERSONCOUNTYFL.GOV.

Section 10. Changes in the Work

A. The County shall have the right at any time during the progress of the Work to increase or decrease the Work. Promptly after being notified of a change, Contractor shall submit an itemized estimate of any cost or time increases or savings it foresees as a result of the change. Except in an emergency endangering life or property, or as expressly set forth herein, no addition

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or changes to the Work shall be made except upon written order of the County, and the County shall not be liable to the Contractor for any increased compensation without such written order. No officer, employee or agent of the County is authorized to direct any extra or changed work orally.

B. A Change Order, in the form attached to this Agreement, Exhibit H, or an amendment to an approved CSA, as applicable, shall be issued and executed promptly after an agreement is reached between Contractor and the County concerning the requested changes. Contractor shall promptly perform changes authorized by duly executed Change Orders. The Contract Amount and Contract Time shall be adjusted in the Change Order in the manner as the County and Contractor shall mutually agree.

C. If the County and Contractor are unable to agree on a Change Order for the requested change, Contractor shall, nevertheless, promptly perform the change as directed by the County in a written Work Directive Change. If Contractor disagrees with the County's adjustment determination, Contractor must make a claim pursuant to Section 11 of this Agreement or else be deemed to have waived any claim on this matter it might otherwise have had.

D. In the event a requested change results in an increase to the Contract Amount, the amount of the increase shall be limited to the Contractor's reasonable direct labor and material costs and reasonable actual equipment costs as a result of the change (including allowance for labor burden costs) plus a maximum ten percent (10%) markup for all overhead and profit. However, where the Work involved is covered by unit prices contained in the Contract Documents or subsequently agreed upon, those unit prices shall be applied to the quantities of the items involved. In the event such change Work is performed by a subcontractor, a maximum ten percent (10%) markup for all overhead and profit for all subcontractors' and sub-subcontractors' direct labor and material costs and actual equipment costs shall be permitted, with a maximum five percent (5%) markup thereon by the Contractor for all of its overhead and profit, for a total maximum markup of fifteen percent (15%). All compensation due Contractor and any subcontractor or sub-subcontractor for field and home office overhead is included in the markups noted above.

E. The County shall have the right to conduct an audit of Contractor's books and records to verify the accuracy of the Contractor's claim with respect to Contractor's costs associated with any Change Order.

F. The County Project Manager shall have authority to order minor changes in the Work not involving an adjustment to the Contract Amount or an extension to the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes may be affected by Field Order or by other written order. Such changes shall be binding on the Contractor.

Section 11. Claims and Disputes

A. A Claim is a demand or assertion by one of the parties seeking an adjustment or interpretation of the terms of the Contract Documents, payment of money, extension of time or other relief with respect to the terms of the Contract Documents. The term "Claim" also includes

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other disputes and matters in question between the County and Contractor arising out of or relating to the Contract Documents. The responsibility to substantiate a Claim shall rest with the party making the Claim.

B. Claims by the Contractor shall be made in writing to the County and County Project Manager within forty-eight (48) hours after the first day of the event giving rise to such Claim or else the Contractor shall be deemed to have waived the Claim. Written supporting data shall be submitted to the County and County Project Manager within fifteen (15) calendar days after the occurrence of the event, unless the County grants additional time in writing, or else the Contractor shall be deemed to have waived the Claim.

C. Any dispute, action or proceeding arising out of or related to this Agreement shall be exclusively commenced in the state courts of Jefferson County, Florida, or where proper subject matter jurisdiction exists, in the United States District Court for the Northern District of Florida. Each party irrevocably submits and waives any objections to the exclusive personal jurisdiction and venue of such courts, including any objection based on forum non conveniens.

E. This Agreement and the rights and obligations of the parties shall be governed by the laws of the State of Florida without regard to its conflict of laws principles.

F. The Contractor shall proceed diligently with its performance as directed by the County, regardless of any pending Claim, action, suit or administrative proceeding, unless otherwise agreed to by the County in writing. The County shall continue to make payments in accordance with the Contract Documents during the pendency of any Claim.

Section 12. Other Work

A. The County may perform other work related to the Project at the site by the County's own forces, have other work performed by utility owners or let other direct contracts. If the fact that such other work is to be performed is not noted in the Contract Documents, written notice thereof will be given to Contractor prior to starting any such other work. If Contractor believes that such performance will involve additional expense to Contractor or require additional time, Contractor shall send written notice of that fact to the County and County Project Manager within forty-eight (48) hours of being notified of the other work. If the Contractor fails to send the above required forty-eight (48) hour notice, the Contractor will be deemed to have waived any rights it otherwise may have had to seek an extension to the Contract Time or adjustment to the Contract Amount.

B. Contractor shall afford each utility owner and other contractor who is a party to such a direct contract (or the County, if the County is performing the additional work with the County's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work and shall properly connect and coordinate its Work with theirs. Contractor shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written

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consent of the County Project Manager and the others whose work will be affected. The duties and responsibilities of Contractor under this paragraph are for the benefit of such utility owners and other Contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between the County and such utility owners and other contractors.

C. If any part of Contractor's Work depends for proper execution or results upon the work of any other contractor or utility owner (or the COUNTY), Contractor shall inspect and promptly report to County Project Manager in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. Contractor's failure to report will constitute an acceptance of the other work as fit and proper for integration with Contractor's Work.

Section 13. E-Verify

As a condition precedent to entering into this Agreement and in compliance with Section 448.095, Fla. Stat., Contractor and its subcontractors shall, register with and use the E-Verify system to verify work authorization status of all employees hired after January 1, 2021.

A. Contractor shall require each of its subcontractors to provide Contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien. Contractor shall maintain a copy of the subcontractor's affidavit as part of and pursuant to the records retention requirements of this Agreement.

B. The County, Contractor, or any subcontractor who has a good faith belief that a person or entity with which it is contracting has knowingly violated Section 448.09(1), Fla. Stat. or the provisions of this section shall terminate the contract with the person or entity.

C. The County, upon good faith belief that a subcontractor knowingly violated the provisions of this section, but Contractor otherwise complied, shall promptly notify Contractor and Contractor shall immediately terminate the contract with the subcontractor.

D. A contract terminated under the provisions of this section is not a breach of contract and may not be considered such. Any contract termination under the provisions of this section may be challenged pursuant to Section 448.095(2)(d), Fla. Stat. Contractor acknowledges that upon termination of this Agreement by the County for a violation of this section by Contractor, Contractor may not be awarded a public contract for at least one (1) year. Contractor further acknowledges that Contractor is liable for any costs incurred by the County as a result of termination of any contract for a violation of this section.

E. Contractor or subcontractor shall insert in any subcontracts the clauses set forth in this section, including this subsection, requiring the subcontractors to include these clauses in any lower tier subcontracts. Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in this section.

Section 14. Indemnification and Insurance

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A. The Contractor agrees, to the fullest extent permitted by law, to defend, indemnify and hold harmless the County, its agents, representatives, officers, directors, officials and employees from and against claims, damages, losses and expenses (including but not limited to attorney's fees, court costs and costs of appellate proceedings) relating to, arising out of or resulting from the Contractor's negligent acts, errors, mistakes or omissions relating to Contractor's performance pursuant to this Agreement. The Contractor's duty to defend, hold harmless and indemnify the County its agents, representatives, officers, directors, officials and employees shall arise in connection with any claim, damage, loss or expense that is attributable to bodily injury; sickness; disease; death; or injury to impairment, or destruction of tangible property including loss of use resulting therefrom, caused by any negligent acts, errors, mistakes or omissions related to the performance of this Agreement including any person for whose acts, errors, mistakes or omissions the Contractor may be legally liable.

B. The waiver by a party of any breach or default in performance shall not be deemed to constitute a waiver of any other or succeeding breach or default. The failure of the County to enforce any of the provisions hereof shall not be construed to be a waiver of the right of the County thereafter to enforce such provisions. The foregoing indemnification shall the same be construed to constitute agreement by Contractor to indemnify the County for the negligent acts or omissions of the County, its officers, agents, or employees, or third parties.

C. Contractor agrees to, at the option of the County, pay the cost of defense, the County and its representative from any and all claims, losses, penalties, demands, judgments, and costs of suit, including attorneys' fees and paralegals' fees, for any expense, damage or liability incurred by any of them, whether for personal injury, property damage, direct or consequential damages, or economic loss, arising directly or indirectly on account of or in connection with the Work done by Contractor under this Agreement or by any person, firm or corporation to whom any portion of the Work is subcontracted by Contractor or resulting from the use by Contractor, or by any one for whom Contractor is legally liable, of any materials, tools, machinery or other property of the County. This provision is intended to apply even if the injury or damage is caused in whole or in part by any act, omission or default of the County or County Project Manager, agents, officers and employees. The County and Contractor agree the first \$100.00 of the Contract Amount paid by the County to Contractor shall be given as separate consideration for this indemnification, and any other indemnification of the County by Contractor provided for within the Contract Documents, the sufficiency of such separate consideration being acknowledged by Contractor by Contractor's execution of the Agreement.

D. Contractor shall obtain and carry, at all times during its performance under the Contract Documents, insurance of the types and in the amounts set forth in the Insurance Requirements attached to this Agreement, Exhibit F. All insurance policies shall be from responsible companies duly authorized to do business in the State of Florida and/or responsible risk retention group insurance companies which are registered with the State of Florida. Within fifteen (15) calendar days after Notice of Award is received by Contractor, Contractor shall provide the County with properly executed Certificates of Insurance to evidence Contractor's compliance with the insurance requirements of the Contract Documents. Said Certificates of Insurance shall be on forms approved by the County. The Certificates of Insurance shall be personally, manually signed by the authorized representatives of the insurance company/companies shown on the

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Certificates of Insurance, with proof that they are authorized representatives thereof. In addition, certified, true and exact copies of all insurance policies required hereunder shall be provided to the County, on a timely basis, when requested by the County.

E. The Certificates of Insurance and required insurance policies shall contain provisions that thirty (30) days prior written notice by registered or certified mail shall be given the County of any cancellation, intent not to renew, or reduction in the policies or coverages, except in the application of the aggregate limits provisions. In the event of a reduction in the aggregate limit of any policy, Contractor shall immediately take steps to have the aggregate limit reinstated to the full extent permitted under such policy.

F. All insurance coverages of the Contractor shall be primary to any insurance or self insurance program carried by the County applicable to this Project. The acceptance by the County of any Certificate of Insurance does not constitute approval or agreement by the County that the insurance requirements have been satisfied or that the insurance policy shown on the Certificate of Insurance is in compliance with the requirements of the Contract Documents. No work shall commence at the Project site unless and until the required Certificates of Insurance are received by the County.

G. The Contractor will be fully responsible for all acts and omissions of his subcontractors and of persons directly or indirectly employed by them and of persons for whose acts they may be liable to the same extent that they are employed by him. Nothing in the Contract Documents shall create any contractual relationship between any subcontractor and the County. The County may, upon request, furnish to any subcontractor, to the extent practicable, evidence of amounts paid to the Contractor on account of specific Work done.

H. Contractor shall require each of its subcontractors to procure and maintain, until the completion of the subcontractor's work, insurance of the types and to the limits specified in the Insurance Requirements attached to this Agreement, unless such insurance requirements for the subcontractor is expressly waived in writing by the County. All liability insurance policies, other than professional liability, worker's compensation, employer's liability and business auto liability policies, obtained by Contractor to meet the requirements of the Contract Documents shall name the County and County Project Manager as additional insureds and shall contain severability of interest provisions. If any insurance provided pursuant to the Contract Documents expires prior to the completion of the Work, renewal Certificates of Insurance and, if requested by the County, certified, true copies of the renewal policies, shall be furnished by Contractor within thirty (30) days prior to the date of expiration.

I. Should at any time the Contractor does not maintain the insurance coverages required herein, the County may terminate the Agreement or at its sole discretion shall be authorized to purchase such coverages and charge the Contractor for such coverages purchased. The County shall be under no obligation to purchase such insurance, nor shall it be responsible for the coverages purchased or the insurance company or companies used. The decision of the County to purchase such insurance coverages shall in no way be construed to be a waiver of any of its rights under the Contract Documents.

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J. Contractor shall submit to County Project Manager a copy of all accident reports arising out of any injuries to its employees or those of any firm or individual to whom it may have subcontracted a portion of the Work, or any personal injuries or property damages arising or alleged to have arisen on account of any work by Contractor under the Contract Documents.

Section 15. Compliance with Laws

A. Contractor agrees to comply, at its own expense, with all federal, state and local laws, codes, statutes, ordinances, rules, regulations and requirements applicable to the Project, including but not limited to those dealing with taxation, worker's compensation, equal employment and safety. If Contractor observes that the Contract Documents are at variance therewith, it shall promptly notify the County and County Project Manager in writing.

Section 16. Cleanup and Protections

A. Contractor agrees to keep the Project site(s) clean at all times of debris, rubbish and waste materials arising out of the Work. At the completion of the Work, Contractor shall remove all debris, rubbish and waste materials from and about the Project site, as well as all tools, appliances, construction equipment and machinery and surplus materials, and shall leave the Project site clean and ready for occupancy by the County.

B. Any existing surface or subsurface improvements, including, but not limited to, pavements, curbs, sidewalks, pipes, utilities, footings, structures, trees and shrubbery, not indicated in the Contract Documents to be removed or altered, shall be protected by Contractor from damage during the prosecution of the Work. Any such improvements so damaged shall be restored by Contractor to the condition equal to that existing at the time of Contractor's commencement of the Work, and the Contractor shall bear the cost of any such restorations.

C. If the Contractor fails to clean up as provided in the Contract Documents, the County may do so, and the cost thereof shall be deducted from the final payment due the Contractor.

Section 17. Assignment

A. Contractor shall not assign this Agreement or any part thereof, without the prior consent in writing of the County. If Contractor does, with approval, assign this Agreement or any part thereof, it shall require that its assignee be bound to it and to assume toward Contractor all of the obligations and responsibilities that Contractor has assumed toward the County.

Section 18. Permits, Licenses and Taxes

A. Pursuant to Section 218.80, F.S., the County will pay for all County permits and fees, including license fees, permit fees, impact fees or inspection fees applicable to the work. Contractor is not responsible for paying for permits issued by the County wherein the work is to be performed but is responsible for acquiring all permits. The County may require the Contractor

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to deliver internal budget transfer documents to applicable County agencies when the Contractor is acquiring permits.

B. All permits, fees and licenses necessary for the prosecution of the Work which are not issued by the County shall be acquired and paid for by the Contractor. The Contractor and his sureties, together with his officers, agents, and employees, shall protect and hold the County harmless against any and all demands made for such fees or claims brought or made by holder of any invention or patent.

C. The Contractor shall be fully responsible for the execution and adherence to all directives, instructions, conditions, special conditions, and limiting conditions contained in permits specifically issued for the Work and which pertain to or affect the construction phase of this project, and shall be solely responsible for issuance of any Notices required thereby.

Section 19. Termination for Default

A. Contractor shall be considered in material default of the Agreement and such default shall be considered cause for the County to terminate the Agreement, in whole or in part, as further set forth in this Section, if Contractor: (1) fails to begin the Work under the Contract Documents within the time specified herein; or (2) fails to properly and timely perform the Work as directed by the County or the County Project Manager; or (3) performs the Work unsuitably or neglects or refuses to remove materials or to correct or replace such Work as may be rejected as unacceptable or unsuitable; or (4) discontinues the prosecution of the Work; or (5) fails to resume Work which has been suspended within a reasonable time after being notified to do so; or (6) becomes insolvent or is declared bankrupt, or commits any act of bankruptcy; or (7) allows any final judgment to stand against it unsatisfied for more than ten (10) days; or (8) makes an assignment for the benefit of creditors; or (9) fails to obey any applicable codes, laws, ordinances, rules or regulations with respect to the Work; or (10) materially breaches any other provision of the Contract Documents.

B. The County shall notify Contractor in writing of Contractor's default(s). If the County determines that Contractor has not remedied and cured the default(s) within seven (7) calendar days following receipt by Contractor of said written notice, then the County, at its option, without releasing or waiving its rights and remedies against the Contractor's sureties and without prejudice to any other right or remedy it may be entitled to hereunder or by law, may terminate Contractor's right to proceed under the Agreement, in whole or in part, and take possession of all or any portion of the Work and any materials, tools, equipment, and appliances of Contractor, take assignments of any of Contractor's subcontracts and purchase orders, and complete all or any portion of Contractor's Work by whatever means, method or agency which the County, in its sole discretion, may choose.

C. If the County deems any of the foregoing remedies necessary, Contractor agrees that it shall not be entitled to receive any further payments hereunder until after the Project is completed. All monies expended and all of the costs, losses, damages and extra expenses, including all management, administrative and other overhead and other direct and indirect expenses (including attorneys' fees) or damages incurred by the County incident to such

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completion, shall be deducted from the Contract Amount, and if such expenditures exceed the unpaid balance of the Contract Amount, Contractor agrees to pay promptly to the County on demand the full amount of such excess, including costs of collection, attorney's fees (including appeals) and interest thereon at the maximum legal rate of interest until paid. If the unpaid balance of the Contract Amount exceeds all such costs, expenditures and damages incurred by the County to complete the Work, such excess shall be paid to the Contractor. The amount to be paid to the Contractor or the County, as the case may be, shall be approved by the County Project Manager, upon application, and this obligation for payment shall survive termination of the Agreement.

D. The liability of Contractor hereunder shall extend to and include the full amount of any and all sums paid, expenses and losses incurred, damages sustained, and obligations assumed by the County in good faith under the belief that such payments or assumptions were necessary or required, in completing the Work and providing labor, materials, equipment, supplies, and other items therefore or re-letting the Work, and in settlement, discharge or compromise of any claims, demands, suits, and judgments pertaining to or arising out of the Work hereunder.

E. If, after notice of termination of Contractor's right to proceed pursuant to this Section, it is determined for any reason that Contractor was not in default, or that its default was excusable, or that the County is not entitled to the remedies against Contractor provided herein, then Contractor's remedies against the County shall be the same as and limited to those afforded Contractor under Section 20 below.

Section 20. Termination for Convenience and Right of Suspension

A. The County shall have the right to terminate this Agreement without cause upon seven (7) calendar days written notice to Contractor. In the event of such termination for convenience, Contractor's recovery against the County shall be limited to that portion of the Contract Amount earned through the date of termination, together with any retainage withheld and reasonable termination expenses incurred, but Contractor shall not be entitled to any other or further recovery against the County, including, but not limited to, damages or any anticipated profit on portions of the Work not performed.

B. The County shall have the right to suspend all or any portions of the Work upon giving Contractor not less than two (2) calendar days' prior written notice of such suspension. If all or any portion of the Work is so suspended, Contractor's sole and exclusive remedy shall be to seek an extension of time to its schedule in accordance with the procedures set forth in the Contract Documents. In no event shall the Contractor be entitled to any additional compensation or damages. Provided, however, if the ordered suspension exceeds six (6) months, the Contractor shall have the right to terminate the Agreement with respect to that portion of the Work which is subject to the ordered suspension.

Section 21. Completion

A. When the Work authorized in an individual CSA (or any portion thereof designated in writing by the County) is ready for its intended use, Contractor shall notify the County and County Project Manager in writing that the Work (or such designated portion) is substantially

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complete and request that County Project Manager issue a Certificate of Substantial Completion (or Certificate of Partial Substantial Completion). Within a reasonable time thereafter, the County, Contractor and County Project Manager shall make an inspection of the Work (or designated portion thereof) to determine the status of completion. If the County and County Project Manager do not consider the Work (or designated portion) substantially complete, County Project Manager shall notify Contractor in writing giving the reasons therefor. If the County and County Project Manager consider the Work (or designated portion) substantially complete, County Project Manager shall prepare and deliver to Contractor a Certificate of Substantial Completion (or Certificate of Partial Substantial Completion) which shall fix the date of Substantial Completion for the entire Work (or designated portion thereof) and include a tentative punchlist of items to be completed or corrected by Contractor before final payment. The County shall have the right to exclude Contractor from the Work and Project site (or designated portion thereof) after the date of Substantial Completion, but the County shall allow Contractor reasonable access to complete or correct items on the tentative punch list. The risk of loss for the Project and the Work performed thereon shall not pass to the County until the Certificate of Substantial Completion (or Partial Substantial Completion) is approved by the County Project Manager.

B. Within fourteen (14) calendar days of receipt of written certification by Contractor that the Work is completed in accordance with the authorizing CSA and the Contract Documents and is ready for final inspection and acceptance and upon receipt of a final Application for Payment, County Project Manager will make such inspection and, if he finds the Work acceptable and fully performed under the authorizing CSA and the Contract Documents, he shall promptly issue a final Certificate for Payment, recommending that, on the basis of his observations and inspections, and the Contractor's certification that the Work has been completed in accordance with the terms and conditions of the authorizing CSA and the Contract Documents, that the entire balance found to be due Contractor under the applicable CSA is due and payable. Neither the final payment nor the retainage shall become due and payable until Contractor submits: (1) the Release and Affidavit in the form attached, (2) consent of surety to final payment, and (3) if required by the County, other data establishing payment or satisfaction of all obligations, such as receipts, releases and waivers of liens, arising out of the Contract Documents, to the extent and in such form as may be designated by the County. The County reserves the right to inspect the Work and make an independent determination as to the Work's acceptability, even though the County Project Manager may have issued his recommendations. Unless and until the County is completely satisfied, neither the final payment nor the retainage shall become due and payable.

C. Prior to final payment, the County Project Manager may request the Contractor to permit the use of a specified part of the Project which the County believes it may use without significant interference with construction of the other parts of the Project. If the Contractor agrees, he will certify to the County Project Manager that said part of the Project is Substantially Complete and request the County Project Manager to issue a Certificate of Substantial Completion for that part of the Project. Within fourteen (14) calendar days thereafter, the County Project Manager and the Contractor will make an inspection of that part of the Project to determine its status of completion. If the County considers that part of the Project to be Substantially Complete, the County Project Manager will deliver to the Contractor a certificate to that effect, fixing the date of Substantial Completion as to that part of the Project, and listing the punch list of items to be completed or corrected before final payment and fixing the responsibility between the County and

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the Contractor for maintenance, heat and utilities as to that part of the Project. The County shall have the right to exclude the Contractor from any part of the Project, which is so certified to be Substantially Complete, but the County will allow the Contractor reasonable access to complete or correct items on the punch list.

Section 22. Warranty

A. Contractor shall obtain and assign to the County all express warranties given to Contractor or any subcontractors by any materialmen supplying materials, equipment or fixtures to be incorporated into the Project.

B. Contractor warrants to the County that any materials and equipment furnished under the Contract Documents shall be new unless otherwise specified, and that all Work shall be of good quality, free from all defects and in conformance with the Contract Documents. Contractor further warrants to the County that all materials and equipment furnished under the Contract Documents shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturers, fabricators, suppliers or processors except as otherwise provided for in the Contract Documents. If, within three (3) years after final completion, any Work is found to be defective or not in conformance with the Contract Documents, Contractor shall correct it promptly after receipt of written notice from the County. Contractor shall also be responsible for and pay for replacement or repair of adjacent materials or Work which may be damaged as a result of such replacement or repair. These warranties are in addition to those implied warranties to which the County is entitled as a matter of law.

C. The Contractor warrants and guarantees that title to all Work, materials and equipment covered by an application for progress payment, whether incorporated in the Project or not, will be passed to the County prior to the next application for progress payment, free and clear of all liens, claims, security interest and encumbrances; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor or by any other person performing the Work at the site or furnishing materials and equipment for the Project subject to an agreement under which an interest therein or encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

Section 23. Tests and Inspections.

A. The County, County Project Manager, their respective representatives, agents and employees, and governmental agencies with jurisdiction over the Project shall have access at all times to the Work, whether the Work is being performed on or off of the Project site, for their observation, inspection and testing. Contractor shall provide proper, safe conditions for such access. Contractor shall provide County Project Manager with timely notice of readiness of the Work for all required inspections, tests or approvals.

B. If the Contract Documents or any codes, laws, ordinances, rules or regulations of any public authority having jurisdiction over the Project requires any portion of the Work to be specifically inspected, tested or approved, Contractor shall assume full responsibility therefore, pay all costs in connection therewith and furnish County Project Manager the required certificates

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of inspection, testing or approval. When any portion of the Work subject to inspection is ready for such, the Contractor shall provide the County Project Manager forty-eight (48) hours' notice prior to the inspection. All inspections, tests or approvals shall be performed in a manner and by organizations acceptable to the County Project Manager and the County.

C. If any Work that is to be inspected, tested or approved is covered without written concurrence from the County Project Manager, such work must, if requested by County Project Manager, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given County Project Manager timely notice of Contractor's intention to cover the same and County Project Manager has not acted with reasonable promptness to respond to such notice. If any Work is covered contrary to written directions from County Project Manager, such Work must, if requested by County Project Manager, be uncovered for County Project Manager's observation and be replaced at Contractor's sole expense.

D. The County shall charge to Contractor and may deduct from any payments due Contractor all engineering, and inspection expenses incurred by the County in connection with any overtime work. Such overtime work consisting of any work during the construction period beyond the regular eight (8) hour day and for any work performed on Saturday, Sunday or holidays.

E. Neither observations nor other actions by the County Project Manager nor inspections, tests or approvals by others shall relieve Contractor from Contractor's obligations to perform the Work in accordance with the Contract Documents.

Section 24. Defective Work

A. Work not conforming to the requirements of the Contract Documents in the sole judgment of the County Project Manager shall be deemed defective Work. If required by the County or County Project Manager, Contractor shall, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or if the defective Work has been rejected by the County or County Project Manager, remove it from the site and replace it with conforming Work. Contractor shall bear all direct, indirect and consequential costs of such correction or removal (including, but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby, and shall hold the County harmless for same.

B. If the County or County Project Manager consider it necessary or advisable that covered Work be observed by County Project Manager or inspected or tested by others, Contractor, at the County's or County Project Manager's request, shall uncover, expose or otherwise make available for observation, inspection or tests as the County or County Project Manager may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, Contractor shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals), and the County shall be entitled to an appropriate decrease in the Contract Amount. If, however, such Work is not found to be defective, Contractor shall be allowed an increase in the Contract Amount and/or an extension to the Contract Time, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction.

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C. If any portion of the Work is defective, or Contractor fails to supply sufficient skilled workers with suitable materials or equipment, or fails to finish or perform the Work in such a way that the completed Work will conform to the Contract Documents, the County or County Project Manager may order Contractor to stop the Work, or any portion thereof, until the cause for such stop in the work has been eliminated; however, this right of the County and County Project Manager to stop the Work shall not give rise to any duty on the part of the County or County Project Manager to exercise this right for the benefit of Contractor or any other party.

D. Should the County determine, in its sole opinion, that it is in the County's best interest to accept defective Work, the County may do so. Contractor shall bear all direct, indirect and consequential costs attributable to the County's evaluation of and determination to accept defective Work. If such determination is rendered prior to final payment, a Change Order shall be executed evidencing such acceptance of such defective Work, incorporating the necessary revisions in the Contract Documents and reflecting an appropriate decrease in the Contract Amount. If the County accepts such defective Work after final payment, Contractor shall promptly pay the County an appropriate amount to adequately compensate the County for its acceptance of the defective Work.

E. If Contractor fails, within a reasonable time after the written notice from the County or County Project Manager, to correct defective Work or to remove and replace rejected defective Work as required by County Project Manager or the County, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any of the provisions of the Contract Documents, the County may, after seven (7) days' written notice to Contractor, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, the County may exclude Contractor from any or all of the Project site, take possession of all or any part of the Work, and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Project site and incorporate in the Work all materials and equipment stored at the Project site or for which the County has paid Contractor but which are stored elsewhere. Contractor shall allow the County, County Project Manager and their respective representatives, agents, and employees such access to the Project site as may be necessary to enable the County to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of the County in exercising such rights and remedies shall be charged against Contractor, and a Change Order shall be issued, incorporating the necessary revisions to the Contract Documents, including an appropriate decrease to the Contract Amount. Such direct, indirect and consequential costs shall include, but not be limited to, fees and charges of engineers, architects, attorneys and other professionals, all court costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of Contractor's defective Work. Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by the County of the County's rights and remedies hereunder.

Section 25. Supervision and Superintendents

A. Contractor shall plan, organize, supervise, schedule, monitor, direct and control the Work competently and efficiently, devoting such attention thereto and applying such skills and

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expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be responsible to see that the finished Work complies accurately with the Contract Documents. Contractor shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without prior written notice to the County and County Project Manager except under extraordinary circumstances. The superintendent shall be Contractor's representative at the Project site and shall have authority to act on behalf of the Contractor. All communications given to the superintendent shall be as binding as if given to the Contractor. The County shall have the right to direct Contractor to remove and replace its Project superintendent, with or without cause.

Section 26. Protection of Work

A. Contractor shall fully protect the Work from loss or damage and shall bear the cost of any such loss or damage until final payment has been made. If Contractor or any one for whom Contractor is legally liable is responsible for any loss or damage to the Work, or other work or materials of the County or the County's separate contractors, Contractor shall be charged with the same, and any monies necessary to replace such loss or damage shall be deducted from any amounts due Contractor.

B. Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger said Work or property.

Section 27. Emergencies

A. In the event of an emergency affecting the safety or protection of persons or the Work or property at the Project site or adjacent thereto, Contractor, without special instruction or authorization from the County or County Project Manager is obligated to act to prevent threatened damage, injury or loss. Contractor shall give County Project Manager written notice within forty-eight (48) hours after the occurrence of the emergency, if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby.

B. If the County Project Manager determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Change Order shall be issued to document the consequences of the changes or variations. If Contractor fails to provide the forty-eight (48) hour written notice noted above, the Contractor shall be deemed to have waived any right it otherwise may have had to seek an adjustment to the Contract Amount or an extension to the Contract Time.

Section 28. Use of Premises

A. The County will furnish, as indicated in the Contract Documents and not later than the date when needed by the Contractor, the lands which entail the Project Site upon which the Work is to be done, rights-of-way for access thereto, and such other lands which are designated for the use of the Contractor. The Contractor shall provide for all additional lands and access

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thereto that may be required for temporary construction facilities or storage of materials and equipment unless designated otherwise.

B. The Contractor shall be responsible for staging, protecting, and storing equipment or materials. Contractor shall confine all construction equipment, the storage of materials and equipment and the operations of workers to the Project site and land and areas identified in and permitted by the Contract Documents and other lands and areas permitted by law, rights of way, permits and easements, and shall not unreasonably encumber the Project site with construction equipment or other material or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or any land or areas contiguous thereto, resulting from the performance of the Work.

C. All equipment will be staged on Jefferson County right-of-way in areas approved by the County, ensuring access to adjacent residences and travel ways are not blocked. Staging on private property will be allowed after written permission has been received from the property owner by the County. The County will not be responsible for any costs associated with the use or clean-up of any private property used by the Contractor.

Section 29. Safety

A. Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

A.1. All employees on the Work and other persons and/or organizations who may be affected thereby;

A.2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Project site; and

A.3. Other property on Project site or adjacent thereto, including trees, shrubs, walks, pavements, roadways, structures, utilities and any underground structures or improvements not designated for removal, relocation or replacement in the Contract Documents.

B. Contractor shall comply with all applicable codes, laws, ordinances, rules and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. Contractor shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of underground structures and improvements and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation or replacement of their property. Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as the Work is completed and final acceptance of same by the County has occurred.

C. Contractor shall designate a responsible representative at the Project site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent unless

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

otherwise designated in writing by Contractor to the County. County shall have the right to direct Contractor to remove and replace this individual, with or without cause.

Section 30. Exhibits Incorporated.

The following documents are expressly agreed to be incorporated by reference and made a part of this Agreement:

- A. Legal Advertisement
- B. Invitation to Bid
- C. Bid Proposal with required forms
- D. Performance Bond
- E. Public Payment Bond
- F. Insurance Requirements, including certificates of insurance
- G. Form of Release and Affidavit
- H. Change Order Form
- I. Contractor Services Authorization (“CSA”)
- J. Technical Specifications
- K. Revised Specifications 320, 327, 330, 334, and 337
- L. FDOT Standard Specification for Road and Bridge Construction (FY 2023-2024)
- M. FDOT Standard Plans (FY 2023-2024)

Section 31. Notices.

A. All notices required or made pursuant to this Agreement by the Contractor to the County shall be in writing and delivered by hand or by United States Postal Service Department, first class mail, postage pre-paid, return receipt requested, addressed to the following:

Jefferson County Manager
445 West Palmer Mill Road
Monticello, Florida 32344

B. All notices required or made pursuant to this Agreement by the County to Contractor shall be made in writing and shall be delivered by hand or by United States Postal Service Department, first class mail, postage pre-paid, return receipt requested, or by Federal Express, addressed to the following:

Corporate Name of Contractor: _____

Address (including city, state and zip): _____

Name of person with their title to whose

Attention the notice should be sent: _____

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

Telephone and Fax numbers: _____

C. Either party may change its above noted address by giving written notice to the other party in accordance with the requirements of this Section.

Section 32. Modification.

No modification or change to the Agreement shall be valid or binding upon the parties unless in writing and executed by the party or parties intended to be bound by it.

Section 33. Successors and Assigns.

Subject to other provisions hereof, the Agreement shall be binding upon and shall inure to the benefit of the successors and assigns of the parties to the Agreement.

Section 34. Governing Law.

The Agreement shall be interpreted under and its performance governed by the laws of the State of Florida.

Section 35. No Waiver.

The failure of the County to enforce at any time or for any period of time any one or more of the provisions of the Agreement shall not be construed to be and shall not be a waiver of any such provision or provisions or of its right thereafter to enforce each and every such provision.

Section 36. Vendors on Scrutinized Companies Lists.

By executing this Agreement, Contractor, certifies that it is not: (1) listed on the Scrutinized Companies that Boycott Israel List, created pursuant to section 215.4725, Florida Statutes, (2) engaged in a boycott of Israel, (3) listed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to section 215.473, Florida Statutes, or (4) engaged in business operations in Cuba or Syria. Pursuant to section 287.135(5), Florida Statutes, the County may immediately terminate this Agreement for cause if the Contractor is found to have submitted a false certification as to the above or if the Contractor is placed on the Scrutinized Companies that Boycott Israel List, is engaged in a boycott of Israel, has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or has been engaged in business operations in Cuba or Syria, during the term of the Agreement. If the County determines that the Contractor has submitted a false certification, the County will provide written notice to the Contractor. Unless the Contractor demonstrates in writing, within 90 calendar days of receipt of the notice, that the County's determination of false certification was made in error, the County shall bring a civil action against the Contractor. If the County's determination is upheld, a civil penalty equal to the greater of \$2 million or twice the amount of this Agreement shall be imposed on the Contractor, and the Contractor will be ineligible to bid on any Agreement with a Florida agency or local governmental entity for three years after the date of County's determination of false certification by Contractor. If federal law ceases to authorize the

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states to adopt and enforce the contracting prohibition identified in this Section 36, this Section 36 shall be null and void.

Section 37. Modification.

Agreement may not be modified unless such modifications are evidenced in writing signed by both County and Contractor. Such modifications shall be in the form of a written Amendment executed by both parties.

Section 38. Entire Agreement.

Each of the parties hereto agrees and represents that the Contract Documents, including all subsequently issued CSAs, comprise the full and entire agreement between the parties affecting the Work contemplated, and no other agreement or understanding of any nature concerning the same has been entered into or will be recognized, and that all negotiations, acts, work performed, or payments made prior to the execution hereof shall be deemed merged in, integrated and superseded by the Agreement.

Section 39. Severability.

Should any provision of the Agreement be determined by a court to be unenforceable, such a determination shall not affect the validity or enforceability of any other section or part thereof.

Section 40. Subcontracting.

A. The Contractor may subcontract up to fifty percent 50% of work under this Contract. The County reserves the right to accept the use of a subcontractor or to reject the selection of a particular subcontractor and to inspect all facilities of any subcontractor. If applicable, regardless of any subcontract, the Contractor is ultimately responsible for all work to be performed under this Contract, including but not limited to design, permitting, construction, surveying, contract management, land acquisition, legal services, right-of-way acquisition, zoning, replating, comprehensive plan amendment code variance, and other services, as necessary. The Contractor agrees to be responsible for the fulfillment of all work elements included in any subcontract and agrees to be responsible for the payment of all monies due under any subcontract. It is understood and agreed by the Contractor that the County shall not be liable to any subcontractor for any expenses or liabilities incurred under the subcontract and that the Contractor shall be solely liable to the subcontractor for all expenses and liabilities incurred under the subcontract. If a subcontractor fails to perform or make progress, as required by this Contract, and it is necessary to replace the subcontractor to complete the work in a timely fashion, the Contractor shall promptly do so, subject to acceptance of the new subcontractor by the County. Failure of a subcontractor to timely or properly perform its obligations shall not relieve Contractor of its obligations hereunder.

B. Subcontracts, which involve equipment purchases as part of an installation/retrofit or that include infrastructure and/or infrastructure improvements, as defined in Florida Chief Financial Officer (CFO) Memorandum No. 5 (2011-2012), must be capitalized in accordance with Chapter 691-72, Florida Administrative Code (F.A.C.). The Contractor shall be responsible for

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

maintaining appropriate property records for any subcontracts that include the purchase of equipment as part of the delivery of services. The Contractor shall ensure its subcontracts issued under this Contractor, if any, impose this requirement, in writing, on its subcontractors.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, the parties have executed this Agreement on the date(s) indicated below.

CONTRACTOR:

(Company Name)

ATTEST:

By: _____ (Signature) _____ (Printed)

Its: _____ (Title)

Date: _____

Witness:

Its: _____

President/Corporate Secretary/Witness
[Corporate Seal]

Date: _____

2nd Witness (if not incorporated)

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

OWNER: Board of County Commissioners of Jefferson County, Florida

(SEAL)

By: _____
Gene Hall, Chair

ATTEST: Date: _____

Kirk Reams, Clerk of the Circuit Court

APPROVED AS TO FORM:

Heather Encinosa, County Attorney

Jefferson County Road Bond Paving Project
Project #01-4102-150323

EXHIBIT A
LEGAL ADVERTISEMENT

Invitation To Bid

INVITATION TO BID

INVITATION TO BID IN JEFFERSON COUNTY, FLORIDA

Sealed proposals will be received in the Jefferson County Building & Planning Office, 445 W. Palmer Mill Road, Monticello, FL 32344, April 5, 2023, until 4:00 P.M. EST.

The official stamp on the proposal placed by the Building & Planning Office on the received proposal shall serve as the official instrument to determine when a bid is received. A submittal cannot be received after the date/time specified. Rejection of a submittal under those circumstances shall not be the basis of protest pursuant to the JEFFERSON COUNTY Procedure for Resolution of Protests.

NAME OF PROJECT: Jefferson County Road Bond Paving Project

PROJECT NO.: 01-4102-150323

CONTRACT NO.: 03152023-01

The work consists of providing all labor, materials, equipment and incidentals to paving and grading 40 secondary roads in Jefferson County.

For full version of the invitation for this project including additional information regarding availability of the bidding documents, pre-qualification documents, protest procedure, bonding requirements, Equal Opportunity Statement, and D/M/WBE Participation, please email

jmoore@aeengineeringinc.com

03/15,3/22,3/29,4/5

Jefferson County Road Bond Paving Project
Project #01-4102-150323

EXHIBIT B
INVITATION TO BID

Invitation To Bid

INVITATION TO BID

INVITATION TO BID IN JEFFERSON COUNTY, FLORIDA

Sealed proposals will be received in the Jefferson County Building & Planning Office, 445 W. Palmer Mill Road, Monticello, FL 32344, April 5, 2023, until 4:00 P.M. EST.

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PROJECT NO.: 01-4102-150323

CONTRACT NO.: 03152023-01

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jmoore@aeengineeringinc.com

03/15,3/22,3/29,4/5

Jefferson County Road Bond Paving Project
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EXHIBIT C
BID PROPOSAL WITH REQUIRED FORMS
(see next page)

Jefferson County Road Bond Paving Project
Project #01-4102-150323

BID PROPOSAL FORM 1:

PROPOSAL TRANSMITTAL FORM (TO BE ON PROPOSER'S LETTERHEAD)

The Board of County Commissioners, Jefferson County, reserves the right to accept or reject any and/or all proposals in the best interest of Jefferson County.

Chris Tuten,
Chair

This Proposal in response to Project #01-402-150323 is submitted by the below named firm/individual by the undersigned authorized representative.

(Firm Name)

BY__ (Authorized Representative)

(Printed or Typed Name)

ADDRESS _
____ TELEPHONE ____

E-MAIL ____

FEID # ____

LISTING OF ANY CERTIFICATIONS OR LICENSES HELD:

NAME: __ NUMBER: __

NAME: __ NUMBER: __

To: BOARD OF COUNTY COMMISSIONERS OF JEFFERSON COUNTY, FLORIDA (hereinafter called the "COUNTY")

The undersigned, as Bidder declares that the only person or parties interested in this Proposal as principals are those named herein, that this Proposal is made without collusion with any other person, firm or corporation; that he has carefully examined the location of the proposed work, the proposed forms of Agreement and Bonds, and the Contract Drawings and Specifications, including Addenda issued thereto and acknowledges receipt below:

ADDENDA ACKNOWLEDGMENTS: (IF APPLICABLE)

Addendum #1 dated ____ Initials ____ Addendum #2 dated ____ Initials ____ Addendum
#3 dated ____ Initials ____ Addendum #4 dated ____ Initials ____

Bidder proposes, and agrees if this Proposal is accepted, Bidder will contract with the COUNTY in the form of the copy of the Agreement included in these Contract Documents, to provide all necessary machinery, tools, apparatus and other means of construction, including utility and transportation services

Jefferson County Road Bond Paving Project
Project #01-4102-150323

necessary to do all the Work, and furnish all the materials and equipment specified or referred to in the Contract Documents in the manner and time herein prescribed and according to the requirements of the COUNTY as therein set forth, furnish the Contractor's Bonds and Insurance specified in the General Conditions of the Contract, and to do all other things required of the Contractor by the Contract Documents.

Jefferson County Road Bond Paving Project
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**BID PROPOSAL
FORM 2:
JEFFERSON
COUNTY**

Full Company Name of Bidder:_____

Main Business Address:_____
(including city, state and zip)

Business Telephone and Fax Numbers:_____

Contact Name:_____

State Contractor's License#_____

Jefferson County Road Bond Paving Project
Project #01-4102-150323

Basis of Bid

Bidder will complete the Work in accordance with the Contract Agreement for the following price(s):

Pay Item	Description	Unit	Quantity	Unit Price
101-1	Mobilization	LS	40	
286-1	Turnout Construction	TN	3,684	
327-70-1	Milling Existing Asphalt Pavement, 1" Avg Depth	SY	1000	
327-70-6	Milling Existing Asphalt Pavement, 1.5" Avg Depth	SY	1000	
327-70-5	Milling Existing Asphalt Pavement, 2" Avg Depth	SY	1000	
327-70-8	Milling Existing Asphalt Pavement, 2.5" Avg Depth	SY	1000	
334-1-12	Superpave Asphaltic Concrete, Traffic B	TN	36,848	
337-7-5	Asphalt Concrete Friction Course, FC-5	TN	1000	
337-7-6	Asphalt Concrete Friction Course, FC-9.5	TN	1000	
337-7-7	Asphalt Concrete Friction Course, FC-12.5	TN	1000	
999-9	Final Grading/Rolling	SY	334,986	
Total				

****The bid price multiplied by the planned quantity totaled together for a total base bid price. The bidder with the lowest total base bid price will be considered the apparent low bidder.**

NOTE: BIDDER MUST PROVIDE BID PRICES FOR *ALL* ITEMS.

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BID PROPOSAL FORM 3:

LIST OF PROPOSED SUBCONTRACTORS AND SERVICES TO BE PERFORMED

Subcontract 1 Name: City/State/Zip Services to Perform and Percentage:
Subcontract 2 Name: City/State/Zip Services to Perform and Percentage:
Subcontract 3 Name: City/State/Zip Services to Perform and Percentage:
Subcontract 4 Name: City/State/Zip Services to Perform and Percentage:
Subcontract 5 Name: City/State/Zip Services to Perform and Percentage:
Subcontract 6 Name: City/State/Zip Services to Perform and Percentage:

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**BID PROPOSAL FORM 4:
COMMENTS ON PROPOSED
CONTRACT**

*Any comments that are included on this form regarding the contract documents will be forwarded to the legal department for review. The County's acceptance of comments does not guarantee any revision to the contract documents. Comments not included on this form WILL NOT be considered. Please indicate NONE or NA if there are no comments on the proposed contract documents.

<u>Comments on Proposed Contract</u>
Contract Provision at Issue
Objection by Bidder
Suggested Resolution

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BID PROPOSAL FORM 5: QUALIFICATION QUESTIONNAIRE

The undersigned warrants the truth and accuracy of all statements and answers herein contained.
Include additional sheets if necessary.

1. What is the firm's current Florida General Business Number?

2. How many years has your organization been in business as a Contractor?

3. Describe and give contact information of current projects that you have underway. Do you have a project(s) underway which might interfere with the start of this Work and completion on schedule?

4. List projects and provide a brief description that you have completed similar in type, size, and nature as the one proposed. Note: Projects may be larger than this project.

- a. Name of Project: _____
Owner/Engineer: _____ Telephone No.: _____
Address: _____
Date Started: _____ Date Completed: _____ Contract Value: _____
Team Members: _____

Description of Project: _____

- b. Name of Project: _____
Owner/Engineer: _____ Telephone No.: _____

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Address: _____
Date Started: _____ Date Completed: _____ Contract Value: _____
Team Members: _____

Description of Project: _____

c. Name of Project: _____
Owner/Engineer: _____ Telephone No.: _____
Address: _____
Date Started: _____ Date Completed: _____ Contract Value: _____
Team Members: _____

Description of Project: _____

5. List any additional references you would like to include outside of projects similar in scope to this one

Name of Project: _____
Owner/Engineer: _____ Telephone No.: _____
Address: _____

Name of Project: _____
Owner/Engineer: _____ Telephone No.: _____
Address: _____

Name of Project: _____
Owner/Engineer: _____ Telephone No.: _____
Address: _____

6. List the projects completed within Jefferson County in the past (3) years.

7. Have you ever failed to complete work awarded to you? If so, where and why?

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-
8. Bidders must disclose and provide a description of any and all conflicts occurring in the past seven (7) years with any contracts, projects, or clients. Conflicts include, but are not limited to, payment disputes, quality of work disputes, failure to timely perform, lawsuits, administrative proceedings, claims or threatened claims on bonds, and other matters that may call into question the Bidder's ability to assure a quality and good faith performance. Poor or unacceptable past performance may result in a Bidder being deemed "not responsible." Failure to disclose relevant Conflict information may result in termination for a breach of contract.

List all past project conflicts, litigations, arbitrations, mediations, informal settlement discussions, or disputes involving your company for the past (3) years and outcome.

Full

y describe the circumstances (use additional sheets if necessary).

9. State the true and exact, correct, and complete name under which you do business. BIDDER IS (select one):

☐ ☐ ☐
A SOLE PROPRIETORSHIP, PARTNERSHIP OR CORPORATION

(Bidder Name)

(Address)

By _____ (Printed name of person authorized to sign)

(Title)

(Authorized Signature)

Phone No.: _____

Jefferson County Road Bond Paving Project
Project #01-4102-150323

10. LIST ALL PRINCIPALS OF ORGANIZATION: (President, Vice-President, Secretary-Treasurer, Partner, etc.)

Signature and Title of Person Submitting Application

Date

Forms after this page do not need to be submitted with the bid proposal. They are supplied for reference only. Only the winning bidder will be required to complete forms 6 through 16 in concurrence with the construction agreement.

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BID PROPOSAL FORM 6 - INDEMNIFICATION AND HOLD HARMLESS

To the fullest extent permitted by law, Contractor shall indemnify and hold harmless COUNTY, its offices and employees from liabilities, damages, losses, and costs including but not limited to reasonable attorney fees, to the extent caused by the negligence, recklessness, or intentional wrongful conduct of the CONTRACTOR and other persons employed or utilized by the CONTRACTOR in the performance of this CONTRACT.

Signed: ____

Name: ____

Title: ____

Firm: ____

Jefferson County Road Bond Paving Project
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BID PROPOSAL FORM 7 - SWORN STATEMENT UNDER SECTION
287.133(3)(a), FLORIDA STATUTES, ON PUBLIC ENTITY
CRIMES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to Jefferson County Board of County Commissioners

By :_

[Print individual's name and title]

for __

[Print name of entity submitting sworn statement]

Whose business address is:

_____ and (if applicable) its Federal Employer Identification Number (FEIN) is ._____

(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement).

_____ .

2. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of _____ guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:
 - a. A predecessor or successor of a person convicted of a public entity crime: or
 - b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

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5. I understand that a "person" as defined in Paragraph 287.133(1)(c), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.
6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. [Indicate which statement applies.]

_____ Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However there has been a subsequent proceeding before a hearing a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted contractor list. [Attach a copy of the final order.]

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

_____ (Signature)

Sworn to and subscribed before me this ____ day of, 20__.

Personally known__ OR Produced identification ____

(Type of identification)

NOTARY PUBLIC

Notary Public - State of ____

Jefferson County Road Bond Paving Project
Project #01-4102-150323

My commission expires: ____
____ Printed, typed, or stamped commissioned name of
notary public

Jefferson County Road Bond Paving Project
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BID PROPOSAL FORM 8 - EQUAL OPPORTUNITY/AFFIRMATIVE ACTION STATEMENT

1. The contractors and all subcontractors hereby agree to a commitment to the principles and practices of equal opportunity in employment and to comply with the letter and spirit of federal, state, and local laws and regulations prohibiting discrimination based on race, color, religion, national region, sex, age, handicap, marital status, and political affiliation or belief.
2. The contractor agrees to comply with Executive Order 11246, as amended, and to comply with specific affirmative action obligations contained therein.

Signed: ____

Name: ____

Title: ____

Firm: ____

Address: ____

Jefferson County Road Bond Paving Project
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BID PROPOSAL FORM 9 - DRUG FREE WORKPLACE CERTIFICATION

Preference shall be given to businesses with drug-free workplace programs. Whenever two or more response which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a response received from a business that certifies that it has implemented a drug- free workplace program shall be given preference in the award process. Established procedures for processing tie responses will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

- 1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees from drug abuse violations.
- 3) Give each employee engaged in providing the commodities or contractual services that are under this solicitation a copy of the statement specified in subsection (1) above.
- 4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under this solicitation, the employee will abide by the terms of the statement and will notify the employee of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the work place no later than five (5) days after such conviction.
- 5) Impose a sanction, on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
- 6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

VENDOR__TITLE_____

AUTHORIZED SIGNATURE____DATE _____

Jefferson County Road Bond Paving Project
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BID PROPOSAL FORM 10 - DISCLOSURE
STATEMENT CONFLICT OF INTEREST
DISCLOSURE

The award hereunder is subject to the provisions of Chapter 112, Florida Statutes. Respondents must disclose with their proposals whether any officer, director, employee or agent is also an officer or an employee of the Jefferson County Board of County Commissioners. All firms must disclose the name of any county officer or employee who owns, directly or indirectly, an interest of five percent (5%) or more in the Respondent's firm or any of its branches or affiliates. All Respondents must also disclose the name of any employee, agent, lobbyist, previous employee of the Board, or other person, who has received or will receive compensation of any kind, or who has registered or is required to register under Section 112.3215, Florida Statutes, in seeking to influence the actions of the Board in Connection with this procurement.

Names of Officer, Director, Employee or Agent that is also an Officer or Employee of Jefferson County:

Name of an State Officer or Employee that owns 5% or more in Respondent's firm:

Name

Company

Date

Jefferson County Road Bond Paving Project
Project #01-4102-150323

BID PROPOSAL FORM 11 - NON-COLLUSION AFFIDAVIT

The undersigned being first duly sworn as provided by law, deposes and says:

1. This Affidavit is made with the knowledge and intent that it is to be filed with the Board of County Commissioners, Jefferson County, Florida and that it will be relied upon by said County, in any consideration which may give to and any action it may take with respect to this Proposal.
2. The undersigned is authorized to make this Affidavit on behalf of,

(Name of Corporation, Partnership, Individual, etc.)

a , _____ formed under the laws of _____ (Type of Business) (State or
Province)

of which he is . _____.
(Sole partner, president, etc.)

3. Neither the undersigned nor any other person, firm or corporation named in above Paragraph 2, nor anyone else to the knowledge of the undersigned, have themselves solicited or employed anyone else to solicit favorable action for this Proposal by the County, also that no head of any department or employee therein, or any officer of Jefferson County, Florida is directly interested therein.
4. This Proposal is genuine and not collusive or a sham; the person, firm or corporation named above in Paragraph 2 has not colluded, conspired, connived or agreed directly or indirectly with any bidder or person, firm or corporation, to put in a sham Proposal, or that such other person, firm or corporation, shall refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference with any person, firm or corporation, to fix the prices of said proposal or proposals of any other bidder; and all statements contained in the proposal or proposals described above are true; and further, neither the undersigned, nor the person, firm or corporation named above in Paragraph 3, has directly or indirectly submitted said proposal or the contents thereof, or divulged information or data relative thereto, to any association or to any member or agent thereof.

AFFIANT'S NAME AFFIANT'S TITLE

TAKEN, SWORN AND SUBSCRIBED TO BEFORE ME this__day of 20__.

Personally Known__or Produced Identification_____

Type of Identification_____

Notary Public

(Print, Type or Stamp Commissioned Name of Notary Public)

Jefferson County Road Bond Paving Project
Project #01-4102-150323

BID PROPOSAL FORM 12 - ETHICS CLAUSE

The undersigned certifies, to the best of his or her knowledge and belief, that:

No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of congress, an officer or employee of congress, or an employee of a member of congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of congress, an officer or employee of congress, or an employee of a member of congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature Date

Name of Authorized Individual Name of Company/Organization

Address of
Company/Organization

Jefferson County Road Bond Paving Project
Project #01-4102-150323

BID PROPOSAL FORM 13

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER
RESPONSIBILITY MATTERS PRIMARY COVERED TRANSACTIONS**

- 1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - b) Have not within a three-year period preceding this been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of these offenses enumerated in paragraph (1)(b) of this certification; and
 - d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- 2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
- 3) No subcontract will be issued for this project to any party which is debarred or suspended from eligibility to receive federally funded contracts.

Signature

Title

_____ Contractor/Firm

Address

Jefferson County Road Bond Paving Project
Project #01-4102-150323

BID PROPOSAL FORM 14 - E-VERIFY COMPLIANCE CERTIFICATION

In accordance with the Governor of Florida's Executive Order 11-116, the Proposer hereby certifies that the U.S. Department of Homeland Security's E-Verify system will be used to verify the employment eligibility of all new employees hired by the Contractor during the Contract term, and shall expressly require any subcontractors performing work or providing services pursuant to the Contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the Contract term; and shall provide documentation of such verification to the COUNTY upon request.

As the person authorized to sign this state, I certify that this firm complies/will comply fully with this ITB regarding e-Verify Compliance.

SIGNATURE: _____

NAME: ___

TITLE: ___

DATE: ___

Jefferson County Road Bond Paving Project
Project #01-4102-150323

BID PROPOSAL FORM 15

REQUIRED POLICY ENDORSEMENTS AND DOCUMENTATION

Certificate of Insurance will be provided evidencing placement of each insurance policy responding to requirements of the contract.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the County. At the option of the County, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the County, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Endorsements to insurance policies will be provided as follows:

Additional insured (Jefferson County, Florida, its Officers, employees and volunteers) General Liability & Automobile Liability

Primary and not contributing
coverage- General Liability &
Automobile Liability

Waiver of Subrogation (Jefferson County, Florida, its officers, employees and volunteers)-

General Liability, Automobile Liability, Workers' Compensation and Employer's Liability

Thirty days advance written notice of cancellation to County -
General Liability, Automobile Liability, Worker's Compensation
& Employer's Liability.

Professional Liability Policy Declaration sheet as well as claims procedures for each applicable

policy to be provided Please mark the appropriate box:

Coverage is in place ☐ Coverage will be placed, without exception ☐

The undersigned declares under penalty of perjury that all of the above insurer information is true and correct.

Name_____ Signature_____ Typed or Printed

Jefferson County Road Bond Paving Project
Project #01-4102-150323

Date____ Title ____
(Company Risk Mgr or Mgr with Risk Authority)

BID PROPOSAL
FORM 16 CERTIFICATION
REGARDING LOBBYING FOR
**CONTRACTS, GRANTS, LOANS AND COOPERATIVE
AGREEMENT**

EXHIBIT D
PERFORMANCE BOND

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Jefferson County Road Bond Paving Project
Project #01-4102-150323

The Surety, for value received, hereby stipulates and agrees that no changes, extensions of time, alterations or additions to the terms of the Contract or other work to be performed hereunder, or the scope of work referred to therein shall in anywise affect its obligations under this bond, and it does hereby waive notice of any such changes, extensions of time, alterations or additions to the terms of the Contract or to work.

This bond is intended to comply with provisions of Section 255.05, Florida Statutes, and all terms and conditions of said statute are incorporated herein by reference thereto, specifically including but not limited to the notice and time limitation provisions of said section. In the event of any conflict, ambiguity or discrepancy between Section 255.05, Florida Statutes, and this Bond, Florida Statutes shall control. No right of action shall accrue on this Bond to or, for the use of any person or entity other than the COUNTY and those persons or corporations provided for by said statute, their heirs, executors, administrators, successors or assigns.

It is further agreed and understood that if the COUNTY is required to initiate legal proceedings to recover on this Bond, the COUNTY may also recover its costs relating there to, including a reasonable amount for its attorney's fees and legal assistant's fees before trial, at trial, on appeal and in bankruptcy.

IN WITNESS WHEREOF, the above parties have executed this instrument this ____ day of _____, 20____, the name of each party being affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Signed, sealed and delivered
in the presence of:

PRINCIPAL:

(Company Name of Contractor)

By: _____ (Officers Signature)

_____ (Officers Name Printed)

Witnesses as to Principal Name: _____ (Signature)

Its: _____ (Title)

Jefferson County Road Bond Paving Project
Project #01-4102-150323

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____,
20 _____, by _____ (officer's name), as
_____ (title) of
_____ (company name), a(n) _____
(state) corporation, on behalf of the corporation. He/she is personally known to me OR has
produced _____ as identification and did (did not) take an oath.

My Commission Expires: _____

Signature of Notary : _____
(Legibly Printed) _____

(AFFIX OFFICIAL SEAL)

Notary Public, State of _____

Commission No. _____

ATTEST: SURETY:

(Printed Company Name)

(Business Address)

(Surety Authorized Signature)

(Printed Name)

Witness as to Surety _____ (Signature)
_____ (Printed Name)

Jefferson County Road Bond Paving Project
Project #01-4102-150323

OR

As Attorney in Fact (Signature)

(Printed Name)

(Attach Power of Attorney)

Witnessed by:

(Signature)

(Printed Name)

(Business Address)

(Telephone Number)

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____,
20____,
by _____ (officer's name), as _____
(title) of _____ Surety, on behalf of Surety. He/She is
personally known to me OR has produced _____ as
identification and who did (did not) take an oath.

My Commission Expires: _____

Signature of Notary : _____
(Legibly Printed) _____

(AFFIX OFFICIAL SEAL) Notary Public, State of _____

Commission No. _____

Jefferson County Road Bond Paving Project
Project #01-4102-150323

EXHIBIT E
PUBLIC PAYMENT BOND

BOND No. _____

KNOW ALL MEN BY THESE PRESENTS: That _____
_____, as Principal, whose principal business address is:

and phone number and fax numbers are: _____
and _____, as Surety, whose
principal address is:

_____ are held
and firmly bound to JEFFERSON COUNTY, FLORIDA (the "COUNTY") as Obligee in the
sum
of _____ (\$ _____)

for the payment whereof we bind ourselves, our heirs, executors, personal representatives,
successors and assigns, jointly and severally.

WHEREAS, Principal has entered into a contract dated as of the ____ day of _____,
20____, with Obligee for in accordance with the scope of work, which contract is incorporated by
reference and made a part hereof, and this referred to as the Contract.

THE CONDITION OF THIS BOND is that if Principal promptly makes payment to all
claimants as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor,
materials or supplies, used directly or indirectly by Principal in the prosecution of the work
provided for in the Contract, then is bond is void; otherwise it remains in full force.

Any changes in or under the Contract and compliance or noncompliance with any
formalities connected with the Contract or the changes do not affect Surety's obligation under this
Bond.

The provisions of this bond are subject to the time limitations of Section 255.05(2). In no
event will the Surety be liable in the aggregate to claimants for more than the penal sum of this
Payment Bond, regardless of the number of suits that may be filed by claimants.

IN WITNESS WHEREOF, the above parties have executed this instrument this ____ day
of _____, 20____, the name of each party being affixed and these presents duly signed by
its under-signed representative, pursuant to authority of its governing body.

Jefferson County Road Bond Paving Project
Project #01-4102-150323

Signed, sealed and delivered in the presence of:

PRINCIPAL: _____
(Company Name of Contractor)

By: _____ (Officer's Signature)
_____ (Officer's Name Printed)

Witnesses as to Principal Name: _____ (Signature)
Its: _____ (Title)

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____,
20____, by _____ (officer's name), as
_____ (title) of _____, a
_____ corporation, on behalf of the corporation. He/she is personally known to me OR
has produced _____ as identification and did (did not) take an oath.

My Commission Expires: _____

Signature of Notary: _____

(Legibly Printed) _____

(AFFIX OFFICIAL SEAL)

Notary Public, State of _____

Commission No.: _____

ATTEST: SURETY:

(Printed Company Name)

(Business Address)

(Surety Authorized Signature)

(Printed Name)

Jefferson County Road Bond Paving Project
Project #01-4102-150323

Witness as to Surety: _____ (Signature)
_____ (Printed Name)

OR

As Attorney in Fact (Signature) (Printed Name)

(Attach Power of Attorney)

Witnessed by: _____
(Signature) (Printed Name)

(Business Address)

(Telephone Number)

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____, 20 __,
by _____ (officer's name), as _____ (title)
of _____ Surety, on behalf of Surety. He/She is personally
known to me OR has produced _____ as identification and
who did (did not) take an oath.

My Commission Expires: _____

Signature of Notary: _____

(Legibly Printed) _____

(AFFIX OFFICIAL SEAL)

Notary Public, State of _____

Commission

No: _____

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

EXHIBIT F INSURANCE REQUIREMENTS CERTIFICATES OF INSURANCE

(1) The Contractor shall obtain and maintain such insurance as will protect it from: (1) claims under worker's compensation laws, disability benefit laws, or other similar employee benefit laws; (2) claims for damages because of bodily injury, occupational sickness or disease or death of his employees including claims insured by usual personal injury liability coverage; (3) claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees including claims insured by usual personal injury liability coverage; and (4) from claims for injury to or destruction of tangible property including loss of use resulting therefrom -- any or all of which claims may arise out of, or result from, the services, work and operations carried out pursuant to and under the requirements of the Contract Documents, whether such services, work and operations be by the Contractor, its employees, or by subcontractor(s), or anyone employed by or under the supervision of any of them, or for whose acts any of them may be legally liable.

(2) This insurance shall be obtained and written for not less than the limits of liability specified hereinafter, or as required by law, whichever is greater.

(3) The Contractor shall require, and shall be responsible for assuring throughout the time the Agreement is in effect, that any and all of its subcontractors obtain and maintain until the completion of that subcontractor's work, such of the insurance coverages described herein as are required by law to be provided on behalf of their employees and others.

(4) The Contractor shall obtain, have and maintain during the entire period of the Agreement insurance policies, which contain the following information and provisions:

- (A) The name and type of policy and coverages provided;
- (B) The amount or limit applicable to each coverage provided;
- (C) The date of expiration of coverage;
- (D) The designation of the COUNTY as an additional insured and a certificate holder. (This requirement may be excepted for Worker's Compensation and professional liability Insurance.);
- (E) The following clause must appear on the Certificate of Insurance:

Should any material change occur in any of the above described policies or should any of said policies be canceled before the expiration date thereof, the issuing company will mail at least thirty (30) days written notice to the COUNTY.

(5) If the initial, or any subsequently issued Certificate of Insurance expires prior to the completion of the Work or termination of the Agreement, the Contractor shall furnish to the COUNTY, in triplicate, renewal or replacement Certificate(s) of Insurance not later than thirty (30) calendar days prior to the date of their expiration. Failure of the Contractor to provide the COUNTY with such renewal certificate(s) shall be considered justification for the COUNTY to terminate the Agreement.

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

(6) Contractor shall include the COUNTY, the COUNTY's agents, officers and employees in the Contractor's General Liability and Automobile Liability policies as additional insureds.

(7) If the COUNTY has any objection to the coverage afforded by other provisions of the insurance required to be purchased and maintained by Contractor in accordance with the requirements of the Contract Documents on the basis of its not complying with the Contract Documents, the COUNTY shall notify Contractor in writing thereof within thirty (30) days of the delivery of such certificates to the COUNTY. Contractor shall provide to the COUNTY such additional information with respect to its insurance as may be requested.

(8) The Contractor shall obtain and maintain the following insurance coverages as provided hereinbefore, and in the type, amounts and in conformance with the following minimum requirements:

WORKER'S COMPENSATION

State: Statutory

Employer's Liability: \$1,000,000.00

COMPREHENSIVE GENERAL LIABILITY

Bodily Injury: \$1,000,000.00 Each Occurrence

Property Damage: \$1,000,000.00 Each Occurrence

Comprehensive General Liability Insurance shall include:

Contractual Liability, Explosion, Collapse and Underground Coverages and Products and Completed Operations Coverages.

COMPREHENSIVE AUTOMOBILE LIABILITY

Bodily Injury: \$1,000,000.00 Each Occurrence

Property Damage: \$1,000,000.00 Each Occurrence

Comprehensive Automobile Liability shall include coverage for any owned auto, non-owned autos and hired autos.

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

EXHIBIT G
RELEASE AND AFFIDAVIT

COUNTY OF _____

STATE OF FLORIDA

Before me, the undersigned authority, personally appeared _____, who after

being duly sworn, deposes and says:

(1) In accordance with the Contract Documents and in consideration of \$ _____ paid, _____ ("Contractor") releases and waives for itself and its subcontractors, materialmen, successors and assigns, all claims demands, damages, costs and expenses, whether in contract or in tort, against Jefferson County, Florida (the "COUNTY"), its Board of County Commissioners, employees and agents relating in any way to the performance of the Agreement between Contractor and the COUNTY, dated _____, _____, for the period from _____ to _____.

(2) Contractor certifies for itself and its subcontractors, materialmen, successors and assigns, that all charges for labor, materials, supplies, lands, licenses and other expenses for which the COUNTY might be sued or for which a lien or a demand against any payment bond might be filed, have been fully satisfied and paid.

(3) Contractor agrees to indemnify, defend and save harmless the COUNTY, its Board of County Commissioners, employees and agents from all demands or suits, actions, claims of liens or other charges filed or asserted against the COUNTY arising out of the performance by Contractor of the Work covered by this Release and Affidavit.

(4) This Release and Affidavit is given in connection with Contractor's [monthly/final] Application for Payment No. _____.

CONTRACTOR:

By: _____ (signature of the executive officer)

Its: _____ (title of the executive officer)

Date: _____

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

Witnesses

[Corporate Seal]

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____,

_____, by _____, as _____ of

_____, a _____ corporation, on behalf of the

corporation. He/she is personally known to me or has produced _____

_____ as identification and did (did not) take an oath.

My Commission Expires: _____
(Signature of Notary)

Name: _____
(Legibly Printed)

(AFFIX OFFICIAL SEAL)

Notary Public, State of _____

Commission No.: _____

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

EXHIBIT H
CHANGE ORDER FORM

CHANGE ORDER NO. _____ JEFFERSON COUNTY PROJECT NO. _____

TO: _____

DATE: _____

PROJECT NAME: _____

Jefferson County Project No. _____

Under our AGREEMENT dated _____.

You hereby are authorized and directed to make the following change(s) in accordance with terms and conditions of the Agreement:

FOR THE ADDITIVE or DEDUCTIVE Sum of:

_____ (\$ _____).

Original Agreement Amount \$ _____

Sum of Previous Changes \$ _____

This Change Order ADD/DEDUCT \$ _____

Present Agreement Amount \$ _____

The time for completion shall be (increased/decreased) by _____ calendar days due to this Change Order. Accordingly, the Contract Time is now _____ (_____) calendar days and the final completion date is _____. Your acceptance of this Change Order shall constitute a modification to our Agreement and will be performed subject to all the same terms and conditions as contained in our Agreement indicated above, as fully as if the same were repeated in this acceptance. The adjustment, if any, to the Agreement shall constitute a full and final settlement of any and all claims arising out of or related to the change set forth herein, including claims for impact and delay costs.

Accepted: _____, 20____.

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

JEFFERSON COUNTY, FLORIDA

CONTRACTOR

By: _____
Chair

By: _____
President

DESIGN PROFESSIONAL: By: _____ Consulting Engineer

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

EXHIBIT I
CONTRACTOR SERVICES AUTHORIZATION (CSA)

CONSULTANT SERVICES AUTHORIZATION #1
To the Consulting Agreement by and between

And
Jefferson County, Florida

A. SCOPE OF SERVICES

[INSERT]

B. PAYMENT

[INSERT]

C. PAYMENT AND PERFORMANCE SCHEDULE

[INSERT]

D. NOTICE/PROJECT MANAGER OF CONSULTANT

[INSERT]

The approval of the Consultant Services Authorization constitutes Notice to Proceed to the Consultant.

Attest:

KIRK REAMS

Clerk of the Board

JEFFERSON COUNTY, a political
subdivision of the State of Florida

By: _____
Deputy Clerk

By: _____
Chairman, Board of County Commissioners

Date Approved by Board: _____

Jefferson County Road Bond Paving Project, Project No. #01-4102-150323

Review as to form

County Attorney's Office Date_____

Attest:

COMPANY
a _____ Corporation

By: _____
By: _____
Corporate Secretary

[Print Name]

[Print Name]

DATE: _____

[Title]

DATE: _____

SEAL

ATTACHMENT "A" – TECHNICAL SPECIFICATIONS/SCOPE OF WORK

TECHNICAL SPECIFICATIONS JEFFERSON COUNTY ROAD PAVING PROJECT PROJECT NO.: 01-4102-150323

1. The payment due date for a local government entity for the purchase of goods or services other than construction services is 45 days per Florida Statutes Section 218.74.
2. Price quotes are to be F.O.B. to destination.
3. All charges must be on the Bid Sheet. If not, Jefferson County will have the authority to reject those charges.
4. Complete description and specification of product must accompany each and every bid.
5. All materials shall conform to the current FDOT Standard Specification for Road and Bridge Construction and FDOT Standard Plans (FY 2023-24).
6. Apply Asphaltic Superpave (9.5, 12.5) or Friction Course (9.5, 12.5) as designated by the County Engineer Department. Mixes shall use fine or course materials as designated by the Engineer. Use recycled asphalt pavement (RAP) as established in FDOT standards.
7. All performance and work shall be in accordance with Florida Department of Transportation and Jefferson County construction procedures and methods.
8. All fees for Maintenance of Traffic (MOT) shall be included in the unit prices for milling and asphalt services. No additional payment will be given for the site specific conditions that may require additional MOT. All MOT shall be in compliance with FDOT Standard Plans (FY 2023-24).
9. Temporary striping to the standards of the FDOT shall be included in the unit prices for asphalt services.
10. The Contractor shall be responsible to remedy any and all "drop off" conditions created as a result of paving within the same work day. A drop off condition will be considered any area greater than three (3) inches.
11. Work shall commence within 15 days and be completed within 45 days after the Task Work Orders are received unless otherwise agreed to in writing by both parties. Should the Contractor fail to complete the Work within the time period noted above, the County shall be entitled to assess as liquidated damages, but not as a penalty, \$1,500.00 for each calendar day thereafter until substantial completion is achieved. The work for the Task Work Order will be deemed to be substantially completed on the date the Engineer issues a Substantial Completion Certificate pursuant to the t hereof. The Contractor hereby expressly waives and relinquishes any right which it may have to seek to characterize the above noted liquidated damages as a penalty, which the parties agree represents a fair and reasonable estimate of the County's actual damages at the time of contracting if the Contractor fails to substantially complete the Work in a timely manner.
12. Jefferson County Public Works shall stabilize the roadbed prior to paving. The Contractor will be responsible for the final grading and rolling of the roadway and turnouts prior to paving.
13. The Contractor shall pave turnouts at all driveways on the corridor a distance of two (2) feet from the edge of pavement in a manner that promotes positive drainage and minimal grade changes. Turnouts will be paved at a thickness of two (2) inches. The width of the turnout will be based on the current width of the existing dirt driveway unless directed otherwise by the

Engineer. The Contractor will be responsible for all final grading/rolling in these areas. All additional work items (excavation, embankment, etc.) to achieve these requirements are considering incidental items and will be included in the price for turnout construction.

14. The typical section for all roadways will be a width of twenty (20) feet unless directed otherwise. All roadways will receive a structural course only of a thickness of 1.5" or 2" per the Engineer unless otherwise directed. The Engineer will set the spreadrate for each roadway prior to paving. The cross slope will meet the existing cross slope unless the existing cross slope does not have positive drainage. These areas will be paved with a cross slope shall have positive drainage to the roadway. Areas of ponding on the roadway will not be acceptable.
15. Task Work Orders on this Contract will be issued as roads become ready for paving. Jefferson County reserves the right to add additional roadways and/or delete roadways to be paved. Roadways to be included in this Contract attached hereto as Attachment "C".
16. All work will meet the revised Section 320, 327, 330, 334, & 337 of the FDOT Specifications attached hereto as Attachment "D".
17. All asphalt will be of a Traffic Level B with PG76-22 at a minimum. The Contractor can substitute a higher traffic level at no additional cost to the County.
18. The Contractor shall submit all asphalt truck tickets and roadway QC Roadway Report to the Engineer within twenty-four (24) hours of paving. The Contractor will be required to utilize the FDOT QC Roadway Report for tracking on this project. Payment will not be made until these items are submitted to the satisfaction of the Engineer.
19. Basis of Payment will be as follows:
 - a. **Mobilization (Pay Item 101-1)** – Payment will be lump sum paid at a quantity of one (1) lump sum for each roadway paved for the duration of all operations on that roadway per Task Work Order. Work will include all preparatory work and operations in mobilizing for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project including cost of bonds and required insurance.
 - b. **Milling (Pay Item 327-70-1, 327-70-6, 327-70-5, 327-70-8)** – Price and payment will be full compensation for all work including hauling off and stockpiling or otherwise disposing of the milled materials. The quantity to be paid for will be the approved plan quantity area, in square yards, over which milling is completed and accepted.
 - c. **Asphalt (Pay Item 334-1-12, 337-7-5, 337-7-5, 337-7-7)** – Price and payment will be full compensation for all work specified under revised Specification 320, 327, 330, 334, & 337 (Attachment "D"). Payment will be for the actual tonnage placed on the project until the plan quantity is reached. Plan quantity will be calculated based on the authorized square yards placed multiplied by the spreadrate set by the Engineer for each roadway. All material placed in excess of this will be at no cost to the County. All areas not meeting the minimum spreadrate requirements of the revised Specification 330 will need to be removed and replaced at no cost to the County. There will be no CPF, Gmm, fuel, or spreadrate adjustments on this project.
 - d. **Turnout Construction (Pay Item 286-1)** – Price and payment will be full compensation for all work required to pave turnouts including final grading/rolling and any incidental work to place the turnout as described in these Specifications. The quantity to be paid for will be the plan quantity area, in tons, over which paving is completed and accepted.

- e. **Final Grading/Rolling (Pay Item 999-9)** – Price and payment will be full compensation for all work required to achieve final grade and density required for a firm and unyielding surface. The quantity to be paid for will be the plan quantity area, in square yards, over which paving is completed and accepted.
20. Warranty – All asphalt will have a three year warranty period after final acceptance of the Task Work Order as per Revised Specification 338 attached herein as Attachment “D”.

ATTACHMENT "C"

LIST OF ROADWAYS TO BE PAVED

PROJECT NO.: 01-4102-150323

Road Name	District	Approximate Length
South Gilley Road	1	2
Oetinger Road	2	1.1
Sledge Road	2	0.6
Johnson Road	2	0.7
North Norias Road	2	0.2
Simpson Road	2	0.3
Curtis Mill Road	3	0.9
Old Drifton Road (N. End)	3	0.8
Lake Side Road	3	0.2
Campbell Road	3	0.3
Steel Road	4	0.8
Hayfield Spur	4	1.5
Lukens Road	4	0.4
Miller Road	4	0.1
Robert Thompson Road	5	0.6
St. Augustine Road	5	1
Avalon Road	5	0.3
Fallow Road	5	0.5
Avalon Side Road	5	0.2
North Gilley Road	1	1.8
Steen Road	1	1.2
Joiner Road	1	1.7
Doke	3	0.5
Cook Side Road	3	0.5
Merrit Road	4	0.25
Peter Brown Lane	5	0.7
Walker Springs Road	5	0.3
Lanier Road (N. End)	5	0.3
Hartsfield Road	1	0.9
Fornes Road	1	0.6
Tindell Road	1	0.4
Lonnie Road	1	0.6
Turney Anderson Road	1	0.6
Gramling Road	1	1.3
Luther Fountain Road	1	0.5
Rudd Road	1	0.8
Bonnet Pond Road	1	0.6
Frank Lacy Road	1	1.2
Reichdorff Road	1	0.1
Lovett Road	1	1.2

SECTION 320 HOT MIX ASPHALT - PLANT METHODS AND EQUIPMENT

320-1 General.

This Section specifies the basic equipment and operational requirements for hot mix asphalt (including warm mix asphalt) production facilities used in the construction of asphalt pavements and bases. Establish and maintain a quality control system that provides assurance that all materials and products submitted for acceptance meet Contract requirements.

320-2 Quality Control (QC) Requirements.

320-2.1 Minimum Producer QC Requirements: Perform as a minimum the following activities:

1. Stockpiles:
 - a. Assure materials are placed in the correct stockpile;
 - b. Assure good stockpiling techniques;
 - c. Inspect stockpiles for separation, contamination, segregation, and other similar items;
 - d. Properly identify and label each stockpile.
2. Incoming Aggregate:
 - a. Obtain gradations and bulk specific gravity (G_{sb}) values from aggregate supplier for reference;
 - b. Determine the gradation of all component materials and routinely compare gradations and G_{sb} values to mix design.
3. Cold Bins:
 - a. Calibrate the cold gate/feeder belt for each material;
 - b. Determine cold gate/feeder belt settings;
 - c. Observe operation of cold feeder for uniformity;
 - d. Verify accuracy of all settings;
 - e. Verify that the correct components are being used, and that all modifiers or additives or both are being incorporated into the mix.
4. Batch Plants:
 - a. Determine percent used and weight to be pulled from each bin to assure compliance with the mix design;
 - b. Check mixing time;
 - c. Check operations of weigh bucket and scales.
5. Drum Mixer Plants:
 - a. Determine aggregate moisture content;
 - b. Calibrate the weigh bridge on the charging conveyor.
6. Control Charts: Maintain QC data and charts (updated daily) for all QC Sampling and Testing and make available upon demand. Provide the following charts:
 - a. All components used to determine the composite pay factor (No. 8 sieve, No. 200 sieve, asphalt binder content, air voids, and density);
 - b. Gradation of incoming aggregate;
 - c. Gradation, asphalt binder content and maximum specific gravity (G_{mm}) of RAP;

d. Any other test result or material characteristic (as determined by the Contractor) necessary for process control.

The above listed minimum activities are to be considered normal activities necessary to control the production of hot mix asphalt at an acceptable quality level. Depending on the type of process or materials, some of the activities listed may not be necessary and in other cases, additional activities may be required. The frequency of these activities will also vary with the process and the materials. When the process varies from the defined process average and variability targets, the frequency of these activities will be increased until the proper conditions have been restored.

320-2.2 Minimum Process Control Testing Requirements: Perform, as a minimum, the following activities at the testing frequencies provided in Table 320-1. QC tests used in the acceptance decision may be used to fulfill these requirements.

Table 320-1		
Asphalt Plant - Materials Testing Frequencies		
Material	Property	Minimum Testing Frequency
Aggregate	Gradation	Once per 1,000 tons of incoming aggregate
Asphalt Mix	Asphalt Binder Content	If daily production > 100 tons, once per day; If daily production > 1,000 tons, twice per day. *
Asphalt Mix	Bulk Specific Gravity (G_{mb})	If daily production > 100 tons, once per day; If daily production > 1,000 tons, twice per day. *
Asphalt Mix	Gradation	If daily production > 100 tons, once per day; If daily production > 1,000 tons, twice per day. *
Asphalt Mix	Maximum Specific Gravity (G_{mm})	If daily production > 100 tons, once per day; If daily production > 1,000 tons, twice per day. *
Asphalt Mix	Temperature	Each of first 5 loads, then once every 5 loads thereafter, per day per mix design.
RAP	Asphalt Binder Content	Once per 1,000 tons RAP
RAP	Gradation	Once per 1,000 tons RAP
RAP	Maximum Specific Gravity (G_{mm})	Once per 5,000 tons RAP
*If less than 100 tons of mix is produced on each of successive days of production, resulting in a cumulative quantity of greater than 100 tons, then perform the indicated test.		

320-2.3 Personnel Qualifications: Provide QC Technicians in accordance with Section 105.

320-2.4 Hot Mix Asphalt Testing Laboratory Requirements: Furnish a fully equipped asphalt laboratory at the production site. The laboratory must be qualified under the Department's Laboratory Qualification Program, as described in Section 105. In addition, the laboratory shall meet the following requirements:

1. Area - The effective working area of the laboratory shall be a minimum of 180 square feet, with a layout of which will facilitate multiple tests being run simultaneously by two technicians. This area does not include the space for desks, chairs and file cabinets. Any variations shall be approved by the Engineer.

2. Lighting - The lighting in the lab must be adequate to illuminate all areas of the work.

3. Temperature Control - Equip the lab with heating and air conditioning units that provide a satisfactory working environment.

4. Ventilation - Equip the lab with exhaust fans that will remove all hazardous fumes from within the laboratory in accordance with OSHA requirements.

5. Equipment and Supplies - Furnish the lab with the necessary sampling and testing equipment and supplies for performing contractor QC and Department Verification Sampling and Testing. A detailed list of equipment and supplies required for each test is included in the appropriate FDOT, AASHTO, or ASTM Test Method. In the event testing equipment goes out of service during production, the Contractor may elect to use replacement equipment at another laboratory qualified, as described in Section 105, for up to 72 hours upon notification of the Engineer.

6. Personal Computer - Provide a personal computer capable of running a Microsoft Excel™ spreadsheet program, along with a printer.

7. Communication - Provide a telephone and fax machine (with a private line) for the use of the testing facility's QC personnel. In addition, provide an internet connection capable of uploading data to the Department's database and for e-mail communications.

320-3 Requirements for All Plants.

320-3.1 General: Design, manufacture, coordinate, and operate the asphalt plant in a manner that will consistently produce a mixture within the required tolerances and temperatures specified.

320-3.2 Asphalt Plant Ticketing Systems: Use either a paper ticketing system or an electronic ticketing (E-Ticketing) system.

320-3.2.1 Electronic Weigh Systems for Paper Ticketing: Equip the asphalt plant with an electronic weigh system that has an automatic printout, is certified every six months by an approved certified scale technician, and meets monthly comparison checks with certified truck scales as specified in 320-3.2.1.4. Weigh all plant produced hot mix asphalt on the electronic weigh system, regardless of the method of measurement for payment.

Include, as a minimum, the following information on the printed delivery ticket:

1. Sequential load number
2. Project number
3. Date
4. Name and location of plant
5. Mix design number
6. Place for hand-recording mix temperature
7. Truck number
8. Gross, tare, and net tonnage per truck (as applicable)
9. Daily total tonnage of mix for the mix design

Print the delivery ticket with an original and at least one copy. Furnish the original to the Engineer at the plant and one copy to the Engineer at the paving site.

Utilize any one of the following three electronic weigh systems.

320-3.2.1.1 Electronic Weigh System on the Truck Scales: Provide an electronic weigh system on all truck scales, which is equipped with an automatic recordation system that is approved by the Engineer. Use scales of the type that directly indicate the total weight of the loaded truck. Use scales meeting the requirements for accuracy, condition, etc., of the Bureau of Weights and Measures of the Florida Department of Agriculture, and re-certify such fact every six months, either by the Bureau of Weights and Measures or by a registered scale technician.

320-3.2.1.2 Electronic Weigh System on Hoppers Beneath a Surge or Storage Bin: Provide an electronic weigh system on the hopper (hopper scales or load cells) beneath the surge or storage bin, which is equipped with an automatic recordation system approved by the Engineer.

320-3.2.1.3 Automatic Batch Plants with Printout: For batch plants, provide an approved automatic printer system which will print the individual or cumulative weights of aggregate and liquid asphalt delivered to the pugmill and the total net weight of the asphalt mix measured by hopper scales or load cell type scales. Use the automatic printer system only in conjunction with automatic batching and mixing control systems that have been approved by the Engineer.

320-3.2.1.4 Monthly Electronic Weigh System Comparison Checks: Check the accuracy of the electronic weighing system at the commencement of production and thereafter by one of the following two methods and maintain a record of the weights in the Scale Check Worksheet. The time period between scale checks shall not exceed 35 calendar days.

320-3.2.1.4.1 Electronic Weigh System on Truck Scales:

1. The Engineer will randomly select a loaded truck of asphalt mix, a loaded aggregate haul truck, or another vehicle type approved by the Engineer and record the truck number and gross weight from the Contractor's delivery ticket.

2. Weigh the selected truck on a certified truck scale, which is not owned by the Contractor and record the gross weight for the comparison check. If another certified truck scale is not available, the Engineer may permit another set of certified truck scales owned by the Contractor to be used. The Engineer may elect to witness the scale check.

3. The gross weight of the loaded truck as shown on the Contractor's delivery ticket will be compared to the gross weight of the loaded truck from the other certified truck scale. The maximum permissible deviation is 8 pounds per ton of load, based on the certified truck scale weight.

4. If the distance from the asphalt plant to the nearest certified truck scale is enough for fuel consumption to affect the accuracy of the comparison checks, a fuel adjustment may be calculated by using the truck odometer readings for the distance measurement, and 6.1 miles per gallon for the fuel consumption rate, and 115 ounces per gallon for fuel weight.

5. During production, when an additional certified truck scale is not available for comparison checks, the Engineer may permit the Contractor to weigh the truck on his certified scales used during production and then weigh it on another certified truck scale, as soon the other scale is available for the comparison checks.

In addition to the periodic checks as specified above, check the scales at any time the accuracy of the scales becomes questionable. When such inaccuracy does not appear to be sufficient to seriously affect the weighing operations, the Engineer will allow a period of two calendar days for the Contractor to conduct the required scale check.

However, in the event the indicated inaccuracy is sufficient to seriously affect the mixture, the Engineer may require immediate shut-down until the accuracy of the scales has been checked and necessary corrections have been made. Include the cost of all scale checks in the bid price for asphalt concrete, at no additional cost to the Department.

320-3.2.1.4.2 Electronic Weigh System on Hoppers Beneath a Surge or Storage Bin and Automatic Batch Plants with Printout:

1. The Engineer will randomly select a loaded truck of asphalt mix and record the truck number, and the net weight of the asphalt mix from the Contractor's delivery ticket.
2. Weigh the selected truck on a certified truck scale, which is not owned by the Contractor and record the gross weight for the comparison check. If another certified truck scale is not available, the Engineer may permit another set of certified truck scales owned by the Contractor to be used. The Engineer may elect to witness the scale check.
3. Deliver the asphalt mix to the project, then weigh the selected empty truck on the same certified truck scales. Record the tare weight of the truck.
4. Compare the net weight of the asphalt mix from the delivery ticket to the calculated net weight of the asphalt mix as determined by the certified truck scale weights. The maximum permissible deviation is 8 pounds per ton of load, based on the certified truck scale weight.

5. Use the fuel adjustment as specified in 320-3.2.4.1(4), when the distance from the asphalt plant to the nearest certified truck scale is enough for fuel consumption to affect the accuracy of the comparison checks.

6. During production, when an additional certified truck scale is not available for comparison checks, the Engineer may permit the Contractor to load a truck with aggregate from the pugmill, surge or storage bin, and follow the above procedures to conduct the comparison checks as soon as certified truck scale is available.

If the check shows a greater difference than the tolerance specified above, then recheck on a second set of certified scales. If the check and recheck indicate that the printed weight is out of tolerance, have a certified scale technician check the electronic weigh system and certify the accuracy of the printer. While the system is out of tolerance and before its adjustment, the Engineer may allow the Contractor to continue production only if provisions are made to use a set of certified truck scales to determine the truck weights.

320-3.2.2 Electronic Weigh Systems for E-Ticketing: Equip the asphalt plant with an electronic weigh system that has an automatic printout, is certified every six months by an approved certified scale technician, and meets monthly comparison checks with certified truck scales as specified in 320-3.2.2.3. Weigh all plant produced hot mix asphalt on the electronic weigh system, regardless of the method of measurement for payment.

Include, as a minimum, the following information in the electronic delivery ticket:

1. Sequential load number
2. Project's Financial Identification Number (FIN)
3. Date
4. Name and location of plant
5. Mix design number
6. Separate, individual, data entry locations for recording mix temperature by:

- a. Plant QC
- b. Plant VT
- c. Roadway QC
- d. Roadway VT
- 7. Truck number
- 8. Gross, tare, and net tonnage per truck
- 9. Daily cumulative tonnage of mix for the mix design

320-3.2.2.1 Electronic Ticketing (E-Ticketing) System: Provide an e-Ticketing System (including any necessary software and hardware) capable of monitoring, collecting, storing, and reporting the information required by the Contract for all loads of asphalt mix delivered to the project. After each truck is loaded, electronically record and use a web service to upload the ticket information to the E-ticketing software database. The E-ticketing system shall provide each truck load's ticket information to users of the e-ticketing software.

E-ticketing software must provide the Engineer the ability to access real-time monitoring of asphalt truck load ticket information as described herein.

The e-Ticketing system shall be integrated with the Load Read-Out scale system at the asphalt plant site.

The e-ticketing system shall have offline capabilities to prevent data loss in the event of power loss or loss of connectivity.

320-3.2.2.1.1 E-Ticketing System Construction Requirements: Install and operate equipment in accordance with the manufacturer's specifications.

320-3.2.2.1.2 Data Deliverables: Provide to the Engineer a means of gathering report summaries by way of iOS or Android apps, web pages, or any other method at the disposal of the Engineer. The Engineer may request data at any time during paving operations. In addition to providing reports referenced in this specification, provide monthly reports, as well as, a final, end of project report in the e-ticketing software and in a comma separated value (.csv) file. Provide all e-ticketing database data required in this Section in the monthly and end of project reports and .csv files.

320-3.2.2.1.3 Real-Time Continuous e-Ticketing Data Items: Provide the Engineer access to the e-Ticketing system data viewer which displays the following information in real-time with a web-based or App-based system compatible with iOS, Windows, or Android environments:

- 1. Each Truck:
 - a. Unique Truck ID
 - b. Sequential Truck Load Number
 - c. Mix Design Number
 - d. Net Weight of material being transported (to the nearest 0.01 ton)
 - e. Running Daily Total of Net Weight of material being transported (to the nearest 0.01 ton)
 - f. Project's Financial Identification Number
- 2. Project Location

320-3.2.2.1.4 Daily Summary: Provide the following summary information to the Engineer electronically within 4 hours of beginning operations on the next working day:

- 1. List of Individual Loads

- a. Contractor Name
- b. Project's Financial Identification Number (FIN)
- c. Unique Truck ID
- d. Sequential Load Number
- e. Net Weight for Payment (nearest 0.01 tons)
- f. Net Weight of Waste (nearest 0.01 tons)
- g. Date Paved
- h. Mix Temperature Measurements (Plant QC, Plant VT, Roadway QC, and Roadway VT)
- i. Time Loaded at Plant site

320-3.2.2.2 Electronic Weigh Systems: Utilize any one of the following three electronic weigh systems.

320-3.2.2.2.1 Electronic Weigh System on the Truck Scales:

Provide an electronic weigh system on all truck scales, which is equipped with an automatic recordation system that is approved by the Engineer. Use scales of the type that directly indicate the total weight of the loaded truck. Use scales meeting the requirements for accuracy, condition, etc., of the Bureau of Weights and Measures of the Florida Department of Agriculture, and re-certify such fact every six months, either by the Bureau of Weights and Measures or by a registered scale technician.

320-3.2.2.2.2 Electronic Weigh System on Hoppers Beneath a Surge or Storage Bin: Provide an electronic weigh system on the hopper (hopper scales or load cells) beneath the surge or storage bin, which is equipped with an automatic recordation system approved by the Engineer.

320-3.2.2.2.3 Automatic Batch Plants: For batch plants, provide an electronic weigh system, which is equipped with an automatic recordation system, that is approved by the Engineer, which will directly indicate the individual or cumulative weights of aggregate and liquid asphalt delivered to the pugmill and the total net weight of the asphalt mix measured by hopper scales or load cell type scales. Use the electronic systems only in conjunction with automatic batching and mixing control systems that have been approved by the Engineer.

320-3.2.2.3 Monthly Electronic Weigh System Comparison Checks:

Check the accuracy of the electronic weighing system at the commencement of production and thereafter by one of the following three methods and maintain a record of the weights in the Scale Check Worksheet. The time period between scale checks shall not exceed 35 calendar days.

320-3.2.2.3.1 Electronic Weigh System on Truck Scales:

1. The Engineer will randomly select a loaded truck of asphalt mix, a loaded aggregate haul truck, or another vehicle type approved by the Engineer and record the truck number and gross weight from the Contractor's delivery ticket.

2. Weigh the selected truck on a certified truck scale, which is not owned by the Contractor and record the gross weight for the comparison check. If another certified truck scale is not available, the Engineer may permit another set of certified truck scales owned by the Contractor to be used. The Engineer may elect to witness the scale check.

3. The gross weight of the loaded truck as shown on the Contractor's delivery ticket will be compared to the gross weight of the loaded truck from the

other certified truck scale. The maximum permissible deviation is 8 pounds per ton of load, based on the certified truck scale weight.

4. If the distance from the asphalt plant to the nearest certified truck scale is enough for fuel consumption to affect the accuracy of the comparison checks, a fuel adjustment may be calculated by using the truck odometer readings for the distance measurement, and 6.1 miles per gallon for the fuel consumption rate, and 115 ounces per gallon for fuel weight.

5. During production, when an additional certified truck scale is not available for comparison checks, the Engineer may permit the Contractor to weigh the truck on his certified scales used during production and then weigh it on another certified truck scale, as soon as the other scale is available for the comparison checks.

In addition to the periodic checks as specified above, check the scales at any time the accuracy of the scales becomes questionable. When such inaccuracy does not appear to be sufficient to seriously affect the weighing operations, the Engineer will allow a period of two calendar days for the Contractor to conduct the required scale check. However, in the event the indicated inaccuracy is sufficient to seriously affect the mixture, the Engineer may require immediate shut-down until the accuracy of the scales has been checked and necessary corrections have been made. Include the cost of all scale checks in the bid price for asphalt concrete, at no additional cost to the Department.

320-3.2.2.3.2 Electronic Weigh System on Hoppers Beneath a

Surge or Storage Bin:

1. The Engineer will randomly select a loaded truck of asphalt mix and record the truck number, and the net weight of the asphalt mix from the Contractor's delivery ticket.

2. Weigh the selected truck on a certified truck scale, which is not owned by the Contractor and record the gross weight for the comparison check. If another certified truck scale is not available, the Engineer may permit another set of certified truck scales owned by the Contractor to be used. The Engineer may elect to witness the scale check.

3. Deliver the asphalt mix to the project, then weigh the selected empty truck on the same certified truck scales. Record the tare weight of the truck.

4. Compare the net weight of the asphalt mix from the delivery ticket to the calculated net weight of the asphalt mix as determined by the certified truck scale weights. The maximum permissible deviation is 8 pounds per ton of load, based on the certified truck scale weight.

5. Use the fuel adjustment as specified in 320-3.2.2.3.1(4), when the distance from the asphalt plant to the nearest certified truck scale is enough for fuel consumption to affect the accuracy of the comparison checks.

6. During production, when an additional certified truck scale is not available for comparison checks, the Engineer may permit the Contractor to load a truck with aggregate from the pugmill, surge or storage bin, and follow the above procedures to conduct the comparison checks as soon as certified truck scale is available.

If the check shows a greater difference than the tolerance specified above, then recheck on a second set of certified scales. If the check and recheck indicate that the printed weight is out of tolerance, have a certified scale technician check the electronic weigh system and certify the accuracy of the printer. While the system is out of tolerance and before its

adjustment, the Engineer may allow the Contractor to continue production only if provisions are made to use a set of certified truck scales to determine the truck weights.

320-3.2.2.3.3 Electronic Weigh System on Hoppers Beneath a Surge or Storage Bin and Automatic Batch Plants with Printout:

1. The Engineer will randomly select a loaded truck of asphalt mix and record the truck number, and the net weight of the asphalt mix from the Contractor's delivery ticket.

2. Weigh the selected truck on a certified truck scale, which is not owned by the Contractor and record the gross weight for the comparison check. If another certified truck scale is not available, the Engineer may permit another set of certified truck scales owned by the Contractor to be used. The Engineer may elect to witness the scale check.

3. Deliver the asphalt mix to the project, then weigh the selected empty truck on the same certified truck scales. Record the tare weight of the truck.

4. Compare the net weight of the asphalt mix from the delivery ticket to the calculated net weight of the asphalt mix as determined by the certified truck scale weights. The maximum permissible deviation is 8 pounds per ton of load, based on the certified truck scale weight.

5. Use the fuel adjustment as specified in 320-3.2.1.4.1(4), when the distance from the asphalt plant to the nearest certified truck scale is enough for fuel consumption to affect the accuracy of the comparison checks.

6. During production, when an additional certified truck scale is not available for comparison checks, the Engineer may permit the Contractor to load a truck with aggregate from the pugmill, surge or storage bin, and follow the above procedures to conduct the comparison checks as soon as certified truck scale is available.

If the check shows a greater difference than the tolerance specified above, then recheck on a second set of certified scales. If the check and recheck indicate that the weight on the E-Ticket is out of tolerance, have a certified scale technician check the electronic weigh system and certify the accuracy of the E-Ticketing system. While the system is out of tolerance and before its adjustment, the Engineer may allow the Contractor to continue production only if provisions are made to use a set of certified truck scales to determine the truck weights.

320-3.3 Asphalt Binder: Meet the following requirements:

320-3.3.1 Transportation: Deliver the asphalt binder to the asphalt plant at a temperature not to exceed 370°F, and equip the transport tanks with sampling and temperature sensing devices meeting the requirements of 300-3.2.

320-3.3.2 Storage: Equip asphalt binder storage tanks to heat the liquid asphalt binder to the temperatures required for the various mixtures. Heat the material in such a manner that no flame comes in contact with the binder. Heat or insulate all pipe lines and fittings. Use a circulating system of adequate size to ensure proper and continuous circulation during the entire operating period. Locate a thermometer, reading from 200 to 400°F, either in the storage tank or in the asphalt binder feed line. Maintain the asphalt binder in storage within a range of 230 to 355°F in advance of mixing operations. Locate a sampling device on the discharge piping exiting the storage tank or at a location as approved by the Engineer. Provide a metal can of one quart capacity for binder sampling at the request of the Engineer.

320-3.4 Aggregate: Meet the following requirements:

320-3.4.1 Stockpiles: Place each aggregate component in an individual stockpile, and separate each from the adjacent stockpiles, either by space or by a system of bulkheads. Prevent the intermingling of different materials in stockpiles at all times. Identify each stockpile, including RAP, as shown on the mix design.

Form and maintain stockpiles in a manner that will prevent segregation. If a stockpile is determined to be segregated, discontinue the use of the material on the project until the appropriate actions have been taken to correct the problem.

320-3.4.2 Blending of Aggregates: Stockpile all aggregates prior to blending or placing in the cold feed bins. If mineral filler or hydrated lime is required in the mix, feed or weigh it in separately from the other aggregates.

320-3.4.2.1 Cold Feed Bin: Provide a separate cold feed bin for each component of the fine and coarse aggregate required by the mix design. Equip the cold feed bins with accurate mechanical means for feeding the aggregate uniformly into the dryer in the proportions required for the finished mix to maintain uniform production and temperature. When using RAP as a component material, prevent any oversized RAP from being incorporated into the completed mixture by the use of: a grizzly or grid over the RAP bin; in-line roller or impact crusher; screen; or other suitable means. If oversized RAP material appears in the completed recycled mix, take the appropriate corrective action immediately. If the appropriate corrective actions are not immediately taken, stop plant operations.

Use separate bin compartments in the cold aggregate feeder that are constructed to prevent any spilling or leakage of aggregate from one cold feed bin to another. Ensure that each cold feed bin compartment has the capacity and design to permit a uniform flow of aggregates. Mount all cold feed bin compartments over a feeder of uniform speed, which will deliver the specified proportions of the separate aggregates to the drier at all times. If necessary, equip the cold feed bins with vibrators to ensure a uniform flow of the aggregates at all times.

320-3.4.2.2 Gates and Feeder Belts: Provide each cold feed bin compartment with a gate and feeder belt, both of which are adjustable to assure the aggregate is proportioned to meet the requirements of the mix design.

320-3.4.3 Screening Unit: Remove any oversized pieces of aggregate by the use of a scalping screen. Do not return this oversized material to the stockpile for reuse unless it has been crushed and reprocessed into sizes that will pass the scalping screen. Ensure that the quantity of aggregates being discharged onto the screens does not exceed the capacity of the screens to actually separate the aggregates into the required sizes.

320-3.5 Dryer: Provide a dryer of satisfactory design for heating and drying the aggregate. Use a dryer capable of heating the aggregate to within the specified temperature range for any mix, and equip the dryer with an electric pyrometer placed at the discharge chute to automatically register the temperature of the heated aggregates.

320-3.6 Asphalt Binder Control Unit: Provide a satisfactory means, either by weighing, metering, or volumetric measuring, to obtain the proper amount of asphalt binder material in the mix, within the tolerance specified for the mix design.

320-3.7 Contractor's Responsibilities: Acceptance of any automatic delivery ticket printout, electronic weight delivery ticket, other evidence of weight of the materials or approval of any particular type of material or production method will not constitute agreement by the Department that such matters are in accordance with the Contract Documents and it shall be the Contractor's responsibility to ensure that the materials delivered to the project are in accordance with the Contract Documents.

320-4 Additional Requirements for Batch Plants.

320-4.1 Heating and Drying: Heat and dry the aggregate before screening. Control the temperature of the aggregate so the temperature of the completed mixture at the plant falls within the permissible range allowed by this Section.

320-4.2 Gradation Unit: Provide plant screens capable of separating the fine and coarse aggregates and of further separating the coarse aggregate into specific sizes. In addition, equip the gradation unit with a scalping screen to restrict the maximum size of the aggregates. In the event that the plant is equipped with cold feed bins that are capable of adequately controlling the gradation of the mixture, the use of plant screens is optional.

320-4.3 Hot Bins: Provide storage bins of sufficient capacity to supply the mixer when it is operating at full capacity. Provide hot bins with divided compartments to ensure separate and adequate storage of the appropriate fractions of the aggregate. Equip each compartment with an overflow chute of suitable size and location to prevent any backing up of material into other bins.

320-4.4 Weigh Box or Hopper: Equip the batch plant with a means for accurately weighing each bin size of aggregate and the mineral filler into the weigh box or hopper.

320-4.5 Pugmills: Utilize a pugmill capable of mixing the aggregate and the asphalt binder.

320-5 Additional Requirements for Drum Mixer Plants.

320-5.1 Weight Measurements of Aggregate: Equip the plant with a weigh-in-motion scale capable of measuring the quantity of aggregate (and RAP) entering the dryer.

320-5.2 Synchronization of Aggregate Feed and Asphalt Binder Feed: Couple the asphalt binder feed control with the total aggregate weight device, including the RAP feed, in such a manner as to automatically vary the asphalt binder feed rate as necessary to maintain the required proportions.

320-5.3 Hot Storage or Surge Bins: Equip the plant with either a surge bin or storage silo that is capable of storing an adequate amount of material to assure a uniform and consistent product.

320-6 Preparation of the Mixture.

320-6.1 Mixing: After the aggregate is dried and properly proportioned, mix the aggregate, along with any other components, with the asphalt binder to produce a thoroughly and uniformly coated mixture. Do not produce the mix by altering the component blend percentage of the RAP or sand by more than plus or minus 5.0% from the job mix formula on the approved mix design. For mix designs using fractionated RAP, the combined blend change for all RAP components must not exceed plus or minus 5.0%. The plus or minus 5.0% maximum component change does not apply to crushed virgin aggregate components during production.

320-6.2 Storage: If necessary, store the asphalt mixture in a surge bin or hot storage silo for a maximum of 72 hours. For FC-5 mixtures containing mineral fibers, store the asphalt mixture in a surge bin or hot storage silo for a maximum of one hour. For FC-5 mixtures containing cellulose fibers, store the asphalt mixture in a surge bin or hot storage silo for a maximum of 1-1/2 hours.

320-6.3 Mix Temperature: Produce the mixture with a temperature within the master range as defined in Table 320-2.

320-6.3.1 Test Requirements: Determine the temperature of the completed mixture using a quick-reading thermometer through a hole in the side of the loaded truck immediately after loading. Locate a 1/4 inch hole on both sides of the truck body within the

middle third of the length of the body, and at a distance from 6 to 10 inches above the surface supporting the mixture. If a truck body already has a hole located in the general vicinity of the specified location, use this hole. At the Engineer's discretion, the Contractor may take the temperature of the load over the top of the truck in lieu of using the hole in the side of the truck.

320-6.3.2 Test Frequency: The normal frequency for taking asphalt mix temperatures will be for each day, for each design mix on the first five loads and one out of every five loads thereafter. Take the temperature of the asphalt mix at the plant and at the roadway before the mix is placed at the normal frequency. Record the temperature on the front of the respective delivery ticket. The Engineer shall review the plant and roadway temperature readings and may take additional temperature measurements at any time.

If any single load at the plant or at the roadway is within the master range shown in Table 320-2 but does not meet the criteria shown in Table 320-3, the temperature of every load will be monitored until the temperature falls within the specified tolerance range in Table 320-3; at this time the normal frequency may be resumed. For warm mix asphalt, the Contractor may produce the first five loads of the production day and at other times when approved by the Engineer, at a hot mix asphalt temperature not to exceed 330°F for purposes of heating the asphalt paver. For this situation, the upper tolerances of Tables 320-2 and 320-3 as applied to the warm mix asphalt mix design do not apply.

For windrow paving, in addition to the truck load temperature measurements noted above, perform windrow temperature measurements at a frequency of one measurement per 500 feet of windrow placed. Check the temperature of the windrow asphalt mixture using a quick-reading thermometer or directly in front of the windrow material transfer vehicle, but not so close that paving must be stopped. Measure the temperature of the windrow beneath the exposed surface by shoveling away a portion of the windrow and then measuring the temperature. For windrow temperature measurements, the requirements of Table 320-2 and 320-3 apply.

320-6.3.3 Rejection Criteria: Reject any load or portion of a load of asphalt mix at the plant or at the roadway with a temperature outside of its respective master range shown in Table 320-2. Notify the Engineer of the rejection immediately. The maximum temperature for any load of mixture containing PG 76-22 PMA or High Polymer binder shall not exceed 355°F.

Table 320-2	
Mix Temperature Master Range Tolerance	
Location	Acceptable Temperature Tolerance
Plant	Mixing Temperature $\pm 30^{\circ}\text{F}^*$
Roadway (mix in truck)	Compaction Temperature $\pm 30^{\circ}\text{F}^*$
Roadway (mix in windrow)	Compaction Temperature $+30^{\circ}\text{F}^*$, -40°F
*Not to exceed 355°F for mixtures containing PG 76-22 PMA or High Polymer binder.	

Table 320-3	
Mix Temperature Tolerance from Verified Mix Design	
Any Single Measurement	$\pm 25^{\circ}\text{F}$

320-7 Transportation of the Mixture.

Transport the mix in trucks of tight construction, which prevents the loss of material and the excessive loss of heat and previously cleaned of all foreign material. After cleaning, thinly

coat the inside surface of the truck bodies with soapy water or an asphalt release agent as needed to prevent the mixture from adhering to the beds. Do not allow excess liquid to pond in the truck body. Do not use a release agent that will contaminate, degrade, or alter the characteristics of the asphalt mix or is hazardous or detrimental to the environment. Petroleum derivatives (such as diesel fuel), solvents, and any product that dissolves asphalt are prohibited. Provide each truck with a tarpaulin or other waterproof cover mounted in such a manner that it can cover the entire load when required. When in place, overlap the waterproof cover on all sides so that it can be tied down. Cover each load during cool and cloudy weather and at any time it appears rain is likely during transit with a tarpaulin or waterproof cover. Cover and tie down all loads of friction course mixtures.

SECTION 327

MILLING OF EXISTING ASPHALT PAVEMENT

327-1 Description.

Remove existing asphalt concrete pavement by milling to improve the rideability and cross slope of the finished pavement, to lower the finished grade adjacent to existing curb before resurfacing, or to completely remove existing pavement.

When milling to improve rideability, the Plans will specify an average depth of cut.

Take ownership of milled material.

327-2 Equipment.

Provide a milling machine capable of maintaining a depth of cut and cross slope to achieve the results specified in the Contract Documents. Use a machine with a minimum overall length (out-to-out measurement excluding the conveyor) of 18 feet and a minimum cutting width of 6 feet.

Equip the milling machine with a built-in automatic grade control system that can control the transverse slope and the longitudinal profile to produce the specified results.

To start the project, the Engineer will approve any commercially manufactured milling machine that meets the above requirements. If it becomes evident after starting milling that the milling machine cannot consistently produce the specified results, the Engineer will reject the milling machine for further use.

The Contractor may use a smaller milling machine when milling to lower the grade adjacent to existing curb or other areas where it is impractical to use the above described equipment.

Equip the milling machine with means to effectively limit the amount of dust escaping during the removal operation.

For complete pavement removal, the Engineer may approve the use of alternate removal and crushing equipment instead of the equipment specified above.

327-3 Construction.

327-3.1 General: Remove the existing raised pavement markers (RPMs) before milling. Include the cost of removing existing RPMs in the price for milling.

When milling to improve rideability or cross slope, remove the existing pavement to the average depth specified in the Plans, in a manner that will restore the pavement surface to a uniform cross slope and longitudinal profile. The Engineer may require the use of a stringline to ensure maintaining the proper alignment.

Establish the longitudinal profile of the milled surface in accordance with the milling plans. Ensure the final cross slope of the milled surface parallels the surface cross slope shown in the Plans or as directed by the Engineer. Establish the cross slope of the milled surface by a second sensing device near the outside edge of the cut or by an automatic cross slope control mechanism. The Plans may waive the requirement of automatic grade or cross slope controls where the situation warrants such action.

Operate the milling machine to minimize the amount of dust being emitted. The Engineer may require prewetting of the pavement.

Provide positive drainage of the milled surface and the adjacent pavement. Perform this operation on the same day as milling. Pave all milled surfaces no later than the day after the surface was milled.

If traffic is to be maintained on the milled surface before the placement of the new asphalt concrete, provide suitable transitions between areas of varying thickness to create a smooth longitudinal riding surface. Control milling operations to produce a pattern of striations and a texture that provide an acceptable riding surface.

Before opening an area which has been milled to traffic, sweep the pavement and gutters with a power broom or other approved equipment to remove, to the greatest extent practicable, fine material which will create dust under traffic. Sweep in a manner to minimize the potential for creation of a traffic hazard and to minimize air pollution. Do not sweep or allow milled asphalt into inlets.

Sweep the milled surface with a power broom before placing asphalt concrete.

In urban and other sensitive areas, use a street sweeper or other equipment capable of removing excess milled materials and controlling dust. Obtain the Engineer's approval of such equipment, contingent upon its demonstrated ability to do the work.

Perform the sweeping operation immediately after the milling operations or as directed by the Engineer.

327-3.1.1 Extended Time for Milled Surface Traffic: Upon approval of the Engineer, the time period for maintaining traffic on a milled surface may be extended up to 3 calendar days before paving is required, provided the Contractor can demonstrate the ability to produce a milled surface texture with continuous, longitudinal milling striations with no gaps in the longitudinal striations, and drop off conditions are not exceeded. Gaps in the milling striations and cases where gaps create a diagonal pattern or chevron appearance are to be milled again such that continuous, longitudinal striations are achieved prior to allowing traffic on the milled surface. Photos of acceptable and unacceptable surface texture are located at:

<https://www.fdot.gov/programmanagement/implemented/urlinspecs/milling-patterns>

Maintain adequate drainage on the milled surface and at transitions between milled and non-milled surfaces on the same day as milling. At no cost to the Department, re-mill or pave any area the Engineer determines to have an unacceptable ride, does not provide adequate pavement structure, or does not provide adequate drainage.

If the Engineer determines the Contractor is unable to provide a milled surface meeting the Specification requirements above, at no cost to the Department, the Contractor will be required to pave all milled surfaces no later than the day after the surface was milled.

327-3.2 Quality Control Requirements: Furnish a four foot long electronic level accurate to 0.1 degree, approved by the Engineer for the control of cross slope. Make this electronic level available at the jobsite at all times during milling operations. Calibrate and compare electronic levels in accordance with 330-9.3.1 at a minimum frequency of once per day before any milling operation.

Multiple cuts may be made to achieve the required pavement configuration or depth of cut.

327-3.2.1 Cross Slope Measurement: Measure the cross slope of the milled surface by placing the level at the center of the lane and perpendicular to the roadway centerline. Record all the measurements to the nearest 0.1% on an approved form and submit the data to the Engineer.

327-3.2.1.1 Cross Slope Measurement Frequency:

1. Tangent Sections: Measure the cross slope at a minimum frequency of one measurement every 100 feet per lane. When the average absolute deviation is consistently within the acceptance tolerance in Table 327-1, upon approval by the Engineer, the frequency of the cross slope measurements can be reduced to one measurement every 200 feet.

2. Superelevated Sections: Measure the cross slope every 100 feet per lane within the length of full superelevation. For curves where the length of full superelevation is less than 250 feet, measure the cross slope at the beginning point, midpoint, and ending point of the fully superelevated section. For transition sections, measure the cross slope at control points identified in the Plans or, if not shown in the Plans, at a control point at a location of 0.0% cross slope.

327-3.2.1.2 Cross Slope Deviations and Corrections: Calculate the absolute deviation of each cross slope measurement and the average of the absolute deviations of ten consecutive cross slope measurements. The absolute deviation is the positive value of a deviation. In superelevated sections, when the number of measurements is less than ten, average the absolute deviation of all measurements.

If the average absolute deviation of any cross slope measurement falls outside the acceptance tolerance shown in Table 327-1, stop the milling operations and make adjustments until the problem is resolved to the satisfaction of the Engineer. If an individual cross slope deviation falls outside the acceptance tolerance as shown in Table 327-1, make corrections only in the deficient area to the satisfaction of the Engineer at no cost to the Department. For pavement with multiple cuts, the deficient areas not caused by the final cut may be left in place upon approval of the Engineer. All milling corrections shall be completed before placement of the asphalt course unless stated otherwise in the Plans or as determined by the Engineer.

The limits of deficient areas requiring correction may be verified and adjusted with more accurate measurement methods, including survey instruments, upon approval of the Engineer and at no cost to the Department.

Should the Contractor wish to have any required corrections waived, submit a request to the Engineer for approval. The Engineer may waive the corrections at no reduction in payment if the deficiencies are sufficiently separated so as not to significantly affect the final cross slope or project grade.

For intersections, tapers, crossovers, transitions at the beginning and end of the project, bridge approaches and similar areas, adjust the cross slope to match the actual site conditions, or as directed.

Table 327-1 Cross Slope Milling Acceptance Tolerance		
Roadway Feature	Individual Absolute Deviation	Average Absolute Deviation
Tangent section (including turn lanes)	0.4%	0.2%
Superelevated curve	0.4%	0.2%
Shoulder	0.5%	0.5%

In the event the distance between two edges of deficient areas is less than 100 feet, the correction work shall include the area between the deficient areas.

327-3.3 Verification: The Engineer will verify the Contractor's cross slope measurements by randomly taking a minimum of ten cross slope measurements per lane per mile in tangent sections, at control points in transition sections, and a minimum of three cross slope measurements in fully superelevated sections. The Engineer will measure the cross slope of the milled surface by placing the level at the center of the lane and perpendicular to the roadway centerline.

327-3.3.1 Cross Slope Deviations and Corrections: If the average absolute deviation or an individual cross slope deviation falls outside the acceptance tolerance in Table 327-1, immediately make a comparison check at the QC test locations to verify the QC measurements in the section. If the comparisons are beyond the acceptable comparison tolerance in accordance with 327-3.2, stop the milling operation until the issue is resolved to the satisfaction of the Engineer. Correct any cross slope not meeting the individual deviation acceptance tolerance at no cost to the Department. The Engineer reserves the right to check the cross slope of the milled surface at any time by taking cross slope measurements at any location.

327-4 Milled Surface.

Provide a milled surface with a reasonably uniform texture, within 1/4 inch of a true profile grade, and with no deviation in excess of 1/4 inch from a straightedge applied to the pavement perpendicular to the centerline. Ensure the variation of the longitudinal joint between multiple cut areas does not exceed 1/4 inch. The Engineer may accept areas varying from a true surface in excess of the above stated tolerance without correction if the Engineer determines they were caused by a pre-existing condition which could not have reasonably been corrected by the milling operations. Correct any unsuitable texture or profile, as determined by the Engineer, at no cost to the Department.

The Engineer may require remilling of any area where a surface lamination causes a non-uniform texture to occur.

327-5 Method of Measurement.

The quantity to be paid for will be the plan quantity area, in square yards, over which milling is completed and accepted.

327-6 Basis of Payment.

Price and payment will be full compensation for all work specified in this Section, including hauling off and stockpiling or otherwise disposing of the milled material.

Payment will be made under:

Item No. 327- 70- Milling Existing Asphalt Pavement - per square yard.

SECTION 330 HOT MIX ASPHALT - GENERAL CONSTRUCTION REQUIREMENTS

330-1 Description.

This Section specifies the basic equipment and construction requirements for hot mix asphalt (including warm mix asphalt) pavements and bases. Establish and maintain a quality control system that provides assurance that all materials, products and completed construction submitted for acceptance meet Contract requirements.

330-2 Quality Control (QC) Requirements.

330-2.1 Minimum QC Requirements: Perform as a minimum, the following activities necessary to maintain process control and meet Specification requirements:

1. Pavement Density: Monitor the pavement temperature with an infrared temperature device so compaction is completed before the surface temperature of the pavement drops to the extent that effective compaction may not be achieved or the rollers begin to damage the pavement. Monitor the roadway density with either 6-inch diameter roadway cores, a nuclear density gauge, or other density measuring device, at a minimum frequency of once per 1,500 feet of pavement.

2. Mix Temperature: Determine the mix temperature at the roadway for the first five loads and one out of every five loads thereafter.

3. Mix Spread Rate: Monitor the mix spread rate at the beginning of each day's production, and as needed to control the operations, at a minimum of once per 200 tons placed. When determining the spread rate, use, at a minimum, an average of five truckloads of mix.

4. Pavement Texture: Monitor the pavement texture to minimize pavement segregation. Use density gauges, infrared temperature measurement devices, or roadway cores at the beginning of each day's production, and as necessary, both at truck exchanges and during normal paving operations.

5. Reporting: Ensure the accuracy of the QC Roadway Reports on the Department's approved form to reflect the actual surface area of the finished work and be in compliance with the requirements of the Contract Documents.

6. Electronic Ticketing (E-Ticketing): When E-Ticketing is used, provide a tablet computer on site with the Paving Operation capable of running the E-Ticketing system software outlined in Section 320. Use the E-ticketing software to obtain truck ticket information and record mix temperatures. Use the E-ticketing data for entry into the Asphalt Roadway – Daily Report of Quality Control.

330-2.2 Personnel Qualifications: Provide QC Technicians in accordance with Section 105.

330-3 Limitations of Operations.

330-3.1 Weather Limitations: Do not transport asphalt mix from the plant to the roadway unless all weather conditions are suitable for the paving operations.

330-3.2 Limitations of Paving Operations:

330-3.2.1 General: Place the mixture only when the surface upon which it is to be placed has been previously prepared, is intact, firm, dry, clean, and the tack or prime coat,

with acceptable spread rate, is properly broken or cured. Do not place friction course until the adjacent shoulder area has been dressed and grassed.

330-3.2.2 Ambient Air Temperature: Place the mixture only when the air temperature in the shade and away from artificial heat meets requirements of Table 330-1. The minimum ambient temperature requirement may be reduced by 5°F when using warm mix technology, if mutually agreed to by both the Engineer and the Contractor.

Table 330-1	
Ambient Air Temperature Requirements for Paving	
Layer Thickness or Asphalt Binder Type	Minimum Temperature (°F)
≤ 1 inch	50
Any mixture > 1 inch containing a PG asphalt binder with a high temperature designation ≥ 76°C	45
Any mixture > 1 inch containing a PG asphalt binder with a high temperature designation < 76°C	40
FC-5 ⁽¹⁾	65

⁽¹⁾As an exception, place the mixture at temperatures no lower than 60°F, only when approved by the Engineer based on the Contractor's demonstrated ability to achieve a satisfactory surface texture and appearance of the finished surface. For mixtures containing PG 76-22 binder, the minimum ambient temperature may be further reduced to 55°F when using warm mix technology, if agreed to by both the Engineer and the Contractor.

330-3.2.3 Rain and Surface Conditions: Immediately cease transportation of asphalt mixtures from the plant when rain begins at the roadway. Do not place asphalt mixtures while rain is falling, or when there is water on the surface to be covered. Once the rain has stopped, standing water has been removed from the tacked surface to the satisfaction of the Engineer, and the temperature of the mixture caught in transit still meets the requirements as specified in 320-6.3, the Contractor may then place the mixture caught in transit.

For windrow paving, immediately cease dumping of asphalt material when rain begins at the roadway. Stop paving operations while rain is falling or where there is water on the surface to be covered. Remove windrowed asphalt mixture exposed to rain. Once the rain has stopped, standing water has been removed from the tacked surface to the satisfaction of the Engineer, and the temperature of the mixture caught in transit still meets the requirements as specified in 320-6.3, the Contractor may then windrow the remaining material caught in transit.

330-3.2.4 Wind: Do not place the mixture when the wind is blowing to such an extent that proper and adequate compaction cannot be maintained or when sand, dust, etc., are being deposited on the surface being paved to the extent the bond between layers will be diminished.

330-4 Surface Preparation.

330-4.1 Cleaning: Before placing the mixture, clean the surface of the base or underlying pavement of all loose and deleterious material by the use of power brooms or blowers, supplemented by hand brooming where necessary.

330-4.1.1 Application over Asphalt Membrane Interlayer (AMI): Where an asphalt mix is to be placed over a newly constructed AMI, do not sweep or otherwise disturb the cover material before placing the asphalt mix, unless directed by the Engineer.

330-4.2 Tacking: Apply a tack coat on all existing pavement surfaces that are to be overlaid with an asphalt mix as specified in Section 300 and between successive layers of all asphalt mixes. Apply tack on a clean surface.

Do not place tack while rain is falling or when there is water on the surface to be tacked. Once the rain has stopped, standing water has been removed from the surface to be tacked to the satisfaction of the Engineer, the Contractor may then apply tack.

Apply a tack coat on freshly primed bases only when directed by the Engineer.

330-5 Paving Equipment.

330-5.1 General Requirements: Use mechanically-sound equipment capable of consistently meeting Specification requirements.

330-5.2 Asphalt Paver:

330-5.2.1 General: Provide a self-propelled asphalt paver that can be steered, and is equipped with a receiving and distribution hopper and a mechanical screed. Use a mechanical screed capable of adjustment to regulate the depth of material spread and to produce the desired cross slope.

When asphalt mix is placed in windrows, operate windrow pickup equipment so substantially all of the mixture deposited on the roadbed is picked up and loaded into the paver. Prevent the windrow pickup equipment from contaminating the mixture.

330-5.2.2 Automatic Screed Control: For all asphalt courses placed with an asphalt paver, equip the paver with automatic longitudinal screed controls of either the skid type, traveling stringline type, or non-contact averaging ski type with a minimum length of 25 feet. On the final layer of asphalt base, overbuild, structural courses, and friction courses, use the joint matcher instead of the skid, traveling stringline, or non-contact averaging ski on all passes after the initial pass. Equip the asphalt paver with electronic cross slope controls.

330-5.2.3 Screed Width: Provide an asphalt paver with a screed width greater than 8 feet when required to pave full width lanes. Do not use extendable screed strike-off devices that do not provide preliminary compaction of the mat in place of fixed screed extensions. Use a strike-off device only on irregular areas that would normally be done by hand and on shoulders 5 feet or less in width. When using the strike-off device on shoulders, instead of an adjustable screed extension, demonstrate the ability to obtain acceptable texture, density, and thickness.

When using an extendable screed device to extend the screed's width on the full width lane or shoulder by 24 inches or greater, the Engineer will require an auger extension, paddle, or kicker device unless the Contractor can demonstrate the ability to achieve an acceptable pavement with respect to density, surface texture, and pavement smoothness without such devices.

330-5.3 Rollers:

330-5.3.1 Steel-Wheeled Rollers: Provide compaction equipment capable of meeting the density requirements described in the Specifications. When density testing is not required, and the standard rolling pattern is used, provide a tandem steel-wheeled roller weighing 5 to 15 tons for breakdown rolling. For finish rolling, use a separate roller weighing 5 to 15 tons. Variations from these requirements shall be approved by the Engineer.

330-5.3.2 Traffic Rollers: Provide compaction equipment capable of meeting the density requirements described in the Specifications. When density testing is not required, and the standard rolling pattern is used, provide a self-propelled, pneumatic-tired traffic roller equipped with at least seven smooth-tread, low pressure tires, equipped with pads or scrapers on each tire. Maintain the tire pressure between 50 and 55 psi or as specified by the manufacturer. Use rollers with a minimum weight of 6 tons. Do not use wobble-wheeled rollers. Variations from these requirements shall be approved by the Engineer.

330-5.3.3 Prevention of Adhesion: Do not allow the mixture to adhere to the wheels of any rollers. Do not use fuel oil or other petroleum distillates to prevent adhesion. Do not use any method which results in water being sprinkled directly onto the mixture.

330-5.4 Coring Equipment: Furnish a suitable saw or drill for obtaining the required density cores.

330-5.5 Hand Tools: Provide the necessary hand tools such as rakes, shovels, and other similar tools, and a suitable means for keeping them clean. Do not use diesel fuel or other petroleum-based solvents contained in an open container for cleaning purposes on the paver.

330-6 Placing Mixture.

330-6.1 Requirements Applicable to All Pavement Types:

330-6.1.1 Alignment of Edges: Place all asphalt mixtures by the stringline method to obtain an accurate, uniform alignment of the pavement edge. As an exception, pavement edges adjacent to curb and gutter or other true edges do not require a stringline. Control the unsupported pavement edge to ensure it will not deviate from the stringline more than plus or minus 1.5 inches.

330-6.1.2 Paving Width: If necessary due to the traffic requirements, place the mixture in strips in such a manner as to provide for the passage of traffic. As an option, where the road is closed to traffic, place the mixture to the full width with machines traveling in echelon.

330-6.1.3 Mix Temperature: Maintain the mix temperature at the time of paving within the master range as defined in 320-6.3. Take mix temperatures on the roadway at the minimum frequency indicated in 320-6.3. Any load, or portion of a load, of asphalt mix on the roadway with a temperature outside of the master range shall be rejected for use on the project. Immediately notify the Engineer of the rejection.

Remove any windrow material not meeting the temperature requirements of 320-6.3.2 from the area of deficient temperature and replace with new asphalt meeting the temperature requirements.

330-6.1.4 Speed of Paver: Establish the forward speed of the asphalt paver based on the rate of delivery of the mix to the roadway, but not faster than the optimum speed needed to adequately compact the pavement.

330-6.1.5 Thickness and Spread Rate of Layers: Construct each layer as defined in the following Table 330-2:

Table 330-2	
Thickness and Target Spread Rate Requirements	
Mix Type	Specification Section and Article
Type SP	334-1
Type FC	337-8
Type B	234-8
ATPB	287-8

330-6.1.5.1 Thickness Control: Ensure the spread rate is within plus or minus 10% of the target spread rate. When determining the spread rate, use, at a minimum, an average of five truckloads of mix and at a maximum, an average of 10 truckloads of mix, except for windrow paving, use an average of three truckloads of mix. When the average spread rate is

beyond plus or minus 10% of the target spread rate, monitor the thickness of the pavement layer closely and adjust the construction operations.

When the average spread rate for two consecutive days is beyond plus or minus 10% of the target spread rate, stop the construction operation until the issue is resolved.

330-6.1.5.2 Maximum Spread Rate Tolerances: When an individual spread rate, measured in accordance with 330-6.1.5.1, is beyond plus or minus 20% of the target spread rate, stop the construction operation until the issue is resolved. Address the unacceptable pavement in accordance with 330-9.5. The following areas are exempt from a work stoppage based solely on the calculated spread rate: median crossovers, turnouts, variable thickness overbuild courses, leveling courses, miscellaneous asphalt pavement, as well as, turn lanes and ramps less than 1,000 feet.

As an exception, the Engineer may allow the Contractor to leave areas in place if it is determined by the Engineer that the deficiency is not a significant detriment to the pavement quality. For areas of deficient thickness, a reduction to the pay item quantity will be made in accordance with 330-9.5.2.

330-6.1.6 Correcting Defects: Before starting any rolling, check the surface; correct any irregularities; remove all drippings, sand accumulations from the screed, and fat spots from any source; and replace them with satisfactory material. Do not skin patch. When correcting a depression while the mixture is hot, scarify the surface and add fresh mixture.

330-6.1.7 Hand Work: In limited areas where the use of the paver is impossible or impracticable, the Contractor may place and finish the mixture by hand.

330-7 Compacting Mixture.

330-7.1 General Requirements: When density testing for acceptance is required, select equipment, sequence, and coverages of rolling to meet the specified density requirement. Regardless of the rolling procedure used, complete the final rolling before the surface temperature of the pavement drops to the extent effective compaction may not be achieved or the rollers begin to damage the pavement.

No vibratory compaction in the vertical direction will be allowed for layers one inch or less in thickness or, if the Engineer or Contract Documents limit compaction to the static mode only. Compact these layers in the static mode only. Other non-vertical vibratory modes of compaction will be allowed, if approved by the Engineer; however, no additional compensation, cost or time, will be made.

330-7.2 Standard Rolling Procedure: When density testing for acceptance is not required, propose an alternative rolling pattern to be approved by the Engineer or use the following standard rolling procedure:

1. Breakdown rolling: Provide two static coverages with a tandem steel-wheeled roller, following as close behind the paver as possible without pick-up, undue displacement, or blistering of the mix.
2. Intermediate rolling: Provide five static coverages with a pneumatic-tire roller, following as close behind the breakdown rolling operation as the mix will permit.
3. Finish rolling: Provide one static coverage with a tandem steel-wheeled roller, after completing the breakdown rolling and intermediate rolling, but before the surface pavement temperature drops to the extent effective compaction may not be achieved or the rollers begin to damage the pavement.

330-7.3 Rolling Procedures: Use procedures that will uniformly compact the pavement layer to the desired density level, while meeting the appropriate smoothness requirements, without damaging the pavement surface, crushing aggregate or leaving excessive roller marks, roller heads, or ripples. While rolling is in progress, monitor the surface continuously, and adjust the compaction operations to comply with the surface requirements.

330-7.4 Compaction of Areas Inaccessible to Rollers: Use hand tamps or other satisfactory means to compact areas which are inaccessible to a roller, such as areas adjacent to curbs, gutters, bridges, manholes, etc.

330-7.5 Correcting Defects: Do not allow the compaction equipment to deposit contaminants onto the pavement surface. Remove and replace any areas damaged by such deposits as directed by the Engineer. Correct any depressions that develop before completing the rolling by loosening the mixture and adding new mixture to bring the depressions to a true surface. Should any depression remain after obtaining the final compaction, remove the full depth of the mixture, and replace it with enough new mixture to form a true and even surface. Correct all defects before laying the subsequent course.

330-7.6 Use of Traffic Roller: Use a traffic roller on the first overbuild course. Use a traffic roller or vibratory roller (unless restricted by the Contract Documents) on the first structural layer placed on an AMI.

330-7.7 Compaction at Bridge Structures: Compact asphalt mixtures placed over bridge decks and approach slabs using static compaction only. Use the standard rolling procedure described in 330-7.2 or an alternative procedure approved by the Engineer.

330-8 Joints.

330-8.1 General: When laying fresh mixture against the exposed edges of joints, place it in close contact with the exposed edge to produce an even, well-compacted joint after rolling.

330-8.2 Transverse Joints: Place the mixture as continuously as possible to minimize transverse joints. When constructing permanent transverse joints, meet the surface requirements as defined in 330-9. Construct temporary transverse joints in such a manner to allow traffic to pass over it. When resuming the paving operation, construct a transverse joint by cutting back on the previously placed pavement at a location where the straightedge requirements are met. At the project limits, tie into the adjoining pavement layers as shown in the Plans.

330-8.3 Longitudinal Joints: Place each layer of pavement so all longitudinal construction joints are offset 6 to 12 inches laterally between successive layers. Plan offsets in advance so the longitudinal joints of the friction course are not in wheel path areas. The longitudinal joints for friction course layers should be within 6 inches of the lane edge or at the center of the lane. The Engineer may waive this requirement where offsetting is not feasible due to the sequence of construction.

330-8.4 Placing Asphalt Next to Concrete Pavement: When placing asphalt next to concrete pavement, construct the joint as shown in the Plans.

330-9 Surface Requirements.

330-9.1 General: Construct a smooth pavement with good surface texture and the proper cross-slope.

330-9.2 Texture of the Finished Surface of Paving Layers: Produce a finished surface of uniform texture and compaction with no pulled, torn, raveled, crushed or loosened portions and free of segregation, bleeding, flushing, sand streaks, sand spots, or ripples. Some examples of pavement deficiencies are displayed at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Pavement.shtm>. Address any pavement not meeting the requirements of this specification in accordance with 330-9.5.

For dense-graded structural and dense-graded friction course mixtures, in areas not defined as density testing exceptions per 334-5.1.2, obtain for the Engineer, three 6-inch diameter roadway cores at locations visually identified by the Engineer to be segregated. For areas that the Engineer identifies as being segregated, obtain and submit cores within 30 days of notification. The Engineer will determine the density of each core in accordance with FM 1-T166 and calculate the percent G_{mm} of the segregated area using the average G_{mb} of the roadway cores and the QC subplot G_{mm} for the questionable material. If the average percent G_{mm} is less than 89.5, address the segregated area in accordance with 330-9.5.

Do not use asphalt concrete mixtures containing aggregates that cause a different color appearance in the final wearing surface unless the section is greater than or equal to one mile in length and across the full width of the pavement, including shoulders and turn lanes. Exceptions to these requirements will be permitted if approved by the Engineer.

330-9.3 Cross Slope: Construct a pavement surface with cross slopes in compliance with the requirements of the Contract Documents. Furnish a four-foot-long electronic level accurate to 0.1 degree, approved by the Engineer for the control of cross slope. Make this electronic level available at the jobsite at all times during paving operations.

330-9.3.1 QC Calibration and Comparison: Calibrate the electronic levels a minimum of once per day before paving operations begin, in accordance with manufacturer's instructions.

Compare the QC level with the Verification level before paving operations begin, and at any time as directed. If the comparison between the QC and Verification levels is within plus or minus 0.2%, the QC level is considered to compare favorably and can be used for measurement and acceptance of cross-slopes. If the levels do not compare favorably, perform a second comparison using another calibrated electronic level (Department or Contractor) for resolution. If the resolution level compares favorably with the QC level, the QC level is considered to be verified. If the resolution level does not compare favorably with the QC level, discontinue the use of the QC electronic level and obtain another approved electronic level that meets the requirements of this specification. The Contractor assumes all risk associated with placing the pavement at the correct cross slope.

330-9.3.2 Cross Slope Measurement: Measure the cross slope of the compacted pavement surface by placing the level at the center of the lane and perpendicular to the roadway centerline. Record all measurements to the nearest 0.1% on an approved form and submit the data to the Engineer.

330-9.3.2.1 Cross Slope Measurement Frequency:

1. Tangent Sections: Measure the cross-slope at a minimum frequency of one measurement every 100 feet per lane. When the average absolute deviation is consistently within the acceptance tolerance in Table 330-3, upon the approval of the Engineer, the cross-slope measurements may be reduced to one measurement every 200 feet.

2. Superelevated Sections: Measure the cross slope every 100 feet per lane within the length of the full superelevation. For curves where the length of full superelevation is less than 250 feet, measure the cross slope at the beginning point, midpoint, and ending point of the fully superelevated section. For transition sections, measure the cross slope at control points identified in the Plans, or if not shown in the Plans, at a control point at the location of 0.0% cross slope.

330-9.3.2.2 Cross Slope Deviations and Corrections: Calculate the absolute deviation of each cross-slope measurement and the average of the absolute deviations of ten consecutive cross slope measurements. The absolute deviation is the positive value of a deviation. In superelevated sections, when the number of measurements is less than ten, average the absolute deviation of all measurements.

If the average absolute deviation of any cross-slope measurement falls outside the acceptance tolerance shown in Table 330-3, stop the paving operation and make adjustments until the problem is resolved to the satisfaction of the Engineer.

Address, in accordance with 330-9.5, all individual cross slope deviations outside the acceptance tolerances shown in Table 330-3. Complete all corrections before placement of the final pavement surface layer. For pavement with multiple layers, the deficient areas for the structural course may be left in place, if approved by the Engineer. For friction course layers, make corrections in accordance with 330-9.5.

The limits of deficient areas requiring correction may be verified and adjusted with more accurate measurement methods, including survey instruments, upon approval of the Engineer and at no cost to the Department.

Should the Contractor wish to have any required corrections waived, submit a request to the Engineer for approval. The Engineer may waive the corrections at no reduction in payment if the deficiencies are sufficiently separated so as not to affect the pavement's overall traffic safety, surface drainage, ride quality, or surface texture.

For intersections, tapers, crossovers, transitions at the beginning and end of the project, bridge approaches and similar areas, adjust the cross slope to match the actual site conditions or as directed by the Engineer.

Table 330-3 Cross Slope Acceptance Tolerance		
Roadway Feature	Individual Absolute Deviation	Average Absolute Deviation
Tangent section (including turn lanes)	0.4%	0.2%
Superelevated curve	0.4%	0.2%
Shoulder	0.5%	0.5%

In the event the distance between two edges of deficient areas is less than 100 feet, the correction work shall include the area between the deficient areas.

330-9.3.3 Verification: The Engineer will verify the Contractor's cross slope measurements by randomly taking a minimum of ten cross slope measurements per lane per mile in tangent sections, at control points in transition sections, and a minimum of three cross slope measurements in fully superelevated sections.

The Engineer will measure the cross slope of the compacted pavement surface by placing the level at the center of the lane and perpendicular to the roadway centerline.

330-9.3.3.1 Cross Slope Deviations and Corrections: If the average absolute deviation or an individual cross slope deviation falls outside of the acceptance tolerance in Table 330-3, immediately make a comparison check at the QC test locations to verify the QC measurements in the section. If the comparisons are beyond the acceptable comparison tolerance in accordance with 330-9.3.1, stop the paving operations until the issue is resolved to the

satisfaction of the Engineer. Correct any cross slope not meeting the individual deviation acceptance tolerance in accordance with 330-9.5 at no cost to the Department. The Engineer reserves the right to check the pavement cross slope at any time by taking cross slope measurements at any location.

330-9.4 Pavement Smoothness: Construct a smooth pavement meeting the requirements of this Specification.

330-9.4.1 General: Furnish a 15-foot manual and a 15-foot rolling straightedge meeting the requirements of FM 5-509. Obtain a smooth surface on all pavement courses placed, and then straightedge all layers as required by this Specification.

330-9.4.2 Test Method: Perform all straightedge testing in accordance with FM 5-509 in the outside wheel path of each lane. The Engineer may require additional testing at other locations within the lane.

330-9.4.3 Traffic Control: Provide traffic control in accordance with Section 102 and Standard Plans, Index 102-607 or 102-619 during all testing. When traffic control cannot be provided in accordance with Index 102-607 or 102-619, submit an alternative Traffic Control Plan as specified in 102-4. Include the cost of this traffic control in the Contract bid prices for the asphalt items.

330-9.4.4 Process Control Testing: Assume full responsibility for controlling all paving operations and processes such that the requirements of these Specifications are met at all times.

330-9.4.5 QC Testing:

330-9.4.5.1 General: Straightedge the final Type SP structural layer and friction course layer in accordance with 330-9.4.2, ~~with the exception that if the method of acceptance is by laser profiler, then straightedging of the friction course layer is not required unless otherwise stated in the Specifications. If the project's method of acceptance is by laser profiler, areas not suitable for testing with the laser profiler will be tested and accepted by straightedging. Test all pavement lanes and ramps where the width is constant and document all deficiencies in excess of 3/16 inch on a form approved by the Engineer.~~

330-9.4.5.2 Straightedge Exceptions: Straightedge testing will not be required in the following areas: shoulders, intersections, tapers, crossovers, sidewalks, shared use paths, parking lots, raised crosswalks, speed tables, and similar areas, or in the following areas when they are less than 250 feet in length: turn lanes, acceleration/deceleration lanes and side streets. The limits of the intersection will be from stop bar to stop bar for both the mainline and side streets.

As an exception, in the event the Engineer identifies an objectionable surface irregularity in the above areas, straightedge and address all deficiencies in excess of 3/8 inch in accordance with 330-9.5.

The Engineer may waive straightedge requirements for transverse joints at the beginning and end of the project, at the beginning and end of bridge structures, at manholes, and at utility structures if the deficiencies are caused by factors beyond the control of the Contractor, as determined by the Engineer. In addition, the Engineer may also waive the straightedging requirements on ramps and superelevated sections where the geometrical orientation of the pavement results in an inaccurate measurement with the rolling straightedge.

330-9.4.5.3 Intermediate Layers and Temporary Pavement: When the design speed is 55 mph or greater and the intermediate Type SP layer or temporary pavement is to be opened to traffic, if the Engineer identifies an objectionable surface irregularity,

straightedge and address all deficiencies in excess of 3/8 inch within 72 hours of placement in accordance with 330-9.5.

330-9.4.5.4 Final Type SP Structural Layer: Straightedge the final Type SP structural layer in accordance with 330-9.4.2, either behind the final roller of the paving train or as a separate operation. Notify the Engineer of the location and time of straightedge testing a minimum of 48 hours before beginning testing. The Engineer will verify the straightedge testing by observing the QC straight edging operations. Address all deficiencies in excess of 3/16 inch in accordance with 330-9.5.

When the final structural course is to be opened to traffic and the design speed is 55 mph or greater, if any defect is 3/8 inch or greater, the Engineer may require deficiencies to be corrected within 72 hours after opening to traffic.

330-9.4.5.5 Friction Course Layer: Where required per 330-9.4.5.1, and in areas noted in 330-9.4.6.2 as not suitable for testing with the Laser Profiler, straightedge the friction course layer in accordance with 330-9.4.2, either behind the final roller of the paving train or as a separate operation upon completion of all paving operations. Notify the Engineer of the location and time of straightedge testing a minimum of 48 hours before beginning testing. The Engineer will verify the straightedge testing by observing the QC straightedging operations. Address all deficiencies in excess of 3/16 inch in accordance with 330-9.5.

330-9.4.6 Acceptance:

330-9.4.6.1 Straightedge Acceptance: For areas of roadways ~~where the design speed is less than 55 miles per hour, and for areas of roadways where the design speed is greater than or equal to 55 miles per hour which are noted in 330-9.4.6.2 as not suitable for testing with the Laser Profiler,~~ acceptance for pavement smoothness of the friction course will be based on verified QC measurements using the straightedge as required by 330-9.4.5. The Engineer will verify the straightedge testing by observing the QC straightedging operations.

330-9.4.6.2 Laser Acceptance: ~~For areas of high speed roadways where the design speed is equal to or greater than 55 miles per hour, acceptance testing for pavement smoothness of the friction course (for mainline traffic lanes only) will be based on the Laser Profiler. Ramps, acceleration and deceleration lanes, and other areas not suitable for testing with the Laser Profiler will be tested and accepted with the straightedge in accordance with 330-9.4.5.5 and 330-9.4.6.1.~~

~~The pavement smoothness of each lane will be determined by a Laser Profiler furnished and operated by the Department in accordance with FM 5-549 and a report issued with the Ride Number (RN) reported to one decimal place. If corrections are made, as required following Laser Acceptance, the pavement will not be retested for smoothness using the Laser Profiler.~~

~~For this testing, the pavement will be divided into 0.1 mile segments. Partial segments equal to or greater than 0.01 mile will be considered as a 0.1 mile segment. The pavement will be accepted as follows:~~

~~1. For segments with a RN greater than or equal to 4.0, the pavement will be accepted at full pay.~~

~~2. For segments with a RN less than 4.0, the Engineer will further evaluate the data in 0.01 mile intervals for both wheel paths.~~

~~If the RN is 3.5 or above for all 0.01 mile intervals in both wheel paths, the segment will be accepted at full payment.~~

If the RN is less than 3.5 for one or more 0.01 mile intervals, the segment will be tested with the rolling straightedge in both wheel paths in accordance with FM 5-509. If approved by the Engineer, this straightedging may be completed (in both wheel paths) as part of the QC straightedging operations described in 330-9.4.5.5, before testing with the laser profiler. Notify the Engineer of the location and time of straightedge testing a minimum of 48 hours before beginning testing. The Engineer will verify the straightedge testing by observing the QC straightedging operations. Address all deficiencies in excess of 3/16 inch in accordance with 330-9.5.

Test and accept areas at the beginning and ending of the project, bridge approaches and departures, and areas where the segment is less than 0.01 mile, with the straightedge in accordance with 330-9.4.5.5 and 330-9.4.6.1.

330-9.5 Unacceptable Pavement:

330-9.5.1 Corrections: Address all areas of unacceptable pavement at no cost to the Department. Retest all corrected areas and assure the requirements of these Specifications are met.

330-9.5.1.1 Structural Layers: Correct all deficiencies, as defined in the Specifications, in the Type SP structural layers by removing and replacing the full depth of the layer, extending a minimum of 50 feet on both sides (where possible) of the defective area for the full width of the paving lane.

The following options only apply if the structural layer is not the final surface layer:

1. As an option for high and low straightedge deficiencies 5/16 of an inch or less, pave over with friction course to correct the deficiency.
2. As an option for high straightedge deficiencies, mill the pavement surface the full lane width to a depth and length adequate to remove the deficiency.
3. As an option for low straightedge deficiencies 8/16 of an inch or less, mill the pavement surface the full lane width to a depth and length adequate to remove the deficiency.

330-9.5.1.2 Friction Course: Correct deficiencies in the friction course or final surface layer by removing and replacing the full depth of the layer, extending a minimum of 50 feet on both sides (where possible) of the defective area for the full width of the paving lane. As an exception, the Engineer may allow the Contractor to leave these areas in place if it is determined by the Engineer that the deficiency is not a significant detriment to the pavement quality. A reduction to the pay item quantity will be made in accordance with 330-9.5.2.

330-9.5.2 Reduction in Pay Item Quantity: When the Engineer elects to waive corrections, the Department will reduce the pay quantity for the pay item in question by the amount of material within the defective area. For all mix types, when the measured deficiency lane length is less than 5 feet, use 5 feet for the deficiency lane length when determining the pay reduction. When the pay quantity is in tons, the Department will base the reduction on the volume of material within the defective area (the deficiency lane length by the lane width by layer thickness) multiplied by the maximum specific gravity of the mix as determined through the following equation:

$$\text{Quantity (tons)} = L \times W \times t \times G_{mm} \times 0.0024$$

Where: L = Deficiency Lane length (ft.)

W = Lane width (ft.)

t = Layer thickness (in.)

G_{mm} = Maximum specific gravity from verified mix design

For FC-5 open-graded friction course, the Department will base the reduction on the area within the defective area (the deficiency lane length by lane width) multiplied by a spread rate of 80 pounds per square yard as determined through the following equation:

$$\text{Quantity (tons)} = L \times W \times 0.0044$$

Where: L = Deficiency Lane length (ft.)

W = Lane width (ft.)

330-10 Protection of Finished Surface.

Keep sections of newly compacted asphalt concrete, which are to be covered by additional courses, clean until the successive course is laid.

Do not dump embankment or base material directly on the pavement. Dress shoulders before placing the friction course on adjacent pavement.

Equip blade graders operating adjacent to the pavement during shoulder construction with a 2 inch by 8 inch or larger board, or other attachment providing essentially the same results, attached to their blades so it extends below the blade edge and protects the pavement surface from damage by the grader blade.

To prevent rutting or other distortion, protect sections of newly finished dense-graded friction course and the last structural layer before friction course from traffic until the surface temperature has cooled below 160°F.

The Contractor may use artificial methods to cool the pavement to expedite paving operations. The Department may direct the Contractor to use artificial cooling methods when maintenance of traffic requires opening the pavement to traffic at the earliest possible time.

SECTION 334 SUPERPAVE ASPHALT CONCRETE

334-1 Description.

334-1.1 General: Construct a Superpave Asphalt Concrete pavement with the type of mixture specified in the Contract Documents, or when offered as alternates, as selected. Superpave mixes are identified as Type SP-9.5, Type SP-12.5 or Type SP-19.0.

Obtain Superpave Asphalt Concrete from a plant that is currently on the Department's Production Facility Listing. Producers seeking inclusion on the list shall meet the requirements of Section 105. Producers must meet the requirements of Section 320 for plant and equipment and the general construction requirements of Section 330.

334-1.2 Traffic Levels: The requirements for Type SP Asphalt Concrete mixtures are based on the design traffic level of the project. The traffic levels for the project are as specified in the Contract Documents.

334-1.3 Gradation Classification: The Superpave mixes are classified as fine and are defined in 334-3.2.2.

The equivalent AASHTO nominal maximum aggregate size Superpave mixes are as follows:

Type SP-9.5.....	9.5 mm
Type SP-12.5.....	12.5 mm
Type SP-19.0.....	19.0 mm

334-1.4 Thickness: The total thickness of the Type SP asphalt layers will be the plan thickness as shown in the Contract Documents. Before paving, propose a thickness for each individual layer meeting the requirements of this specification, which when combined with other layers (as applicable) will equal the plan thickness. For construction purposes, the plan thickness and individual layer thickness will be converted to spread rate based on the maximum specific gravity of the asphalt mix being used, as well as the minimum density level, as shown in the following equation:

$$\text{Spread rate (lb/yd}^2\text{)} = t \times G_{mm} \times 43.3$$

Where: t = Thickness (in.) (plan thickness or individual layer thickness)

G_{mm} = Maximum specific gravity from the verified mix design

The weight of the mixture shall be determined as provided in 320-3.2. For target purposes only, spread rate calculations should be rounded to the nearest whole number.

Note: Plan quantities are based on a G_{mm} of 2.540, corresponding to a spread rate of 110 lb/yd²-in. Pay quantities will be based on the actual maximum specific gravity of the mix being used.

334-1.4.1 Layer Thicknesses: The allowable layer thicknesses for Type SP Asphalt Concrete mixtures are as follows:

Type SP-9.5.....	1 to 1-1/2 inches
Type SP-12.5.....	1-1/2 to 3 inches
Type SP-19.0.....	2 to 4 inches

In addition to the minimum and maximum thickness requirements, the following restrictions are placed on mixes when used as a structural course:

Type SP-9.5 - Limited to the top two structural layers, two layers maximum.

Type SP-9.5 - Do not place less than 1-1/2 inches thick for Traffic Level E applications.

Type SP-19.0 - Do not use for the final (top) structural layer below FC-5 mixtures. Type SP-19.0 mixtures are permissible for the layer directly below FC-9.5 and FC-12.5 mixtures. Do not use for the final (top) layer of shoulders.

334-1.4.2 Additional Requirements: The following requirements also apply to Type SP Asphalt Concrete mixtures:

1. A minimum 1-1/2 inch initial lift is required over an Asphalt Membrane Interlayer (AMI).

2. When construction includes the paving of adjacent shoulders (less than or equal to 5 feet wide), the layer thickness for the upper pavement layer and shoulder must be the same and paved in a single pass, unless called for differently in the Contract Documents.

3. All overbuild layers must be Type SP Asphalt Concrete designed at the traffic level as stated in the Contract Documents. Use the minimum and maximum layer thicknesses as specified above unless called for differently in the Contract Documents. On variable thickness overbuild layers, the minimum and maximum allowable thicknesses will be as specified below, unless called for differently in the Contract Documents.

Type SP-9.5..... 3/8 to 2 inches

Type SP-12.5..... 1/2 to 3 inches

Type SP-19.0..... 1-1/2 to 4 inches

4. Variable thickness overbuild layers constructed using a Type SP-9.5 or SP-12.5 mixtures may be tapered to zero thickness provided the contract documents require a minimum of 1-1/2 inches of dense-graded mix placed over the variable thickness overbuild layer.

334-2 Materials.

334-2.1 General Requirements: Meet the material requirements specified in Division III. Specific references are as follows:

Superpave PG Asphalt BinderSection 916

Coarse Aggregate.....Section 901

Fine Aggregate.....Section 902

334-2.2 Superpave Asphalt Binder: Unless specified otherwise in the Contract Documents, use an asphalt binder grade as determined from Table 334-2.

High polymer binder mixtures may be used in lieu of mixtures with other specified binders at no additional cost to the Department, provided they meet the traffic level and mixture type requirements of the project.

High polymer binder may be substituted in a mixture at no additional cost to the Department when the mix design contains a maximum of 20% RAP.

334-2.3 Reclaimed Asphalt Pavement (RAP) Material:

334-2.3.1 General requirements: RAP may be used as a component of the asphalt mixture subject to the following requirements:

1. When using a PG 76-22 asphalt binder in friction course mixtures, limit the amount of RAP material used in the mix to a maximum of 20% by weight of total aggregate. As an exception, amounts greater than 20% RAP by weight of total aggregate can be used if no

more than 20% by weight of the total asphalt binder comes from the RAP material. When using a PG 76-22 asphalt binder in structural course mixtures, refer to 334-2.3.6. RAP is not allowed in mixtures containing High Polymer asphalt binder. High Polymer asphalt is defined in Section 916.

2. Assume full responsibility for the design, production and construction of asphalt mixes which incorporate RAP as a component material.

3. Use RAP from a Department approved stockpile or millings from a Department project.

4. Provide stockpiled RAP material that is reasonably consistent in characteristics and contains no aggregate particles which are soft or conglomerates of fines.

5. Provide RAP material having a minimum average asphalt binder content of 4.0% by weight of RAP. As an exception, when using fractionated RAP, the minimum average asphalt binder content for the coarse portion of the RAP shall be 2.5% by weight of the coarse portion of the RAP. The coarse portion of the RAP shall be the portion of the RAP retained on the No. 4 sieve. The Engineer may sample the stockpiles to verify that this requirement is met.

334-2.3.2 Material Characterization for Mix Design: Assume responsibility for establishing the asphalt binder content, gradation, and bulk specific gravity (G_{sb}) of the RAP material based on a representative sampling of the material by roadway cores or stockpile samples. For roadway core samples, assume responsibility for the degradation that will occur during the milling operation.

334-2.3.3 RAP Stockpile Approval: Prior to the incorporation of RAP into the asphalt mixture, stockpile the RAP material and obtain approval for the stockpile by one of the following methods:

1. Continuous stockpile: When RAP is obtained from one or multiple sources and is either processed, blended, or fractionated, and stockpiled in a continuous manner, assure an adequate number of test results are obtained for stockpile approval. Test the RAP material for gradation and asphalt content at a minimum frequency of one sample per 1,000 tons with a minimum of six test results. Test the RAP material for G_{mm} (for G_{sb} determination) at a minimum frequency of one sample per 5,000 tons with a minimum of two test results. Based on visual inspection and a review of the test data, the Engineer will determine the suitability of the stockpiled material. In addition, address the details and specifics of the processing, sampling, testing and actions to be taken in the Producer Quality Control (QC) Plan.

When RAP is added to the continuous stockpile after original approval of the stockpile as described above, test the RAP material for gradation and asphalt content at a minimum frequency of one sample per 1,000 tons with a minimum of six test results. Test the RAP material for G_{mm} (for G_{sb} determination) at a minimum frequency of one sample per 5,000 tons with a minimum of two test results. Monitor test results during crushing operations for conformance to the requirements of Table 334-1. After the minimum frequency of tests have been performed, the Engineer will review the test data and visually inspect the stockpiled material. The average gradation and G_{mm} of the added material shall be within the allowable ranges shown in Table 334-1 from the originally approved stockpile values. If the added RAP material does not meet the conditions of Table 334-1, then the Contractor must create a new stockpile when resuming crushing operations and the stockpile will receive a new number designation from the Department. The previously crushed material, which was added to

the continuous stockpile and did not meet the conditions of Table 334-1, may remain and that stockpile used until depleted.

Table 334-1 Allowable Ranges for Continuous RAP Stockpile Properties	
Characteristic	Limit from Original Approved Stockpile Gradation
No. 8 sieve and coarser	± 6.0%
No. 16 sieve	± 5.0%
No. 30 sieve	± 5.0%
No. 50 sieve	± 4.0%
No. 100 sieve	± 4.0%
No. 200 sieve	± 2.0%
G_{mm}	± 0.040

2. Non-continuous single stockpile: When an individual stockpile is being constructed, obtain representative samples at random locations and test the RAP material for gradation and asphalt content at a minimum frequency of one sample per 1,000 tons with a minimum of six test results. Test the RAP material for G_{mm} (for G_{sb} determination) at a minimum frequency of one sample per 5,000 tons with a minimum of two test results. Based on visual inspection and a review of the test data, the Engineer will determine the suitability of the stockpiled material. If the properties of the new stockpile compare with the properties of an existing stockpile within the ranges provided in Table 334-1, the RAP in the new stockpile may be added to the existing stockpile. Once the RAP stockpile has been approved, do not add additional material without prior approval of the Engineer.

Determine the asphalt binder content and gradation of the RAP material in accordance with FM 5-563 and FM 1-T 030, respectively. Establish the G_{sb} of the RAP material by using one of the following methods:

a. Calculate the G_{sb} value based upon the effective specific gravity (G_{se}) of the RAP material, determined on the basis of the asphalt binder content and maximum specific gravity (G_{mm}) of the RAP material. The Engineer will approve the estimated asphalt binder absorption value used in the calculation.

b. Measure the G_{sb} of the RAP aggregate, in accordance with FM 1-T 084 and FM 1-T 085. Obtain the aggregate by using a solvent extraction method.

334-2.3.4 Pavement Coring Report: When the Contract includes milling of the existing asphalt pavement, the Pavement Coring Report may be available on the Department's website.

334-2.3.5 Asphalt Binder for Mixes with RAP: Select the appropriate asphalt binder grade based on Table 334-2. The Engineer reserves the right to change the asphalt binder grade at design based on the characteristics of the RAP asphalt binder, and reserves the right to make changes during production.

Table 334-2 Asphalt Binder Grade for Mixes Containing RAP	
Percent RAP	Asphalt Binder Grade
0 - 15	PG 67-22
16 - 30	PG 58-22
>30	PG 52-28

334-2.3.6 Allowable RAP Percentages for Type SP Structural Mixtures with PG 76-22 Asphalt Binder: For Type SP structural mixtures using PG 76-22 asphalt binder, select the percentage of RAP material based on Table 334-3.

Table 334-3				
Allowable RAP Percentages ¹ in Type SP Structural Mixtures with PG 76-22 Asphalt Binder				
		Coarse RAP	Intermediate RAP	Fine RAP
Gradation % Passing #16 Sieve ²		≤ 40%	> 40% to ≤ 50%	> 50%
PG _{HT} ³ > 100.0° C	Allowable RAP Percentage	≤ 25%	≤ 20%	≤ 20%
PG _{HT} ³ ≤ 100.0° C		≤ 30%	≤ 25%	
Notes:				
1. RAP aggregate by weight of total aggregate or RAP binder by weight of total binder.				
2. RAP gradations based on ignition oven extraction of RAP material in accordance with FM 5-563.				
3. PG _{HT} : asphalt binder high temperature continuous performance grade of RAP in accordance with Section 916.				

334-2.4 Recycled Crushed Glass: Recycled crushed glass may be used as a component of the asphalt mixture subject to the following requirements:

1. Consider the recycled crushed glass a local material and meet all requirements specified in 902-6.
2. Limit the amount of recycled crushed glass to a maximum of 15% by weight of total aggregate.
3. Use an asphalt binder that contains an anti-stripping agent listed on the Approved Product List (APL). The anti-strip additive shall be introduced into the asphalt binder by the supplier during loading.
4. Do not use recycled crushed glass in friction course mixtures or in structural course mixtures which are to be used as the final wearing surface.

334-3 General Composition of Mixture.

334-3.1 General: Compose the asphalt mixture using a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and asphalt binder material. Size, grade and combine the aggregate fractions to meet the grading and physical properties of the mix design. Aggregates from various sources may be combined.

334-3.2 Mix Design:

334-3.2.1 General: Design the asphalt mixture in accordance with AASHTO R 35, except as noted herein. Prior to the production of any asphalt mixture, submit the proposed mix design with supporting test data indicating compliance with all mix design criteria to the Engineer. For all mix designs, include representative samples of all component materials, including asphalt binder. Allow the Director of the Office of Materials a maximum of four weeks to either conditionally verify or reject the mix as designed.

At no additional cost to the Department, for a Type SP mix the following Traffic Level substitutions are allowed:

- Traffic Level E can be substituted for Traffic Level C.
- Traffic Level C can be substituted for Traffic Level B.

The same traffic level and binder type that is used for the mainline traffic lanes may be placed in the shoulder at no additional cost to the Department, even if the conditions stated above are not met for the shoulder.

Warm mix technologies (additives, foaming techniques, etc.) listed on the Department's website may be used in the production of the mix. The URL for obtaining this information, if available, is: <https://www.fdot.gov/materials/laboratory/asphalt/index.shtm>.

When warm mix technologies are used, for mixtures containing a PG 52-28, PG 58-22, or PG 67-22 binder, a mixture will be considered a warm mix asphalt design if the mixing temperature is 285°F or less. For mixtures containing a PG 76-22 or High Polymer binder, a mixture will be considered a warm mix asphalt design if the mixing temperature is 305°F or less.

The Engineer will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the properties of the mix design have changed, and the Engineer will no longer allow the use of the mix design.

334-3.2.2 Mixture Gradation Requirements: Combine the coarse and fine aggregate in proportions that will produce an asphalt mixture meeting all of the requirements defined in this specification and conform to the gradation requirements at design as defined in AASHTO M 323. Aggregates from various sources may be combined.

334-3.2.2.1 Mixture Gradation Classification: Plot the combined mixture gradation on an FHWA 0.45 Power Gradation Chart. Include the Control Points from AASHTO M 323, as well as the Primary Control Sieve (PCS) Control Point from AASHTO M 323. Fine mixes are defined as having a gradation that passes above the primary control sieve control point and above the maximum density line for all sieve sizes smaller than the primary control sieve and larger than the No. 30 sieve.

334-3.2.3 Aggregate Consensus Properties: For Traffic Level C and E mixtures, meet the following consensus properties at design for the aggregate blend. Aggregate consensus properties do not apply to Traffic Level B mixtures.

334-3.2.3.1 Coarse Aggregate Angularity: When tested in accordance with ASTM D5821, meet the percentage of fractured faces requirements specified in AASHTO M 323.

334-3.2.3.2 Fine Aggregate Angularity: When tested in accordance with AASHTO T 304, Method A, meet the uncompacted void content of fine aggregate specified in AASHTO M 323.

334-3.2.3.3 Flat and Elongated Particles: When tested in accordance with ASTM D4791, (with the exception that the material passing the 3/8-inch sieve and retained on the No. 4 sieve shall be included), meet the requirements specified in AASHTO M 323. Measure the aggregate using the ratio of 5:1, comparing the length (longest dimension) to the thickness (shortest dimension) of the aggregate particles.

334-3.2.3.4 Sand Equivalent: When tested in accordance with AASHTO T 176, meet the sand equivalent requirements specified in AASHTO M 323.

334-3.2.4 Gyratory Compaction: Compact the design mixture in accordance with AASHTO T 312, with the following exception: use the number of gyrations at N_{design} as defined in Table 334-4. Measure the inside diameter of gyratory molds in accordance with AASHTO T 312.

Table 334-4 Gyratory Compaction Requirements	
Traffic Level	N _{design} Number of Gyration
B	65
C	75
E	100

334-3.2.5 Design Criteria: Meet the requirements for nominal maximum aggregate size as defined in AASHTO M 323, as well as for relative density, VMA, VFA, and dust-to-binder ratio as specified in AASHTO M 323. N_{initial} and N_{maximum} requirements are not applicable.

334-3.2.6 Moisture Susceptibility:

1. For all traffic levels, use a liquid anti-strip agent listed on the APL at the specified dosage rate. Hydrated lime may be used instead of the liquid anti-strip agent.
2. Provide a mixture having a retained tensile strength ratio of at least 0.80 and a minimum tensile strength (unconditioned) of 100 psi in accordance with FM 1-T 283.

334-3.2.7 Additional Information: In addition to the requirements listed above, provide the following information with each proposed mix design submitted for verification:

1. The design traffic level and the design number of gyrations (N_{design}).
2. The source and description of the materials to be used.
3. The Department source number and the Department product code of the aggregate components furnished from a Department approved source.
4. The gradation and proportions of the raw materials as intended to be combined in the paving mixture. The gradation of the component materials shall be representative of the material at the time of use. Compensate for any change in aggregate gradation caused by handling and processing as necessary.
5. A single percentage of the combined mineral aggregate passing each specified sieve. Degradation of the aggregate due to processing (particularly material passing the No. 200 sieve) should be accounted for and identified.
6. The bulk specific gravity (G_{sb}) value for each individual aggregate and RAP component, as identified in the Department's aggregate control program.
7. A single percentage of asphalt binder by weight of total mix intended to be incorporated in the completed mixture, shown to the nearest 0.1%.
8. A target temperature for the mixture at the plant (mixing temperature) and a target temperature for the mixture at the roadway (compaction temperature) in accordance with 320-6.3. Do not exceed a target temperature of 340°F for High Polymer asphalt binders, 330°F for PG 76-22 asphalt binders, and 315°F for unmodified asphalt binders.
9. Provide the physical properties at the optimum asphalt content, which must conform to all specified requirements.
10. The name of the Construction Training Qualification Program (CTQP) Qualified Mix Designer.
11. The ignition oven and maximum specific gravity (G_{mm}) calibration factors.
12. The warm mix technology, if used.

334-3.3 Mix Design Revisions: During production, the Contractor may request a target value revision to a mix design, subject to meeting the following requirements: the target change

falls within the limits defined in Table 334-5, appropriate data exists demonstrating that the mix complies with production air voids specification criteria, and the mixture gradation meets the basic gradation requirements defined in 334-3.2.2.

Table 334-5 Limits for Potential Adjustments to Mix Design Target Values	
Characteristic	Limit from Original Mix Design
Asphalt Binder Content ⁽¹⁾	±0.3%
Gradation and Aggregate Component ⁽²⁾	
No. 8 sieve and Coarser	± 5.0%
No. 16 sieve	± 4.0%
No. 30 sieve	± 4.0%
No. 50 sieve	± 3.0%
No. 100 sieve	± 3.0%
No. 200 sieve	± 1.0%
Each Component of Aggregate Blend	± 5.0 %
⁽¹⁾ Reductions to the asphalt binder content will not be permitted if the VMA during production is lower than 1.0% below the design criteria. ⁽²⁾ The Engineer may waive the limits for the individual sieves and component of the aggregate blend contingent upon the quality of the production data for the mixture. Revisions to FC-5 mixtures to be determined by the Engineer.	

Submit all requests for revisions to mix designs, along with supporting documentation, to the Engineer. In order to expedite the revision process, the request for revision or discussions on the possibility of a revision may be made verbally, but must be followed up by a written request. The verified mix design will remain in effect until the Engineer authorizes a change. In no case will the effective date of the revision be established earlier than the date of the first communication between the Contractor and the Engineer regarding the revision.

A new design mix will be required if aggregate sources change, or for any substitution of an aggregate product with a different aggregate code, unless approved by the Engineer.

334-4 Producer Process Control (PC).

Assume full responsibility for controlling all operations and processes such that the requirements of these Specifications are met at all times. Perform any tests necessary at the plant and roadway for process control purposes. ~~Enter all PC test data into the Department's database.~~ The Engineer will not use these test results in the acceptance payment decision.

Address in the Producer QC Plan how PC failures will be handled. When a PC failure occurs, investigate, at a minimum, the production process, testing equipment and/or sampling methods to determine the cause of the failure, and make any necessary changes to assure compliance with these Specifications. Obtain a follow up sample immediately after corrective actions are taken to assess the adequacy of the corrections. In the event the follow-up PC sample also fails to meet Specification requirements, cease production of the asphalt mixture until the problem is adequately resolved to the satisfaction of the QC Manager.

334-5 Acceptance of the Mixture.

~~**334-5.1 General:** The mixture will be accepted at the plant with respect to gradation (P₃ and P₂₀₀), asphalt content (P_b), and volumetrics (volumetrics is defined as air voids at N_{design}).~~

~~The mixture will be accepted on the roadway with respect to density of roadway cores. Acceptance will be on a LOT by LOT basis (for each mix design) based on tests of random samples obtained within each subplot taken at a frequency of one set of samples per subplot. A roadway LOT and a plant production LOT shall be the same. Acceptance of the mixture will be based on Contractor QC test results that have been verified by the Department.~~

~~**334-5.1.1 Sampling and Testing Requirements:** Obtain the samples in accordance with FM 1 T 168. Obtain samples at the plant of a sufficient quantity to be split into three smaller samples; one for QC, one for Verification testing and one for Resolution testing. Obtain each split sample of a sufficient quantity, approximately 40 pounds, for all required testing. The split samples for Verification testing and Resolution testing shall be reduced in size and stored in three boxes each. The approximate size of each box must be 12 inches x 8 inches x 4 inches. Provide, label, and safely store sample boxes in a manner agreed upon by the Engineer for future testing.~~

~~The asphalt content of the mixture will be determined in accordance with FM 5-563. The gradation of the recovered aggregate will be determined in accordance with FM 1-T 030. Volumetric testing will be in accordance with AASHTO T 312 and FM 1-T 209. Prior to testing volumetric samples, condition the test-sized sample for one hour, plus or minus five minutes, at the target roadway compaction temperature in a shallow, flat pan, such that the mixture temperature at the end of the one-hour conditioning period is within plus or minus 20°F of the roadway compaction temperature.~~

~~If one of the QC gyratory specimens is damaged, make an additional gyratory specimen.~~

~~For situations where two properly prepared gyratory specimens do not meet single operator precision requirements for G_{mb} as provided in FM 1-T 166:~~

- ~~1. Retest both gyratory specimens in accordance FM 1-T 166.~~
- ~~2. Following the retest, if the newly measured G_{mb} values do not meet single operator precision requirements, QC shall prepare a third gyratory specimen in accordance with AASHTO T 312 and test in accordance with FM 1-T 166. All three test results shall be input into MAC. The average G_{mb} will be determined by MAC after performing an outlier check in accordance with ASTM E178.~~

~~Test for roadway density in accordance with FM 1-T 166.~~

~~**334-5.1.2 Acceptance Testing Exceptions:** When the total combined quantity of hot mix asphalt for the project, as indicated in the Plans for Type B-12.5, Type SP and Type FC mixtures only, is less than 2,000 tons, the Engineer will accept the mix on the basis of visual inspection. The Engineer may require the Contractor to run process control tests for informational purposes, as defined in 334-4, or may run independent verification tests to determine the acceptability of the material.~~

Density testing for acceptance will not be performed on widening strips or shoulders with a width of 5 feet or less, open-graded friction courses, variable thickness overbuild courses, leveling courses, any SP-9.5 or SP-12.5 asphalt layer placed on subgrade with a layer thickness less than or equal to 3 inches, miscellaneous asphalt pavement, shared use paths, crossovers, gore areas, raised crosswalks, speed tables, or any course with a specified thickness less than 1 inch or a specified spread rate that converts to less than 1 inch as described in 334-1.4. Density testing for acceptance will not be performed on asphalt courses placed on bridge decks or approach slabs; compact these courses in static mode only per the requirements of 330-7.7. In addition, density testing for acceptance will not be performed on the following

areas when they are less than 500 feet (continuous) in length: turning lanes, acceleration lanes, deceleration lanes, shoulders, parallel parking lanes, ramps, or unsignalized side streets with less than four travel lanes and speed limits less than 35 mph. Do not perform density testing for acceptance in situations where the areas requiring density testing is less than 50 tons within a subplot.

Density testing for acceptance will not be performed in intersections. The limits of the intersection will be from stop bar to stop bar for both the mainline and side streets. A random core location that occurs within the intersection shall be moved forward or backward from the intersection at the direction of the Engineer.

Where density testing for acceptance is not required, compact these courses (with the exception of open-graded friction courses) in accordance with the rolling procedure (equipment and pattern) as approved by the Engineer or with Standard Rolling Procedure as specified in 330-7.2. In the event that the rolling procedure deviates from the procedure approved by the Engineer, or the Standard Rolling Procedure, placement of the mix shall be stopped.

The density pay factor (as defined in 334-8.2) for areas not requiring density testing for acceptance will be paid at the same density pay factor as for the areas requiring density testing within the same LOT. If the entire LOT does not require density testing for acceptance, the LOT will be paid at a density pay factor of 1.00.

334-5.2 Full LOTs: Each LOT will be defined (as selected by the Contractor prior to the start of the LOT) as either (1) 2,000 tons, with each LOT subdivided into four equal sublots of 500 tons each, or (2) 4,000 tons, with each LOT subdivided into four equal sublots of 1,000 tons each. As an exception to this, the initial LOT of all new mix designs shall be defined as 2,000 tons, subdivided into four equal sublots of 500 tons each. Before the beginning of a LOT, the Engineer will develop a random sampling plan for each subplot and direct the Contractor on sample points, based on tonnage, for each subplot during construction.

334-5.3 Partial LOTs: A partial LOT is defined as a LOT size that is less than a full LOT. A partial LOT may occur due to the following:

1. The completion of a given mix type or mix design on a project.
2. Closure of the LOT due to time. LOTs will be closed 30 calendar days after the start of the LOT. Time periods other than 30 calendar days may be used if agreed to by both the Engineer and the Contractor, but under no circumstances shall the LOT be left open longer than 90 days.

3. A LOT is terminated per 334-5.4.4.

All partial LOTs will be evaluated based on the number of tests available, and will not be redefined. If a LOT is closed before the first plant random sample is obtained, then the LOT will be visually accepted by the Engineer and the LOT pay factor will be 1.00.

334-5.4 QC Sampling and Testing: Obtain all samples randomly as directed by the Engineer.

Should the Engineer determine that the QC requirements are not being met or that unsatisfactory results are being obtained, or should any instances of falsification of test data occur, acceptance of the Producer's QC Plan will be suspended and production will be stopped.

~~**334-5.4.1 Lost or Missing Verification/Resolution Samples:** In the event that any of the Verification and/or Resolution asphalt mixture samples that are in the custody of the Contractor are lost, damaged, destroyed, or are otherwise unavailable for testing, the minimum possible pay factor for each quality characteristic as described in 334-8.2 will be applied to the~~

~~entire LOT in question, unless called for otherwise by the Engineer. Specifically, if the LOT in question has more than two sublots, the pay factor for each quality characteristic will be 0.55. If the LOT has two or less sublots, the pay factor for each quality characteristic will be 0.80. If only the roadway cores are lost, damaged, destroyed, or are otherwise unavailable for testing, then the minimum possible pay factor for density will be applied to the entire LOT in question. In either event, the material in question will also be evaluated in accordance with 334-5.9.5.~~

~~If any of the Verification and/or Resolution samples that are in the custody of the Department are lost, damaged, destroyed or are otherwise unavailable for testing, the corresponding QC test result will be considered verified, and payment will be based upon the Contractor's data.~~

~~**334-5.4.2 Plant Sampling and Testing Requirements:** Obtain one random sample of mix per subplot in accordance with 334-5.1.1 as directed by the Engineer. Test the QC split sample for gradation, asphalt binder content and volumetrics in accordance with 334-5.1.1. Complete all QC testing within one working day from the time the samples were obtained.~~

~~**334-5.4.3 Roadway Sampling and Testing Requirements:** Obtain five 6 inch diameter roadway cores within 24 hours of placement at random locations as directed by the Engineer within each subplot. Test these QC samples for density (G_{mb}) in accordance with 334-5.1.1. Obtain a minimum of three cores per subplot at random locations as identified by the Engineer in situations where the subplot/LOT was closed or terminated before the random numbers were reached or where it is impractical to cut five cores per subplot. Do not obtain cores any closer than 12 inches from an unsupported edge. The Engineer may adjust randomly generated core locations for safety purposes or as the Engineer deems necessary. Do not perform density testing for acceptance in a subplot if the plant random sample for that subplot has not been obtained. Maintain traffic during the coring operation; core the roadway, patch the core holes (within three days of coring); and trim the cores to the proper thickness prior to density testing.~~

~~Density for the subplot shall be based on the average value for the cores cut from the subplot with the target density being a percentage of the maximum specific gravity (G_{mm}) of the subplot, as defined in the Contract. Once the average density of a subplot has been determined, do not retest the samples unless approved by the Engineer. Ensure proper handling and storage of all cores until the LOT in question has been accepted.~~

~~**334-5.4.4 Individual Test Tolerances for QC Testing:** Terminate the LOT if any of the following QC failures occur:~~

- ~~1. An individual test result of a subplot for air voids does not meet the requirements of Table 334-6;~~
- ~~2. The average subplot density does not meet the requirements of Table 334-6;~~
- ~~3. Two consecutive test results within the same LOT for gradation or asphalt binder content do not meet the requirements of Table 334-6;~~

~~When a LOT is terminated due to a QC failure, stop production of the mixture until the problem is resolved to the satisfaction of the QC Manager and/or Asphalt Plant Level II technician responsible for the decision to resume production after a QC failure, as identified in Section 105. In the event that it can be demonstrated that the problem can immediately be or already has been resolved, it will not be necessary to stop production. When a LOT is terminated, make all necessary changes to correct the problem. Do not resume production until appropriate corrections have been made. Prior to resuming production, inform the Engineer of the problem and corrections made to correct the problem. After resuming production, sample~~

and test the material to verify that the changes have corrected the problem. Summarize this information and provide it to the Engineer prior to the end of the work shift when production resumes.

In the event that a QC failure is not addressed as defined above, the Engineer's approval will be required prior to resuming production after any future QC failures.

Address any material represented by a failing test result, as defined above in this subarticle, in accordance with 334 5.9.5. Any LOT terminated under this subarticle will be limited to a maximum Pay Factor of 1.00 (as defined in 334 8.2) for all quality characteristics and will include all material placed up to the point when the LOT was terminated.

In the event that a G_{mm} test result differs by more than 0.040 from the mix design G_{mm} , investigate the causes of the discrepancy and report the findings and proposed actions to the Engineer.

Table 334-6 Master Production Range	
Characteristic	Tolerance ⁽¹⁾
Asphalt Binder Content (%)	Target ± 0.55
Passing No. 200 Sieve (%)	Target ± 1.50
Air Voids (%)	2.30 - 6.00
Density (minimum % G_{mm}) ⁽²⁾	89.50

(1) Tolerances for sample size of $n = 1$ from the verified mix design
 (2) Based on an average of three to five randomly located cores

334-5.5 Verification Testing: In order to determine the validity of the Contractor's QC test results prior to their use in the Acceptance decision, the Engineer will run verification tests.

334-5.5.1 Plant Testing: At the completion of each LOT, the Engineer will test a minimum of one Verification split sample randomly selected from the LOT. Results of the testing and analysis for the LOT will be made available to the Contractor within one working day from the time the LOT is completed. Verification samples shall be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. In lieu of the 1-1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1.

The Verification test results will be compared with the QC test results based on the between-laboratory precision values shown in Table 334-7.

Table 334-7 Between-Laboratory Precision Values	
Property	Maximum Difference
G_{mm}	0.016
G_{mb} (gyratory compacted samples)	0.022
G_{mb} (roadway cores)	0.014
P_b	0.44%
P_{-200}	FM 1-T 030 (Figure 2)

Table 334-7 Between-Laboratory Precision Values	
Property	Maximum Difference
P-8	FM 1-T 030 (Figure 2)

~~If all of the specified mix characteristics compare favorably, then the LOT will be accepted, with payment based on the Contractor's QC test data for the LOT.~~

~~If any of the results do not compare favorably, then the Resolution samples from the LOT will be sent to the Resolution laboratory for testing, as described in 334-5.6.~~

~~**334-5.5.2 Roadway Testing:** At the completion of each LOT, the Engineer will determine the density (G_{mb}) of each core (previously tested by QC) as described in 334-5.1.1 from the same subplot as the plant samples. For situations where roadway density is not required for the random subplot chosen, then another subplot shall be randomly chosen for roadway density cores only. Results of the testing and analysis for the LOT will be made available to the Contractor within one working day from the time the LOT is completed.~~

~~The individual Verification test results will be compared with individual QC test results by the Engineer based on the between-laboratory precision values given in Table 334-7.~~

~~If each of the core test results compare favorably, then the LOT will be accepted with respect to density, with payment based on the Contractor's QC test data for the LOT.~~

~~If any of the results do not compare favorably, then the core samples from the LOT will be sent to the Resolution laboratory for testing as specified in 334-5.6.~~

~~334-5.6 Resolution System:~~

~~**334-5.6.1 Plant Samples:** In the event of an unfavorable comparison between the Contractor's QC test results and the Engineer's Verification test results on any of the properties identified in Table 334-7, the Resolution laboratory will test all of the split samples from the LOT for only the property (or properties) in question. Resolution samples shall be reheated at the target roadway compaction temperature for 1 1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. In lieu of the 1 1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1.~~

~~**334-5.6.2 Roadway Samples:** In the event of an unfavorable comparison between the Contractor's QC test data and the Engineer's Verification test data on the density results, the Resolution laboratory will test all of the cores from the LOT. Testing will be as described in 334-5.1.1.~~

~~**334-5.6.3 Resolution Determination:** The Resolution test results (for the property or properties in question) will be compared with the QC test results based on the between-laboratory precision values shown in Table 334-7.~~

~~If the Resolution test results compare favorably with all of the QC results, then acceptance and payment for the LOT will be based on the QC results, and the Department will bear the costs associated with Resolution testing. No additional compensation, either monetary or time, will be made for the impacts of any such testing.~~

~~If the Resolution test results do not compare favorably with all of the QC results, then acceptance and payment for the LOT will be based on the Resolution test data for the LOT, and the costs of the Resolution testing will be deducted from monthly estimates. No additional time will be granted for the impacts of any such testing.~~

~~In addition, the material failure requirements of 334-5.4.4 apply to the Resolution test data. Address any material represented by the failing test results in accordance with 334-5.9.5. For this situation, the LOT will be limited to a maximum Pay Factor of 1.00 (as defined in 334-8.2) for all quality characteristics.~~

~~In the event of an unfavorable comparison between the Resolution test results and QC test results, make the necessary adjustments to assure that future comparisons are favorable.~~

~~334-5.7 Independent Verification (IV) Testing:~~

~~**334-5.7.1 Plant:** The Contractor shall provide sample boxes and take samples as directed by the Engineer for IV testing. Obtain enough material for three complete sets of tests (two samples for IV testing by the Engineer and one sample for testing by the Contractor). If agreed upon by both the Engineer and the Contractor, only one sample for IV testing by the Engineer may be obtained. IV samples will be reheated at the target roadway compaction temperature for 1 1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. The Contractor's split sample, if tested immediately after sampling, shall be reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. If the Contractor's sample is not tested immediately after sampling, then the sample shall be reheated at the target roadway compaction temperature for 1 1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. For the IV and Contractor's samples, in lieu of the 1 1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1. The Contractor's test results shall be provided to the Engineer within one working day from the time the sample was obtained.~~

~~If any of the IV test results do not meet the requirements of Table 334-6, then a comparison of the IV test results and the Contractor's test results, if available, will be made. If a comparison of the IV test results and the Contractor's test results meets the precision values of Table 334-7 for the material properties in question, or if the Contractor's test results are not available, then the IV test results are considered verified and the Contractor shall cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Address any material represented by the failing test results in accordance with 334-5.9.5.~~

~~If a comparison of the IV test results and the Contractor's test results does not meet the precision values of Table 334-7 for the material properties in question, then the second IV sample shall be tested by the Engineer for the material properties in question. If a comparison between the first and second IV test results does not meet the precision values of Table 334-7 for the material properties in question, then the first IV test results are considered unverified for the material properties in question and no action shall be taken, with the following exception: if the first and second IV test results do not meet the precision values of Table 334-7 and the first IV test result and Contractor's test result do not meet the precision values of~~

~~Table 334-7, yet all three test results do not meet the requirements of Table 334-6, then address any material represented by the failing test results in accordance with 334-5.9.5.~~

~~If a comparison between the first and second IV test results meets the precision values of Table 334-7 for the material properties in question, then the first IV sample is considered verified and the Contractor shall cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Address any material represented by the failing test results in accordance with 334-5.9.5.~~

~~The Engineer has the option to use the IV sample for comparison testing as specified in 334-6.~~

~~**334-5.7.1.1 Asphalt Binder and Mixture Sampling for Determination of Asphalt Binder Quality:** At the Department's request, obtain an asphalt binder sample from the asphalt plant storage tank and a corresponding asphalt mixture sample using binder from the same storage tank. Samples of asphalt binder and mixture shall be sampled the same day. The asphalt binder from the storage tank and the asphalt binder recovered from the asphalt mixture will be tested by the Department for compliance with Contract Documents.~~

~~**334-5.7.2 Roadway:** Obtain five 6-inch diameter roadway cores within 24 hours of placement, as directed by the Engineer, for IV testing. In situations where it is impractical to cut five cores per subplot, obtain a minimum of three cores per subplot at random locations, as identified by the Engineer. These independent cores will be obtained from the same LOTs and sublots as the Independent Verification Plant samples, or as directed by the Engineer. The density of these cores will be obtained as described in 334-5.1.1. If the average of the results for the subplot does not meet the requirements of Table 334-6 for density, then a comparison of the IV G_{mm} test results and the Contractor's G_{mm} test results, if available, will be made in accordance with the procedure provided in 334-5.7.1. Address any material represented by the failing test results in accordance with 334-5.9.5.~~

~~**334-5.8 Surface Tolerance:** The asphalt mixture will be accepted on the roadway with respect to surface tolerance in accordance with the applicable requirements of 330-9.~~

~~**334-5.9 Minimum Acceptable Quality Levels:**~~

~~**334-5.9.1 PFs Below 0.90:** In the event that an individual pay factor for any quality characteristic of a LOT falls below 0.90, take steps to correct the situation and report the actions to the Engineer. In the event that the pay factor for the same quality characteristic for two consecutive LOTs is below 0.90, cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Actions taken must be approved by the Engineer before production resumes.~~

~~**334-5.9.2 CPFs Less Than 0.90 and Greater Than or Equal to 0.80:** If the composite pay factor for the LOT is less than 0.90 and greater than or equal to 0.80, cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Actions taken must be approved by the Engineer before production resumes.~~

~~**334-5.9.3 CPFs Less Than 0.80 and Greater Than or Equal to 0.75:** If the CPF for the LOT is less than 0.80 and greater than or equal to 0.75, address the defective material in accordance with 334-5.9.5.~~

~~**334-5.9.4 CPFs Less Than 0.75:** If the CPF for the LOT is less than 0.75, remove and replace the defective LOT at no cost to the Department, or as approved by the Engineer.~~

~~**334-5.9.5 Defective Material:** Assume responsibility for removing and replacing all defective material placed on the project, at no cost to the Department.~~

~~As an exception to the above and upon approval of the Engineer, obtain an engineering analysis in accordance with Section 6 by an independent laboratory (as approved by the Engineer) to determine the disposition of the material. The engineering analysis must be signed and sealed by a Professional Engineer licensed in the State of Florida.~~

~~The Engineer may determine that an engineering analysis is not necessary or may perform an engineering analysis to determine the disposition of the material.~~

~~Any material that remains in place will be accepted with a CPF as determined by 334-8, or as determined by the Engineer.~~

~~If the defective material is due to a high air void failure, gradation, asphalt binder content or density failure, upon the approval of the Engineer the Contractor may perform delineation tests on roadway cores in lieu of an engineering analysis to determine the limits of the defective material that may require removal and replacement. Prior to any delineation testing, all sampling locations shall be approved by the Engineer. All delineation sampling and testing shall be monitored and verified by the Engineer. For materials that are defective due to low air voids, an engineering analysis is required.~~

~~When evaluating defective material by engineering analysis or delineation testing, at a minimum, evaluate all material located between passing QC, PC or IV test results. Any additional PC samples obtained in the same work shift after an IV sample has been obtained shall include enough material for three complete sets of tests (PC, IV and IV check samples) in the event the Contractor requests using the PC test results for engineering analysis or delineation. These additional PC samples must compare with verified IV test results as determined by the comparison process of 334-5.7.1 in order to be used for engineering analysis or delineation. Exceptions to this requirement shall be approved by the Engineer.~~

~~**334-6 Comparison Testing.**~~

~~At the start of the project (unless waived by the Engineer) and at other times as determined necessary by the Engineer, provide split samples for comparison testing with the Engineer. The purpose of these tests is to verify that the testing equipment is functioning properly and that the testing procedures are being performed correctly. In the event that the Engineer determines that there is a problem with the Contractor's testing equipment and/or testing procedures, immediately correct the problem to the Engineer's satisfaction. In the event that the problem is not immediately corrected, cease production of the asphalt mixture until the problem is adequately resolved to the satisfaction of the Engineer.~~

~~If so agreed to by both the Contractor and the Engineer, the split sample used for comparison testing may also be used for the QC sample. The split sample used for comparison testing must also meet the requirements for IV testing described in 334-5.7.~~

~~**334-7 Method of Measurement.**~~

~~For the work specified under this Section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the weight of the mixture, in tons. For each pay item, excluding overbuild, the pay quantity will be based on the quantity placed on the project, limited to 110% of the adjusted plan quantity for the pay item. The adjusted plan~~

~~quantity will be determined by dividing the pay item's original plan quantity (including any Engineer approved quantity revisions) by the design G_{mm} stated in 334-1.4, then multiplying it by the tonnage-weighted average G_{mm} of the mixes used for the pay item.~~

~~The bid price for the asphalt mix will include the cost of the liquid asphalt and the tack coat application as directed in 300-8. There will be no separate payment or unit price adjustment for the asphalt binder material in the asphalt mix. For the calculation of unit price adjustments of bituminous material, the average asphalt content will be based on the percentage specified in 9-2.1.2. The weight will be determined as provided in 320-3.2 (including the provisions for the automatic recordation system).~~

~~Prepare and submit a Certification of Quantities to the Engineer in accordance with 9-2.1.2.~~

334-8 Basis of Payment.

334-8.1 General: Price and payment will be full compensation for all the work specified under this Section (including the applicable requirements of Sections 320 and 330).

~~For materials accepted in accordance with 334-5, based upon the quality of the material, a pay adjustment will be applied to the bid price of the material as determined on a LOT by LOT basis. The pay adjustment will be assessed by calculating a Pay Factor for the following individual quality characteristics: pavement density, air voids, asphalt binder content, and the percentage passing the No. 200 and No. 8 sieves. The pay adjustment will be computed by multiplying a Composite Pay Factor (CPF) for the LOT by the bid price per ton.~~

334-8.2 Pay Factors:

~~**334-8.2.1 Partial LOTs:** For Partial LOTs where no random sample is obtained due to insufficient tonnage, a CPF of 1.00 shall be applied.~~

~~**334-8.2.2 Two or Less Sublot Test Results:** In the event that two or less sublot test results are available for a LOT, Pay Factors will be determined based on Table 334-8, using the average of the accumulated deviations from the target value. (Except for density, deviations are absolute values with no plus or minus signs.) Use the 1 Test column when there is only one sublot test result and use the 2 Tests column when there are two sublots.~~

Table 334-8 Small Quantity Pay Table		
Pay Factor	1 Sublot Test Deviation	2 Sublot Test Average Deviation
Asphalt Binder Content		
1.05	0.00-0.23	0.00-0.16
1.00	0.24-0.45	0.17-0.32
0.90	0.46-0.55	0.33-0.39
0.80	>0.55	>0.39
No. 8 Sieve		
1.05	0.00-2.25	0.00-1.59
1.00	2.26-4.50	1.60-3.18
0.90	4.51-5.50	3.19-3.89
0.80	>5.50	>3.89
No. 200 Sieve		
1.05	0.00-0.55	0.00-0.39
1.00	0.56-1.10	0.40-0.78
0.90	1.11-1.50	0.79-1.06
0.80	>1.50	>1.06
Air Voids		
1.05	0.00-0.50	0.00-0.35
1.00	0.51-1.00	0.36-0.71
0.90	1.01-1.70	0.72-1.20
0.80	1.71-2.00	1.21-1.41
0.70	2.01-2.50	1.42-1.77
0.55	>2.50	>1.77
Density ⁽¹⁾ Target = 93.00 percent of G_{mm}		
1.05	+ (0.00-3.50), -(0.00-0.50)	+ (0.00-3.25), -(0.00-0.35)
1.00	+ (3.51-4.50), -(0.51-1.00)	+ (3.26-4.25), -(0.36-0.71)
0.95	+ (4.51-5.00), -(1.01-2.00)	+ (4.26-4.75), -(0.72-1.41)
0.90	+ (5.01-5.50), -(2.01-3.00)	+ (4.76-5.25), -(1.42-2.12)
0.80	+ (>5.50), -(>3.00)	+ (>5.25), -(>2.12)
Density ⁽¹⁾ Target = 92.00 percent of G_{mm}		
1.05	+ (0.00-4.50), -(0.00-0.50)	+ (0.00-4.25), -(0.00-0.35)
1.00	+ (4.51-5.50), -(0.51-1.00)	+ (4.26-5.25), -(0.36-0.71)
0.95	+ (5.51-6.00), -(1.01-1.50)	+ (5.26-5.75), -(0.72-1.41)
0.90	+ (6.01-6.50), -(1.51-2.00)	+ (5.76-6.25), -(1.42-2.12)
0.80	+ (>6.50), -(>2.00)	+ (>6.25), -(>2.12)
(1). Each density test result is the average of three to five randomly located cores. The target density is 93.00 percent of G_{mm} (92.00 percent when compaction is limited to the static mode or for layers specified to be one inch thick). When compaction is limited to the static mode, no vibratory mode in the vertical direction will be allowed. Other vibratory modes will be allowed, if approved by the Engineer. In this case, the target density is 92.00 percent of G_{mm}.		

~~**334-8.2.3 Three or More Sublot Test Results:** When three or more sublot test results are available for a LOT, the variability-unknown, standard deviation method will be used to determine the estimated percentage of the LOT that is within the specification limits. The~~

number of significant figures used in the calculations will be in accordance with requirements of AASHTO R 11/ASTM E29, Absolute Method.

334-8.2.3.1 Percent Within Limits: The percent within limits (PWL) and Pay Factors for the LOT will be calculated as described below. Variables used in the calculations are as follows:

x	= individual test value (sublot)
n	= number of tests (sublots)
s	= sample standard deviation
$\Sigma(x^2)$	= summation of squares of individual test values
$(\Sigma x)^2$	= summation of individual test values squared
Q_U	= upper quality index
USL	= upper specification limit (target value plus upper specification limit from Table 334-9)
Q_L	= lower quality index
LSL	= lower specification limit (target value minus lower specification limit from Table 334-9)
P_U	= estimated percentage below the USL
P_L	= estimated percentage above the LSL

1. Calculate the arithmetic mean (\bar{X}) of the test values:

$$\bar{X} = \frac{\sum x}{n}$$

2. Calculate the sample standard deviation (s):

$$s = \sqrt{\frac{n \sum (x^2) - (\sum x)^2}{n(n-1)}}$$

3. Calculate the upper quality index (Q_U):

$$Q_U = \frac{USL - \bar{X}}{s}$$

4. Calculate the lower quality index (Q_L):

$$Q_L = \frac{\bar{X} - LSL}{s}$$

5. From Table 334-10, determine the percentage of work below the USL (P_U).

6. From Table 334-10, determine percentage of work above the LSL (P_L). Note: If USL or LSL is not specified, percentages within (USL or LSL) will be 100.

7. If Q_U or Q_L is a negative number, then calculate the percent within limits for Q_U or Q_L as follows: enter Table 334-10 with the positive value of Q_U or Q_L and obtain the corresponding percent within limits for the proper sample size. Subtract this number from 100.00. The resulting number is the value to be used in the next step (Step 8) for the calculation of quality level.

8. Calculate the percent within limits (PWL) = $(P_U + P_L) - 100$

9. Calculate the Pay Factor (PF) for each quality characteristic using the equation given in 334-8.2.3.2.

Table 334-9 Specification Limits	
Quality Characteristic	Specification Limits
Passing No. 8 sieve (percent)	Target ± 3.1
Passing No. 200 sieve (percent)	Target ± 1.0
Asphalt Content (percent)	Target ± 0.40
Air Voids (percent)	4.00 ± 1.20
Density, vibratory mode (percent of G_{mm}):	$93.00 + 4.00, -1.20$
Density, static mode (percent of G_{mm}):	$92.00 + 5.00, -1.50$ ⁽¹⁾
(1): No vibratory mode in the vertical direction will be allowed. Other vibratory modes will be allowed, if approved by the Engineer.	

Table 334-10 Percent Within Limits		
Quality Index	Percent within Limits for Selected Sample Size	
	n = 3	n = 4
0.00	50.00	50.00
0.05	51.38	51.67
0.10	52.76	53.33
0.15	54.15	55.00
0.20	55.54	56.67
0.25	56.95	58.33
0.30	58.37	60.00
0.35	59.80	61.67
0.40	61.26	63.33
0.45	62.74	65.00
0.50	64.25	66.67
0.55	65.80	68.33
0.60	67.39	70.00
0.65	69.03	71.67
0.70	70.73	73.33

Table 334-10		
Percent Within Limits		
Quality Index	Percent within Limits for Selected Sample Size	
	n = 3	n = 4
0.75	72.50	75.00
0.80	74.36	76.67
0.85	76.33	78.33
0.90	78.45	80.00
0.95	80.75	81.67
1.00	83.33	83.33
1.05	86.34	85.00
1.10	90.16	86.67
1.15	97.13	88.33
1.20	100.00	90.00
1.25	100.00	91.67
1.30	100.00	93.33
1.35	100.00	95.00
1.40	100.00	96.67
1.45	100.00	98.33
1.50	100.00	100.00
1.55	100.00	100.00
1.60	100.00	100.00
1.65	100.00	100.00
1.70	100.00	100.00
1.75	100.00	100.00
1.80	100.00	100.00
1.85	100.00	100.00
1.90	100.00	100.00
1.95	100.00	100.00
2.00	100.00	100.00
2.05	100.00	100.00
2.10	100.00	100.00
2.15	100.00	100.00
2.20	100.00	100.00
2.25	100.00	100.00
2.30	100.00	100.00
2.35	100.00	100.00
2.40	100.00	100.00
2.45	100.00	100.00

Table 334-10		
Percent Within Limits		
Quality Index	Percent within Limits for Selected Sample Size	
	n = 3	n = 4
2.50	100.00	100.00
2.55	100.00	100.00
2.60	100.00	100.00
2.65	100.00	100.00

~~334-8.2.3.2 Pay Factors (PF): Pay Factors will be calculated by using the following equation:~~

$$\text{Pay Factor} = (55 + 0.5 \times \text{PWL}) / 100$$

~~The PWL is determined from Step (8) of 334-8.2.3.1.~~

~~334-8.3 Composite Pay Factor (CPF): A CPF for the LOT will be calculated based on the individual PFs with the following weighting applied: 40% Density (D), 25% Air Voids (V_a), 20% asphalt binder content (P_b), 10% Passing No. 200 (P_{200}) and 5% Passing No. 8 (P_8). Calculate the CPF by using the following formula:~~

$$\text{CPF} = [(0.400 \times \text{PF } D) + (0.250 \times \text{PF } V_a) + (0.200 \times \text{PF } P_b) + (0.100 \times \text{PF } P_{200}) + (0.050 \times \text{PF } P_8)]$$

~~Where the PF for each quality characteristic is determined in either 334-8.2.2 or 334-8.2.3, depending on the number of subplot tests. Note that the number after each multiplication will be rounded to the nearest 0.01.~~

~~The pay adjustment shall be computed by multiplying the CPF for the LOT by the bid price per ton.~~

~~334-8.4 Payment: Payment will be made under:~~

~~Item No. 334-1- Superpave Asphaltic Concrete per ton.~~

SECTION 337 ASPHALT CONCRETE FRICTION COURSES

337-1 Description.

Construct an asphalt concrete friction course pavement with the type of mixture specified in the Contract Documents, or when offered as alternates, as selected. This Section specifies mixes designated as FC-5, FC-9.5, and FC-12.5.

Obtain Superpave asphalt concrete friction course from a plant that is currently on the Department's Production Facility Listing. Producers seeking inclusion on the list shall meet the requirements of Section 105. Producers must meet the plant and equipment requirements of Section 320, as modified herein. Meet the general construction requirements of Section 330, as modified herein.

337-2 Materials.

337-2.1 General Requirements: Meet the requirements specified in Division III as modified herein. The Engineer will base continuing approval of material sources on field performance. Warm mix technologies (additives, foaming techniques, etc.) listed on the Department's website may be used in the production of the mix. The URL for obtaining this information is: <https://www.fdot.gov/materials/laboratory/asphalt/index.shtm>.

337-2.2 Asphalt Binder: Meet the requirements of Section 916, and any additional requirements or modifications specified herein for the various mixtures.

337-2.3 Coarse Aggregate: Meet the requirements of Section 901, and any additional requirements or modifications specified herein for the various mixtures.

337-2.4 Fine Aggregate: Meet the requirements of Section 902, and any additional requirements or modifications specified herein for the various mixtures.

337-2.5 Hydrated Lime: Meet the requirements of AASHTO M 303, Type 1. Provide certified test results for each shipment of hydrated lime indicating compliance with the specifications.

337-2.6 Liquid Anti-Strip Additive: Meet the requirements of 916-4 and be listed on the Department's Approved Product List (APL).

337-2.7 Fiber Stabilizing Additive (Required for FC-5 only): Use either a mineral or cellulose fiber stabilizing additive. Meet the following requirements:

337-2.7.1 Mineral Fibers: Use mineral fibers (made from virgin basalt, diabase, or slag) treated with a cationic sizing agent to enhance the disbursement of the fiber, as well as to increase adhesion of the fiber surface to the bitumen. Meet the following requirements for physical properties:

1. Size Analysis
 - Average fiber length: 0.25 inch (maximum)
 - Average fiber thickness: 0.0002 inch (maximum)
2. Shot Content (ASTM C612)
 - Percent passing No. 60 Sieve: 90 - 100
 - Percent passing No. 230 Sieve: 65 - 100

Provide certified test results for each batch of fiber material indicating compliance with the above tests.

337-2.7.2 Cellulose Fibers: Use cellulose fibers meeting the following requirements:

1. Fiber length: 0.25 inch (maximum)
 2. Sieve Analysis
 - a. Alpine Sieve Method
Percent passing No. 100 sieve: 60-80
 - b. Ro-Tap Sieve Method
Percent passing No. 20 sieve: 80-95
Percent passing No. 40 sieve: 45-85
Percent passing No. 100 sieve: 5-40
 3. Ash Content: 18% non-volatiles (plus or minus 5%)
 4. pH: 7.5 (plus or minus 1.0)
 5. Oil Absorption: 5.0% (plus or minus 1.0) (times fiber weight)
 6. Moisture Content: 5.0% by weight (maximum)
- Provide certified test results for each batch of fiber material indicating compliance with the above tests.

337-3 General Composition of Mixes.

337-3.1 General: Use a bituminous mixture composed of aggregate (coarse, fine, or a mixture thereof), asphalt binder, and in some cases, fibers and/or hydrated lime. Size, uniformly grade and combine the aggregate fractions in such proportions that the resulting mix meets the requirements of this Section.

337-3.2 Specific Component Requirements by Mix:

337-3.2.1 FC-5:

337-3.2.1.1 Aggregates: Use an aggregate blend which consists of either 100% crushed granite and/or granitic gneiss or 100% crushed limestone and/or crushed shell rock. Do not blend granite and/or granitic gneiss with limestone and/or shell rock for FC-5 mixtures.

A list of aggregates approved for use in friction course may be available on the Department's website. The URL for obtaining this information, if available, is: <https://mac.fdot.gov/>.

337-3.2.1.2 Asphalt Binder: Use an asphalt binder as called for in the Contract Documents meeting the requirements of Section 916. High polymer binder may be substituted in a mixture with PG 76-22 binder at no additional cost to the Department.

337-3.2.1.3 Hydrated Lime: Add the lime at a dosage rate of 1.0% by weight of the total dry aggregate to mixes containing granite or granitic gneiss from Georgia or Alabama. Add the lime at a dosage of 1.5% by weight of the total dry aggregate to mixes containing any amount of granite from Nova Scotia.

337-3.2.1.4 Liquid Anti-Strip Additive: Use a liquid anti-strip additive at the approved dosage rate as indicated on the APL for all mixtures.

337-3.2.1.5 Fiber Stabilizing Additive: Add either mineral fibers at a dosage rate of 0.4% by weight of the total mix, or cellulose fibers at a dosage rate of 0.3% by weight of total mix.

337-3.2.2 FC-9.5 and FC-12.5:

337-3.2.2.1: Aggregates: Use an aggregate blend of approved friction course aggregates that consists of crushed granite, crushed granitic gneiss, crushed limestone, crushed shell rock, or a combination of the above. As an exception, mixes that contain a minimum of 60% of approved friction course aggregates of crushed granite and/or crushed granitic gneiss may either contain: up to 40% fine aggregate from other sources of aggregate not

approved for friction courses or a combination of up to 20% RAP and the remaining fine aggregate from other sources of aggregate not approved for friction courses. Mixtures utilizing High Polymer (HP) binder are not allowed to contain RAP.

A list of aggregates approved for use in friction course may be available on the Department's website. The URL for obtaining this information, if available, is:
<https://mac.fdot.gov/>.

337-3.2.2.2: Asphalt Binder: Use an asphalt binder as called for in the Contract Documents meeting the requirements of Section 916. High polymer binder may be substituted in a mixture with PG 76-22 binder at no additional cost to the Department.

337-3.3 Grading Requirements:

337-3.3.1 FC-5: Use a mixture having a gradation at design within the ranges shown in Table 337-1.

Table 337-1 FC-5 Gradation Design Range									
3/4 inch	1/2 inch	3/8 inch	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200
100	85-100	60-75	15-25	5-10	--	--	--	--	2-5

337-3.3.2 FC-9.5: Meet the design gradation requirements for a SP-9.5 Superpave fine mix as defined in 334-3.2.2.

337-3.3.3 FC-12.5: Meet the design gradation requirements for a SP-12.5 Superpave fine mix as defined in 334-3.2.2.

337-4 Mix Design.

337-4.1 FC-5: The Department will design the FC-5 mixtures. Furnish the materials and all appropriate information (source, gradation, etc.) as specified in 334-3.2.7. The Department will have three weeks to design the mix.

The Department will establish the design binder content for FC-5 within the following ranges based on aggregate type:

Table 337-2 FC-5 Percent Binder Content	
Aggregate Type	Percent Binder Content
Crushed Granite and/or Granitic Gneiss	6.0 - 7.5
Crushed Limestone and/or Shell Rock	6.5 - 8.0

337-4.2 FC-9.5 and FC-12.5: Provide a mix design conforming to the requirements of 334-3.2 unless otherwise designated in the plans. Where the plans call for an FC-12.5, an FC-9.5 may be substituted for the FC-12.5 at no additional cost provided the thickness requirements of 334-1.4.1 are met.

337-4.3 Revision of Mix Design: For FC-5, FC-9.5 and FC-12.5, meet the requirements of 334-3.3. For FC-5, all revisions must fall within the gradation limits defined in Table 337-1.

337-5 Contractor's Process Control.

Provide the necessary process control of the friction course mix and construction in accordance with the applicable provisions of 320-2, 330-2 and 334-4.

The Engineer will monitor the spread rate periodically to ensure uniform thickness. Perform quality control procedures for daily monitoring and control of spread rate variability. If the spread rate varies by more than 5% of the spread rate set by the Engineer in accordance with 337-8, immediately make all corrections necessary to bring the spread rate into the acceptable range.

337-6 Acceptance of the Mixture.

337-6.1 FC-9.5 and FC-12.5: Meet the requirements of 334-5.

337-6.2 FC-5: Meet the requirements of 334-5 with the following exceptions:

- ~~1. The mixture will be accepted with respect to gradation (P_{3/8}, P₄, and P₈), and asphalt binder content (P_b) only.~~
- ~~2. Testing in accordance with AASHTO T 312 and FM 1-T 209 (and conditioning prior to testing) will not be required as part of 334-5.1.1.~~
3. The standard LOT size of FC-5 will be 2,000 tons, with each LOT subdivided into four equal sublots of 500 tons each.
- ~~4. The Between-Laboratory Precision Values described in Table 334-7 are modified to include (P_{3/8}, P₄, and P₈) with a maximum difference per FM 1-T 030 (Figure 2).~~
- ~~5. Table 334-6 (Master Production Range) is replaced by Table 337-3.~~
- ~~6. The mixture will be accepted on the roadway with respect to surface tolerance in accordance with 334-5.8. No density testing will be required for these mixtures.~~

Table 337-3 FC-5 Master Production Range	
Characteristic	Tolerance (1)
Asphalt Binder Content (%)	Target ± 0.60
Passing 3/8 inch Sieve (%)	Target ± 7.50
Passing No. 4 Sieve (%)	Target ± 6.00
Passing No. 8 Sieve (%)	Target ± 3.50

~~(1) Tolerances for sample size of n = 1 from the verified mix design~~

337-6.2.1 Individual Test Tolerances for FC-5 Production: Terminate the LOT if any of the following Quality Control (QC) failures occur:

- ~~1. An individual test result of a subplot for asphalt binder content does not meet the requirements of Table 337-3,~~
- ~~2. Two consecutive test results within the same LOT for gradation on any of the following sieve sizes (P_{3/8}, P₄, and P₈) do not meet the requirements of Table 337-3. The two consecutive failures must be on the same sieve.~~

~~When a LOT is terminated due to a QC failure, stop production of the mixture until the problem is resolved to the satisfaction of the QC Managers and/or Asphalt Plant Level II Technicians responsible for the decision to resume production after a QC failure, as identified in Section 105. In the event that it can be demonstrated that the problem can immediately be or already has been resolved, it will not be necessary to stop production. When a LOT is terminated, make all necessary changes to correct the problem. Do not resume production until appropriate corrections have been made. Inform the Engineer of the problem and corrections made to correct the problem. After resuming production, sample and test the material~~

~~to verify that the changes have corrected the problem. Summarize this information and provide it to the Engineer prior to the end of the work shift when production resumes.~~

~~In the event that a QC failure is not addressed as defined above, the Engineer's approval will be required prior to resuming production after any future QC failures.~~

~~Address any material represented by a failing test result in accordance with 334-5.9.5. Any LOT terminated under this Subarticle will be limited to a maximum Pay Factor of 1.00 (as defined in 337-12.3) for each quality characteristic.~~

337-7 Special Construction Requirements.

337-7.1 Hot Storage of FC-5 Mixtures: When using surge or storage bins in the normal production of FC-5, do not leave mixtures containing mineral fibers in the surge or storage bin for more than one hour. Do not leave mixtures containing cellulose fibers in the surge or storage bin for more than 1-1/2 hours.

337-7.2 Longitudinal Grade Controls for Open-Graded Friction Courses: On FC-5, use either longitudinal grade control (skid, ski or traveling stringline) or a joint matcher.

337-7.3 Temperature Requirements for FC-5:

337-7.3.1 Air Temperature at Laydown: Meet the requirements of Table 330-1.

337-7.3.2 Temperature of the Mix: Heat and combine the asphalt binder and aggregate in a manner to produce a mix having a temperature, when discharged from the plant, meeting the requirements of 320-6.3. Meet all requirements of 330-6.1.3 at the roadway. The target mixing temperature shall be established by the Contractor. The target mixing temperature may be reduced when using warm mix technology.

337-7.4 Compaction of FC-5: Provide two, static steel-wheeled rollers, with an effective compactive weight in the range of 135 to 200 pounds per linear inch (PLI), determined as follows:

$$PLI = \frac{\text{Total Weight of Roller (pounds)}}{\text{Total Width of Drums (inches)}}$$

(Any variation of this equipment requirement must be approved by the Engineer.) Establish an appropriate rolling pattern for the pavement in order to effectively seat the mixture without crushing the aggregate. In the event that the roller begins to crush the aggregate, reduce the number of coverages or the PLI of the rollers. If the rollers continue to crush the aggregate, use a tandem steel-wheel roller weighing not more than 135 PLI of drum width.

337-7.5 Temperature Requirements for FC-9.5 and FC-12.5:

337-7.5.1 Air Temperature at Laydown: Meet the requirements of Table 330-1.

337-7.5.2 Temperature of the Mix: Heat and combine the asphalt binder and aggregate in a manner to produce a mix having a temperature, when discharged from the plant, meeting the requirements of 320-6.3. Meet all requirements of 330-6.1.3 at the roadway.

337-7.6 Prevention of Adhesion: To minimize adhesion to the drum during the rolling operations, the Contractor may add a small amount of liquid detergent to the water in the roller.

At intersections and in other areas where the pavement may be subjected to cross-traffic before it has cooled, spray the approaches with water to wet the tires of the approaching vehicles before they cross the pavement.

337-7.7 Transportation Requirements of Friction Course Mixtures: Cover all loads of friction course mixtures with a tarpaulin, or waterproof cover, meeting requirements of 320-7.

337-8 Thickness of Friction Courses.

337-8.1 FC-9.5 and FC-12.5: The thickness of the friction course layer will be the plan thickness as shown in the Contract Documents. For construction purposes, the plan thickness will be converted to spread rate as defined in 334-1.4.

Plan quantities are based on a G_{mm} of 2.540, corresponding to a spread rate of 110 lb/yd²-in. Pay quantities will be based on the actual maximum specific gravity of the mix being used.

337-8.2 FC-5: The total thickness of the FC-5 layer will be the plan thickness as shown in the Contract Documents. For construction purposes, the plan thickness will be converted to spread rate based on the combined aggregate bulk specific gravity of the asphalt mix being used as shown in the following equation:

$$\text{Spread rate (lb/yd}^2\text{)} = t \times G_{sb} \times 40.5$$

Where: t = Thickness (in.) (Plan thickness)

G_{sb} = Combined aggregate bulk specific gravity from the verified mix design

The weight of the mixture shall be determined as provided in 320-3.2.

Plan quantities are based on a G_{sb} of 2.635, corresponding to a spread rate of 80 pounds per square yard for a 3/4 inch layer. Pay quantities will be based on the actual combined aggregate bulk specific gravity (G_{sb}) of the mix being used.

337-9 Special Equipment Requirements for FC-5.

337-9.1 Fiber Supply System: Use a separate feed system to accurately proportion the required quantity of fibers into the mixture in such a manner that uniform distribution is obtained. Interlock the proportioning device with the aggregate feed or weigh system to maintain the correct proportions for all rates of production and batch sizes. Control the proportion of fibers to within plus or minus 10% of the amount of fibers required. Provide flow indicators or sensing devices for the fiber system, interlocked with plant controls so that an alarm will be activated if introduction of the fiber fails. Stop production of the asphalt mixture and resume production once the fiber supply system is operating correctly.

When a batch plant is used, add the fiber to the aggregate in the weigh hopper or as approved and directed by the Engineer. Increase the batch dry mixing time by 8 to 12 seconds, or as directed by the Engineer, from the time the aggregate is completely emptied into the pugmill. Ensure that the fibers are uniformly distributed prior to the addition of asphalt binder into the pugmill.

When a drum-mix plant is used, add and uniformly disperse the fiber with the aggregate prior to the addition of the asphalt binder. Add the fiber in such a manner that it will not become entrained in the exhaust system of the drier or plant.

337-9.2 Hydrated Lime Supply System: For FC-5 mixes containing granite, use a separate feed system to accurately proportion the required quantity of hydrated lime into the mixture in such a manner that uniform coating of the aggregate is obtained prior to the addition of the asphalt binder. Add the hydrated lime in such a manner that it will not become entrained in the exhaust system of the drier or plant. Interlock the proportioning device with the aggregate feed or weigh system to maintain the correct proportions for all rates of production and batch sizes and to ensure that all mixture produced is properly treated with hydrated lime. Control the proportion of hydrated lime to within plus or minus 10% of the amount of hydrated lime

required. Provide flow indicators or sensing devices for the hydrated lime system, interlocked with plant controls so that an alarm will be activated if introduction of the hydrated lime fails. Stop production of the asphalt mixture and resume production once the hydrated lime supply system is operating correctly. The addition of the hydrated lime to the aggregate may be accomplished by Method A or B as follows:

337-9.2.1 Method A - Dry Form: Add hydrated lime in a dry form to the mixture according to the type of asphalt plant being used.

When a batch plant is used, add the hydrated lime to the aggregate in the weigh hopper or as approved and directed by the Engineer. Increase the batch dry mixing time by eight to twelve seconds, or as directed by the Engineer, from the time the aggregate is completely emptied into the pugmill. Uniformly distribute the hydrated lime prior to the addition of asphalt binder into the pugmill.

When a drum-mix plant is used, add and uniformly disperse the hydrated lime to the aggregate prior to the addition of the asphalt binder. Add the hydrated lime in such a manner that it will not become entrained in the exhaust system of the drier or plant.

337-9.2.2 Method B - Hydrated Lime/Water Slurry: Add the required quantity of hydrated lime (based on dry weight) in a hydrated lime/water slurry form to the aggregate. Provide a solution consisting of hydrated lime and water in concentrations as directed by the Engineer. Use a plant equipped to blend and maintain the hydrated lime in suspension and to mix it with the aggregates uniformly in the proportions specified.

337-9.3 Hydrated Lime Pretreatment: For FC-5 mixes containing granite, as an alternative to 337-9.2, pretreat the aggregate with hydrated lime prior to incorporating the aggregate into the mixture. Use a feed system to accurately proportion the aggregate and required quantity of hydrated lime, and mix them in such a manner that uniform coating of the aggregate is obtained. Control the proportion of hydrated lime to within plus or minus 10% of the amount required. Aggregate pretreated with hydrated lime in this manner shall be incorporated into the asphalt mixture within 45 days of pretreatment.

337-9.3.1 Hydrated Lime Pretreatment Methods: Pretreat the aggregate using one of the following two methods:

Pretreatment Method A - Dry Form: Add the required quantity of hydrated lime in a dry form to the aggregate. Assure that the aggregate at the time of pretreatment contains a minimum of 3% moisture over saturated surface dry (SSD) conditions. Utilize equipment to accurately proportion the aggregate and hydrated lime and mix them in such a manner as to provide a uniform coating.

Pretreatment Method B - Hydrated Lime/Water Slurry: Add the required quantity of hydrated lime (based on dry weight) in a hydrated lime/water slurry form to the aggregate. Provide a solution consisting of hydrated lime and water in a concentration to provide effective treatment. Use equipment to blend and maintain the hydrated lime in suspension, to accurately proportion the aggregate and hydrated lime/water slurry, and to mix them to provide a uniform coating.

337-9.3.2 Blending QC Records: Maintain adequate QC records for the Engineer's review for all pretreatment activities. Include as a minimum the following information (for each batch or day's run of pretreatment): pretreatment date, aggregate certification information, certified test results for the hydrated lime, aggregate moisture content prior to blending, as-blended quantities of aggregate and hydrated lime, project number, customer name, and shipping date.

337-9.3.3 Certification: In addition to the aggregate certification, provide a certification with each load of material delivered to the hot mix asphalt plant, that the material has been pretreated in conformance with these specifications. Include also the date the material was pretreated.

337-10 Failing Material.

Meet the requirements of 334-5.9. For FC-5, use the Master Production Range defined in Table 337-3 in lieu of Table 334-6.

337-11 Method of Measurement.

~~For the work specified under this Section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the weight of the mixture, in tons. For each pay item, the pay quantity will be based on the quantity placed on the project, limited to 110% of the adjusted plan quantity for the pay item. For dense graded mixes, the adjusted plan quantity will be determined by dividing the pay item's original plan quantity (including any Engineer approved quantity revisions) by the design G_{mm} stated in 334-1.4, then multiplying it by the tonnage-weighted average G_{mm} of the mixes used for the pay item. For open graded mixes, the adjusted plan quantity will be determined by dividing the pay item's original plan quantity (including any Engineer approved quantity revisions) by the design G_{sb} stated in 337-8.2, then multiplying it by the tonnage-weighted average G_{sb} of the mixes used for the pay item.~~

The bid price for the asphalt mix will include the cost of the asphalt binder (asphalt rubber (or polymer), asphalt cement, ground tire rubber, anti-stripping additive, blending and handling) and the tack coat application as directed in 300-8, as well as fiber stabilizing additive and hydrated lime (if required). There will be no separate payment or unit price adjustment for the asphalt binder material in the asphalt mix. The weight will be determined as provided in 320-3.2 (including the provisions for the automatic recordation system).

~~Prepare and submit a Certification of Quantities to the Engineer in accordance with 9-2.1.2.~~

337-12 Basis of Payment.

337-12.1 General: Price and payment will be full compensation for all the work specified under this Section (including the applicable requirements of Sections 320 and 330).

~~Based upon the quality of the material, a pay adjustment will be applied to the bid price of the material as determined on a LOT by LOT basis. The pay adjustment will be assessed by calculating a Pay Factor for individual quality characteristics. The pay adjustment will be computed by multiplying a Composite Pay Factor for the LOT by the bid price per ton.~~

~~**337-12.2 FC-9.5 and FC-12.5:** Meet the requirements of 334-8.~~

~~**337-12.3 FC-5:** Meet the requirements of 334-8 with the following exceptions:~~

~~1. Pay factors will be calculated for asphalt binder content and the percentages passing the 3/8 inch, the No. 4, and the No. 8 sieves only.~~

~~2. Table 337-4 replaces Table 334-8.~~

~~3. Table 337-5 replaces Table 334-9.~~

~~4. The Composite Pay Factor equation in 334-8.3 is replaced with the following:~~

$$\text{CPF} = [(0.20 \times \text{PF } 3/8 \text{ inch}) + (0.30 \times \text{PF No. 4}) + (0.10 \times \text{PF No. 8}) + (0.40 \times \text{PF AC})]$$

Table 337-4 Small Quantity Pay Table for FC-5		
Pay Factor	1-Test Deviation	2-Test Average Deviation
Asphalt Binder Content (%)		
1.05	0.00-0.25	0.00-0.18
1.00	0.26-0.50	0.19-0.35
0.90	0.51-0.60	0.36-0.42
0.80	>0.60	>0.42
3/8 inch Sieve (%)		
1.05	0.00-3.25	0.00-2.30
1.00	3.26-6.50	2.31-4.60
0.90	6.51-7.50	4.61-5.30
0.80	>7.50	>5.30
No. 4 Sieve (%)		
1.05	0.00-2.50	0.00-1.77
1.00	2.51-5.00	1.78-3.54
0.90	5.01-6.00	3.55-4.24
0.80	>6.00	>4.24
No. 8 Sieve (%)		
1.05	0.00-1.50	0.00-1.06
1.00	1.51-3.00	1.07-2.12
0.90	3.01-3.50	2.13-2.47
0.80	>3.50	>2.47

Table 337-5 Specification Limits for FC-5	
Quality Characteristic	Specification Limits
Asphalt Binder Content (%)	Target \pm 0.45
Passing 3/8 inch sieve (%)	Target \pm 6.00
Passing No. 4 sieve (%)	Target \pm 4.50
Passing No. 8 sieve (%)	Target \pm 2.50

337-12.4 Payment: Payment will be made under:

Item No. 337- 7- Asphaltic Concrete Friction Course per ton.

SECTION 338 VALUE ADDED ASPHALT PAVEMENT

338-1 Description.

Construct value added asphalt pavement consisting of asphalt concrete structural course and asphalt concrete friction course, subject to a three year warranty period after final acceptance of the Contract in accordance with 5-11.

For purposes of this Specification, the Responsible Party, as designated herein, is responsible for performance of the value added asphalt pavement including continued responsibility for performing all remedial work associated with pavement distresses exceeding threshold values determined in accordance with this Section, and as to which notice was provided to the Responsible Party.

The work specified in this Section will not be paid for directly, but will be considered as incidental to other Contract items.

338-2 Materials and Construction Requirements.

Meet the following requirements:

Hot Bituminous Mixtures - Plant, Methods and Equipment	Section 320
Hot Bituminous Mixtures - General Construction Requirements	Section 330
Superpave Asphalt Concrete	Section 334
Asphalt Concrete Friction Courses	Section 337

338-3 Responsible Party.

Prior to any value added asphalt pavement being placed on the project, the Contractor shall designate a Responsible Party to accept responsibility for maintaining the value added asphalt pavement, when remedial work is required. When the scope of the asphalt work is only milling and resurfacing, and there is no construction of the embankment, subgrade or base below the pavement included in the Contract, the Responsible Party may be either the Contractor or the Department approved subcontractor performing the value added asphalt pavement work. When the construction of the embankment, subgrade or base below the pavement is included in the Contract, in addition to the construction of the asphalt concrete structural course and asphalt concrete friction course, the Contractor shall be considered as the Responsible Party.

When the Responsible Party is a subcontractor, the subcontractor must be pre-qualified with the Department in the category of asphalt, and such designation must be made to the Department by the Contractor. The proposed subcontractor must execute and submit to the Department a form, provided by the Department, prior to or concurrent with the Contractor's request to sublet any value added asphalt pavement work, stipulating that the subcontractor assumes all responsibility as the Responsible Party for the value added asphalt pavement within the three-year warranty period. Failure to timely designate the Responsible Party will result in the Contractor being the Responsible Party unless otherwise agreed to in writing by the Department.

Upon final acceptance of the Contract in accordance with 5-11, the Contractor's responsibility for maintenance of all the work or facilities within the project limits of the Contract will terminate in accordance with 5-11; with the sole exception that the obligations set

forth in this Section for value added asphalt pavement will continue thereafter to be the responsibility of the Responsible Party as otherwise provided in this Section.

~~338-4 Statewide Disputes Review Board.~~

~~The Statewide Disputes Review Board in effect for this Contract will resolve any and all disputes that may arise involving administration and enforcement of this Specification. The Responsible Party and the Department acknowledge that use of the Statewide Disputes Review Board is required, and the determinations of the Statewide Disputes Review Board for disputes arising out of this Specification will be binding on both the Responsible Party and the Department, with no right of appeal by either party.~~

~~Meet the requirements of 8-3.~~

338-5 Pavement Evaluation and Remedial Work.

338-5.1 General: The Department's Pavement Condition Survey Program, along with observations by the Engineer, will be used as the basis for determining the extent and the magnitude of the pavement distresses occurring on the project. In the event the level of distress exceeds any of the threshold values defined below, remedial work as described in 338-5.5 by the Responsible Party will be required.

The Department will monitor the pavement for distresses and may require remedial action at any time. For evaluation purposes, the project will be subdivided into LOTs of 0.1 mile per lane. When the segment is less than 0.1 mile, the segment will be called a partial LOT. For purposes of threshold values and remedial work, partial lots and lots will be treated as lots. The Department may conduct a Pavement Condition Survey of the value added pavement following the final acceptance of the project, and at intermediate times throughout the warranty period with findings provided when considered by the Department to be the obligation of the Responsible Party.

The final survey, if determined by the Engineer to be necessary, will be conducted before the end of the warranty period with results provided to the Responsible Party for those conditions exceeding contract threshold values requiring remedial action that the Department believes to be an obligation of the Responsible Party. The Department will be responsible for all costs associated with the surveys.

If the survey findings, intermediate or final, are to be disputed by the Responsible Party, written notification must be submitted to the Engineer within 30 calendar days of the date of receipt of the information from the Department.

During the warranty period, the Responsible Party may monitor the project using nondestructive methods and may participate with the Department in the Pavement Condition Surveys upon request. The Responsible Party shall not conduct any coring, milling or other destructive methods without prior approval by the Engineer.

338-5.2 Category 1 Pavement: For purposes of this Specification, Category 1 pavement is defined as mainline roadways, access roads and frontage roads with a design speed of 55 mph and greater.

Threshold values and associated remedial work for Category 1 value added asphalt pavement are specified in Table 338-1.

**Table 338-1
Category 1 Pavements**

Type of Distress	Threshold Values	Remedial Work
Rutting ⁽¹⁾	Depth > 0.25 inch	Remove and replace the distressed LOT(s) to the full depth of all layers and to the full lane width ⁽²⁾
Ride ⁽³⁾	RN < 3.5	Remove and replace the friction course layer for the full length and the full lane width of the distressed LOT(s) ⁽⁴⁾
	IRI > 110 inches/mile	
Settlement/Depression ⁽⁵⁾	Depth ≥ 1/2 inch	Propose the method of correction to the Engineer for approval prior to beginning remedial work
Cracking ⁽⁶⁾	Cumulative length of cracking > 30 feet for Cracks > 1/8 inch	Remove and replace the distressed LOT(s) to the full depth of all layers, and to the full lane width ⁽⁷⁾
Raveling and/or Delamination affecting the Friction Course ⁽⁸⁾	Any length	Remove and replace the distressed area(s) to the full distressed depth and the full lane width for the full distressed length plus 50' on each end
Pot holes and Slippage Area(s) ⁽⁸⁾	Observation by Engineer	Remove and replace the distressed area(s) to the full distressed depth and the full lane width for the full distressed length plus 50' on each end
Bleeding ⁽⁹⁾	Loss of surface texture due to excess asphalt, individual area ≥ 10 sf.	Remove and replace the distressed area(s) to the full distressed depth and the full lane width for the full distressed length plus 50' on each end

(1) Rutting: Rut depth to be determined by Laser Profiler in accordance with the Flexible Pavement Condition Survey Handbook. For any LOT that cannot be surveyed by Laser Profiler, the rut depth will be determined manually in accordance with the Flexible Pavement Condition Survey Handbook, with the exception that the number of readings per LOT will be one every 20 feet. For a partial LOT, a minimum of three measurements not exceeding 20 feet apart will be made. When the average of the measurements obtained manually exceeds 0.30 inch or if any individual measurement exceeds 0.6 inch, remedial work will be required.

(2) Remedial Work for Rutting: The Contractor may propose removal and replacement of less than the full depth of all layers by preparation and submittal of a signed and sealed engineering analysis report, demonstrating the actual extent of the distressed area(s). Remedial work must be performed in accordance with Table 338-1 unless approved otherwise by the Engineer.

(3) Ride: Ride Number (RN) and International Roughness Index (IRI) to be established by Laser Profiler in accordance with FM 5-549. Use RN Warranty Threshold for projects that used RN for construction acceptance and International Roughness Index (IRI) Warranty Threshold for projects that used IRI for construction acceptance.

(4) If the deficient ride is due to underlying asphalt layers; base, subgrade, or embankment which were constructed by the Responsible Party, propose the method of correction to the Engineer for approval prior to beginning the remedial work.

(5) Settlement/Depression: Depth of the settlement/depression to be determined by a 6 foot manual straightedge.

(6) Cracking: Beginning and ending of 1/8 inch cracking will be determined as the average of three measurements taken at one foot intervals. The longitudinal construction joint at the lane line will not be considered as a crack.

(7) Remedial Work for Cracking: The Contractor may propose removal and replacement of less than the full depth of all layers by preparation and submittal of a signed and sealed engineering analysis report, demonstrating the actual extent of the distressed area(s). Remedial work must be performed in accordance with Table 338-1 unless approved otherwise by the Engineer.

(8) Raveling, Delamination, Pot holes, Slippage: As defined and determined by the Engineer in accordance with the examples displayed at the following URL: <https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Pavement.shtm>

(9) Bleeding: Bleeding to be defined and determined by the Engineer in accordance with the examples displayed at the following URL: <https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Pavement.shtm>

338-5.3 Category 2 Pavement: For purposes of this Specification, Category 2 pavement is defined as mainline roadways, access roads and frontage roads with a design speed less than 55 mph, approach transition and merge areas at toll booths, ramps, acceleration and deceleration lanes (including tapers), turn lanes, parking areas, rest areas, weigh stations, and agricultural inspection stations.

Threshold values and associated remedial work for Category 2 value added asphalt pavement are specified in Table 338-2.

Table 338-2 Category 2 Pavements		
Type of Distress	Threshold Values	Remedial Work
Rutting ⁽¹⁾	Measured by Laser Profiler: See Table 338-1	See Table 338-1
	Manual Measurement: Avg. Depth > 0.4 inch	Remove and replace 1.5 inch ^(1a) the full lane width for the area plus 50 feet
Cracking	Cumulative length of cracking > 300 feet for Cracks > 1/8 inch	See Table 338-1
Surface Deterioration ⁽²⁾	See Table 338-1	See Table 338-1
Settlement/Depression ⁽³⁾	Depth ≥ 1/2 inch	See Table 338-1

(1) ~~Rutting: Rut depth to be determined by Laser Profiler in accordance with the Flexible Pavement Condition Survey Handbook.~~ For any LOT that cannot be surveyed by the Laser Profiler, the rut depth will be determined manually in accordance with the Flexible Pavement Condition Survey Handbook, with the exception that the number of readings per LOT will be one every 20 feet. For partial LOT, minimum of three measurements not exceeding 20 feet apart will be checked. When the average of the measurements obtained manually exceeds 0.40 inch, or if any individual measurement exceeds 0.6 inch, remedial work will be required.

(1a) If pavement has an open graded friction course, remove and replace 2.0 inches.

(2) Surface Deterioration: As used in Table 338-2, Surface Deterioration includes Raveling and/or Delamination affecting the Friction Course; Pot holes; Slippage Area(s); and Bleeding; all as defined and footnoted in Table 338-1.

(3) Settlement/Depression: Depth of the settlement/depression to be determined by a 6 foot manual straightedge.

338-5.4 Category 3 Pavement: For purposes of this Specification, Category 3 pavement is defined as bicycle paths, walking paths, median crossovers, shoulders and other areas as determined by the Engineer.

Threshold values and associated remedial work for Category 3 value added asphalt pavement are specified in Table 338-3.

Table 338-3 Category 3 Pavements		
Type of Distress	Threshold Values	Remedial Work
Rutting	N/A	N/A
Cracking	Cumulative length of cracking > 500 feet for Cracks > 1/8 inch	See Table 338-1
Surface Deterioration ⁽¹⁾	See Table 338-1	See Table 338-1
Settlement/Depression ⁽²⁾	Depth \geq 1/2 inch	See Table 338-1
(1) Surface Deterioration: As used in Table 338-3, Surface Deterioration includes Raveling and/or Delamination affecting the Friction Course; Pot holes; Slippage Area(s); and Bleeding; all as defined and footnoted in Table 338-1. Raveling of FC-5 for Category 3 Pavements is excluded from this requirement.		
(2) Settlement/Depression: Depth of the settlement/depression to be determined by a 6-foot manual straightedge.		

338-5.5 Remedial Work: The Responsible Party will perform all necessary remedial work described within this Section at no cost to the Department. If the pavement distresses exceed threshold values and it is determined that the cause of the distress is due to the embankment, subgrade, base or other activities performed by the Contractor, the Responsible Party will be responsible for performing all remedial work associated with the pavement distress. Should an impasse develop in any regard as to the need for remedial work or the extent required, the Statewide Disputes Review Board will render a final decision by majority vote.

Remedial work will not be required if any one of the following conditions is found to apply:

a. Determination that the pavement thickness design as provided by the Department is deficient. The Department will make available a copy of the original pavement thickness design package and design traffic report to the Responsible Party upon request. The Responsible Party is responsible for performing all remedial work associated with the pavement distress if the pavement design is provided by the Contractor.

b. Determination that the Accumulated ESALs (Number of 18 Kip Equivalent Single Axle Loads in the design lane) has increased by 25% or more than the Accumulated ESALs used by the Department for design purposes for the warranty period for the pavement design life. In calculating ESALs, the average annual daily traffic (AADT) will be obtained from the Department's traffic count data and the T24 (percent heavy trucks during a 24 hour period) will be obtained from the Department's traffic classification survey data.

c. Determination that the deficiency was due to the failure of the existing underlying layers that were not part of the Contract work.

d. Determination that the deficiency was the responsibility of a third party or its actions, unless the third party was performing work included in the Contract.

e. Determination that raveling of open-graded friction course (FC-5) in a turn lane, turn out, or median cross over was caused by turning movements and not a materials or construction issue.

If a measured distress value indicates remedial action is required per Table 338-1, Table 338-2 and/or Table 338-3, the Responsible Party must begin remedial work within 45 calendar days of notification by the Department or a ruling of the Statewide Disputes Review Board. The Disputes Review Board will determine the allowable duration for the completion of the remedial work, but not to exceed six months.

In the event remedial action is necessary and forensic information is required to determine the source of the distress, the Department may core and/or trench the pavement. The Responsible Party will not be responsible for damages to the pavement as a result of any forensic activities conducted by the Department.

As applicable to distress criteria for rutting, ride and cracking for Category 1 and Category 2 pavements, when two LOTs requiring remedial action are not separated by three or more LOTs not requiring remedial action, the remedial work shall be required for the total length of all such contiguous LOTs, including the intermediate LOTs not requiring remedial action.

Additionally, for Category 1 and Category 2 pavements, where such areas of remedial action are required due to raveling, slippage or bleeding are separated by less than 1,000 feet, the remedial work will be required for the entire area contiguous to the distressed areas, including intermediate areas otherwise requiring no remedial action.

The Responsible Party has the first option to perform all remedial work that is determined by the Department to be their responsibility. If, in the opinion of the Engineer, the problem poses an immediate danger to the traveling public and the Responsible Party cannot provide temporary mitigation for the defect within 4 hours of written notification and restore the pavement to its original design condition within 72 hours of written notification, the Engineer has the authority to have the remedial work performed by other forces. Temporary mitigation includes the use of traffic control systems such as barricades, drums, or other approved devices to secure the area including lane closures if necessary, and constructing temporary repairs making it safe for the roadway user until the defect can be restored to its original design condition. The Responsible Party is responsible for all incurred costs of the work performed by other forces should the problem (remedial work) be determined to be the responsibility of the Responsible Party. Remedial work performed by other forces does not alter any of the requirements, responsibilities or obligations of the Responsible Party.

The Responsible Party must complete all remedial work to the satisfaction of the Engineer. Any disputes regarding the adequacy of the remedial work will be resolved by the Statewide Disputes Review Board. Approval of remedial work does not relieve the Responsible Party from continuing responsibility under the provisions of this Specification.

Notify the Engineer in writing prior to beginning any remedial work. Meet the requirements of the Specifications when performing any remedial work. Perform all signing and traffic control in accordance with the current edition of the Department's Standard Plans. Provide maintenance of traffic during remedial work at no additional cost to the Department. Lane closure restrictions listed in the original Contract will apply to remedial work. Written requests to obtain permission for lane closures for either forensic investigation or remedial work must be made to the Engineer 48 hours in advance of any lane closures. Do not perform any lane closures until written permission is given by the Engineer.

If remedial work necessitates a corrective action to overlying asphalt layers, pavement markings, signal loops, adjacent lanes, roadway shoulders, or other affected Contract work, perform these corrective actions using similar products at no additional cost to the Department.

338-6 Responsible Party's Failure to Perform.

Should the Responsible Party fail to timely submit any dispute to the Statewide Disputes Review Board, fail to satisfactorily perform any remedial work, or fail to compensate the Department for any remedial work performed by the Department and determined to be the Responsible Party's responsibility in accordance with this Specification, the Department will

suspend, revoke or deny the Responsible Party's certificate of qualification under the terms of Section 337.16(d)(2), Florida Statutes, for a minimum of six months or until the remedial work has been satisfactorily performed (or full and complete payment for remedial work performed by others made to the Department), whichever is longer. Should the Responsible Party choose to challenge the Department's notification of intent for suspension, revocation or denial of qualification and the Department's action is upheld, the Responsible Party will have its qualification suspended for an additional minimum of six months.

The remedial work is not an obligation of the Contractor's bond required by Section 337.18, Florida Statutes.

JEFFERSON COUNTY
BOARD OF COUNTY COMMISSIONERS



**INTENT AND GENERAL
INFORMATION**

INVITATION TO BID NO: 01-4102-150323

Jefferson County Road Bond Paving Project

BID ADVERTISE DATE: 03/15/2023

BID RELEASE DATE: 03/15/2023

RESPONSE DUE DATE AND TIME: 04/13/2023 @ 4:00 PM EST

MAIL OR DELIVER RESPONSE TO:

(hand-delivery or express mail services)

Jefferson County Board of County Commissioners

ATTN: Project No: 01-4102-150323

445 W. Palmer Mill Rd.

Monticello, FL 32344

Contact:

COUNTY MANAGER'S OFFICE

Shannon Metty

445 W. Palmer Mill Rd.

Monticello, FL 32344

850-997-3083

smetty@jeffersoncountyfl.gov

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INTENT AND GENERAL INFORMATION

Jefferson County, Florida through Invitation to ITB No. **01-4102-150323** is soliciting bids from qualified businesses registered to do business in the State of Florida to provide Jefferson County Road Bond Paving Project. The scope of the work will include paving and grading 40 secondary roads in Jefferson County.

It is the intent of this ITB to enter into a Contract with the successful Bidder to begin upon approval of the Board of County Commissioners and the issuance of a Notice to Proceed (NTP), for the Work.

Firms interested in preparing a bid for this ITB must complete the requirements set forth in this ITB, its attached documents and documents incorporated by reference (collectively referred to as the "ITB"). Under the bid process of Jefferson County, the conditions set forth herein are binding on the Bidder as confirmed by the signature of a person with legal authority to bind the Bidder on the cover letter transmitting its Bid to the County in response to this ITB.

If this ITB is amended, the County Manager's Office will issue an appropriate addendum to the ITB. Any addendums will be posted on the County Website. If an addendum is issued, all terms and conditions of this ITB that are not specifically modified in the addendum shall remain unchanged. An addendum to this ITB will be issued if any of the date and/or time change, unless the date(s) fall after the date the ITB Bid(s) are due. Specific dates/time will be determined at each phase.

It is understood and the Bidder hereby agrees to be solely responsible for obtaining all materials and determining the best methods that will be utilized to meet the intent of the specifications of this ITB. Failure by the Bidder to acquaint themselves with the available information will not relieve them from responsibility for estimating properly the difficulty or cost of successfully performing the work. Bidders are expected to examine the specifications and all instructions pertaining to the required commodities/services. Failure to do so will be at Bidder's risk.

The County reserves the right to reject any Bid found to be non-responsive, vague, or non-conforming. The County also reserves the right at any time to withdraw all or part of this ITB in order to protect its best interests. The County is not liable for any costs incurred by the Bidder in preparing its response, nor is a response an offer to contract with any Bidder. Pursuant to Chapter 119, Florida Statutes (FS), all responses are subject to Florida's public records laws.

While every effort is made to ensure the accuracy and completeness of information in the ITB, it is recognized that the information may not be complete in every detail and that all work may not be expressly mentioned in the ITB. It is the responsibility of the Proposer to include in its Proposal all pertinent information in accordance with the objectives of the ITB.

The ITB and any addenda issued are available on the Jefferson County website at <http://www.jeffersoncountyfl.gov> or by contacting the County at 850-997-3083. All questions

pertaining to this ITB should be submitted in writing in accordance with the ITB instructions set forth in Section 1.0 of the ITB.

ADA –Special Accommodations: Any person requiring accommodations by the County due to a disability should call the County Manager’s Office at 850-997-3083 at least five (5) working days prior to any pre-response Conference, response opening, or meeting. If you are hearing or speech impaired, please contact the County Manager’s Office by the Florida Relay Service, which can be reached at 1-800-955-8771 (TTY).

SECTION 1.0 SCHEDULE OF EVENTS

Failure to comply with this or any other paragraph of this ITB shall be sufficient reason for rejection of the bid.

All times listed in the Schedule of Events are Eastern Standard Time (EST).

<i>Event</i>	<i>Date/Time</i>
Bid Advertisement Date	March 15, 2023
Release of Invitation to Bid	March 15, 2023
Bid Questions Due from Prospective Bidder	April 6, 2023
Responses to bid questions due	April 10, 2023
BIDS DUE TO BOCC	April 13, 2023 @ 4:00 P.M.
Posting of Intended Award	April 14, 2023
Board Consideration of Intended Award	April 20, 2023
Posting of Notice of Award	April 21, 2023

SECTION 2.0 BID QUESTIONS

- 2.1 All inquiries and questions concerning this ITB, must be in writing (e-mail is acceptable), received in accordance with Section 1.0 Schedule of Events, and must be directed to: Shannon Metty, County Manager smetty@jeffersoncountyfl.gov or mailed to 445 W. Palmer Mill Rd., Monticello, FL 32344.

Questions and responses will be posted on the County’s Website and, if necessary, an Addendum or Addenda will be issued.

SECTION 3.0 SCOPE OF WORK

- 3.1 The scope of the work will include paving and grading 40 secondary roads in Jefferson County.

SECTION 4.0 RECEIPT AND OPENING OF THE BID

- 4.1 All Bids received will be recorded and date stamped at the Jefferson County office located at 445 W. Palmer Mill Rd., Monticello FL. The responsibility for submitting the Bid to the County Manager’s Office no later than the specified time and date is solely that of the

Bidder. The County will in no way be responsible for delays in mail delivery or delays caused for any other occurrence.

- 4.2 Submission of Bids by fax or other electronic means will not be accepted. Late Bids will not be accepted, i.e., any Bid submitted/received after **4:00 P.M. April 13, 2023** unless otherwise changed through the issuance of an addendum to this ITB.
- 4.3 Any bids received after the stated time and date will not be considered. Late bids shall not be opened at the public opening. Arrangements may be made for the unopened bid to be returned at the Bidder's request and expense.
- 4.4 A Bid may be withdrawn or modified only by written notification from the Bidder prior to the time fixed for the opening of Bids. Negligence on the part of the Bidder in preparing the Bid confers no right for withdrawal of the Bid after it has been opened
- 4.5 All timely bids will be opened on the date and time indicated in Section 1.0, Schedule of Events (i.e. date Bids are due) or as modified by addendum.

SECTION 5.0 CONE OF SILENCE

- 5.1 A Cone of Silence will be in effect for this ITB beginning with the advertisement date of **March 15, 2023** and will terminate upon issuance of Notice of Award. A violation of the "Cone of Silence" renders any award voidable at the sole discretion of the County Manager with approval from the Board of County Commissioners and may subject the potential Respondent/Consultant or representative to debarment.
- 5.2 A prospective Respondent shall not have any communication with any of the Board of County Commissioners nor candidates for County Commission, nor any employees from the Jefferson County Government, which includes the Jefferson County Sheriff's Office, nor any members of the Evaluation Committee, either individually or collectively, concerning this project. Contractor/Respondent or representative who intend to submit qualifications, or have submitted qualifications, for this project are hereby placed on formal notice that they are not to contact County personnel for such purposes as holding meetings of introduction, meals, or meetings relating to the selection process outside of those specifically scheduled by the County. Any such lobbying activities may cause immediate disqualification for this project.
- 5.3 All requests for interpretations or clarifications shall be in writing, addressed to the contact person as shown in Section 2.0, Bid Questions. All such request for interpretations or clarifications must be received in writing in accordance with Section 1.0, Schedule of Events. Any and all such interpretations and supplemental instructions shall be in the form of a written addendum which, if issued, shall be posted on the

County's website on the date indicated in Section 1.0, Schedule of Events. Such written addenda shall be binding on the Bidder and shall become a part of the ITB Document(s).

- 5.4 The Cone of Silence shall not apply to:
- a) Communications at the pre-bid meeting.
 - b) Communications during contract negotiations between designated County employees and the intended Vendor.
 - c) Communication with a Vendor by a County employee following Competitive Procurement opening to clarify the Vendor's Response.
 - d) Communication following the filing of a challenge to a Competitive Procurement between the protesting Vendor or the selected Vendor and the County Manager's Office, and County Attorney's Office concerning the challenge.

SECTION 6.0 BID RESPONSE REQUIREMENTS

- 6.1 The use of the terms "shall," "must," or "will" (except to indicate simple futurity) in this ITB indicates a mandatory requirement or condition. The words "should" or "may" in this ITB indicate desirable attributes or conditions, but are permissive in nature. Deviation from, or omission of, such a desirable feature will not by itself cause rejection of a Bid.
- 6.2 Bids not meeting all material requirements of this request or which fail to provide all required information, documents, or materials such as required forms, bonds, etc., will be rejected as non-responsive. Material requirements of the bid are those set forth as mandatory, or without which an adequate analysis and comparison of replies is impossible, or those which affect the competitiveness of replies or the cost to the County.
- 6.3 The County reserves the right to determine which Bids meet the material requirements of the ITB and which Bids are responsible and/or responsive. Further, the Board of County Commissioners may reject any and all Bids and seek new Bids when it is in the best interest of the County to do so.
- 6.4 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be provided on the Bid Form, for a Bid by a/an:
- a. Partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be provided on the Bid Form.
 - b. Limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.

- c. Individual shall show the Bidder's name and business address.
 - d. Bid by a joint venture shall be executed by each joint venture member in the manner indicated on the Bid form. The official address of the joint venture must be provided on the Bid Form.
- 6.5 All names shall be printed in ink below the signatures.
- 6.6 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers and dates of which shall be filled in on the Bid form.
- 6.7 The postal and email addresses and telephone number for communication regarding the Bid shall be shown.
- 6.8 A Bidder seeking to do business with the County shall, at the time of submitting a Bid, be appropriately registered with the Department of State in accordance with the provisions of Chapters 605, 607, 617, or 620 Florida Statutes, as applicable. For further information on required filing and forms, please go to the following sites: <http://sunbiz.org/index.html> or <https://www.dos.myflorida.com/>.
- The Bid shall contain evidence of Bidder's authority and qualification to do business in the state or locality where the Project is located or Bidder shall covenant in writing to obtain such qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Proposal Transmittal Form (Bid Form 1).
- 6.9 The Bid should address the requirements in a clear and concise manner in the order stated herein.
- 6.10 Bids must include the information/documents specified in the Bid Proposal Forms. Bids that do not adhere to the format or include the requested information/documents may be considered incomplete and therefore unresponsive by the County.
- 6.11 The County reserves the right to seek additional/supplemental representation on specific issues as needed.
- 6.12 Bids should be typed or clearly written. No changes in or corrections to Bids will be allowed after the Bids are opened.
- 6.13 The signer of the Bid must declare that the Bid in all respects fair and in good faith without collusion or fraud and that the signer of the Bid has the authority to bind the principal Bidder.

- 6.14 The County shall not be liable for any costs incurred by Bidder prior to entering into a contract. Therefore, all Bidders are encouraged to provide a simple, straightforward, and concise description of their ability to meet the ITB requirements.

SECTION 7.0 EVALUATION OF BIDS AND SELECTION PROCESS

- 7.1 Bidders who satisfy the required qualifications and are deemed responsible Bidders and who timely submit a responsive Bid will be considered by the County. Bids received from prospective Bidders who have been suspended or debarred will not be accepted or considered. A Bidder whose Bid, past performance, or current status that does not reflect the capability, integrity or reliability to perform fully and in good faith the requirements of the Contract may be rejected as non-responsible.
- 7.2 The county may consider the following factors in addition to price when determining whether a Bidder is responsive and responsible:
- a. Ability, capacity and skill of the Bidder to perform the contract.
 - b. Whether the Bidder can perform the contract within the time specified, without delay, interference, or conflict with current workload.
 - c. Character, integrity, reputation, judgment, experience and efficiency of the Bidder.
 - d. Quality of performance of previous contracts.
 - e. Previous and existing compliance by the vendor with laws and regulations relating to the contract.
 - f. Sufficiency of the financial resources and ability of the vendor to perform the contract or provide the Work.
 - g. Quality, availability and adaptability of the supplies or contractual services to the particular use required.
 - h. Ability of the Bidder to provide further maintenance and service for the use of the subject of the contract, if applicable.
 - i. Number and scope of conditions attached to the bid or quote.
 - j. Qualifications of personnel, licensing and corporate qualifications.
 - k. Evidence of improper litigation.
 - l. Use of one or more subcontractors with a record of poor performance.
- 7.2.1 For the purposes of this section, the county may consider evidence from the ten-year period preceding the subject bid.
- 7.2.2 In the event the lowest, responsive, responsible bid for a construction project exceeds the architectural or engineering cost estimates, the County Manager or designee is authorized, when time or economic considerations preclude rebidding of work of a reduced scope, to negotiate an adjustment of the scope of work with the lowest,

responsive, responsible bidder, in order to bring the bid within the amount of available funds. After award of this Bid the County reserves the right to add or delete items/services at prices to be negotiated at the time of addition or deletion. At Contract renewal time(s) or in the event of significant industry wide market changes, the County may negotiate justified adjustments such as price, terms, etc., if in its sole judgment, the County considers such adjustments to be in its best interest.

- 7.3 The County reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. The County further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be non-responsible. The County also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.
- 7.3.1 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 7.3.2 In evaluating Bids, the County will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 7.3.3 In evaluating Bidders, the County will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions. The apparent low, responsible, responsive bidder will be required to provide a list of similar projects completed in the last five years including the project description, location, dates, and team members, an organizational profile of the company with a list of professional staff, years with the company, a statement of qualifications and copies of professional certifications and licenses held prior to any Board of County Commissioners consideration of an award. Failure to provide this information will result in the Bidder being designated not responsible.
- 7.3.4 The County may conduct such investigations as the County deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the contract Documents. Any Bidder or sub-contractor that will have access to County facilities or property may be required to be screened to a level that may include but is not limited to fingerprinting and a statewide criminal background check. There may be fees associated with these procedures. These costs are the responsibility of the Bidder or sub-contractor.

- 7.3.5 If the Contract is to be awarded, the County will award the Contract to the responsible Bidder whose Bid, conforming with all the material terms and conditions of the Instructions to Bidders, is lowest, price and other factors considered. If detailed in the bid form, factors such as discounts, transportation costs, and life cycle costs may be used to determine which bidder, if any, is to offer the award.
- 7.4 Responses to this ITB not meeting the requirements specified herein will be considered non-responsive or not responsible, as applicable. In the best interest of the County, the Jefferson Board of County Commissioners' reserve the right to reject any and all responses or waive any minor irregularity or technicality in responses received. Respondents are cautioned to make no assumptions unless their response has been deemed responsive.
- 7.5 Whenever two or more Bids, which are equal with respect to price, quality and service, are received for procurement of commodities or contractual services, from responsive and responsible Bidders the following steps will be taken to establish the award to the lowest Bidder. This method shall be used for all ties.

Step 1 - Local Business:

Between a Local Business and a Non-Local Business, a Contract award, or the first opportunity to negotiate, as applicable, shall be made to the Local Business.

Step 2 Drug Free Workplace:

At the conclusion of step 1 if all is equal, the Bidder with a Drug Free Workplace program shall be given preference, over a Bidder with no Drug Free Workplace program. The Contract award, or the first opportunity to negotiate, as applicable, shall be made to the Bidder with the Drug Free Workplace program. In order to have a drug free workplace program, a business shall comply with the requirements of § 287.087, F.S.

Step 3 Coin Flip:

At the conclusion of Step 1, and Step 2 if all is equal, the Contract award, or the first opportunity to negotiate, as applicable, shall be determined by the flip of a coin to determine final outcome.

- 7.5.1 When the tie has been broken pursuant to the above procedures, the Contract award, or the first opportunity to negotiate, as applicable, shall be made.
- 7.5.2 If an award or negotiation is unsuccessful with the initial Bidder, award or negotiations may commence with the next highest Bidder, utilizing the tiebreaker steps above to make the determination of next lowest Bidder if necessary.
- 7.6 When the County gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Contract with the

other Contract Documents which are identified in the Contract as attached thereto. Within ten (10) days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Contract and attached documents to the County. The County shall deliver one fully signed counterpart to Successful Bidder.

SECTION 8.0 INTENT TO AWARD AND CONTRACT EXECUTION

- 8.1 The County reserves the right to incorporate the successful Bid into the Contract. Failure of a Bidder to accept this obligation may result in the cancellation of the award. The Contract document and its exhibits are included as Appendix B, which is attached hereto and incorporated herein by reference.
- 8.2 The construction, interpretation, and performance of this ITB, and all transactions under it shall be governed by the laws of the State of Florida and Jefferson County. The Contract shall include all terms and conditions of this ITB, any addenda, response, and the County's contract issued as a result of this ITB.
- 8.3 The County reserves the right to make award(s) by individual item, group of items, all or none, or a combination thereof. The County reserves the right to reject any and all bids or to waive any minor irregularity or technicality in the bids received. Award will be made to the lowest responsible and responsive Bidder(s) within the category chosen for basis of award. The County reserves the right to award to one or multiple Bidders at its discretion.
- 8.4 The Successful Bidder will be required to assume responsibility for all services offered in the Bid. The County will consider the Successful Bidder to be the sole point of contact with regard to contractual matters, including payment on any or all charges.
- 8.5 After successful posting of the award for 72 hours, the Successful Bidder will be required to enter into the Contract with the County.

SECTION 9.0 STANDARD TERMS AND CONDITIONS (STAC)

- 9.1 Definitions
- 9.2 Florida Public Records Law and Confidentiality
- 9.3 Procurement Challenges
- 9.4 Construction and Venue
- 9.5 Contract
- 9.6 Insurance Requirements and Bond Requirements

9.1 Definitions

General terms used throughout this ITB are provided below. Additional definitions may be provided as applicable to a specific section or subject matter.

Award means the determination of a successful Bidder(s) in response to this ITB, resulting in an offer of a Contract to perform the services pursuant to the ITB and their bid.

Bid Bond means an insurance agreement in which a third party agrees to be liable to pay a certain amount of money in the event that a selected vendor fails to accept the contract as bid. If required, a bid bond/deposit shall be for 5% of the amount of the bid.

Bidder means any firm, individual or organization submitting a Bid in response to this ITB.

Cone of Silence is the prohibition of any communication between a Vendor and a County officer, employee, or agent regarding a pending Competitive Procurement, except for such communications at a duly noticed Pre-Proposal Conference or oral presentation, or with the County's designated representative noted in the Competitive Procurement documents.

Contract means the legally enforceable document agreed to and signed by the County and successful Bidder(s) (collectively referred to as the "Parties"), a draft Contract is attached hereto as Appendix B and incorporated herein.

County means the Jefferson Board of County Commissioners (BOCC) and its employees.

ITB means this document, its attachments and any document hereinafter incorporated by reference.

Local Business means a business that has a current business tax receipt issued by Jefferson County, if required, and has its principal office located within Jefferson County currently and for the six (6) month period immediately preceding submission of a response to a Competitive Procurement.

Notice to Proceed (NTP) Authorization/letter that will inform the Contractor of the date that Contractor can start work. NTP start date will be calculated Fifteen (15) calendar days from the date of the Notice to Award.

Successful Bidder means a Bidder who is Awarded a Contract as result of the Bid submitted in response to this ITB.

Payment Bond means a bond which assures that the subcontractors, laborers, and material suppliers will receive payment for the services and products used to fulfill the contract and is due Fifteen (15) days after execution of Contract by the Board of County Commissioners for Jefferson County.

Performance Bond means a bond to assure satisfactory performance of the terms of the contract and is due Fifteen (15) days after execution of Contract by the Board of County Commissioners for Jefferson County

Work or SOW means the scope of work and/or services.

9.2 Florida Public Records Law and Confidentiality

- 9.2.1. By submitting a Bid in response to this ITB, a Bidder acknowledges that the County is a governmental entity subject to the Florida Public Records Law (Chapter 119, Florida Statutes). The Bidder further acknowledges that any materials or documents provided to

the County may be “public records” and, as such, may be subject to disclosure to, and copying by, the public unless otherwise specifically exempt by Law.

- 9.2.2 Should the Bidder provide the County with any materials which it believes, in good faith, contain information that would be exempt from disclosure or copying under Florida Law; the Bidder shall indicate that belief by typing or printing, in bold letters, the phrase “PROPRIETARY INFORMATION” on the face of each affected page of such materials. The Bidder shall submit to the County both a complete copy of such material and a redacted copy in which the exempt information on each affected page, and only such exempt information, has been rendered unreadable. In the event a Bidder fails to submit both copies of such material, the copy submitted will be deemed a public record subject to disclosure and copying regardless of any annotations to the contrary on the face of such document or any page(s) thereof.
- 9.2.3 Should any person request to examine or copy any material so designated and provided the affected Bidder has otherwise fully complied with this provision, the County, in reliance on the representations of the Bidder, will produce for that person only the redacted version of the affected materials. If the person requests to examine or copy the complete version of the affected material, the County shall notify the Bidder of that request, and the Bidder shall reply to such notification, in writing that must be received by the County no later than 4:00 p.m., EST, of the County business day following Bidder’s receipt of such notification, either permitting or refusing to permit such disclosure or copying.
- 9.2.4 Failure to provide a timely written reply shall be deemed consent to disclosure and copying of the complete copy of such material. If the Bidder refuses to permit disclosure or copying, the Bidder agrees to, and shall, hold harmless and indemnify the County for all expenses, costs, damages, and penalties of any kind whatsoever which may be incurred by the County, or assessed or awarded against the County, in regard to the County’s refusal to permit disclosure or copying of such material. If litigation is filed in relation to such request and the Bidder is not initially named as a party, the Bidder shall promptly seek to intervene as a defendant in such litigation to defend its claim regarding the confidentiality of such material. This provision shall take precedence over any provisions or conditions of any Bid submitted by a Bidder in response to this ITB and shall constitute the County’s sole obligation with regard to maintaining confidentiality of any document, material, or information submitted to the County.

9.3 Procurement Challenges

Any Bidder who desires to formally protest may do so on the grounds of material irregularities in the bid procedure, or material irregularities in the evaluation of the bid. Such notice of intent of bid challenge shall be made in writing and delivered to the County within 72 hours after posting of the intended recommendation of award. A formal written bid challenge shall be filed within 5 working days in the County Manager’s Office after the date on which the notice of intent of bid challenge has been submitted. Failure to file a timely notice of intent of bid challenge or failure to file a timely formal written bid challenge shall constitute a waiver of bid challenge proceedings. Bidders who do not submit a legitimate bid do not have standing to file a protest. Furthermore, bidders who

would not be awarded the subject contract even if the protest were successful lack standing.

The notice of intent of bid challenge shall contain at a minimum: the name of the bidder, the bidder's address, fax number, and phone number, the name of the bidder's representative to whom notices may be sent, the name and bid number of the solicitation, and a brief factual summary of the basis of the intended challenge.

The formal written bid challenge shall: identify the challenger and the solicitation involved, include a clear statement of the grounds on which the challenge is based, refer to the statutes, laws, ordinances, or other legal authorities to which the challenger deems itself entitled by application of such authorities to such grounds. The challenger shall mail a copy of the notice of challenge and the formal written challenge to the apparent best bidder. The County Manager shall, within ten (10) working days of receipt of the formal written challenge, cause the challenge to be investigated. In the event the challenge is not resolved, the Board shall, within a reasonable time, be presented with the written challenge and the County Manager's decision to the challenge prior to award of the bid. The procurement, which is the subject of the protest, shall not proceed until a final decision has been made, unless the Board makes a determination that the contract must proceed without delay to protect substantial interest of the County.

Nothing herein relinquishes the County's rights to waive irregularities and formalities in accordance with its bid package and instructions. Further, nothing herein shall create any rights in the unsuccessful bidder. All decision of the Board shall be final.

9.4 Construction and Venue

The validity, construction, and effect of this ITB and subsequent Contract shall be governed by the Laws of the State of Florida. The provisions of the ITB, Successful Bidder's Bid and subsequent Contract shall be complied with by the Parties, but only to the extent they are consistent with applicable law and the Contract. In the event of an inconsistency, the Order of Precedence shall be followed:

- a. Laws of Florida and Contract
- b. ITB and all of its addendums and attachments
- c. Successful firm's Bid

Venue for all actions arising under the ITB and subsequent Contract shall lie in Jefferson County, Florida, United States.

9.5 Contract

- 9.5.1 The Successful Bidder will be required to enter into the Contract with the County and will be required to perform the Work in accordance with the Contract terms and conditions. The Draft Contract is attached hereto as Appendix B and incorporated herein by reference.

9.5.2 Any exceptions to the proposed Contract must be noted in Bid Proposal Form 4. The County is under no obligation to modify the proposed Contract to conform to the Successful Bidder's Contract exceptions. Contingent Bids will not be accepted. If acceptance of the Contract Award is contingent on an exception and modification to the Contract, the Bidder must provide this information to the County at the time of submission of bid questions, as outlined in the Schedule of Events in order to obtain a determination from the County regarding the proposed exception. If a Bidder's exception and modification are rejected by the County during the bid question portion of the Bid process and the Bidder later submits a Bid, Bidder shall be deemed to have accepted this Contract provision.

9.6 Insurance Requirements

9.6.1 Insurance Verification Requirements – See Appendix B, Section 4.

The insurance required shall be written for not less than the following, or greater if required by law and shall include Employer's liability with limits as prescribed in this contract:

- | | | |
|----|------------------------------|--|
| 1. | Worker's Compensation | |
| | 1.) State | Statutory |
| | 2.) Employer's Liability | \$100,000 each accident
\$500,000 policy aggregate |
| 2. | Business Automobile | \$500,000 each occurrence
(A combined single limit) |
| 3. | Commercial General Liability | \$500,000 each occurrence
(A combined single limit) |

This Section shall be underwritten by insurers having a Best's Rating of A and Financial Size Category of VIII or higher, or by such other insurers as shall be acceptable to the Company in its sole discretion. In addition, a certificate of the issuance of each such insurance policy shall be delivered to the County prior to the commencement of performance of any Work. Such certificate shall contain an agreement by the insurance company issuing the policy that the policy

will not be canceled, terminated or modified without thirty (30) days' prior written notice to the County. At least two weeks prior to the expiration of the original policy or any renewal thereof, a new certificate of the renewal of such insurance shall be delivered to the County.

9.6.2 Non-Appropriation of Funds

In the event no funds or insufficient funds are appropriated and budgeted by the County or are otherwise unavailable for fulfilling the requirements of the Contract, the obligations of the County shall terminate on the last day of the fiscal period for which appropriations are received, without

penalty or expense to the County of any kind whatsoever. County will immediately notify the Contractor or its assignee of such occurrence. In the event of such termination, the County agrees to peaceably surrender possession of the equipment to the Contractor or its assignee on the date of such termination to the extent that such equipment has not been paid for by the County. The Contractor will be responsible for packing all equipment and any freight charges.

The County will not cancel if any funds are appropriated to it, or by it, for the acquisition, retention or operation of the equipment or other equipment performing similar functions for the current fiscal period in which the termination occurs or the next succeeding fiscal period thereafter and that it will not, during the funding period, give priority to other functionally similar equipment or services.

The Contractor shall covenant and agree to indemnify and hold County harmless against any loss, damage liability, cost, penalty or expense, including attorney's fees, which it is not otherwise agreed to by the County in the equipment Contract and which is incurred and arises upon a failure of the County to appropriate funds in the manner described herein for a continuation of the Contract or exercise of the option to purchase the equipment.

ITB Project #01-4102-150323
Attachment "F" – Instruction to Bidders

Proposers interested in the Work are instructed to submit one (1) original hard copy and one (1) electronic copy (non-returnable USB flash drive) of its complete Bid in accordance with this ITB, no later than **April 13, 2023 @ 4:00 P.M., Eastern Time** unless otherwise changed through an addendum to this ITB, to the County Manager's Office at 445 W. Palmer Mill Rd., Monticello, FL 32344. Proposals received after this date and time will not be considered and shall be returned unopened.

All Bids and all attachments must be bound and delivered **SEALED** to the County at the address shown below no later than the time and date set for receipt of Bids. Deliver OR mail the Bid in a sealed envelope/package to:

JEFFERSON COUNTY MANAGER'S OFFICE
ATTN: ITB # 01-4102-150323
SHANNON METTY
445 W. PALMER MILL RD.
MONTICELLO, FL 32344

The front lower left corner of each **SEALED** envelope/package shall contain the following information for proper identification:

ITB # 01-4102-150323 Attention: SHANNON METTY DUE NO LATER THAN: April 13, 2023 @ 4:00 P.M. EST
--

1. Include name and address of Bidder on each sealed envelope/package.
2. If Bid is contained in multiple packages, number each sealed package sequentially, i.e., "1 of 3", "2 of 3", "3 of 3".

Bidders shall construct its Bid in the following format. Required forms can also be provided in Microsoft Word format, upon request. Please contact the County Manager's Office: (850) 997-3083 or email smetty@jeffersoncountyfl.gov.

PROPOSAL TRANSMITTAL FORM ON THE FIRMS LETTERHEAD (Bid Proposal Form 1)

All signatures must be by an individual with authority to legally bind the Bidder, witnessed, and corporate and/or notary seal (as applicable.) If the individual signing the Proposal Transmittal Form does not have apparent authority to legally bind the Bidder, attach documentation demonstrating such authority. The corporate or mailing address must match the company information as it is listed on the Florida Department of State Division of Corporations. Attach a copy of the webpage(s) from <http://www.sunbiz.org>

ITB Project #01-4102-150323
Attachment "F" – Instruction to Bidders

as certification of this required information. Verify that all addenda and tax identification number have been provided.

BID PROPOSAL, BASIS OF BID AND BID BOND (Bid Proposal Form 2)

The Basis of Bid form is included with the Bidding Documents. Additional copies may be obtained from the Procurement Office. All blanks on the Bid form shall be completed in ink and the Bid signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each Bid item, and unit price item listed therein, or the words "No Bid," "No Change," or "Not Applicable" entered. In the event of multiplication/addition error(s), the unit price shall prevail. Prices written in words shall prevail over figures where applicable. All bids will be reviewed mathematically and corrected, if necessary, using these standards, prior to further evaluation.

REQUIRED FORMS, DOCUMENTS AND CERTIFICATIONS (Bid Forms 3 through 5)

The following forms must be fully filled out and signed by a person with authority to bind the Bidder:

- Bid Proposal Form 3: List of Proposed Subcontractors
- Bid Proposal Form 4: Comments on Proposed Contract
- Bid Proposal Form 5: Qualification Questionnaire