

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

ADDENDUM #1

INVITATION TO BID/PROPOSAL COVER SHEET

Bid Number: 26-3909 Date Issued: January 18, 2026

Date & Time Bid Opening: Tuesday, February 3, 2026 @ 10:15 am.

2026 Street Resurfacing Program (Asphalt Overlay with Fabric)

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:

Sunday, January 18, 2026

And

Sunday, January 25, 2026

**Notice to bidders
Bid #26-3909**

Notice is hereby given that the City of North Little Rock's Commerce Department will receive sealed proposals until, Tuesday, February 3, 2026 at 10:15 am on the following:

**2026 STREET RESURFACING PROGRAM
(ASPHALT OVERLAY WITH FABRIC)**

1. NOTICE TO THE GENERAL CONTRACTORS

Sealed bids for the **2026 STREET RESURFACING PROGRAM (ASPHALT OVERLAY WITH FABRIC)** will be received by the City of North Little Rock at 10:15 am on Tuesday, February 3, 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: Perimeter milling of asphalt at gutters, driveways, and tie-ins, and construction of asphalt concrete hot-mix surface on existing streets, tack coat, fabric where specified, and associated work. 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: **2026 STREET RESURFACING PROGRAM
(ASPHALT OVERLAY WITH FABRIC)**

Engineer's
Project No.: **CNLR ENGINEERING PROJECT NO. 26-01**

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 may begin before but no later than **April 1, 2026** and shall be completed and ready for final payment in accordance with the General Conditions by **July 1, 2026**, as long as outdoor temperatures are at least 40 F and rising.

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 **One Thousand Dollars (\$1,000.00)** 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	2" ACHM Surface Course (3/8", PG 70-22) (Includes Installation of Asphalt Mirafi MPV 500 Fabric with Tack Coat)	SY	17,940	\$	\$
2	2" Cold Milling	SY	1,356	\$	\$

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:

(Words) Dollars (\$_____)

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:

**2026 STREET RESURFACING PROGRAM
(ASPHALT OVERLAY WITH FABRIC)
City Engineering Project No. 26-01
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 _____

CITY OF NORTH LITTLE ROCK, ENGINEERING DEPARTMENT
2026 STREET RESURFACING PROGRAM
(ASPHALT OVERLAY WITH FABRIC)

Ward	Hold for Utility/Other or Specific Instructions	STREET NAME	STREET		Measured ACHM (Tons)	Measured Milling (SY)	Fabric (SY)	Completion Date
			FROM	TO				
1	Use Mirafi MPV 500 with 2" Asphalt	West A	Orange	Cherry Hill	413.0	0	3,416	
1	Use Mirafi MPV 500 with 2" Asphalt	N. Vine	McCain	N. Locust	385.0	0	3,187	
2	Use Mirafi MPV 500 with 2" Asphalt	Central Airport Rd	Hwy 70	2724 Central Airport Rd	1,008.0	1,356	8,330	
4	Use Mirafi MPV 500 with 2" Asphalt	N. Vine	53rd	McCain	363.0	0	3,007	
PROJECT TOTALS					2,169	1,356	17,940	

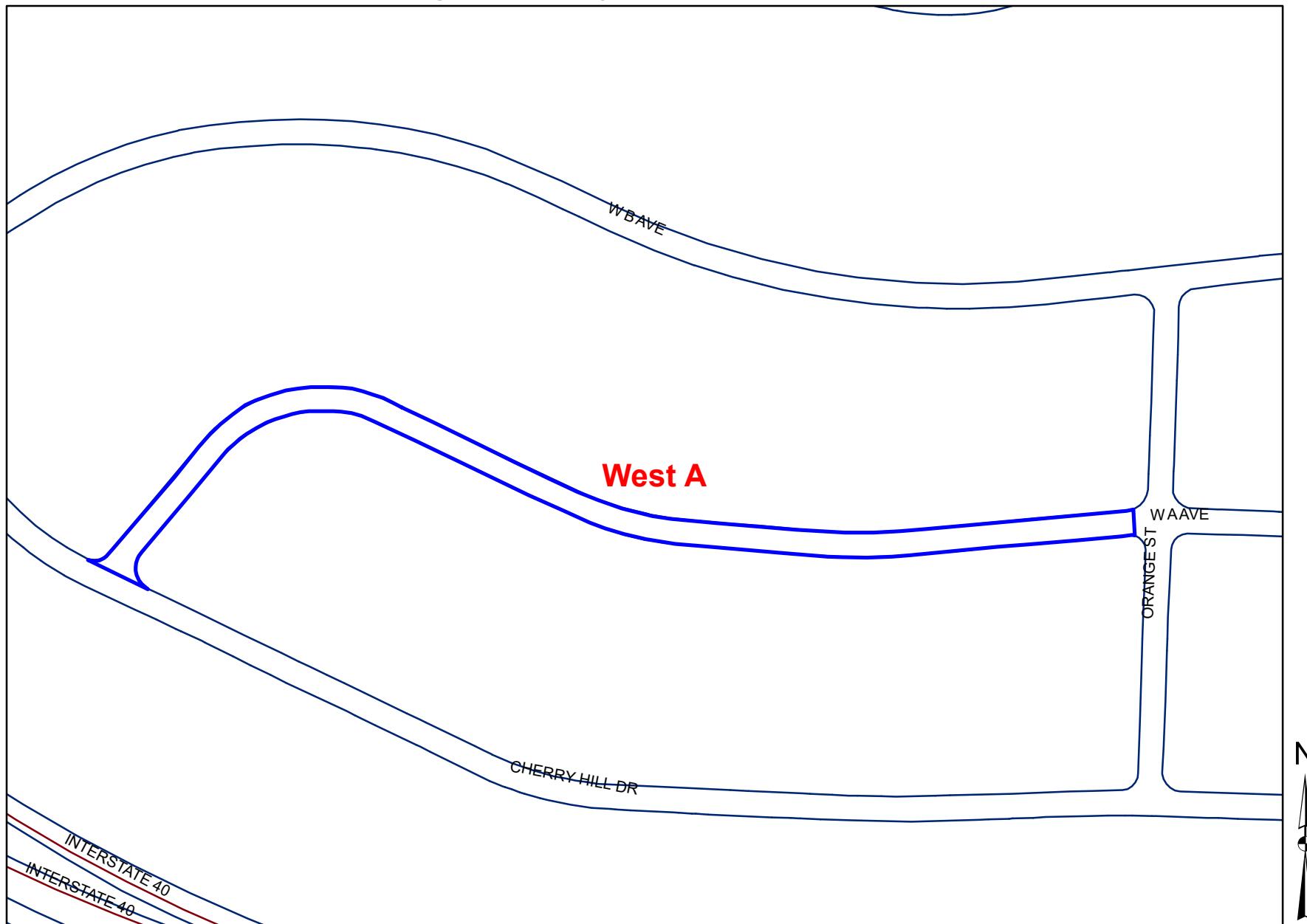
*MRH- Streets marked with *MRH under work restrictions carry large volumes of traffic during the morning rush hours and no work which affects traffic flow will be allowed on these streets from 6am to 9am Monday through Friday.

*NSD - Streets marked with *NSD under work restrictions are adjacent to a school and must be done on days when school is not in session.

*HOLD - Streets marked with *HOLD under work restrictions are on hold and no work should begin until contractor received a notice to proceed on proceed with these streets.

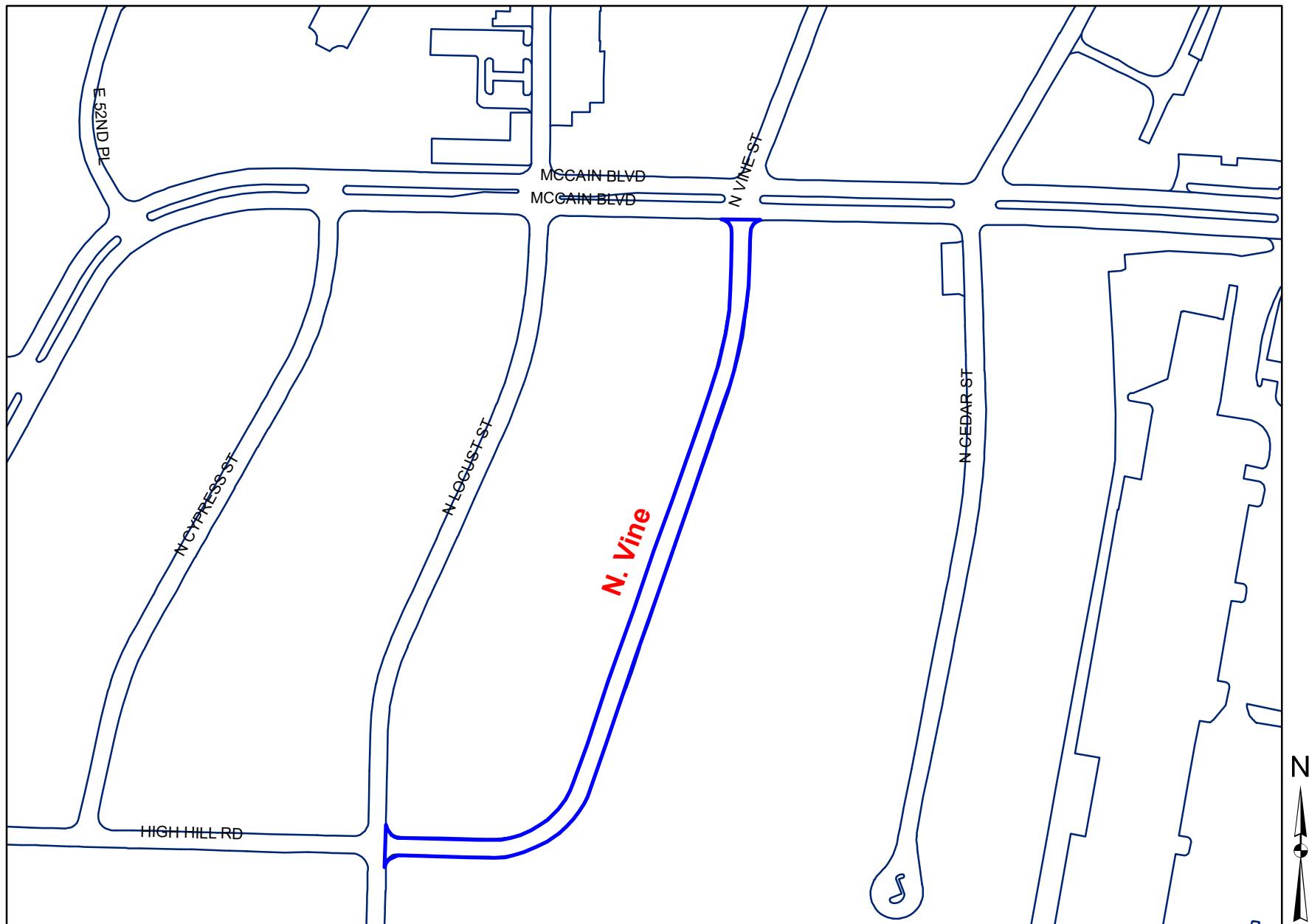
*HOLIDAY - Streets marked with HOLIDAY under work restrictions are not to be worked on between November 20th and January 2nd

West A (Orange to Cherry Hill) - Fabric and 2" Asphalt



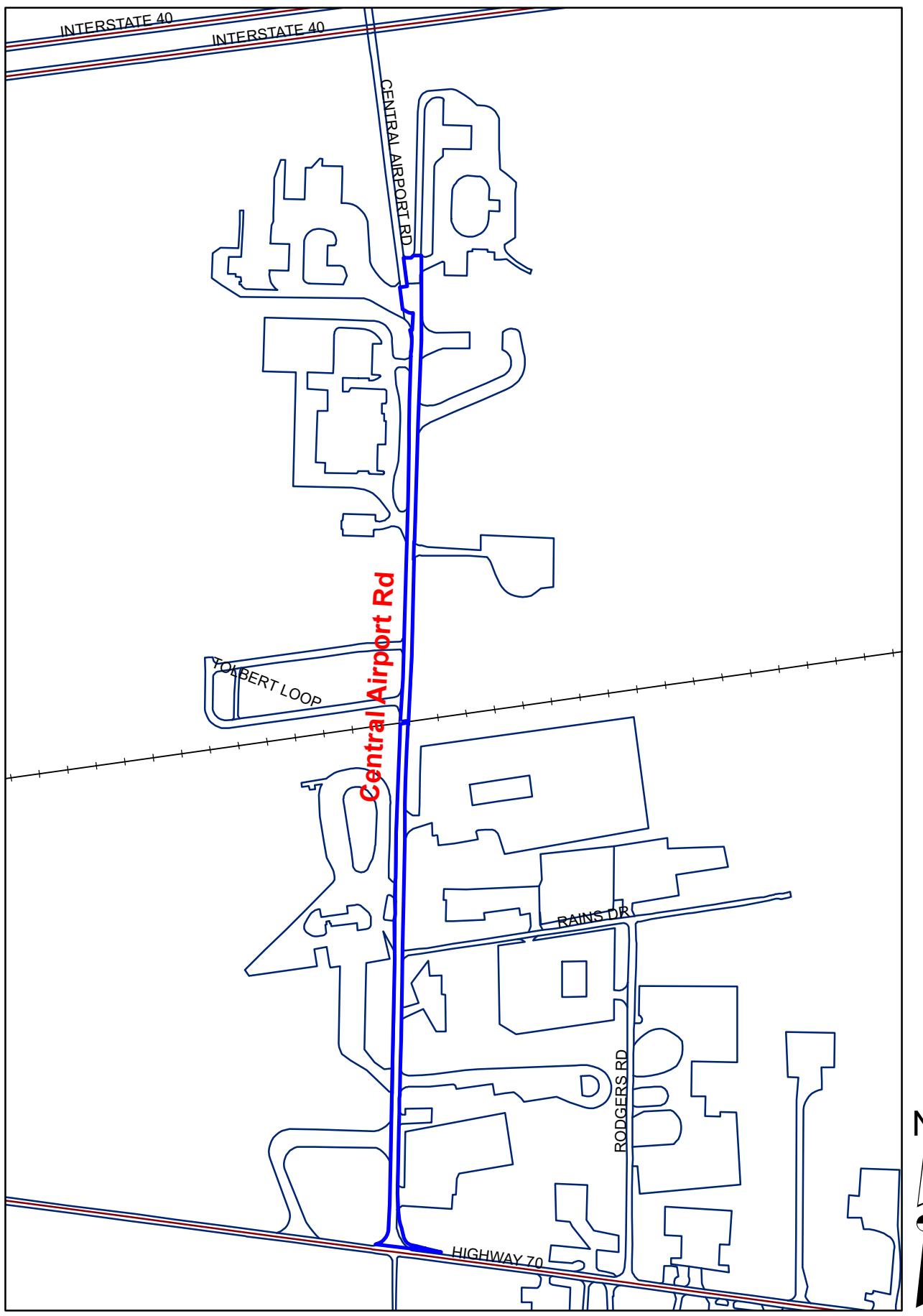
1 inch = 150 feet

N. Vine (McCain to N. Locust) - Fabric and 2" Asphalt



1 inch = 200 feet

Central Aiport Road (Hwy 70 to 2724 Central Airport Rd) - Fabric and 2" Asphalt



1 inch = 400 feet

N. Vine (53rd to McCain) - Fabric and 2" Asphalt



1 inch = 200 feet

Technical Specifications

Description of Work

The work consists of perimeter milling and constructing an asphalt concrete hot-mix surface in place on existing streets, tack coat, maintenance of traffic and miscellaneous items. 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.

Construction Hours

The Contractor's typical paving operations shall be from 6:00 a.m. to 6:00 p.m., Monday through Saturday, and 1:00 pm to 6:00 pm on Sundays. On highly traveled streets where morning and evening rush hour or school traffic is anticipated, paving operations shall be from 9:00 a.m. to 3:00 p.m. during the week or optionally performed in the evenings between 6:00 pm and 6:00 am as coordinated with City Engineer. No highly traveled streets anticipated this project.

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.

Construction Sequence, Maintenance of Traffic, and Maintenance of Access to Individual Properties

Description

This item shall include the construction sequence, maintenance of access to individual properties, erection of signs and barricades and the maintenance of traffic in accordance with details shown on plans, with these specifications, or as directed by the Engineer. Barricade and warning signs and contractor's plans shall conform to Manual on Uniform Traffic Control Devices (MUTCD).

Access through the construction area shall be provided to the residents abutting the construction site. Local through traffic may be detoured around the construction, subject to approval of the detour plan by the engineer.

Maintenance of traffic as described above shall be accomplished in accordance with the applicable portions of Section 603, "Traffic Control Through Construction Zones" from ARDOT Standard Specifications, except as modified or augmented herein.

Traffic Maintenance and Barricade Plan

The Contractor shall prepare maintenance of traffic and barricade plan for approval. This plan shall be submitted to the Engineer and the North Little Rock Traffic Department. The Contractor shall provide the Fire Chief and the North Little Rock Police Chief with a copy of the approved detour plan for their information. The approved or revised copy shall be furnished to the City Engineer and Traffic Department. The Contractor shall notify the North Little Rock Emergency Services at least one (1) hour prior to a complete closure of a street in accordance with Executive Order 97-03771-1200-771-1800. The Barricade Plan and the implementation/maintenance of the barricade plan shall not be paid for separately, but shall be considered subsidiary to the contract amount.

The Contractor will inform the public of the application of materials one day in advance of the application. The Contractor will do so by placing City provided "door hangers" upon homes and businesses affected by the work. The Contractor's name, contact person, and phone number will be stamped in the place provided on the City's form. The roadway shall not be closed, except when and where directed by Public Works Operations, and whenever the roadway is not closed, the work must be so conducted that there shall at all times be a safe passageway for traffic. Streets closed to traffic shall be protected by effective barricades on which shall be placed acceptable warning signs or manned by traffic control personnel as needed. The

Contractor shall provide and maintain acceptable warning and detour signs at all closures and intersections, directing the traffic around the closed portion or portions of the highway so that the temporary detour route or routes shall be clearly indicated. All barricades and obstructions shall be illuminated at night and all lights shall be kept burning from sunset until sunrise. Fire hydrants on or adjacent to the streets shall be kept accessible to the fire apparatus at all times and no materials or obstruction shall be placed within ten (10) feet of any such hydrant.

Adjacent premises must be given access as far as practicable and obstruction of gutters and ditches will not be permitted. Materials stored along the roadway must be placed so as to cause as little obstruction to the traveling public as possible. No equipment will be parked on private property without the owner's written consent.

Property Access

Access to driveways shall be provided as approved by the City Engineer. It shall be the Contractor's responsibility to maintain reasonable access to private and commercial property at all times unless approved otherwise by the Engineer. During the construction for driveways or at any time the property owner cannot use their driveway, the Contractor shall notify the property owner in advance when the driveway will be closed and the approximate length of time it will be closed. The Contractor shall be responsible for damages to property caused by the construction and shall be resolved and/or paid for by the Contractor.

Traffic Control Measures

The Contractor shall provide, position, erect, and maintain all necessary traffic control personnel, barricades, suitable and sufficient caution lights, danger signals, and traffic control signs (ROAD CLOSED, DETOUR, LOOSE SAND, FRESH OIL, etc.) and take all necessary precautions for the protection of the work and safety of the public. Signs will comply with current Manual on Uniform Traffic Control Devices for Streets and Highways ("MUTCD") code and be a minimum of 30" X 30." Due to the multitude of intersections within the scope of work some traffic control may be necessary on side streets.

If, in the opinion of the Engineer and Traffic Department, where traffic warrants, the Contractor shall be required to provide flag men to direct traffic and to maintain traffic control. The Contractor will be required to pay all costs for such control as may be required.

Measurement and Payment

Maintenance of traffic items will not be measured for separate payment but shall be subsidiary to paving operation pay items.

Asphalt Concrete Hot Mix Surface Course

Description

This section covers construction of the 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 404, DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES

404.01 Design of Asphalt Mixtures.

(a) General.

Add: The Contractor shall furnish the City of North Little Rock one mix design.

(b) Design Requirements.

Add: Binder shall be grade PG 70-22. Nmax = 160. ACHM Surface Course shall be 3/8" (9.5mm) (96% Mineral aggregate; 4% asphalt binder). 1 1/2" compacted coarse @ 165 lbs/yd².

SECTION 407, ASPHALT CONCRETE HOT MIX SURFACE COURSE

407.04 Construction Requirements and Acceptance.

Add:

This item consists of installing a compacted 1 1/2" surface coarse @ 165 pounds per square yard of Asphalt Concrete Hot Mix Surface Course on the streets shown in these bid documents unless otherwise approved in writing by the City of North Little Rock. Some street segments may be placed on hold until utility companies relocate or replace utility lines. The City of North Little Rock will notify the Contractor of any streets placed on hold for utility work as soon as possible. The Contractor shall notify the City Engineer by text or email of scheduled paving operations at least 2 days in advance each time a street is to be paved, including rescheduled operations, and shall notify the City Engineer when operations are canceled. The Contractor shall inform the public of the application of materials at least two days in advance of the application. The Contractor will do so by placing City provided "door hangers" upon homes and businesses along the street affected by the work. The Contractor's name, contact person, and phone number will be stamped or written in the place provided on the City's form. The Contractor shall submit a traffic barricade / maintenance of traffic plan to the City of North Little Rock Traffic Services Department for approval prior to beginning any work. All maintenance of traffic plans shall be in accordance with section 604 "Traffic Control Devices in Construction Zones." The Contractor shall provide, position, erect, and maintain all necessary traffic control personnel, barricades, suitable and sufficient caution lights, danger signals, and traffic control signs (ROAD CLOSED, DETOUR, FRESH OIL, etc.) and shall take all necessary precautions for

the protection of the work and safety of the public. Due to the multitude of intersections within the scope of work, some traffic control may be necessary on side streets.

Existing asphalt driveways, especially on non-curb and gutter streets, shall be tapered for a smooth transition to the newly resurfaced street at the time the new asphalt surface is applied. Also, since many intersections are associated with this program, the Contractor must anticipate valley gutters requiring additional work as directed by the NLR representative.

Existing pavement markings covered by ACHM Surface Course shall be replaced with temporary pavement markings. Temporary pavement markings shall be as per AHTD Standard Specifications, Section 604.02 (d), and shall be the responsibility of the Contractor. The Contractor shall be responsible for spotting for temporary pavement markings. At the end of each day's operations, pavement markings, either permanent or temporary, shall be in place on all roadways open to traffic. Manhole rings and covers, risers, and valve boxes shall be placed and adjusted to finished grade by the Contractor. The City of North Little Rock will supply manhole ring risers, new covers, and valve boxes to the Contractor at no cost. As a last resort, any and all manholes which cannot be raised to grade shall be identified, marked at the curb, papered over, and completely paved if approved by the NLR representative. The covering of any and all manholes, hand hole, and other utility access point shall be completed under the direct supervision of the NLR representative. Installation, removal, disposal, and daily maintenance of any and all temporary asphalt tapers shall be the Contractor's responsibility.

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

410.09 (a) General.

Add:

Samples for all properties except density and thickness 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 subplot 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.

410.09 (b)(4).

Add:

Feather-edging of the new asphalt surface to the existing asphalt surface will not be permitted. At all edges where the new asphalt surface abuts the existing street surface, the Contractor shall mill the existing asphalt surface to a depth of 1.5" so the new compacted asphalt surface forms a smooth joint with no vertical difference.

410.09 (d) Adjustments.

Add:

(5) For thickness of each course layer, the contract price shall be reduced by 10% if the thickness is outside the Compliance Limits but within the Price Reduction Limits. For overall thickness, the contract price shall be reduced by an additional 10% if the thickness is outside the Compliance Limits but within the Price Reduction Limits.

For thickness of each course layer and/or total pavement thickness in excess of the amount specified and beyond the Compliance Limits, the payment shall be reduced by the amount of excess quantity of material placed, as determined by the Engineer. The intent of this section is to prevent the Owner from paying for excess and unauthorized quantities of material placed. However, if the elevations, cross slopes, or other characteristics are unacceptable to the Owner based on the requirements in the Contract Documents, the Contractor may be required to remove and replace pavement as determined by the Engineer.

Method of Measurement

This item will be measured and paid per ton, based on printed tickets from the plant, laid in place. Item will include installation, maintenance, removal, or disposal of asphalt tapers, mineral aggregate, binder, tack coat, maintenance of traffic, cleanup, manhole ring and valve box adjustment, and public notification via door hangers. Maintenance of traffic devices used during installation of ACHM Surface Course will not be measured for separate payment, but full compensation will be considered subsidiary to ACHM pay items. Temporary pavement marking installed will not be measured for separate payment, but full compensation therefore will be considered subsidiary for the Thermoplastic Pavement Marking pay items. Manhole ring and valve box adjustments will not be measured for separate payment, but full compensation will be considered subsidiary to ACHM pay items.

Basis of Payment

This item will be paid for by the ton laid in place, for "2" ACHM Surface Course (3/8", PG 70-22) (Includes Installation of Asphalt Mirafi MPV 500 Fabric With Tack Coat)". This item shall include installation, maintenance, removal, and disposal of asphalt tapers, mineral aggregate, binder, tack coat, any tonnage used as leveling course, adjustment of manhole and valve box rims to finished grade, installation of any fabric and tack coat, maintenance of traffic, cleanup, and public notification. This Contract unit price 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. 2" ACHM Surface Course (3/8", PG 70-22) (Includes Installation of Asphalt Mirafi MPV 500 Fabric

With Tack Coat) – per SY

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	<p>AHTD Standard Specifications Section 401</p> <p>Application of Tack Coat:</p> <p>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, "overspray," or "track" marks outside of the paved surface. Contractor will be responsible for tack on vehicles due to neglect or lack of traffic control.</p>
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

Cold Milling Asphalt Pavement

Description

This item covers cold milling of asphalt pavement along edges of gutters, driveways, tie-ins, and full width intersections if applicable. This item also applies to cold milling of concrete pavement at tie-ins and edges of street intersections to avoid feathering. For concrete roads, asphalt will be 2" thick over paving fabric and will be paved in the gutter line while leaving enough functional curb height and positive drainage. For asphalt roads, asphalt shall be edge milled at gutter edge. No edge milling is necessary for open shoulder asphalt roads. All existing speed humps are to remain in place and therefore shall not be milled. Milling details are included in these specifications.

Standards

Materials, equipment, and construction methods for Cold Milling Asphalt Pavement shall be in accordance with SECTION 412 of the Standard Specifications 2014 Edition, except as modified or augmented herein.

SECTION 412, COLD MILLING ASPHALT PAVEMENT

412.01 Description.

Add:

This item shall consist of cold milling the asphalt pavement at the locations designated by the City of North Little Rock and removing and disposal of the resulting material from the right-of-way. Some street segments may be placed on hold until utility companies relocate or replace utility lines. The City of North Little Rock will notify the Contractor of any streets placed on hold for utility work or other issues as soon as possible. The Contractor will be responsible for milling streets along the existing curb and gutters to a depth 1.5" deep along the face of the gutter and transitioned to the existing asphalt surface a distance of six (6) feet from the face of the gutter (see details attached in these documents). A City of North Little Rock representative will mark the extent of required milling. The grindings from Contractor milling shall become the property of the Contractor. The pavement remaining after milling shall provide a clean surface suitable for maintaining traffic. All pavement markings removed by the Contractor during milling shall be immediately replaced by temporary pavement markings in accordance with AHTD Standard Specifications, Section 604.02 (d). Any traffic signal loop detectors damaged by the cold milling will be restored by the City of North Little Rock. At existing speed humps, the Contractor shall remove the speed hump to prepare for the new asphalt surface unless otherwise directed by the NLR representative to mill end joints on either side of the speed hump and install asphalt tapers to maintain traffic until the street is resurfaced.

412.02 Equipment.

Add:

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 use of additional equipment and manpower, to remove the material being cut from the surface of the roadway. Milled material shall be removed completely from roadway. No material shall be left in gutters or behind curb. All clean up shall be done within three (3) days of the milling operation and includes all grindings, asphalt, asphalt tapers, and millings loosened by traffic between the milling and overlay processes.

412.03 Construction Requirements.

Add:

Contractor will inform the public of the milling activities one (1) day in advance of the application. The Contractor will do so by placing City provided "door hangers" upon homes and businesses along the street affected by the work. The Contractor's name, contact person, and phone number will be stamped in the place provided in the City's form. Contractor shall submit a traffic barricade / maintenance of traffic plan to the City of North Little Rock for approval prior to beginning any work. All maintenance of traffic plans shall be in accordance with section 604 "Traffic Control Devices in Construction Zones." The Contractor shall provide, position, erect, and maintain all necessary traffic control personnel, barricades, suitable and sufficient caution lights, danger signals, and traffic control signs (ROAD CLOSED, DETOUR, FRESH OIL, etc.) and shall take all necessary precautions for the protection of the work and safety of the public. Due to the multitude of intersections within the scope of work some traffic control may be necessary on side streets.

All signage and barricades used during maintenance of traffic shall be clean and in good condition. The existing pavement shall be cold milled to a depth as stated in AHTD Standard Specifications Section 412.01 above or as directed by the NLR representative. Since many intersections are associated with this program, the Contractor must anticipate valley gutters requiring additional work as directed by the NLR representative. The number of passes and depth of each pass required to obtain the total depth required to be removed will be determined by the NLR representative. The Contractor will be compensated at the per square yard bid price for any and all additional passes of the milling machine over such areas as directed by the NLR representative.

All transverse joints left at the end of each day's run shall be tapered by milling or asphalt taper to provide a smooth ride. After milling, the Contractor is responsible for installing temporary asphalt tapers at all locations which cause a vertical bump, including but not limited to end joints, driveways, utility manholes, and utility valves to protect the safety of vehicular traffic. Installation, removal, disposal, and daily maintenance of temporary asphalt tapers shall be the Contractor's responsibility. Existing pavement markings removed by grinding shall be replaced with temporary pavement markings. Temporary pavement markings shall be as per AHTD Standard Specifications, Section 604.02 (d), and shall be the responsibility of the Contractor. The Contractor shall be responsible for spotting for temporary pavement markings. At the end of each day's operations, pavement markings, either permanent or temporary shall be in place on all roadways open to traffic. For each street, no milling shall be performed without at least two days' notice given to the City Engineer, Traffic Services Department, and street residents who will be impacted. Notice must also be given to City Engineer when milling operations are canceled and when they will be rescheduled. The Contractor shall schedule work so any street which has been milled shall be

resurfaced within fifteen (15) days after completion of milling on that street segment. Failure of subgrade that is noticed as a result of delayed paving beyond the 15 day maximum time period between milling and resurfacing operations will be the responsibility of the Contractor to repair at their own expense, including any undercut and fabric as determined by the City Engineer's geotechnical representative. The Contractor shall provide prompt documented correspondence (text or email is sufficient) to the City Engineer of any subgrade failures noticed during milling operations to show that the Contractor is not liable due to delayed negligence. No paving operations shall begin without first providing at least a few days' notice of documented correspondence (text or email is sufficient) to the City Engineer that streets have been milled so there will be time for the City Engineer to inspect the street. Traffic Services Department and impacted street residents must also be contacted at least a few days in advance of paving operations. Some street segments may require utility relocations prior to resurfacing, so the Contractor may have to skip some street segments and return to those streets as required to coordinate street resurfacing with utility relocations. The City of North Little Rock will be responsible for coordinating with the utility companies and for notification to the Contractor when each street is cleared of utility relocations and is ready for resurfacing.

412.04 Method of Measurement.

Cold Milling Asphalt Pavement will be measured by the square yard of pavement milled to the depth specified along street edges and longitudinal limits. If the existing concrete gutter was overlaid with asphalt and the asphalt was removed by milling, then the measurement will be from the face of curb to the edge of the milling located six (6) feet from the face of the gutter. Maintenance of traffic devices used during Cold Milling Asphalt Pavement will not be measured for separate payment, but full compensation will be considered subsidiary to the Cold Milling pay item. Temporary pavement marking installed will not be measured for separate payment, but full compensation therefore will be considered subsidiary to the Thermoplastic Pavement Marking pay items. See milling details attached to these Contract Documents.

412.05 Basis of Payment.

Work completed and accepted and measured as provided above will be paid for at the Contract unit price bid per square yard for Cold Milling Asphalt Pavement, which price shall be full compensation for all work as prescribed herein, and for all labor, equipment, tools, notifying property owners with door hangers, maintenance of traffic, and incidentals necessary to complete the work.

Payment will be made under:

- a. 2" Cold Milling – per Square Yard

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 to 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 $\frac{1}{4}$ inches or larger shall be filled with sand mixed asphalt as directed by the Engineer. Cracks larger than $\frac{1}{2}$ 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 300°F. 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 Surface Course (3/8", PG 70-22) (Includes Installation of Asphalt Mirafi MPV 500 Fabric With Tack Coat".