

ROANE COUNTY PURCHASING
200 EAST RACE STREET, SUITE #3
KINGSTON, TENNESSEE 37763
PHONE 865-376-4317 – FAX 865-376-4318

ADVERTISEMENT FOR BIDS

Sealed bids are invited for Micro-Surface Paving construction for Roane County Highway Department.

All bidders must be licensed Contractors as required by the Contractors Licensing Act of 1976, as currently amended.

Project: Micro-Surface Paving, Roane County Roads

Bids Received By: Lynn Farnham, Purchasing Agent
Roane County Courthouse
200 East Race Street, Suite #3
Kingston, Tennessee 37763

Until: 2:00 p.m. on Thursday, May 26, 2016
Bids will be publicly opened & read aloud.

Specifications: May be obtained in the Roane County Purchasing Dept.

ROANE COUNTY PURCHASING DEPARTMENT INVITATION TO BID

Roane County is inviting sealed bids for the service(s) listed below, subject to the terms and conditions of the Invitation to Bid, the accompanying specifications, and the Roane County Purchasing Manual.

At the appointed time bids will be publicly opened in the office of the Roane County Purchasing Agent at the above address. Bids arriving in the Purchasing Department past the appointed date and time will be considered late and will not be opened.

Deliver Bids To:

**ROANE COUNTY PURCHASING DEPARTMENT
200 EAST RACE STREET, SUITE #3
KINGSTON, TENNESSEE 37763**

**Bid Number: 2016-4006-131
MICRO SURFACE PAVING**

Open Date & Time: MAY 26, 2016 at 2:00 p.m. (Eastern Time Zone)

The Bid Envelope must show the Bid Number, Name & Opening Date.

PURCHASING CONTACT INFORMATION

**Lynn Farnham, CPPO, CPPB
Purchasing Agent
Phone: 865-376-4317
Fax: 865-376-4318
Email: lynn.farnham@roanecountytn.gov**

GENERAL TERMS & CONDITIONS

Attached are instructions and conditions for submitting a bid for Roane County Government. The objective of this bid is to select suppliers in such a manner as to provide for open and free competition and comparability.

BID PREPARATION & SUBMISSION

1. Bidders are expected to examine specifications, terms and conditions, general or special conditions, schedules and all instructions for the purpose of this bid. Failure to do so will be at the bidder's risk.
2. All bids shall be in accordance with the instructions to bidders and specifications included in this ITB. Specifications are intended to be open and non-restrictive.
3. All pricing submitted in the bid document must be completed in ink or typewritten. The bottom line total must also be printed in ink or typewritten on the proposal form. No erasures shall be permitted. Errors may be crossed out and corrections printed in ink or typewritten and must be initialed in ink by the person signing the bid.
4. All bids must meet or exceed the enclosed specifications.
5. It shall be the sole responsibility of the bidder to make certain that all bids in proper form are submitted to the Purchasing Department as described below.
6. All original forms must be signed by a person with authority to bind the bid. The bid must be sealed in an envelope that is labeled according to the directions stated below.
7. On the outside of the envelope/package mark the bid as follows:
 - Vendor Name & Address
 - Bid Number
 - Bid Date & Time
8. The bid must then be in a sealed envelope/package mailed or delivered to the following address:

Roane County Purchasing Department
200 East Race Street, Suite #3
Kingston, Tennessee 37763

Please note that Roane County does not receive a guaranteed delivery time for express mail and/or packages. Please mail accordingly.

12. Sealed written bids will be received at the time and place specified on the Invitation to Bid. Postmark on the Bid by this date will not suffice. Bid must be received on or before the date and time stated. Faxed bid documents will not be accepted.

LATE RECEIPT OF THE BID

1. The bid and modifications or withdrawals thereof received after the time set for opening will not be considered, unless they are received before the award is made and it is determined by Roane County that failure to arrive on time was due solely to a delay in delivery for which the bidder has no responsibility. Roane County does not receive a guaranteed delivery time for express mail and/or packages. Please mail accordingly.
2. Bids must be in the Purchasing Department prior to 2:00 p.m. on the appointed date. Time will be determined by the clock in the Roane County Purchasing Department and once Purchasing Agent/or their designee determines the time is 2:00 p.m., no other bids will be accepted.

RESTRICTIVE OR AMBIGUOUS SPECIFICATIONS

1. It is the responsibility of the bidder to review the entire Invitation to Bid document and to notify the Purchasing Agent if the Invitation to Bid is formulated in a manner that would unnecessarily restrict competition or if it is ambiguous in what is being requested.
2. Pursuant to TCA §12-4-126, questions regarding the specifications or bid procedures must be received by the Purchasing Agent and/or designer no less than ninety-six (96) hours before the bid opening date. No addenda will be issued within less than forty-eight (48) hours of the bid opening day, excluding weekends and legal holidays designated in §15-1-101 unless the bid opening is extended for a reasonable time as determined by the purchasing agent, which shall not be less than forty-eight (48) hours excluding weekends and legal holidays designated in §15-1-101, to allow for any necessary changes to the Invitation to Bid documents and to allow responders to resubmit their responses accordingly.
3. Any questions concerning this Invitation to Bid are to be faxed to the Purchasing Department. Questions will be answered via addenda. Information obtained from any office other than the Purchasing Office is not to be considered binding.

BID OPENING & AWARD

1. Only the bottom line figure will be read at the bid opening. Bids will also be examined for compliance with specification and conditions outlined in the bid document.
2. Consideration will be given to all bids properly submitted. Bids will receive appropriate confidentiality before awarding. Upon award, bid documents and tabulations will be available for review. Errors discovered after public opening may not be corrected, and the bidder may be bound to honor bid as submitted. After investigation of the nature of the mistake, the Purchasing Agent may allow the bid to be withdrawn.
3. The contract will be awarded in writing to the most responsive bidder whose bid conforms best to the Invitation to Bid will be most advantageous to Roane County. It is the intent of Roane County to involve and utilize the best product/services at the best prices and provide small and minority firms, women's business enterprises and labor surplus area firms with increased opportunity to do business with the county. However, currently there are no set asides for small or minority firms.
4. Roane County reserves the right to accept or reject any or all bids and to waive informalities and minor irregularities in the bids received.
5. Roane County reserves the right to award the bid in its entirety or to divide the award in any way that will be more advantageous to the county.
6. Bid results will be posted on the County's website along with the bid tabulation.

PROTEST PROCEDURE

1. If a prospective vendor does not agree with the bid award, they have the right to protest. Disputes arising from the award of this bid must be submitted in writing to the Roane County Purchasing Department no later than seven (7) days from date of bid award. The steps for dispute resolution may include:
 - A meeting with the Purchasing Agent, the requisitioning department's manager and representatives from the disputing party to discuss and resolve the complaint.
 - Information from the aforementioned meeting will be forwarded to the County Attorney for review.
 - A written decision letter stating the reasons for the decision will be prepared by the Purchasing Agent and submitted in writing to the protestor and all parties involved.
 - Purchases will not be allowed under this procurement until a final decision is rendered.
 - In the event that purchases must be made before a final decision is rendered, the emergency purchase procedures will be used.

APPROPRIATION

1. In the event no funds are appropriated by Roane County for the goods or services in any fiscal year or insufficient funds exist to purchase the goods or services, then the contract shall expire upon the expenditure of previously appropriated funds or the end of the current fiscal year, whichever occurs first, with no further obligations owed to or by either party.

INSURANCE

1. The contractor will maintain, at their expense adequate insurance coverage to protect them from claims arising under the Worker's Compensation Act, from claims for damages resulting from bodily injuries and damage to their property, for Bodily Injury and Property Damage Liability in the amount of no less than \$1,000,000, for Products and Completed Operations Liability of no less than \$1,000,000 and from claims for damage to any Roane County property. Additional insurance requirements may be listed any Special Terms & Conditions or in the Bid Specifications. This insurance company shall have a Best's rating of A or better. Any deviations from the above requirements must be disclosed in the bid submission.
2. The successful bidder shall furnish a Certificate of Insurance issued by their insurance company showing that Roane County as an additional insured. Carrier will assume full common liability of all shipments.

COMPLIANCE WITH ALL LAWS

1. Contractor is assumed to be familiar with and agrees to observe and comply with all federal, state, and local laws, statutes, ordinances, and regulations in any manner affecting the provision of goods and/or services, and all instructions and prohibitive orders issued regarding this work and shall obtain all necessary permits.

GOVERNING LAW

1. This contract shall be governed by the laws of the State of Tennessee, and all obligations of the parties are performable in Roane County, Tennessee. The Courts in Roane County shall have exclusive and concurrent jurisdiction of any disputes which arise hereunder.

BUSINESS LICENSES

1. Bidders located in Tennessee are required to have a current business license issued by the State of Tennessee at the time the bids are submitted. Vendors located outside Tennessee are required to obtain a business license issued by the State of Tennessee.
2. A Roane County Business License is required if a contractor is doing more than \$50,000 in business in the county.
3. A Business Tax & License Affidavit is required to be submitted with the bid.

INDEMNIFICATION/HOLD HARMLESS

1. Contractor shall indemnify, defend, save and hold harmless all departments of Roane County Government and/or the Roane County Board of Education, its officers, agents and employees from all suits, claims, actions or damages of any nature brought because of, arising out of, or due to breach of the agreement by Contractor, its subcontractors, supplier, agents or employees or due to any negligent act or occurrence or any omission or commission of the contractor, its subcontractors, suppliers, agents or employees until the contract terminates.

VENDOR PERFORMANCE

1. If the contractor fails in full or part to perform or comply with any provision of this Contract or the terms or conditions of any documents referenced and made a part hereof, Roane County may terminate this contract, in whole or in part, and may consider such failure or noncompliance a Breach of Contract. Contractors with poor performance will be notified at the time of such performance and be given opportunity to correct the problems. Documentation will be kept on file. Any contractor with continued poor performance will be removed from the potential vendor list for one year.
2. Roane County expressly retains all its rights and remedies provided by law in case of such breach, and no action by Roane County shall constitute a waiver of any such rights or remedies. In the event of termination for default, Roane County reserves the right to purchase its requirements elsewhere, with or without competitive bid.
3. Failure to deliver within the time specified or within a reasonable amount of time, or failure to make replacements of a rejected item immediately will constitute authority to purchase on the open market so as to replace the item(s) rejected and/or not received. On all such purchases, the Vendor agrees to promptly reimburse the county for excess costs incurred by such a purchase.

BREACH OF CONTRACT

1. A party shall be deemed to have breached the contract if any of the following occurs:
 - Failure to provide the services that conform to contract requirements.
 - Failure to maintain/submit any report required hereunder.
 - Failure to perform in full or in part any of the other conditions of the contract.

CONTRACT TERMINATION FOR CAUSE

1. If the contractor fails to properly perform its obligations under this contract in a timely or proper manner, or if the contractor violates any terms of this contract, the county shall have the right to terminate the contract and withhold payments in excess of fair compensation for completed services.
2. In the event the contract is terminated for due cause by the county, the county shall have the option of awarding the contact to the next lowest bidder or bidding again.

CONTRACT TERMINATION FOR CONVENIENCE

1. The county may, by written notice to the contractor, terminate this contract without cause for any reason. Said termination shall not be deemed a Breach of Contract by the county. The county must give notice of termination to the vendor at least thirty (30) days prior to the effective date of termination. The contractor shall be entitled to receive compensation for satisfactory, authorized service completed as of the termination date, but in no event shall the county be liable to the contractor for compensation for any service which has not been rendered. Upon such termination, the vendor shall have no right to any actual general, special, incidental, consequential, or any other damages whatsoever of any description or amount.

BOOKS AND RECORDS

1. The contractor shall maintain all books, documents, accounting records and other evidence pertaining to the goods and services provided under this contract and make such materials available at its offices at all reasonable times during the contract period and for three (3) years from the date of the final payment under this agreement for inspection by county or by any other governmental entity or agency participating in the funding of this agreement, or any authorized agents thereof; copies of said records to be furnished if requested.

INVOICES AND PAYMENTS

1. Payment will be made within 30 days after receipt of invoice and/or delivery of items included in this Invitation to Bid, whichever is later.
2. Roane County Government is not subject to taxation. A tax exemption certificate will be provided upon request.

NONDISCRIMINATION AND NON-CONFLICT STATEMENT

1. Contractor agrees that no person on the grounds of handicap, age, race, color, religion, sex or national origin, shall be excluded from participation in, or be denied benefits of, or be otherwise subjected to discrimination in the performance of this agreement, or in the employment practices of vendor. Contractor shall upon request show proof of such nondiscrimination, and shall post in conspicuous places available to all employees and applicants notices of non-discrimination. Contractor covenants that it complies with the Fair Wage and Hour Laws, the National Labor Relations Act, and other federal and state employment laws as applicable. Contractor covenants that it does not engage in any illegal employment practices.
2. Contractor covenants that it has no public or private interest, and shall not acquire directly or indirectly any interest; that would conflict in any manner with the provision of its goods or performance of its services. The contractor warrants that no part of the total contract amount provided herein shall be paid directly or indirectly to any officer or employee of Roane County as wages, compensation, or gifts in exchange for acting as officer, agent, employee, subcontractor or consultant to contractor in connection with any goods provided or work contemplated or performed relative to the agreement.
3. No employee or member of the Roane County's governing bodies shall participate in the selection or award of a contract if a conflict of interest, real or apparent, would be involved.
4. Officers, employees or officials of the Roane County Government shall neither solicit nor accept gratuities, favors or anything of more than nominal monetary value from vendors or parties to subcontracts.

**2016-4006-131 – MICRO-SURFACE PAVING
VENDOR INFORMATION SHEET**

(Please fill out completely)

By completing and signing this form you certify that you are an authorized representative of the company for which you are submitting a bid/proposal and that you have the authority to legally bind your company. Further, by completing and signing this form you certify that you agree to all the terms and conditions of this bid/proposal.

1. Vendor Name _____

2. Address _____

City _____ State _____ Zip Code _____

3. Contact Person (Please Print) _____

4. Telephone Number _____ Fax Number _____

5. Vendor's e-mail address _____

6. Authorizing Signature _____

7. Title of Person Signing Bid _____

8. If addenda were issued, please acknowledge the receipt of: (please write "yes" if you received one)
Addendum 1 _____ Addendum 2 _____ Addendum 3 _____ Addendum 4 _____

9. If applicable, please indicate below if discounts will be allowed for prompt payment or if there is not discount offered:
_____ % Net 10 Days; _____ % Net 20 Days; _____ % Net 30 Days; _____ No Discount

COOPERATIVE PURCHASING - Vendors are to indicate if it is permissible for other governmental agencies in the State of Tennessee to purchase these items or services at the same price. Freight charges may be adjusted to reflect differences in delivery costs to other locations. Please indicate the approval of Cooperative Purchasing.

_____ Yes _____ No

SCHOOL CONTRACTS ONLY

CRIMINAL HISTORY RECORDS CHECK – Do you agree to comply with Public Chapter 587 of 2007 which requires all contractors to facilitate a criminal history check, including fingerprinting, conducted by the Tennessee Bureau of Investigation and the Federal Bureau of Investigation for each employee or subcontractor personnel before permitting the employee or subcontractor personnel to have contact with students or enter school grounds?

_____ Yes _____ No

**2016-4006-131 – MICRO-SURFACE PAVING
NON –COLLUSION, INDEPENDENT PRICE DETERMINATION,
NON-DISCRIMINATION, NON-DEBARMENT & LOBBYING AFFIDAVIT**

I do hereby certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid for the same materials, supplies, or equipment, and is in all respects fair and without collusion or fraud.

I understand that collusive pricing is a violation of State and Federal law and can result in fines, prison sentences, and civil damage awards and that no collusion with another firm was used in preparation of this bid.

I also certify that this firm does not discriminate against any employee or applicant for employment on the grounds of race, color, national origin or sex; and does not and will not maintain or provide for his employees any segregated facilities at any of its establishments, and further, that the firm does not and will not permit their employees to perform their services at any location under this contract where segregated facilities are maintained.

By submission of this bid, the bidder certifies that neither it or its principals is presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal or State department or agency.

I further certify that during the Invitation to Bid solicitation and/or during the performance of this contract that neither it nor its principals will participate in lobbying activities in conjunction with this project.

I agree to abide by all terms and conditions of this Invitation to Bid and certify that I am authorized to sign this affidavit for the vendor.

Please indicate which of the following apply to your company. This information is requested for information purposes only. Roane County currently has no policy that allows for set asides or preferences for woman owned or minority owned businesses.

African American Owned
 Caucasian Owned
 Native American Owned
 Other Owned

Asian Owned
 Hispanic Owned
 Woman Owned

Signature

Title

**2016-4006-131 – MICRO-SURFACE PAVING
DRUG-FREE WORKPLACE AFFIDAVIT**

STATE OF _____

COUNTY OF _____

The undersigned, principal officer of _____, an employer of five (5) or more employees contracting with Roane County Government to provide construction services, hereby states under oath as follows:

1. The undersigned is a principal officer of _____ (hereinafter referred to as the "Company"), and is duly authorized to execute this Affidavit on behalf of the Company.
2. The Company submits this Affidavit pursuant to T.C.A. § 50-9-113, which requires each employer with no less than five (5) employees receiving pay who contracts with the state or any local government to provide construction services to submit an affidavit stating that such employer has a drug-free workplace program that complies with Title 50, Chapter 9, of the *Tennessee Code Annotated*.
3. The Company is in compliance with T.C.A. § 50-9-113.

Further affiant saith not.

Principal Officer

STATE OF _____

COUNTY OF _____

Before me personally appeared _____, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who acknowledged that such person executed the foregoing affidavit for the purposes therein contained.

Witness my hand and seal at office this _____ day of _____, 20____.

Notary Public

My commission expires _____.

**2016-4006-131 – MICRO-SURFACE PAVING
BUSINESS TAX & LICENSE AFFIDAVIT**

The undersigned, ("Affiant"), states that he/she has legal authority to swear this on behalf of _____ ("Contractor"); that Contractor is not in any manner in violation of *Tennessee Code Annotated, §5-14-108(l)* which provides that "no purchase shall be made or purchase order or contract of purchase issued for tangible personal property or services by county officials or employees, acting in their official capacity, from any firm or individual whose business tax or license is delinquent".

Affiant affirms and warrants that Contractor's licenses are currently valid and all business taxes have been paid and are current as of the date of this affidavit. Contractor is licensed and pays business taxes in _____ County, Tennessee.

AFFIANT

By: _____

Title: _____

Date: _____

Witness: _____

Date: _____

**2016-4006-131 – MICRO-SURFACE PAVING
INVITATION TO BID
SPECIFICATIONS**

Roane County is inviting bids for Micro-Surface Paving based on the specifications contained herein.

1. Micro-surface must meet Tennessee Highway Department Specifications EXCEPT FOR MATERIALS TO BE DESCRIBED IN ITEM 2. Bids are requested for the following:

414.03.03 - MICRO-SURFACE - MEASUREMENT BY THE SQUARE YARD

2. Roane County shall supply the aggregate for this project from Rogers Group in Roane County. The Contractor shall be responsible for transporting of the aggregate to load sites and/or staging areas, screening of the aggregate, design of the micro-surfacing utilizing the aggregate and any other quality control measures required for the use of the aggregate in the micro-surfacing. The County shall be responsible for the cost of the aggregate. Any other cost associated with the supply of the aggregate shall be included in the price for the micro-surfacing. The County shall make samples of the aggregate available to the Contractor, prior to bidding to allow for testing of the compatibility of the aggregate with their micro-surfacing emulsion system.
3. As this is a new paving system for Roane County, there is not an estimated volume established.
4. All bidders must be licensed contractors to perform the type construction herein described as required by TCA 62-6-102 and 62-6-111.
5. NO PORTION OF THE CONTRACT SHALL BE SUBLET, ASSIGNED OR OTHERWISE DISPOSED OF.
6. All bidders must be pre-qualified by the Tennessee Department of Transportation in micro-surface paving construction and must provide prior years State Acceptance Certification.
7. All bidders must, upon request of the County, furnish satisfactory evidence of their ability to furnish products or service in accordance with the terms and conditions of these specifications.
8. The price per square yard shall include mobilization. The Roane County Highway Department shall be responsible for the clipping of shoulders with a motorized grader and sweeping of roads with a motorized broom.
9. The Contractor shall apply tack coat materials, which will be included in the per square yard price.
10. Traffic control is to be furnished by the Contractors and will be included in the per square yard price.
11. Micro-surface shall be applied as follows:
 - a. Leveling Course. If a leveling course is specified, apply at a rate of 14 (+-) 2 lbs/sy (7.6 (+-) 1.1 kgs/m²) based on dry aggregate.
 - b. Surface Course. If a surface course is specified and it is placed over a leveling course, apply at a rate of 18 (+-) lbs/sq. yd. (8.7 +- 0.6 kgs/m²) based on dry aggregate. If a surface course is specified and it is not placed upon another micro-surfacing course, apply the paving mixture at a minimum rate of 22 lbs/sq. yd. (11.9kgs/m²) based on dry aggregate.

12. Bid price shall include all cost of quality control, quality assurance test, test reports and material certifications as required.
13. All work completed under the contract will be measured by the Contractor's representative and a Roane County Highway Department representative for the final payment per square yard.
14. Each bidder shall furnish a bid price for all items of construction and will include all necessary materials and equipment to complete the surface. No partial bids will be accepted, and no additional items are to be added to this bid.
15. All work in this bid is to be done in accordance with TDOT Specifications and TDOT Special Provision 109B.

DELIVERABILITY

Roane County reserves the right to go to the next low bidder should the contractor with the low bid be unable to supply asphalt when needed.

Further, Roane County reserves the right to purchase asphalt on the open market should a situation arise that none of the contractors awarded the bid are able to supply asphalt when needed.

GENERAL INFORMATION

Any questions concerning bid specifications must be submitted in writing via email or fax to the Purchasing Department. Information obtained from any source other than the Purchasing Department is not considered binding. (Email – lynn.farnham@roanecountytn.gov or fax 865-376-4318)

Bidders are to provide one original and one copy of the bid being submitted. Any costs associated with the preparation or delivery of the bid is at the Vendor's cost with no cost to Roane County.

REQUIRED DOCUMENTS

Bidders must use the envelope cover sheet included herein.

The following documents must be returned in the bid envelope:

- Vendor Information Sheet
- Non-Collusion, Independent Price Determination, Non-Discrimination, Non-Debarment & Lobbying Affidavit
- Drug-Free Workplace Affidavit
- Statement of Compliance Certificate of Illegal Immigrants
- Business Tax & License Affidavit
- Certificate of Insurance issued by the Contractor's Insurance Company.

TERM OF THE CONTRACT

The term of the contract is for fiscal year beginning July 1, 2016 through June 30, 2017.

BID RENEWAL

Roane County reserves the right to renew all aspects of the bid one year at a time for an additional two (2) years based on a firm fixed price. Roane County Purchasing will notify the vendor of their intent to renew this contract prior to June 1 of the proposed renewal year. This renewal is not automatic and will be based on an annual review of the contract. Renewal fiscal years would be 2017-18 & 2018-19.

Roane County reserves the right to purchase these items/services from other sources if the need arises. Roane County reserves the right to revoke the award if a pattern of unavailability arises with the vendor. Should Roane County desire not to renew, no reason needs to be given.

PRICING

Pricing is to be based on the most recent base price as is possible for price calculation. For the purpose of this bid, bidders are to use the price published for Bituminous Index per ton that is used with Special Provision 109B and dated April 2016.

Any fluctuation of the base price, up or down, greater than five percent (5%) shall result in a price increase or decrease for those items affected by the fluctuation. The method for determination of any price increase or decrease is to be the same method as established by the Tennessee Department of Transportation using the Special Provision Regarding Payment Adjustment for Bituminous Material (SP109B). A copy of this document is enclosed.

This bid may be used for any grant related work that might be necessary throughout the contract period(s).

Micro-Surface Paving Bid _____ per square yard.

BID ENVELOPE COVER SHEET

Project: **MICRO SURFACE PAVING**

Roane County Roads
Roane County, Tennessee

Bid Date & Time: **Thursday, May 26, 2016**
 2:00 p.m. (Eastern Time Zone)

Bids must be delivered prior to the aforementioned date to:

Roane County Purchasing
200 East Race Street
Suite #3
Kingston, Tennessee 37763

Bidder Name & Address: _____	

TN License Number: _____	Limit: _____
Expiration Date: _____	Classification: _____

405

SECTION 405-BITUMINOUS SEAL COAT

405.01-Description	215
405.02-Materials	215
405.03-Equipment	215
405.04-Limitations	215
405.05-Preparing the Designated Surface	215
405.06-Application of Bituminous Material	215
405.07-Spreading and Rolling Aggregate	216
405.08-Shoulders	217
405.09-Maintenance and Protection	217
405.10-Method of Measurement	217
405.11-Basis of Payment	217

SECTION 405-BITUMINOUS SEAL COAT

405.01-Description. This work shall consist of an application of bituminous material followed by an application of cover material in accordance with these Specifications and in reasonably close conformity with the lines, grades, and cross section shown on the Plans or established by the Engineer.

MATERIALS

405.02-Materials. Materials used in this construction shall meet the requirements of the following Subsections of these Specifications:

Materials	Subsection
Cut-Back Asphalt, RC-800 or RC-3000	904.02
Emulsified Asphalt, RS-2 or CRS-2	904.03
Asphalt Cement, AC-20 or AC-30	904.01
Mineral Aggregate, Size No 7	903.13

Application temperatures for bituminous materials in degrees C (F) shall be as follows:

RC-800, 80-120 C (175-250 F)
 RC-3000, 95-135 C (200-275 F)
 RS-2 or CRS-2, 15-60 C (60-140 F)
 AC-20 or AC-30, 190-205 C (375-400 F)

EQUIPMENT

405.03-Equipment. The equipment for this construction shall meet the requirements specified in Subsection 404.03.

CONSTRUCTION REQUIREMENTS

405.04-Limitations. The limitations for this construction shall be those stipulated in Subsection 404.04. If this construction is to be covered by a succeeding stage of pavement and if approved by the Engineer, the seasonal limitations shall be in accordance with 407.09 and the succeeding stage of construction placed promptly.

405.05-Preparing the Designated Surface. The surface to be sealed shall be prepared in accordance with the applicable provisions of Subsection 404.05.

405.06-Application of Bituminous Material. Bituminous material shall be applied by pressure distributor at a uniform rate of between 1.2 and 1.6 liters per square meter (0.26 and 0.36 gallon per square yard); the definite

rate within that range will be established by the Engineer. Asphalt cement shall be used if the surface upon which the seal coat is to be applied has been milled and will receive subsequent layers of pavement. The asphalt cement shall be applied at a uniform rate of between 0.5 and 1.1 liters per square meter (0.10 and 0.25 gallon per square yard) upon the milled surface as directed by the Engineer.

Before beginning each spread, building paper shall be laid across the roadway surface with the forward edge exactly coinciding with the end of the preceding covered spread. Distribution shall be started on the paper, the width of which shall be such that the full force of all nozzles shall be in effect before the forward edge of the paper is reached. The spread shall also be stopped on building paper if required by the Engineer. The paper shall be removed immediately after its use and shall be destroyed. All defects in any application shall be corrected at once.

The length of spread of bituminous material shall not be in excess of that which trucks loaded with cover material can immediately cover.

The spread of bituminous material shall not be more than 150 millimeters (six inches) wider than the width covered by the cover material. Under no circumstances shall operations proceed in such manner that the bituminous material will be allowed to chill or otherwise impair retention of the cover material.

All traffic shall be prohibited until the bituminous material has been covered with mineral aggregate.

Areas which are inaccessible to the distributor shall be treated either with hand sprays or pouring pots as the Engineer may direct.

405.07-Spreading and Rolling Aggregate. Mineral aggregate cover shall be spread and embedded in the bituminous material. Spreading of the aggregate shall be maintained as close to the application of bituminous material as is practicable, and each distributor load applied shall be covered immediately.

The mineral aggregate cover shall be reasonably free of surface moisture. The aggregate shall be spread at a rate between 4 and 14 kilograms per square meter (8 and 26 pounds per square yard) as established by the Engineer using a self-propelled mechanical spreader; except on short projects one kilometer (one-half mile) in length or less, self-propelled mechanical spreading equipment will not be required. The truck shall be backed on the aggregate being spread and shall not be driven on or over uncovered bituminous material. If less than the full width of roadway is being treated, the aggregate shall not be spread on the inside 150 millimeters (six inches) of the bituminous spread until the adjacent lane is treated. Immediately after spreading the aggregate, uniform coverage shall be achieved by hand-brooming. Additional aggregate shall be placed by hand on thin or bare areas.

Immediately following distribution of the aggregate, the entire surface shall receive its initial rolling moving in a longitudinal direction, beginning at the outer edges and progressing toward the center of the roadway, with each trip of the roller overlapping the previous trip by one-half the width of the rear wheel. The initial rolling of the aggregate shall

have been completed within one hour after the bituminous material was applied

Irregularities shall be corrected with hand brooms by sweeping the aggregates from areas of thick or heavy distribution to areas of thin or light distribution. Rolling shall then be continued using both steel-wheel and pneumatic rollers until the aggregate is thoroughly embedded in the bituminous material. Additional rolling shall be required at a later date if directed by the Engineer. The Contractor shall further be required to redistribute any excess or loose aggregate that has been thrown out of place.

Slow moving traffic may be allowed to use the section or roadway upon which the aggregate has been spread.

405.08-Shoulders. Shoulders that have been disturbed by the Contractor's construction operations shall be restored by him at his expense. All objectionable material placed on the shoulders by the Contractor shall be removed as directed. Shoulder construction, when specified, shall be performed as provided for under Section 208

405.09-Maintenance and Protection. The Contractor shall be required to maintain in a satisfactory condition each completed section of seal coat until the entire project has been completed. After the final application, the Contractor shall be required to maintain the work in a satisfactory condition for at least 10 calendar days. If all other requirements of the Contract have been fulfilled, working time during the 10 day maintenance period will not be charged against the contract time.

Maintenance shall include making repairs where failures occur, and maintaining the seal coat in a smooth uniform condition.

Final cleanup shall include sweeping up all excessive quantities of loose, dislodged cover aggregate that has collected along the edge of the completed seal coat, and disposing of this material as directed.

405.10-Method of Measurement. Mineral Aggregate and Bituminous Material will be measured by the metric ton (ton) in accordance with the provisions of Section 109, Measurement and Payment. Net certified weights may be used as a basis of measurement for mineral aggregate, subject to correction for aggregate that is lost, wasted or otherwise not incorporated in the work.

405.11-Basis of Payment. The accepted quantities of Bituminous Seal Coat will be paid for at the contract unit price per metric ton (ton) for Bituminous Material and per metric ton (ton) for Mineral Aggregate, complete in place

The work required for preparing the designated surface as provided for under Subsection 405.05 will be measured and paid for in accordance with the provisions of the applicable Section or Subsection under which the work is performed.

(Rev. 06-01-00)
(Rev. 08-01-00)
(Rev. 08-02-00)
(Rev. 01-07-13)

January 1, 2015

SPECIAL PROVISION

REGARDING

PAYMENT ADJUSTMENT FOR BITUMINOUS MATERIAL

This Special Provision covers the method of payment adjustment for bituminous materials.

100% Virgin Bituminous Material

A payment adjustment will be made to compensate for increases and decreases of 5% or more in the contractor's bituminous material cost. The normal bid items in the contract covering the bituminous material shall not be changed. Payment adjustments (+/-) shall be paid under "Payment Adjustment for Bituminous Material" and calculated as described herein:

A "Basic Bituminous Material Index" will be established by the Tennessee Department of Transportation prior to the time the bids are opened. This "Basic Bituminous Material Index" is the average of the current quotations on P.G. 64-22 from suppliers furnishing asphalt cement to contractors in the State of Tennessee. These quotations are the cost per ton f.o.b. supplier's terminal.

The "Basic Bituminous Material Index" for this project is _____ per ton.

The "Monthly Bituminous Material Index" is also established on the first day of each month by the same method. A payment adjustment shall be made provided the "Monthly Bituminous Material Index" varies 5% or more (+/-) from the "Basic Bituminous Material Index".

Where the price index varies 5% or more, the payment adjustment will be made as follows:

$$PA = [Ic - Ib] \times T$$

Where:

- PA = Price Adjustment for Adjustment Month
- Ib = Basic Bituminous Material Index
- Ic = Monthly Bituminous Material Index
- T = Tons bituminous material for Adjustment Month

Payment adjustment will be applied to all asphalt cement, asphalt emulsion, or bituminous material used for paving on this project.

Upon the expiration of the allocated working time, as set forth in the original contract or as extended by Change Order, payment adjustments for bituminous material will continue to be

made only when the "Monthly Bituminous Material Index" is **less** than the "Basic Bituminous Material Index" and varies 5% or more.

Payment adjustment, for bituminous material used after the expiration of the allocated working time and where the "Monthly Bituminous Material Index" **exceeds** the "Basic Bituminous Material Index", will **not** be made until after the contract records have been approved by Final Records (FR)/Materials & Tests (MT) and a Final Estimate is ready to be processed. Upon contract record approval by FR/MT, payment adjustments for bituminous material shall be calculated for each month where the allocated working time has expired, the "Monthly Bituminous Material Index" **exceeds** the "Basic Bituminous Material Index", and the indices vary 5% or more. The calculation of the bituminous payment adjustment shall be made using the "Monthly Bituminous Material Index" or the "Bituminous Material Index for Contract Completion Date" in accordance with the following formulas:

The "Bituminous Material Index for Contract Completion Date" is the Monthly Bituminous Material Index in effect on the allocated Contract Completion Date or on the completion date as extended by Change Order.

The "Monthly Bituminous Material Index" is **less** than the "Bituminous Material Index for Contract Completion Date".

$$PA = [Ic - Ib] \times T$$

The "Monthly Bituminous Material Index" is **greater** than the "Bituminous Material Index for Contract Completion Date".

$$PA = [Icd - Ib] \times T$$

Where:

- PA = Price Adjustment for Adjustment Month
- Ib = Basic Bituminous Material Index
- Ic = Monthly Bituminous Material Index
- Icd = Bituminous Material Index for Contract Completion Date (or as extended by Change Order)
- T = Tons

Mixes Containing Recycled Bituminous Material

The quantity of virgin asphalt cement in tons subject to payment adjustment in recycled mixes shall be the product of the total tons of each mix multiplied by the difference between (1) the percent of asphalt cement specified for bidding purposes and (2) the percent of asphalt cement obtained from the recycled asphaltic material (RAP) used in each mix. No payment adjustment under this special provision for increases and decreases in the contractor's cost for virgin asphalt cement in recycled mixes will be allowed for asphalt cement content in excess of the percent specified for bidding purposes, as all payment adjustments for asphalt cement in the

mix design of recycled mixes in excess of the percent of asphalt cement specified for bidding purposes will be made in accordance with the Standard Specifications.

No payment adjustment for bituminous material containing RAP shall be made unless the "Monthly Bituminous Material Index" varies 5% or more from the "Basic Bituminous Material Index" indicated in this Special Provision.

Where the price index varies 5% or more, the payment adjustment will be made as follows:

$$PA = \frac{[Ic - Ib] \times [BA - RA]}{100} \times Tm$$

- PA = Price Adjustment for Adjustment Month
- Ib = Basic Bituminous Material Index
- Ic = Monthly Bituminous Material Index
- BA = Percent asphalt specified for bidding purposes
- RA = Percent asphalt obtained from recycled asphaltic material used in each mix
- Tm = Tons asphalt mix for adjustment month

Upon the expiration of the allocated working time, as set forth in the original contract or as extended by Change Order, payment adjustments for bituminous material containing RAP will continue to be made only when the "Monthly Bituminous Material Index" is **less** than the "Basic Bituminous Material Index" and varies 5% or more.

Payment adjustment, for bituminous material containing RAP provided after the expiration of the allocated working time and where the "Monthly Bituminous Material Index" **exceeds** the "Basic Bituminous Material Index", shall **not** be made until after the contract records have been approved by Final Records (FR)/Materials & Tests (MT) and a Final Estimate is ready to be processed. Upon contract record approval by FR/MT, payment adjustments for bituminous material containing RAP shall be calculated for each month where the allocated working time has expired, the "Monthly Bituminous Material Index" **exceeds** the "Basic Bituminous Material Index", and the indices vary 5% or more. The calculation of the bituminous payment adjustment shall be made using the "Monthly Bituminous Material Index" or the "Bituminous Material Index for Contract Completion Date" in accordance with the following formulas:

The "Bituminous Material Index for Contract Completion Date" is the Monthly Bituminous Material Index in effect on the allocated Contract Completion Date or on the completion date as extended by Change Order.

The "Monthly Bituminous Material Index" is **less** than the "Bituminous Material Index for Contract Completion Date".

$$PA = \frac{[Icd - Ib] \times [BA - RA]}{100} \times Tm$$

The “Monthly Bituminous Material Index” is **greater** than the “Bituminous Material Index for Contract Completion Date”.

$$PA = \frac{[Ic - Ib] \times [BA - RA] \times Tm}{100}$$

Where:

PA =	Price Adjustment for Adjustment Month
Ib =	Basic Bituminous Material Index
Ic =	Monthly Bituminous Material Index
Icd =	Bituminous Material Index for Contract Completion Date (or as extended by Change Order)
BA =	Percent asphalt specified for bidding purposes
RA =	Percent asphalt obtained from recycled asphaltic material used in each mix
Tm =	Tons asphalt mix for adjustment month