CITY OF NORTH LITTLE ROCK, ARKANSAS
COMMERCE DEPARTMENT
Amy Smith, Purchasing Manager

700 W. 29th St., North Little Rock, AR 72114
P.O. BOX 5757, North Little Rock, AR 72119
501-975-8881 Phone
501-975-8885 Fax

INVITATION TO BID/PROPOSAL COVER SHEET

Bid Number: 26-3926 Date Issued: June 4, 2026

Date & Time Bid Opening: Thursday, June 11, 2026 @ 10:00am

Burns Park Junior Tennis Courts Resurfacing

Total Project Bid Price: $_____

Plans and specifications may be obtained from:

- Commerce Department at 700 W. 29th St, North Little Rock, AR 72114
- www.nlr.ar.gov click on the tab "Business," select "Bids and Vendors" and then choose "Open Bid Opportunities."
- Please direct all technical questions in writing to Michael Klamm at mklamm@nlr.ar.gov.
- General bid questions should be directed to the Commerce Department at 501-975-8881.

The City of North Little Rock encourages participation of small, minority, and woman own business enterprises in the procurement of goods, services, professional services, and construction, either as a general contractor or sub-contractor. It is further requested that whenever possible, majority contractors who require sub-contractors, seek qualified small, minority, and woman businesses to partner with them.

If you are obtaining this bid from our website, please be reminded that addendums may occur. It is therefore advisable that you review our listings for attachments including any changes to the bid.

Note: FAILURE TO FILL OUT AND SIGN THE INVITATION TO BID SHEET WILL RESULT IN REJECTION OF THE BID.

EXECUTION OF BID

Upon signing this page, the organization certifies that they have read and agree to the requirements set forth in this bid including conditions set forth and pertinent information requests.

Name of Firm: _____ Phone No.: _____

Arkansas Tax Permit No.: _____

Business Address: _____

Signature of Authorized Person: _____

Title: _____ Date: _____

PLEASE PUBLISH THE FOLLOWING LEGAL NOTICE ON:

Thursday, June 4, 2026

Notice to bidders
Bid #26-3926

Notice is hereby given that the City of North Little Rock's Commerce Department will receive sealed proposals until, Thursday, June 11, 2026 at 10:00am on the following:

BURNS PARK JUNIOR TENNIS COURTS RESURFACING

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1. NOTICE TO THE GENERAL CONTRACTORS

Sealed bids for the **BURNS PARK JUNIOR TENNIS COURTS RESURFACING** will be received by the City of North Little Rock, at 10:00 am on Thursday, June 11, 2026, at 3rd Floor of NLR City Services building (Commerce Department) located at 700 W. 29th, North Little Rock, Arkansas 72114 and then be publicly opened and read aloud. Any bids not submitted on time will be returned unopened.

2. SCOPE OF WORK

The Contractor shall complete all work as specified or indicated in the Contract Documents. The work is generally described as follows: Survey-controlled variable depth milling (1.5"-2" avg depth) for grading preparation, survey-controlled 2" asphalt leveling course (12.5 mm aggregate), and survey-controlled 1.5" asphalt surface course (9.5 mm aggregate). Work includes all labor, materials equipment, supplies, and incidental items necessary to complete the project in conformance with the plans and specifications and related contract documents.

3. SINGLE PROPOSAL

Bidders shall submit one proposal for the entire project.

4. BID SUBMISSION

Bids shall be submitted on the form within the project manual and shall be delivered in a clearly identified, sealed, opaque envelope prior to the date and time described above.

5. AVAILABILITY OF CONSTRUCTION DOCUMENTS

Bona fide bidders may obtain documents at the address listed below, on the following basis:

a. Drawings and Specifications may be examined at the following places:

COMMERCE DEPARTMENT
700 W. 29th St.
North Little Rock, AR 72114
(501) 975-8881
Fax 975-8885

a. www.nlr.ar.gov click on the tab "Business," select "Bids and Vendors" and then choose "Open Bid Opportunities."

6. BID SECURITY

Bid security in the amount of five (5%) percent of the Base Proposal must accompany each proposal as described in the "Instruction to Bidders".

7. WITHDRAWAL OF BIDS

No bid may be withdrawn for a period of sixty (60) days subsequent to date of the opening of Proposals and in accordance with the "Supplemental Instructions to Bidders" without consent of the Owner.

8. COMPLIANCE WITH ARKANSAS STATUTES

All bidders shall comply with the requirements of the Contractor's Licensing Law of the State of Arkansas, and all applicable Arkansas regulations. All bonds on this project shall comply with Arkansas Statutory Performance and Payment Bond Law, Act 351 of 1953, as amended by Act 209 of 1957.

9. REJECTION OF BIDS

The Owner reserves the right to reject any or all bids and to waive any irregularities. Proposals which fail to comply fully with the provisions of the specifications and other Contract Documents will be considered invalid and may not receive consideration.

The right is reserved by the City of North Little Rock to reject any or all bids, in whole or part, or award items separately, or to waive informalities in bids received.

The City of North Little Rock encourages participation from MBE/DBE/WBE and SBA vendors.

CITY OF NORTH LITTLE ROCK

Amy Smith
Purchasing Manager
****

Purchase Order No._____

Send invoice and proof of publication to:

Amy Smith
Commerce Department
P.O. Box 5757
North Little Rock, AR 72119

GENERAL TERMS AND CONDITIONS FOR THE CITY OF NORTH LITTLE ROCK, AR

1. When submitting an "Invitation to Bid," the bidder warrants that the commodities covered by the bid shall be free from defects in material and workmanship under normal use and service. In addition, bidder must deliver new commodities of the latest design and model, unless otherwise specified in the "Invitation to Bid."

2. Prices quoted are to be net process, and when an error is made in extending total prices, the City may accept the bid for the lesser amount whether reflected by extension or by the correct multiple of the unit price.

3. Discounts offered will be taken when the City qualifies for such. The beginning date for computing discounts will be the date of invoice or the date of delivery and acceptance, whichever is later.

4. When bidding other than the brand and/or model specified in the "Invitation to Bid," the brand and/or model number must be stated by that item in the "Invitation to Bid," and descriptive literature be submitted with the bid.

5. **REJECTION**

   A. The City reserves the right to reject any or all Bids, to waive any minor informality or irregularity in any Bid, to negotiate changes and/or modifications with the lowest responsible bidder and to make award to the response deemed to be the most advantageous to the City. Bidders shall be required to comply with all applicable federal, state and local laws.

   B. The City reserves the right to cancel request for bids without penalty with it is in the best interest of the City. Notice of Cancellation shall be inserted on the City's website (www.nlr.ar.gov).

   C. Any Bid not conforming to the specifications or requirements set forth by the City in this Bid Request may be rejected.

   D. Bids may be also rejected if they are made by a Bidder that is deemed un-responsible due to lack of qualifications, capacity, skill, character, experience, reliability, financial stability or quality of services, supplies, materials, equipment or labor.

   E. The City of North Little Rock reserves the right to reject any and all bids, to accept in whole or in part, to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications in those cases where efficiency of operation will not be impaired, and unless otherwise specified by the bidder, to accept any item in the bid. If unit prices and extensions thereof do not coincide, the City of North Little Rock may accept the bid for the lesser amount whether reflected by the extension or by the correct multiple of the unit price

6. The Purchasing office reserves the right to award items, all or none, or by line item(s).

7. Quality, time and probability of performance may be factors in making an award.

8. Bid quotes submitted will remain firm for 30 calendar days from bid opening date; however, the prices may remain firm for a longer period of time if mutually agreeable between bidder and the Department of Commerce.

9. Bidder must submit a completed signed copy of the front page of the "Invitation to Bid" and must submit any other information required in the "Invitation to Bid."

10. In the event a contract is entered into pursuant to the "Invitation to Bid," the bidder shall not discriminate against any qualified employee or qualified applicant for employment because of race, sex, color, creed, national origin or ancestry. The bidder must include in any and all subcontracts a provision similar to the above.

11. Sales or use tax is not to be included in the bid price, but is to be added by the vendor to the invoice billing to the City. Although use tax is not to be included in this bid, vendors are to register and pay tax direct to the Arkansas State Revenue Department.

12. Prices quoted shall be "Free on Board" (F.O.B.) to destination at designated facility in North Little Rock. Charges may not be added after the bid is opened.

13. In the event of two or more identical low bids, the contract may be awarded arbitrarily or for any reason to any of such bidders or split in any proportion between them at the discretion of the Department of Commerce..

14. Specifications furnished with this Invitation are intended to establish a desired quality or performance level, or other minimum dimensions and capacities, which will provide the best product available at the lowest possible price. Other than designated brands and/or models approved as equal to designated products shall receive an equal consideration.

15. Samples of items when required, must be furnished free, and, if not called for within 30 days from date of bid opening, will become property of the City.

16. Bids will not be considered if they are:

    1. Submitted after the bid's opening time.
    2. Submitted electronically or faxed (unless authorized by Purchasing Agent).

17. Guarantees and warranties should be submitted with the bid, as they may be a consideration in making an award.

18. **CONSTRUCTION**

    A. Contractor is to supply the City with evidence of having and maintaining proper and complete insurance, specifically Workman's Compensation Insurance in accordance with the laws of the State of Arkansas, Public Liability and Property Damage. All premiums and cost shall be paid by the Contractor. In no way will the City be responsible in case of accident.

    B. When noted, a Certified check or bid bond in the amount of 5% of total bid shall accompany bid.

    C. A Performance Bond equaling the total amount of any bid exceeding $50,000.00 must be provided for any contract for the repair, alteration or erection of any public building, public structure or public improvement (pursuant to Arkansas Code Annotated Section 22-9-203).

19. **LIQUIDATED DAMAGES** - Liquidated damages shall be assessed beginning on the first day following the maximum delivery or completion time entered on this bid form and/or provided for by the plans and specifications.

20. **AMBIGUITY IN BID** - Any ambiguity in any bid as the result of omission, error, lack of clarity or non-compliance by the bidder with specifications, instructions, and all conditions of bidding shall be construed in the light most favorable to the City.

21. The bid number should be stated on the face of the sealed bid envelope. If it is not, the envelope will have to be opened to identify.

22. Whenever a bid is sought seeking a source of supply for a specified period of time for materials and services, the quantities of usage shown are estimated ONLY. No guarantee or warranty is given or implied by the participants as to the total amount that may or may not be purchased from any resulting contracts. These quantities are for the bidders information ONLY and will be used for tabulation and presentation of bid and the participant reserves the right to increase or decrease quantities as required.

23. The City of North Little Rock will follow procedures to check bidder eligibility through the federal System for Award Management (S.A.M.) as outlined in 2 C.F.R. § 200. This will be completed prior to the award of any contract in which federal grant funds will be expended.

24. Additional information or bid forms may be obtained from:

    COMMERCE DEPARTMENT, 700 West 29th Street, P.O. Box 5757, North Little Rock, Arkansas 72119 (501)975-8881
    www.nlr.ar.gov

Bidding documents must be submitted on or before the bid's opening date and time. Unless noted, bids must be sealed and mailed or delivered to:

Amy Smith, Purchasing Manager
Commerce Department
700 W. 29th Street, 3rd Floor
North Little Rock, AR 72114

BID FORM

NOTE TO BIDDER: Please use BLACK ink for completing this Bid form.

To. _____

Address: _____

_____

_____

Project Title: **BURNS PARK JUNIOR TENNIS COURTS RESURFACING**

Engineer's Project No.: **CNLR ENGINEERING PROJECT NO. 25-16**

Date: _____ Arkansas Contractor's License No.: _____

Bidder: _____

Address: _____

Bidder's person to contact for additional information on this Bid:

Name: _____

Telephone: _____

ADDENDA

The Bidder hereby acknowledges that he/she has received Addenda Numbers:

_____ to these Specifications.
(Bidder insert number of each addendum received.)

CONSTRUCTION DAYS

The Work will be completed and ready for final payment in accordance with the General Conditions within **30 Calendar Days**. Construction shall begin no later than Monday, July 6, 2026 barring no weather-related setbacks.

LIQUIDATED DAMAGES

Liquidated Damages: Owner and Contractor recognize that time is of the essence of this Agreement and the Owner will suffer financial loss if the Work is not completed within the time specified in above, plus any extensions thereof allowed in accordance with the General Conditions. They also recognize the delays, expense, and difficulties involved in proving the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner **Two Hundred Fifty Dollars ($250.00)** for each day that expires after the time specified in Paragraph 3 for completion and readiness for final payment.

INSURANCE AND BONDING REQUIREMENTS

The Bidder hereby acknowledges that he/she has read and understands the performance bond, payment bond, and insurance requirements for this project as specified in the General Conditions. If awarded a construction contract, the Bidder agrees to furnish the required bonds and insurance certificates within fifteen (15) days of the date the award is made.

Signature _____ Title _____

BIDDER'S DECLARATION AND UNDERSTANDING

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the Owner, and that the Bid is made without any connection or collusion with any person submitting another Bid on this Contract.

The Bidder further declares that he has carefully examined the Contract Documents for the construction of the project, that he has personally inspected the site, that he has satisfied himself as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Contract Documents, and that this Bid is made according to the provisions and under the terms of the Contract Documents, which Documents are hereby made a part of this Bid.

The Bidder further agrees that he has exercised his own judgment and has utilized all data which he believes pertinent from the Engineer, Owner, and other sources in arriving at his own conclusions.

The Bidder states that he has experience in and is qualified to perform the work herein specified and, if he does not have craftsmen experienced and qualified in any phase of the work for which this Bid is offered, that he will subcontract the work under said phase to a contractor who does have the necessary experience and qualifications.

CONTRACT EXECUTION AND BONDS

The Bidder agrees that if this Bid is accepted, he will, within 15 days after notice of award, sign the Contract in the form annexed hereto, and will at that time, deliver to the Owner the Performance Bond and Payment Bond required herein, and will, to the extent of his Bid, furnish all machinery, tools, apparatus, and other means of construction and do the work and furnish all the materials necessary to complete all work as specified or indicated in the Contract Documents.

CERTIFICATES OF INSURANCE, PAYMENT BOND, AND PERFORMANCE BOND

The Bidder further agrees to furnish the Owner, before executing the Contract, the certificates of insurance, Payment Bond, and Performance Bond as specified in these Documents.

START OF CONSTRUCTION, CONTRACT COMPLETION TIME, AND LIQUIDATED DAMAGES

Start of Construction, Contract Completion Time, and Liquidated Damages are stated in Document 00500 - Contract.

SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes are included in the stated bid prices for the work.

UNIT PRICE BASE BID

Any Bid may be rejected which contains material omissions, or irregularities, or in which any of the unit prices are obviously unbalanced in the opinion of the Owner. Also, a bid may be rejected if, in any manner it shall fail to conform to the conditions of the published Bidding Requirements and Contract Documents.

The bidder agrees to accept as full payment for the work proposed herein the amount computed under the provisions of the Contract Documents and based on the following unit price amounts, it being expressly understood that the unit prices are independent of the exact quantities involved. The bidder agrees that the unit prices represent a true measure of the labor and materials required to perform the work, including all allowances for overhead and profit for each type and unit of work called for in the Contract Documents.

Item No.	Item Description	Units	Quantity	Unit Cost	Total Cost
1	Site Preparation	LS	1	$	$
2	Variable Depth Milling (Survey-Controlled Depth)	SY	2.470	$	$
3	2" ACHM Leveling Course Using 12.5 MM Aggregate (Survey-Controlled Placement; Includes Pre-installation of Mirafi MPV 500 Fabric with Tack Coat)	SY	2,470	$	$
4	1.5" ACHM Surface Course Using 9.5 MM Aggregate (Survey-Controlled Placement)	SY	2.470	$	$

TOTAL BASE BID AMOUNT $_____

_____

Words

BASIS OF AWARD

The Bidder understands that the Contract will be awarded to the most qualified bidder with the lowest Total Base Bid that the Owner may choose that makes the Project cost acceptable to the Owner. The Owner reserves the right to waive irregularities, reject bids, choose the most qualified bidder for the Project, and to postpone award of the Contract for a period of time which shall not exceed beyond 90 days from the bid opening date.

PAYMENT SCHEDULE

A detailed payment schedule for each structure or unit shall be submitted by the successful low Bidder. The successful low Bidder shall meet with the Engineer and Owner in North Little Rock, Arkansas, to review the format and details of the payment schedule. This meeting shall be held within 5 days of notification that the Contractor is the low Bidder. The purpose of the meeting shall be to establish an acceptable format for the payment schedule. The construction detailed payment schedule shall be

completed by the Contractor 14 days after the meeting and submitted to the Engineer and Owner for review and approval. Failure of the Contractor to submit the payment schedule as required may result in the Owner's rejection of the Bid or delay in processing the Contractor's request for a progress payment.

SUBCONTRACTORS

The Bidder further certifies that proposals from the following subcontractors were used in the preparation of this Bid; and if awarded a contract, Bidder agrees to not enter into Contracts with others for these divisions of the Work without written approval from the Owner and Engineer.

Subcontractor	**Subcontractor**
Arkansas Contractor License #	Arkansas Contractor License #
Street Address, City, State, Zip Code	Street Address, City, State, Zip Code
Subcontractor	**Subcontractor**
Arkansas Contractor License #	Arkansas Contractor License #
Street Address, City, State, Zip Code	Street Address, City, State, Zip Code

SUPPLIERS/VENDORS

The Bidder shall list the suppliers/vendors where material for this Project will be purchased from and successful Bidder shall updated suppliers/vendors during construction of the Project.

Supplier/Vendor Name	**Supplier/Vendor Name**
Street Address, City, State, Zip Code	Street Address, City, State, Zip Code
Phone Number	Phone Number
Supplier/Vendor Name	**Supplier/Vendor Name**
Street Address, City, State, Zip Code	Street Address, City, State, Zip Code
Phone Number	Phone Number

PERFORMANCE OF WORK BY CONTRACTOR

The Bidder shall perform at least 40 percent of the work with his own forces (refer to Paragraph 24,

INSTRUCTIONS TO BIDDERS. Bids from so called "Brokerage Contractors" will not be considered.) List below the items that the Bidder will perform with his own forces, if awarded this Contract, and fill in the blank showing the estimated total cost of these items.

Estimated total cost of the above items the Bidder states that will be performed with his own forces, if awarded Contract:

_____Dollars ($_____)
(Words)

EXPERIENCE OF BIDDER

The Bidder states that he is an experienced Contractor and has completed similar projects within the last 5 years. (List similar projects, with types, names of clients, construction costs, and references with telephone numbers. Use additional sheets if necessary.)

SURETY

If the Bidder is awarded a construction Contract on this Bid, the Surety who provides the Performance and Payment Bond will be:

_____ whose address is:

_____
Street, City, State Zip Code

BIDDER

The name of the Bidder submitting this Bid is:

_____ doing business at:

_____
Street, City, State, Zip Code

which is the address to which all communications concerned with this Bid and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Bid, or of the partnership, or of all persons interested in this Bid as principals are as follows:

_____

_____

_____

If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this _____ day of _____, 20___.

_____
Signature of Bidder

_____
Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this ____day of _____, 20___.

_____
Name of Corporation

(SEAL)

By_____

Title_____

Attest_____
Secretary

BID BOND

STATE OF ARKANSAS

KNOW ALL MEN BY THESE PRESENTS, that we:

_____

Principal and Contractor, and _____

_____

hereinafter called Surety, are held and firmly bound unto the **City of , Arkansas** and represented by its Mayor and City Council, hereinafter called Owner, in the sum of

_____DOLLARS ($_____)

lawful money of the United States of America, for the payment of which well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

WHEREAS, the Principal contemplates submitting or has submitted a bid to the Owner for the furnishing of all labor, materials (except those to be specifically furnished by the Owner), equipment, machinery, tools, apparatus, means of transportation for, and the performance of the work covered in the Bid and the detailed Drawings and Specifications, entitled:

BURNS PARK JUNIOR TENNIS COURTS RESURFACING
City Engineering Project No. 25-16
North Little Rock, Arkansas

WHEREAS, it was a condition precedent to the submission of said bid that a cashier's check, certified check, or bid bond in the amount of 5 percent of the base bid be submitted with said bid as a guarantee that the Bidder would, if awarded the Contract, enter into a written Contract with the Owner for the performance of said Contract within 15 consecutive calendar days after written notice having been given of the award of the Contract.

NOW, THEREFORE, the conditions of this obligation are such that if the Principal within 15 consecutive calendar days after written notice of such acceptance enters into a written Contract with the Owner and furnishes a Contract Surety Bond in an amount equal to 100 percent of the base bid, satisfactory to the Owner, then this obligation shall be void; otherwise the sum herein stated shall be due and payable to the Owner and the Surety herein agrees to pay said sum immediately upon demand of the Owner in good and lawful money of the United States of America, as liquidated damages for failure thereof of said Principal.

IN WITNESS WHEREOF, the said_____, as Principal herein, has caused these presents to be signed in its name by its_____ and attested by its _____under its corporate seal, and the said _____ as Surety herein, has caused these presents to be signed in its name by its_____ _____ under its corporate seal, this _____ day of _____ A.D., 20__.

Signed, sealed and delivered
in the presence of:

_____
Principal-Contractor

_____

By_____

_____
As to Principal

_____
Title

_____

Surety

_____

_____
Attorney-in-Fact
(Power-of-Attorney to be Attached)

_____
As to Surety

By_____
Agent

SITE PREPARATION

DESCRIPTION

This item covers the preparation of the site for construction of the proposed improvements. The attention of the bidder is directed to the necessity for careful examination of the entire project site to determine, at the time of bid preparation, the full extent of work to be done under the item "SITE PREPARATION."

The item "SITE PREPARATION" shall include:

1. Mobilization/Demobilization
2. Survey Control
3. Contractor's Staging Areas
4. Contractor's Access
5. Manual Placement of Asphalt Tie-In on Fence Exterior Slab
6. Clean Up

CONSTRUCTION METHODS

MOBILIZATION/DEMOBILIZATION: The Contractor shall consider and include their cost for providing personnel, equipment, materials, bonds, etc. required for prosecution of the work under this item.

SURVEY CONTROL: The Contractor shall consider and include their cost for providing survey control required for this project. All survey control work will not be measured for separate payment, but will be considered subsidiary to the bid item "SITE PREPARATION."

CONTRACTOR'S STAGING AREAS: The Contractor's staging area location shall be coordinated with the City Engineer and used by the Contractor to store materials/equipment, for employee parking, and for other purposes necessary to perform the work on this project. All areas used or otherwise occupied by the Contractor for their operations shall be cleaned and restored to their original condition prior to the final acceptance of the project by the Owner. All work involved in the preparation and restoration of areas used or occupied by the Contractor will not be measured for separate payment, but will be considered subsidiary to the bid item "SITE PREPARATION."

CONTRACTOR'S ACCESS: The Contractor’s access to the site shall be coordinated with the City Engineer. Before final acceptance of the project, any damage to the existing roads caused by the Contractor shall be repaired as directed by the Engineer. The repair of the existing roads will not be measured for separate payment but will be considered subsidiary to the item "SITE PREPARATION."

MANUAL PLACEMENT OF ASPHALT TIE-IN ON FENCE EXERIOR SLAB: The Contractor shall consider and include their cost for this item referenced in the plans. All work for this item will not be measured for separate payment, but will be considered subsidiary to the bid item "SITE PREPARATION."

CLEAN UP: From time to time, the Contractor shall clean up the site in order that the site presents a neat appearance and that the progress of work will not be impeded. One such clean up shall immediately precede final inspection.

Immediately following acceptance of the work by the Owner, the Contractor shall remove all temporary equipment, surplus materials, and debris resulting from their operations, and leave the site in a condition fully acceptable to the Owner. Cleanup will not be paid for directly but will be considered subsidiary to “SITE PREPARATION”.

MEASUREMENT AND PAYMENT

Site Preparation will be measured as a lump sum complete item. Work completed and accepted under this item will be paid for at the contract lump sum price bid for "SITE PREPARATION," which price shall be full compensation for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

Periodic payments will be made under this item in proportion to the amount of work accomplished, as determined by the Engineer.

Payment will be made under:

Site Preparation - per Lump Sum

END OF SECTION

Reference to Arkansas State Highway and Transportation Department Specifications

Description and Use

Applicable sections of the Arkansas State Highway and Transportation Department Standard Specifications entitled Standard Specifications for Highway Construction, Arkansas State Highway and Transportation Department, Edition of 2014, are referred to herein by the proper section or paragraph and will be identified by the term "Standard Specifications".

Those portions of the "Standard Specifications" referred to herein shall be considered as part of these Contract Documents as though printed herein.

The "Standard Specifications" may be obtained from Arkansas State Highway and Transportation Department, Little Rock, Arkansas.

Asphalt for Athletic Uses

DESCRIPTION

This section covers construction of Asphalt Concrete Hot Mix Surface Course in accordance with these specifications and contract documents, or as directed by the Engineer.

STANDARDS

Materials, equipment, and construction methods for Asphalt Concrete Hot Mix Surface Course shall be in accordance with SECTIONS 404, 407, 409, AND 410 of the Standard Specifications 2014 Edition, except as modified or augmented herein.

SECTION 410, CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES.

410.09 (a) General.
Add:
Samples for all properties except density, thickness, and the investigation of segregation shall be obtained from trucks at the plant. The testing agency shall clearly mark the load ticket of each sampled truck to indicate that the load has been sampled.

410.09 (b)(1) Properties in Table 410-1.
Add:
Table 410-1 is amended to add thickness tolerances as shown below. When lots and sublot divisions for initial and final courses do not coincide, the Contractor may be required to take additional samples (full-depth) at his expense at locations agreed upon by the Engineer to potentially avoid penalties or rejection of his work.

Addition to Table 410-1 in Standard Specifications

Property	Compliance Limits	Price Reduction Limits	Lot Rejection Limits	Sublot Rejection Limits
Surface	+/- 1/4 inch	1/4 inch to 3/8 inch deficient in thickness	more than 3/8 inch deficient in thickness	more than 3/8 inch deficient in thickness

410.09 (b)(2) Pavement Smoothness.
Add:
The Contractor shall provide the straight-edge.

A. Qualified Suppliers

1. Hot Mix Asphalt (HMA) shall be manufactured from a state approved / certified HMA manufacturing facility. Work consists of one or more courses of HMA constructed on a properly prepared foundation. The low-volume (aka athletic use) asphalt concrete consists of a mixture of dense (aka well) graded aggregate and specified type and grade of asphalt binder. The manufacturing facility shall be capable of producing HMA in accordance with the following requirements and all applicable local agency specifications on an ongoing and consistent basis.

2. Ensuring uniform material is produced and selecting the vendor for these asphalt projects will require timely submittal of documents and qualifications to the satisfaction of the Owner. Contractor / material supplier shall demonstrate the existence of the following documents:

a. Approved vendor certificate for the locality (state / county / city, et. al.) where work is being done,
b. Quality Control manual for material production oversight and testing measures being performed both at the asphalt plant as well as on the job site, and
c. List / Organizational Chart showing personnel responsible for use of equipment and actions of the crew on the grade while paving and compacting asphalt.

3. Calibrated equipment and qualified personnel must be accessible at all times during the construction of the HMA. The Contractor installing the HMA shall provide the necessary equipment, materials, and labor to complete the job acceptable to the Owner and in accordance with applicable contract documents. Variations in the size and amount of equipment will depend on the size of the area being paved.

4. It is imperative that all documents list a “Person-in-Charge” who is responsible for the oversight of the previously listed activities. This individual will be the point of contact for the Owner and shall work with the Owner to ensure timely project completion and specification compliance. This individual shall be knowledgeable in all aspects of asphalt design, production

and installation and shall be an employee of the Contractor installing the asphalt, even if the HMA is being produced and supplied by a separate vendor.

5. This individual shall be knowledgeable in all aspects of asphalt mix design, production, and installation and shall be an employee of the company holding the contract with the Owner, even if the HMA is being produced and supplied by a separate vendor. This person shall have authority to take corrective actions needed to make the athletic asphalt fit for use.

B. Definitions

1. Surface Course – The low volume surface / wearing course shall be installed uniformly, to all finished lines and grades, smooth, durable, impervious thus protecting lower layers, and stable. Workmanship of the finished surface course shall be of the highest industry standards (NAPA, AI, ASBA, and NHI references) and applicable to sports surfaces prior to acceptance by the Owner. The surface course shall be built with a fine-graded, $^{3}/_{8}$" maximum aggregate particle size or smaller. Surface course shall be installed to a minimum average 1-$^{1}/_{2}$" compacted thickness; ensure that no thickness of less than 1-$^{1}/_{4}$" compacted thickness is placed.

2. Leveling Course – The course and location of the recreational area that requires placement of a variable thickness of HMA to 'true up' the area prior to placement of the surface course. This course has a Maximum Aggregate Size (MAS) no less than that of the surface course. The leveling course shall be built with ½" aggregate and installed to a minimum 2" compacted thickness.

3. Base Course – The lower courses of the pavement structure below the surface and leveling course with a MAS of between $^{3}/_{4}$" and 1". Base courses shall not be allowed to remain without the surface course placed over an extended period of time and as approved by the engineer. The base shall be kept clean and must be completely dry before proceeding. If the minimum thicknesses shown above cannot be met then install surface mixture as base course.

4. Tacking / Priming – The process of applying one coat of emulsified asphalt to all horizontal and vertical surfaces of either an existing pavement for an overlay or between lifts while building an improved or new structure (tacking), or upon the aggregate base (priming).

HMA Mixture NMAS	NCAT Fine Graded HMA Compacted Thickness, min.
$^{1}/_{2}$" (12.5 mm)	1-$^{1}/_{2}$"
$^{3}/_{4}$" (19.0 mm)	2-½"

Materials

A. Tack Coat: AASHTO M140 or M208 (Reference the Asphalt Insititute MS-19 for Handling, Storage, and Application criteria: Typically 0.05 gal/sy to 0.15 gal/sy (0.02 gal/sy to 0.05 gal/sy residual AC) depending on the existing surface condition: see Surface Preparation section and current AI and NAPA publications).

1. Tack Coat: SS-1, SS-1h, CSS-1 or CSS-1h diluted with an equal amount of water or agency acceptable product.

B. Hot Mix Asphalt (Low Volume)

1. Aggregates, mineral filler, and asphalt binder shall meet or exceed the requirements of local specifications for asphalt pavements placed under this contract for qualities and types. The coarse aggregate shall be sound, angular crushed stone, or crushed gravel (NO crushed air-cooled blast furnace slag). The fine aggregate shall be well graded, moderately sharp to sharp (angular) sands. No aggregates known to cause rust spots or pop-outs (steel slag, iron pyrite, and / or dust balls) are allowed in the asphalt. No recycled concrete is allowed in any of the asphalt mixtures.

2. All HMA mix designs shall be performed in accordance with the Asphalt Institute Manual Series #2 (MS-2), current edition. The HMA mix designs developed shall meet the requirements of one of the following for compactive effort in the laboratory:

1. Marshall, 50-Blow,
2. Superpave, 50-Gyration, or
3. Hveem, Low Volume Mix.

C. HMA Mix Designs shall be performed by qualified personnel with proven past experience and successes in the mix design and quality control of asphalt production. Resumes of the signing “individual-in-charge” may be required by the Owner and shall be supplied if requested. The design shall meet the following requirements and be less than 24-months old. However the mix design method used shall be the Contractors option, as stated previously, based on various methods which currently exist around the nation. A completed design shall be signed by a professional engineer and require submittal of documentation as detailed within this specification. This is required by the Owner in order for the producer to demonstrate knowledge of asphalt mix design and production criterion needed to supply athletic asphalt.

D. Contractor shall submit Contractors proposed Asphalt Mixture Design sheets. (Ref. Mix Design Submittal Checklist sheet at the end of this document.) Designs will be for HMA to be placed for each of the uses anticipated on each project; patching, base, leveling,

and / or surface course. Different asphalt suppliers shall require different design submittals. In addition to mix designs, submit Asphalt Placement Work Plan, indicating: paving pass widths, paving directions, site access, and timing / coordination of athletic equipment installation (tennis net posts, vault boxes, fencing, etc.).

E. All submitted HMA mix designs shall have a completed Mix Design Submittal Checklist [Reference last page of these guidelines] and contain at a minimum the following information:

1. All Aggregate Gradations and Quality Measurements
2. Plot (0.45 power graph) of Final Aggregate Blend
3. Bulk (dry) Specific Gravity of All Aggregates and Final Blend $_{(Gsb)}$ including worksheets for natural (virgin) (NO reclaimed asphalt pavement (RAP) allowed).
4. Statement of Asphalt Binder (PG) being used in Asphalt Mixture
5. Optimum % Asphalt Binder (Pb)
6. Mix Air Voids at Optimum (Va)
7. Bulk Specific Gravity of Mix at Optimum (Gmb)
8. Theoretical Maximum Specific Gravity at Optimum (Gmm)
9. Voids in the Mineral Aggregate (VMA) and Voids Filled with Asphalt (VFA)
10. Dust to total AC Ratio
11. All Design Data and associated Design Curves

Mix Design Method Requirements

Measures	**Superpave**	**Marshall**	**Hveem**
Stability, lbs.	n/a	1,200 min.	30 min.
Flow, 0.01 in.	n/a	8 to 16	n/a
Swell, in.	n/a	n/a	0.030 max.
Air Voids @ optimum AC with 2-hr. aging (cure-time).	3.5%	3.5%	3.5%
VMA based on NMAS			
#4 (4.75 mm)	16.0 min.	16.0 min.	16.0 min.
3/8" (9.5 mm)	15.0 min.	15.0 min.	15.0 min.
1/2" (12.5 mm)	14.0 min.	14.0 min.	14.0 min.
3/4" (19.0 mm)	13.0 min.	13.0 min.	13.0 min.
VFA	73 to 80	73 to 80	73 to 80
Dust to effective AC (design & production)	0.7 to 1.3	0.7 to 1.3	0.7 to 1.3
Tensile Strength Ratio	80% min.	80% min.	80% min.

F. In addition, all design methods and measures listed above shall meet the following criterion for design and throughout production.

1. Base mixes shall have a minimum of 45% passing the #4 sieve,
2. Surface and leveling mixes shall have a minimum of 45% passing the #8 sieve,
3. Coarse Aggregate fraction shall have a minimum of 85% / 75% crushed faces,
4. Fine Aggregate Angularity (AASHTO T-304, Method A), shall be >= 40% with no more than 20% natural sand allowed,
5. Mix Designs shall include a breakdown factor, increase to minus #200, introduced during the design stage to mimic production values,
6. VMA is based on the aggregate bulk (dry) specific gravity, G_{sb}, as determined by AASHTO T-84 and T-85,
7. Performance Graded (PG) binder shall meet typical agency specification for new construction low volume roadways, [Reference LTPPBind, current edition; 98% reliability.]
8. Reclaimed Asphalt Pavement (RAP) not allowed:
9. Reclaimed Asphalt Shingles (RAS) are not allowed in athletic facilities asphalt,
10. Current Quality Control testing of the mixture, and aggregates proposed to be used on the project shall be submitted to the Owner prior to acceptance of the proposed mix design.

G. Testing

1. Testing required to validate or control the mix supplied is the Paving Contractor's responsibility and will be included in the bid cost for providing these HMA items. Daily maximum theoretical specific gravity (G_{mm}) values must be made available to the Contractor's density technician for verifying in-place density within four hours of start of production. Asphalt content, gradation, and bulk specific gravity (G_{mb}) testing shall be performed on the first day of installation for each product used, then done a minimum of once every 400 tons of HMA supplied or every third day for low tonnages that when added together successively do not equal 400 tons. Acceptable average measures are made by use of a correlated nuclear density gauge, a correlated Pavement Quality Indicator or PaveTracker (non-nuclear) or by cutting (4) cores per lift, per day and testing per AASHTO T-166, Method C. Additional testing shall be performed on any given day once 400 tons of asphalt is placed on that day.

2. The average sub-lot (daily or 400 tons; whichever is less) in-place density measure for surface course mixtures shall be 94.0% of G_{mm} with no value less than 92.5% of G_{mm}. Base and leveling installation of asphalt shall meet local DOT specifications for in-place density measures or average of 92.0% of G_{mm}, whichever is greater. Surface course longitudinal joints shall be measured directly upon the joint, centered upon by core or density gauge, and shall meet the mat density requirements. Base and leveling course longitudinal joint density measures shall achieve between 95% - 102% of maximum achievable individually, with an average of 98% on any given day.

3. Process Control testing shall be in accordance with state standards for frequency and methods where the work being performed is done with a minimum of testing meeting the above QC requirements.

4. Process Control Voids and minus #200 gradation shall target mix design with no test outside plus / minus 1.0% and VMA shall target the asphalt mix design value or greater, with no test value less than minimum allowed minus 0.3%.

5. Print outs of ingredients used shall be supplied for each run of asphalt; data logger or computer screen shot. Print outs shall be supplied daily with the final load of asphalt ticket.

Recommended Means & Methods

A. Equipment

1. Tack / Prime Coat Distributor Truck must have an insulated tank, heating system, and a calibrated distributor capable of maintaining a uniform application of emulsified asphalt under pressure throughout the area to be paved. This requires a pump in good working order, full circulating spray bars, and free flowing nozzles. Small, isolated areas may be tacked with a wand.

2. Trucks shall have smooth, clean and tight metal beds that do not have mixture sticking to the truck bed and from which the entire quantity of HMA can be discharged smoothly into the spreading equipment. Trucks shall have a tarp and insulation as needed to protect the asphalt mixture from wind, rain and cold temperatures. Trucks for hauling asphalt mixture shall be in good, safe working condition.

3. Paving Equipment must be capable of placing, spreading and finishing courses of HMA to the specified thicknesses. HMA shall be free of marks, segregation and be placed to the required uniform elevation with a smooth texture not showing tearing, shoving, or gouging. Auger extensions are required while pavers are extended beyond the basic screed width. Paving Equipment shall be self-propelled and capable of maintaining the line and grade shown on the plans with suitable electronic equipment. The screed shall be straight and true with no bow and utilizing a vibratory screed. Hand work shall be minimized to ensure the best possible finished surface. It is recommended that paving equipment be equipped with

sonar pods or no contact skis for sports asphalt construction. Additionally, it should be equipped with automatic slope control to maintain required tolerances. Finally, paving equipment should have fully functional screed heaters and joint preheaters.

4. Rollers shall conform to the manufacturer's specifications for all ballasting. At least one vibratory roller shall be required for each project with two rollers required as a minimum. (Three rollers shall be required when tonnage is greater than 300 tons / day.) Rollers shall be of good condition and capable of compacting the HMA to the minimum in-place density required by this specification.

B. Surface Preparation

1. Repair pavement failures and perform crack repair according to specification requirements prior to HMA installation.

2. Cold-milling and/or grinding may be necessary to ensure that the asphalt edges at concrete abutments such as approaches, sidewalks, curbing, and drainage basins have smooth transitions.

3. After site review, detail whether wedge milling is necessary to assure positive drainage and transition. Install leveling course, if required, on the project per the site details and quantities shown on the plan sheets.

4. Existing surfaces to receive HMA must be clean prior to the installation of any portion of the work. Clean the surface on which the asphalt concrete is to be placed, and keep it free of accumulations of materials that would contaminate the mixture, prevent bonding, or interfere with spreading operations. Methods used may include but not be limited to the use of a sweeper that can wet and vacuum the area free of dirt and debris, clay, and dust, or any other foreign material.

5. Any oil or grease spots shall be scraped and treated to prevent bleeding through the tack coat. Bad oil spills may require removal with a wire brush or other suitable tool. Maintain clean pavements prior to applying emulsified tack coat. When approved sub-grade or pavement courses previously constructed under the Contract become loosened, rutted, or otherwise defective, the Contractor must correct the deficiency according to the contract item or items involved before the spreading of a subsequent pavement course.

6. If subsequent lifts are laid beyond 24 or 48 hours, apply tack coat at the diluted rate of 0.05 gal / sy (0.02 gal / sy residual AC) over newly constructed asphalt leveling or base mixes, 0.10 gal / sy (0.04 gal / sy residual AC) over existing asphalt pavements and 0.15 gal / sy (0.05 gal / sy residual AC) over milled surfaces. The higher rate shall be used on dry and brittle surfaces. All vertical edges abutting proposed asphalt surfaces shall receive a tack coat. Excessive asphalt applications, drooling, or pooling shall be swept with a broom to ensure proper bonding of the HMA. Install the HMA after the asphalt

emulsion has 'broken'; i.e. turned from a brown to a black color, indicating water has evaporated. If pick up occurs, wait until emulsion cures.

7. If shown on the plans, apply prime coat at the diluted rate of 0.30 gal / sy over newly placed aggregate base course prior to the installation of the base asphalt.

8. Install tack / prime coat during appropriate weather conditions and protect the tack / prime coat from traffic so as not to wear and track. Allow the tack / prime coat to 'break', i.e. turn from brown to black prior to installation of the HMA.

9. Perform work in appropriate weather conditions that are dry with no rain, snow, or other forms of precipitation falling or imminent (anticipated during installation of the HMA).

C. Pavement Placement

1. Install HMA which shall generally arrive on the project between 270 – 300° Fahrenheit (see producer recommendation) asphalt in accordance with above weather conditions and with a temperature of 50° F. and rising for all asphalt lifts.

2. Establish an acceptable rolling pattern with the assistance of a density technician on the first day of construction. Record temperatures, equipment, rolling pattern, and in-place density results throughout the project.

3. Surface course longitudinal joints shall be smooth and true; no deviation from level and true as required of the mat will be allowed. Detail and submit to the Owner a paving plan on the site plan sheet prior to placement of asphalt.

4. The entire athletic surface course shall be paved on the same day. The timing and process should be discussed with and approved by the Owner before proceeding with the work. If a cold seam will occur it must be agreed to with the Owner in advance such as: occur near or at a planned saw and seal joint or under the fence line.

5. Rolling shall start as soon as the HMA can be compacted without displacement. Rolling shall continue until the HMA is thoroughly compacted and all roller marks have disappeared. Compact the HMA to a minimum in-place density of 94.0% of the Theoretical Maximum Specific Gravity, G_{mm}. [Reference density pay factor table.]

6. Smoothness shall meet the requirements of no greater than $^1/_4$" in 10 ft. for base and leveling courses and $^1/_8$" in 10 ft. for surface course. [Reference ASBA manual.]

7. Thickness of the overall mat shall be within $^1/_4$" (surface course, no minus) of the specified plan thickness at all locations. However, the yield for the day and for the entire site shall meet calculated theoretical based on 94% of G_{mm} supplied from the Contractors mix design and daily test values.

8. Paving Joints [Install / build control joints per the Architectural Drawings.]
    - Minimize construction, longitudinal, and transverse joints left open for an extended period of time.
    - Construct longitudinal joints by paving in a hot fashion with a temperature of not less than 220°F to ensure maximum performance.
    - Compact all joints to provide for a neat, uniform and tightly bonded joint that will meet both surface tolerances and density requirements.
    - Cut straight and true (vertical) construction or transverse joints if the material has cooled to less than 220°F prior to the placement of the next pass to ensure the best performing joint possible.
    - Off-set joints a minimum of 6" between lifts of asphalt.
9. Allow positive drainage off of the athletic facility and towards drainage outlets. Any ponding of water is not acceptable and shall require correction or replacement at the Contractor's expense and as directed by the Engineer. Please reference the ASBA Tennis Construction & Maintenance Manual or ASBA Running Tracks Construction & Maintenance Manual for ponding tolerances. The court surface should be flooded with water and allowed to drain for one hour at 70 degrees Fahrenheit. If there is any remaining water that covers a 5 cent piece (American coin), that area, commonly called a "birdbath", should be patched and leveled. (Note: If the standing water does not cover a 5 cent piece, it is considered within tolerance and will evaporate within a reasonable time). Reflooding and patching may be necessary until "birdbaths" are properly minimized.
10. Protect the HMA until such time that coating can be placed upon the properly compacted asphalt, particularly during other construction activities between asphalt installation and athletic surface installation.
11. If excessive segregation is occurring during placement operations, the Contractor will investigate the cause(s) and make appropriate changes to the satisfaction of the Owner. [Reference AI MS-22.]
12. Excessive leveling and smoothness correction required to be performed by the surfacing contractor shall be the responsibility of the paving contractor.

D. Work Timeliness

HMA Full-depth pavements / Overlays (a/k/a Resurfacing): The repairs, HMA overlay, and coating shall be accomplished in such a manner as not to unduly delay the progress of the project. Every attempt should be made to complete the surface course placement process in one continuous placement with no cold joints. The timing and process should be discussed with the Owner before proceeding with the work.

E. Site Specific Identification, Contractor shall:

1. Remove all waste materials from the site and dispose of according to local ordinances.
2. Complete all work in compliance with the American Sports Builders Association (ASBA) requirements or as modified here, whichever is more restrictive.
3. Notify Owner when work is complete.

4. Supply Owner with Notarized Certificate of Compliance for all products used on the project.
5. Supply Owner with yield calculations for all products used on the project. (for example, placement of 1,300 sq. yds. of Hot Mix Asphalt,1-$^{3}/_{4}$" compacted thickness will require 128 tons when the unit weight = 150 pcf.)

Method of Measurement

This item will be measured and paid per square yard, based on printed tickets from the plant, laid in place.

Basis of Payment

This item will be paid for by the square yard laid in place, for "1.5" ACHM Surface Course Using 9.5 mm Aggregate (Survey-Controlled Placement)" and "2" ACHM Leveling Course Using 12.5 mm Aggregate (Survey-Controlled Placement; Includes Pre-Installation of Mirafi MPV 500 Fabric with Tack Coat)". The Contract unit prices shall be full compensation for furnishing materials, for furnishing acceptable mix designs, for heating, mixing, hauling, placing, rolling, and finishing, and for all labor, equipment, tools, and incidentals necessary to complete the work.

Payment will be made under:

a. 1.5" ACHM Surface Course Using 9.5 mm Aggregate (Survey-Controlled Placement) – per SY

b. 2" ACHM Leveling Course Using 12.5 mm Aggregate (Survey-Controlled Placement; Includes Pre-Installation of Mirafi MPV 500 Fabric with Tack Coat) – per SY

Mix Design Submittal Checklist

Project: _____ **Date:** _____

Supplier **Mix Design:** _____ **Surface .1 Leveling .1 Base**

Included	Missing	NIA	Required Information
			Contractor to select mix design method: (design shall be less than 24 months old)
			5G-Blow Marshall
			50-Gyration Superpave
			Hveem, Low Volume
			Other, Engineers Approval Req'd Before Bidding
			Proper Authorization Signature for Mix Design
			All Aggregate Types, Gradations & % Crush
			FAA >= 40%, Maximum of 20% Natural Sand
			Plot (0.45 Power Graph) of Final Aggregate Blend
			Bulk (Dry) Specific Gravity of All Aggregates and Final Blend (Gsb), **Include All Worksheets**
			Optimum Binder Content (Pb)
			Mix Voids at Optimum (Va)
			VMA at Optimum
			Bulk Specific Gravity of Mix at Optimum (Gmb)
			Theoretical Maximum Specific Gravity at Optimum (Gmm)
			Dust to Total AC Ratio
			All Design Data and Associated Design Curves
			Recent Quality Control Production Charts
			Other Information per Specifications

Comments: _____

End of Section

Tack Coat

Description

This item shall consist of a single application of an asphalt material for Tack Coat applied to an approved existing asphalt or concrete surface in accordance with AHTD Standard Specifications Section 401.

Materials:	Materials shall conform to AHTD Standard Specifications Section 403 for Rapid Curing cut-back asphalt or an Emulsified Asphalt.
Equipment:	AHTD Standard Section 403
Construction Requirements	AHTD Standard Specifications Section 401 Application of Tack Coat: Tack Coat rate shall be .10 gallons per square yard or as directed by the Engineer. Contractor shall take every precaution in the use of Tack Coat to not cause damage, "over-spray," or "track" marks outside of the paved surface. Contractor will be responsible for tack on vehicles due to neglect or lack of traffic control.
Basis of Payment	Tack Coat shall <u>not</u> be paid for as a separate item but shall be considered subsidiary to ACHM pay items

Interlayer for Bituminous Pavement Overlays

Description

This item shall consist of installation of Mirafi MPV paving fabric with tack coat over specified road surfaces, before construction of a 2 inch ACHM surface course.

General

Mirafi® MPV paving fabrics are needle-punched, polypropylene, heat-set, non-woven geotextiles with high asphalt absorption. When installed with sufficient asphalt cement tack coat on a properly prepared surface, Mirafi® MPV paving fabric and the tack coat form an impermeable fabric interlayer system that is fully recyclable and adds long-term lifecycle and cost benefits to pavement.

Definitions

Minimum Average Roll Value (MARV): Property value calculated as typical minus two standard deviations. Statistically, it yields a 97.7 percent degree of confidence that any sample taken during quality assurance testing will exceed value reported.

Submittals

Submit the following:

1. Certification: The contractor shall provide to the Engineer a certificate stating the name of the manufacturer, product name, style number, chemical composition of the filaments or yarns and other pertinent information to fully describe the geotextile. The Certification shall state that the furnished geotextile meets MARV requirements of the specification as evaluated under the Manufacturer's quality control program. The Certification shall be attested to by a person having legal authority to bind the Manufacturer. Certifications from Private Label distributors will not be accepted.

2. Quality Standards: The contractor shall provide to the Engineer the Manufacturer’s Quality Control Plan along with their current GAI-LAP and ISO 9001:2008 certificates.

Quality Assurance

A. Manufacturer Qualifications:

1. The geotextile Manufacturer shall have all the following credentials:

a. Geosynthetic Accreditation Institute (GAI)- Laboratory Accreditation Program (LAP)

b. ISO 9001:2008 Quality Management System

B. The geotextile Manufacturer shall have a GAI-LAP accredited laboratory at the location of production capable of performing the ASTM tests as outlined in the specification.

C. Asphalt Sealant: The Engineer shall approve asphalt cement. A grade asphalt of the same type used in the manufacture of the hot mix asphalt for the overlay should be acceptable.

Delivery, Storage, and Handling

A. Geotextiles labeling, shipment, and storage shall follow ASTM D4873. Product labels shall clearly show the manufacturer or supplier name, style name, and roll number.

B. Each geotextile roll shall be wrapped with a material that will protect the geotextile from damage due to shipment, water, sunlight, and contaminants.

C. During storage, geotextile rolls shall be elevated off the ground and adequately covered to protect them from the following: site construction damage, precipitation, extended ultraviolet radiation including sunlight, chemicals that are strong acids or strong bases, flames including welding sparks, excess temperatures, and any other environmental conditions that may damage the physical property values of the geotextile.

Manufacturers

A. TenCateTM Geosynthetics Americas
365 South Holland Drive
Pendergrass, GA, USA 30567
1-800-685-9990
1-706-693-2226
1-706-693-4400, fax
www.mirafi.com

Materials

A. Geotextile:

The pavement paving fabric shall be furnished by an ISO approved manufacturer of polypropylene or polyester geosynthetics and is utilized extend the service life of pavement overlays. The paving fabric shall be needle punched nonwoven and heat treated on one side and shall conform to AASHTO M288, Mild Climate Region specification for paving fabrics and the following physical and mechanical properties

Table 1 – Paving Geotextile

Property	Units	Test Method	Minimum Average Roll Value (MARV)
Mass Per Unit Area	oz/yd^2 (gm/m^2)	ASTM D5261	4.1 (140)
Grab Tensile Strength	lb (N)	ASTM D4632	101 (450)
Grab Elongation at Break	%	ASTM D4632	50
Melting Point	°F (°C)	ASTM D276	320 (160)
Asphalt Retention	gal/yd^2 (l/m^2)	ASTM D6140	0.20 (0.91)

*Approved geotextiles are as follows:

Mirafi® MPV500 (Concrete Streets)

Quality Control

A. Manufacturing Quality Control: Testing shall be performed at a laboratory accredited by GAI-LAP for tests required for the geotextile, at frequency meeting or exceeding ASTM D4354.

B. Geotextile properties, other than Ultraviolet Stability shall be tested by NTPEP to verify conformance with this specification.

C. Manufacturer's certifications and testing of quality assurance samples obtained using Procedure B of ASTM D4354. A lot size for conformance or quality assurance sampling shall be the shipment quantity of the given product or a truckload of the given product, whichever is smaller.

Equipment

A. Asphalt Distributor: The distributor must be suitably metered and capable of spraying the asphalt cement uniformly and at the prescribed application rate. No drilling or skipping shall be permitted.

B. Fabric Handling Equipment: A tractor or similar mechanical device with mounted lay down equipment that is capable of handling full rolls of fabric shall be used. The equipment shall can lay the paving fabric smoothly without excessive wrinkles and/or folds.

C. Miscellaneous Equipment: Stiff bristle brooms used to smooth, and scissors (or blades) used to cut the paving fabric shall be provided by the Installer. A pneumatic-tired roller may be needed in some cases to smooth paving fabric into the asphalt cement.

Installation

A. Surface Preparation: The surface shall be free of dirt, water, vegetation and other foreign materials prior to placement of the paving fabric. Open cracks ¼ inches or larger shall be filled with sand mixed asphalt as directed by the Engineer. Cracks larger than ½ inch or holes shall be filled with cold or hot mix asphalt. The use of a leveling course may be required prior to placing the paving fabric in severe cases.

B. Application of Sealant: The asphalt cement and binder must be uniformly spray-applied at the specified rate. The quantity required may vary with the surface condition of the existing pavement (e.g. degree of porosity), but shall be applied at a nominal rate of 0.25 gallons per square yard of residual asphalt.

C. Application of asphalt cement will be performed by truck-mounted distribution equipment whenever possible, with hand spraying kept to a minimum. The temperature of the asphalt cement must be sufficiently high to permit a uniform spray pattern. The minimum recommended temperature for asphalt cement is 290°F, and should not exceed 325°F.

D. Paving Fabric Placement: The paving fabric shall be placed onto existing pavement with a minimum of wrinkles before the asphalt can cool or lose its tackiness. The paving fabric shall be placed so that the non-heat treated (bearded or fuzzy) side is placed downward, into the sealant, thus providing optimum bond between fabric and pavement during the construction process. As directed by the Engineer, wrinkles severe enough to cause “folds” shall be slit and laid flat in the direction of paving operations. Brooming the paving fabric will assist it in making intimate contact with the pavement surface.

E. Any overlap of the paving fabric should be minimized, although an overlap of 1 to 3 inches is recommended to insure full closure of overlapping layers. Care must be exercised to prevent edge pick-up by the paver on transverse joints they may be shingled (overlapped) in the direction of paving operations or secured by asphalt tack. The contractor installing the paving fabric must prove that they have at least 4 years' experience in placing paving fabric.

F. In the event that asphalt cement should bleed through the paving fabric before the hot mix asphalt is placed, it may be necessary to absorb any visible sealant by spreading sand or hot mix asphalt over those areas. This should minimize the tendency for construction equipment tires to lift the paving fabric when driving over it. Turning of paving equipment and other vehicles on the paving fabric must be kept to a minimum to avoid movement or damage to the fabric. Satisfactory installation of hot mix asphalt can be accomplished at temperatures below 300ºF. In no case, should temperature of the hot mix asphalt concrete exceed 325° F at time of placement.

References

A. American Association of State Highway and Transportation Officials (AASHTO), "Standard Specification for Geotextile Specifications for Highway Applications" Designation M288-15.

B. American Society for Testing and Materials (ASTM):
   1. D123: Standard Terminology Relating to Textiles
   2. D276: Test Method for Identification of Fibers in Textiles
   3. D4354: Practice for Sampling of Geosynthetics for Testing
   4. D4439: Terminology for Geotextiles
   5. D4632: Standard Test Method for Grab Breaking Load and Elongation of Geotextiles
   6. D5261: Standard Test Method for Measuring Mass per Unit Area of Geotextiles
   7. D6140: Standard Method to Determine Asphalt Retention of Paving Fabrics Used in Asphalt Paving for Full-Width Applications

C. Geosynthetic Accreditation Institute (GAI) - Laboratory Accreditation Program (LAP).

D. National Transportation Product Evaluation Program (NTPEP)

E. International Standards Organization (ISO) – 9001:2008

Measurement and Payment

Mirafi MPV 500 Fabric will not be measured for separate payment but shall be subsidiary to the pay item "2" ACHM Leveling Course Using 12.5 mm Aggregate (Survey-Controlled Placement; Includes Pre-Installation of Mirafi MPV 500 Fabric with Tack Coat)".

COLD MILLING

DESCRIPTION

This items covers cold milling of existing asphalt pavement for athletic uses in accordance with these specifications and in conformity to the dimensions and details shown on the plans. This item includes the cold milling, removal, and disposal of the paving materials designated to be removed. Areas of cold milling have been shown on the plans. All pavement material removed shall become property of the Contractor and disposed of at approved locations.

CONSTRUCTION METHODS

GENERAL: All hauling will be considered a necessary and incidental part of the work. Its cost shall be considered by the Contractor and included in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

COLD MILLING ASPHALT PAVEMENT: The Contractor shall provide self-propelled equipment with sufficient power, traction and stability to maintain an accurate depth of cut and slope. The equipment shall be capable of accurately and automatically establishing profile grades along each edge of the machine by referencing from the existing pavement by means of a ski or matching shoe, or from an independent grade control, and shall have an automatic system for controlling cross-slope at a given rate. The milling machine shall have an effective means for preventing dust resulting from the operation from escaping into the air. Provision shall be made, either integrally with the milling machine or by the use of additional equipment, to remove the material being cut from the pavement surface. The number of passes and the depth of each pass required to obtain the total depth to be removed shall be determined by the Contractor.

METHOD OF MEASUREMENT

Cold milling areas will be measured by the length and width of the cold milled area in square yards, to the specified depth, at the locations directed by the Engineer. Measurement shall not include areas milled beyond approved limits.

BASIS OF PAYMENT

Cold milling will be paid for at the contract unit price bid for "Variable Depth Milling (Survey-Controlled Depth)" which price shall be full compensation for all cold milling, removal, and disposal of asphalt surface materials; and for all equipment, tools, labor and incidentals necessary to complete the work.

Payment will be made under

Variable Depth Milling (Survey-Controlled Depth) – per SY

END OF SECTION

BURNS PARK
JUNIOR TENNIS COURTS RESURFACING

NORTH LITTLE ROCK, AR

JUNE 2026

INDEX OF SHEETS

CITY OF NORTH LITTLE ROCK
Engineering Department
500 WEST 13TH STREET
NORTH LITTLE ROCK, AR 72114

BURNS PARK
JUNIOR TENNIS COURTS
RESURFACING

COVER
SHEET

DATE: 06/2026
DESIGNED BY: MCK
DRAWN BY: MCK
SCALE: NONE

SHEET NUMBER
1

PROJECT LAYOUT PLAN

BURNS PARK
JUNIOR TENNIS COURTS
RESURFACING

DATE: 06/2026
DESIGNED BY: MCK
DRAWN BY: MCK
SCALE: 1" = 200'

SHEET NUMBER 2

CITY OF NORTH LITTLE ROCK
Engineering Department
500 WEST 13TH STREET NORTH LITTLE ROCK, AR 72114

GRADING NOTE:
FINAL SURFACE TO UNIFORMLY SLOPE 0.9% FROM NORTH TO SOUTH.

MILL 1.5" TO 2" AVG DEPTH (SURVEY-CONTROLLED) FOR GRADE PREPARATION OF ASPHALT FOUNDATION, TACK AND PLACE MIRAFI MPV 500 FABRIC, PLACE 2" ASPHALT LEVELING (SURVEY-CONTROLLED) FOLLOWED BY 1.5" ASPHALT SURFACE (SURVEY-CONTROLLED).

MILLING AND PAVING NOTES:

1. AFTER MILLING ENTIRE INTERIOR TO GRADE, SET 2" ASPHALT LEVELING GRADES USING A MINIMUM 10 FOOT GRID SPACING. FIRST PAVING LANE SHALL BE TACKED WITH FABRIC AND ASPHALT LEVELED FROM THE NORTHWEST CORNER TOWARDS THE NORTHEAST CORNER AND END 18 FEET FROM EAST PERIMETER FENCE. REPEAT PROCESS FOR EACH SUBSEQUENT SOUTHERN PASS FROM WEST TO EAST. SAWCUT AND REMOVE NEW ASPHALT 2 FEET OFF OF THE EAST END OF PAVING LIMITS TO ACHIEVE UNIFORM THICKNESS ON THE ENDS. REPEAT PROCESS WITH TACK, FABRIC, AND 2" ASPHALT LEVELING FOR REMAINING 20 FOOT LANE FROM NORTHEAST CORNER TO SOUTHEAST CORNER. TAKE CARE TO MINIMIZE WRINKLES DURING ALL FABRIC PLACEMENT.
2. AFTER PLACEMENT OF 2" ASPHALT LEVELING, REPEAT PROCESS OF USING MINIMUM 10 FOOT GRID SPACING TO SET FINAL 1.5" ASPHALT SURFACING GRADES. BEGIN PAVING 1.5" ASPHALT SURFACE FROM THE NORTHWEST CORNER AND STOP 18 FEET SHORT OF NORTHEAST CORNER. REPEAT PROCESS FOR EACH SUBSEQUENT SOUTHERN PASS FROM WEST TO EAST. SAWCUT AND REMOVE NEW ASPHALT SURFACE 2 FEET OFF OF THE EAST END OF PAVING LIMITS TO ACHIEVE UNIFORM THICKNESS ON THE ENDS. COMPLETE PAVING THE REMAINING 20 FOOT LANE FROM NORTHEAST CORNER TO SOUTHEAST CORNER.
3. AFTER COMPLETION OF WORK INSIDE PERIMETER FENCE, MANUALLY TACK AND PLACE ASPHALT OUTSIDE OF PERIMETER FENCE TO TIE INTO EXISTING SLAB EDGES (APPROX. 68 SY).

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NORTH LITTLE ROCK, AR 72114

BURNS PARK
JUNIOR TENNIS COURTS
RESURFACING

MILLING AND PAVING PLAN

DATE:	06/2026
DESIGNED BY:	MCK
DRAWN BY:	MCK
SCALE:	1" = 100'

SHEET NUMBER
3