

DATE: May 3, 2018

**NORTH LONDONDERRY TOWNSHIP
MUNICIPAL CENTER
655 EAST RIDGE ROAD
PALMYRA, PA 17078**

CONTRACT DOCUMENTS

SPECIFICATIONS AND BIDDING DOCUMENTS

FOR

2018 ADDITIONAL HIGHWAY MICRO-SURFACE PROGRAM

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ADVERTISEMENT

ADDITIONAL HIGHWAY MICRO-SURFACE PROGRAM

SEALED BIDS for the 2018 Additional Highway Micro-Surface Program, as specified, will be received by the Supervisors of the Township of North Londonderry, Lebanon County, PA, at the Township Office, 655 East Ridge Road, Palmyra, PA, 17078 until 10:00 a.m. prevailing time, May 3, 2018.

Full specifications and bidding documents may be viewed on the Township website, www.nlondtwp.com. Official documents may be obtained by contacting the Township Office at (717) 838-1373.

Bids shall be accompanied by a certified check, or satisfactory bid bond, made payable to or naming as obligee, North Londonderry Township in an amount not less than ten percent (10%) of the amount of the base bid.

Michael D. Booth
Township Manager

COPY

INSTRUCTIONS TO BIDDERS

Each person requesting specifications and bidding documents is furnished with one (1) complete set of documents as well as two (2) copies of the Proposal Form, two (2) copies of the Bid Bond Form, and CDL Compliance Statement. The two (2) copies of the Proposal Form, one (1) copy of the Bid Bond (if needed), along with the CDL Compliance Statement and PA Public Works Employment Verification Form shall be used to submit your Proposal.

Signatures must be in longhand and in ink. Typewritten signatures will not be accepted. Any erasure marks must be initialed by executor of the bid.

Proposals shall be accompanied by a certified check, or satisfactory bid bond, made payable to or naming as obligee, North Londonderry Township in an amount not less than ten percent (10%) of the amount of the base bid. Guarantee checks or bid bonds shall be forfeited as liquidated damages if the bidder fails to execute the contract and furnish bonds as specified, within fifteen (15) days after notification of the contract award.

The Proposal must be physically received in the Township Office by 10:00 a.m. prevailing time, May 3, 2018. Proposals presented after 10:00 a.m. will not be received or accepted. The Proposals will be publicly opened and read at 10:00 a.m. prevailing time, May 3, 2018, and considered for award at the meeting of the North Londonderry Township Board of Supervisors on May 21, 2018, beginning at 7:30 p.m. prevailing time.

The Proposal must be signed by an owner, partner, or in the case of a corporation by the President or Vice President and attested by the Secretary, with the corporate seal affixed thereto. If signed by any other corporate officer, a power-of-attorney must be attached to the bid.

<u>Place of Bid Opening</u>	North Londonderry Twp. Office 655 E. Ridge Road Palmyra, PA 17078
<u>Time of Bid Opening</u>	May 3, 2018 10:00 a.m.
<u>Insurance Required</u> (Bodily Injury)	\$1,000,000 Each Person \$1,000,000 Each Accident
<u>Property Damage Liability</u> (Automobile)	\$1,000,000 Each Accident \$2,000,000 Aggregate
<u>Property Damage Liability</u> (Except Automobile)	\$1,000,000 Each Accident \$2,000,000 Aggregate
<u>Workmen's Compensation</u>	As required by law.
<u>Excess Liability</u>	\$1,000,000 Per Occurrence \$1,000,000 Aggregate

INSTRUCTIONS (Continued)

All bids must be marked "2018 ADDITIONAL HIGHWAY MICRO-SURFACE PROGRAM" on outside of envelope.

BIDDERS ARE INVITED TO CONTACT THE TOWNSHIP WITH ANY QUESTIONS REGARDING THE BID SPECIFICATIONS.

Bids shall be irrevocable for a period of forty-five (45) days after the bid opening and bidders may not withdraw their bids during that period.

The Township of North Londonderry reserves the right to accept or reject any or all bids and to waive technicalities and informalities in any bid for the best interest of the Township and to consider the competency and responsibility of the bidder in awarding the contract.

NOTE: PLEASE READ ALL ATTACHED PAPERS CAREFULLY. NO CHANGES OR SUBSTITUTIONS SHOULD BE MADE TO THE ORIGINAL BID DOCUMENTS.

COPY

PROPOSAL

2018 ADDITIONAL HIGHWAY MICRO-SURFACE PROGRAM

TO: North Londonderry Township
655 East Ridge Road
Palmyra, PA 17078

Date: May 3, 2018

The undersigned hereby proposes to furnish, deliver, install and construct the following for the Township of North Londonderry, in strict accordance with the specifications herein.

The quantities shown are estimated quantities and shall be used as a guide only for bidding purposes. The actual cost to North Londonderry Township shall be computed from the unit prices for the actual materials used or work completed.

Schedule of Prices

Item Number	Approx. Quantity	Unit	Description	Unit Price	Total
1.	6,378	Sq. Yards	White Tail Lane Double application Type A Micro-Surface combined weight of 35 lb. per sq. yd.	\$	\$
2.	2,139	Sq. Yards	Wood Crest Drive Double application Type A Micro-Surface combined weight of 35 lb. per sq. yd.		
				Total	\$

PROPOSAL (Continued)

This project is not subject to an escalation clause of bituminous materials.

If written notice of the acceptance of this bid is mailed, telegraphed or delivered to the undersigned within forty-five (45) days after the date of opening of the bids, or anytime thereafter before this bid is withdrawn, the undersigned will, within fifteen (15) days after the date of such mailing, telegraphing or delivering of such notice, execute and deliver a contract in accordance with specifications and bid as accepted.

The undersigned hereby designates as his office to which such notice of acceptance may be mailed, telegraphed or delivered.

(Company Name & Address)

Telephone

Facsimile

Witness

Bidder

SEAL

Printed Name

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we

(Contractor Name & Address)

as Principal, hereinafter called the Principal, and

(Surety Company)

a corporation duly organized under the laws of the State of _____, as Surety, hereinafter called the Surety, are held and firmly bound unto the Township of North Londonderry, Palmyra, Lebanon County, PA, as Obligee, hereinafter called the Obligee, in the

sum of _____

Dollars (\$ _____), for the payment of which sum will and truly be made, the said Principal and said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, The Principal has submitted a proposal for furnishing and delivering

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or contract documents with good and sufficient surety for the faithful performance of such contract, or in the event of the failure of the Principal to enter such contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

BID BOND (Continued)

Signed and sealed this _____ day of _____, A.D. 2018.

IN THE PRESENCE OF:

Title:

Principal

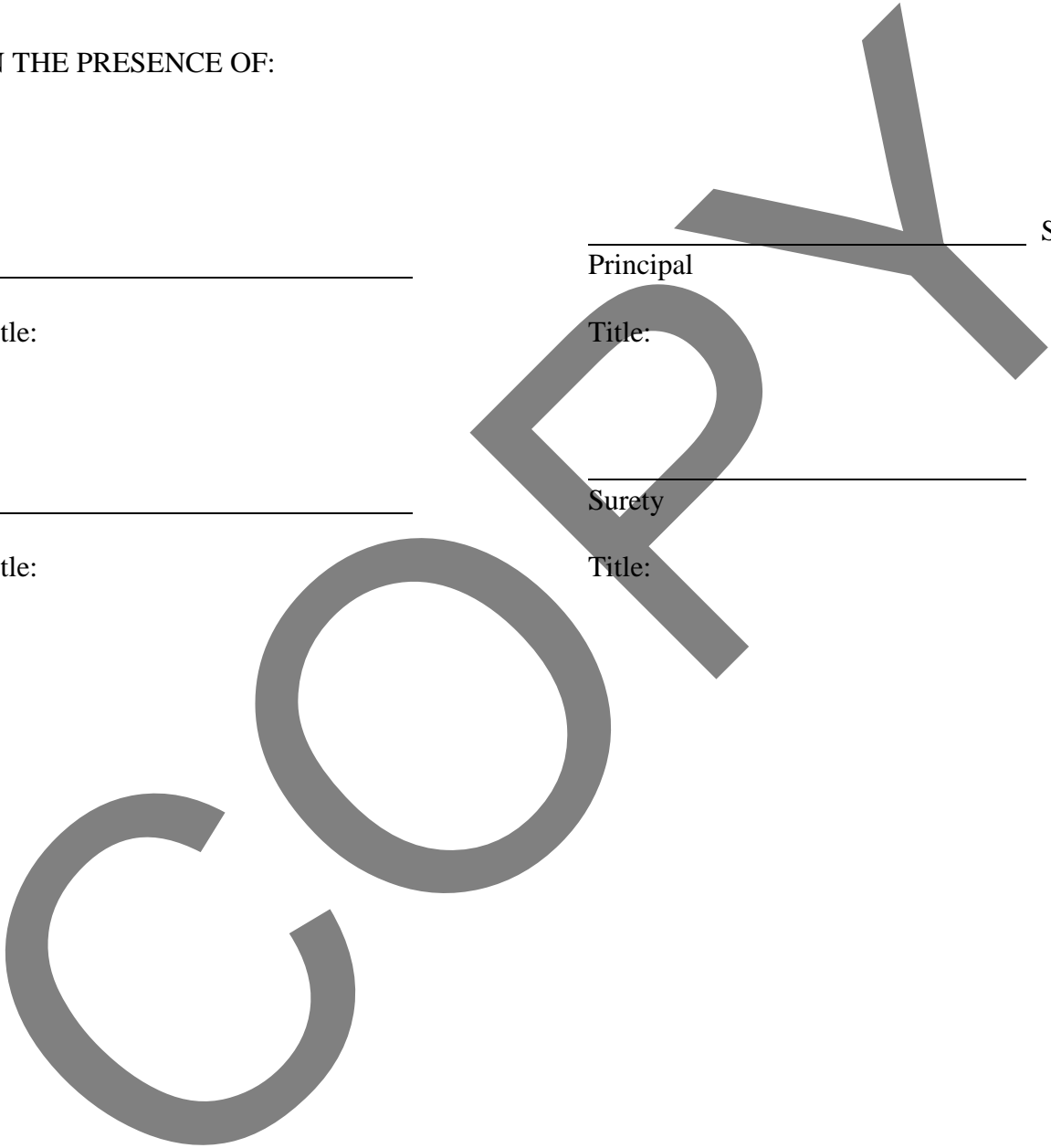
Title:

SEAL

Title:

Surety

Title:



CDL COMPLIANCE STATEMENT

The Parties to this contract agree the relationship between the Contractor and the Township is one of independent contractor and not employer/employee and that the individual employees of the Contractor who will be performing the work pursuant to this Contract are not employees of the Township. The Contractor hereby certifies, represents, and warrants to the Township each person performing any aspect of the work pursuant to this Contract who are required to have a commercial driver's license: (1) are in a program for drug and alcohol testing in accordance with the Federal Omnibus Transportation Employee Testing Act of 1991 and the federal regulations adopted pursuant thereto and (2) hold a valid Commercial Driver's License.

Due to the nature of the work that the Contractor may perform for the Township, the Contractor must use employees who perform safety-sensitive functions for which a Commercial Driver's License (CDL) is typically required. Section 382.301(d)(2) of the Federal CDL Regulations requires that, prior to being awarded any contract by the Township, and every six (6) months of the Contract, the Contractor must certify that it remains in a qualified CDL drug and alcohol testing program.

If the Contractor is not participating in a qualified CDL drug and alcohol testing program at the time of the awarding of the Contract, or at any six (6) month re-certification point, then all the Contractor's CDL employees must obtain a negative result on a pre-employment drug test before beginning (or continuing) contracted work for the Township at the expense of the Contractor.

Contractor's Name _____

Contractor's Address _____

**By signing below, I verify the Contractor is a current participant in the following
CDL testing program conforming to CFR Part 40.**

Contractor's Authorized Representative _____

Today's Date ____/____/____

Signature of Authorized Representative _____

Contractor's CDL Testing Program _____

Testing Program Address _____

Testing Program Contact Person _____

Testing Program Phone Number _____



COMMONWEALTH OF PENNSYLVANIA

PUBLIC WORKS EMPLOYMENT VERIFICATION FORM

Date _____

Business or Organization Name (Employer) _____

Address _____

City _____ State _____ Zip Code _____

Contractor Subcontractor (check one)

Contracting Public Body _____

Contract/Project No _____

Project Description _____

Project Location _____

As a contractor/subcontractor for the above referenced public works contract, I hereby affirm that as of the above date, our company is in compliance with the Public Works Employment Verification Act ('the Act') through utilization of the federal E-Verify Program (EVP) operated by the United State Department of Homeland Security. To the best of my/our knowledge, all employees hired post January 1, 2013 are authorized to work in the United States.

It is also agreed to that all public works contractors/subcontractors will utilize the federal EVP to verify the employment eligibility of each new hire within five (5) business days of the employee start date throughout the duration of the public works contract. Documentation confirming the use of the federal EVP upon each new hire shall be maintained in the event of an investigation or audit.

I, _____, authorized representative of the company above, attest that the information contained in this verification form is true and correct and understand that the submission of false or misleading information in connection with the above verification shall be subject to sanctions provided by law.

Authorized Representative Signature

CONTRACT

THIS CONTRACT AND AGREEMENT Entered into this _____ day
of _____ 2018, by and between _____

hereinafter called Contractor and NORTH LONDONDERRY TOWNSHIP, 655 East Ridge Road, Palmyra, PA.

The Vendor agrees to sell and North Londonderry Township agrees to buy, upon the terms and conditions hereinafter set forth:

Schedule of Prices					
Item Number	Approx. Quantity	Unit	Description	Unit Price	Total
1.	6,378	Sq. Yards	White Tail Lane Double application Type A Micro-Surface combined weight of 35 lb. per sq. yd.	\$	\$
2.	2,139	Sq. Yards	Wood Crest Drive Double application Type A Micro-Surface combined weight of 35 lb. per sq. yd.		
				Total	\$

CONTRACT (Continued)

This project is not subject to an escalation clause of bituminous materials.

This project must be completed and invoiced within the 2018 calendar year.

This Contract constitutes the entire agreement between the parties hereto and its provisions shall not be changed, except in writing, agreeable to both parties.

IN TESTIMONY WHEREOF, Said parties have hereunto set their hands the day and year above.

CONTRACTOR

North Londonderry Township
PURCHASER

Signature

Chairman

Title:

Attest

Attest

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

that _____

as Principal, hereinafter called Vendor, and

as Surety, hereinafter called Surety, are held and firmly bound unto NORTH LONDONDERRY TOWNSHIP, 655 East Ridge Road, Palmyra, PA, as Obligee, in the amount of

_____ Dollars (\$ _____),

for the payment whereof Vendor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Vendor has by written agreement dated _____
entered into a contract with North Londonderry Township for _____

in accordance with specifications attached, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of this obligation is such that, if Vendor shall faithfully perform all the terms and conditions of the above mentioned contract, and within time mentioned, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by North Londonderry Township.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the contract falls due.

PERFORMANCE BOND (Continued)

No right of action shall accrue on this bond to or for the use of any person or corporation other than North Londonderry Township named herein or the successors of North Londonderry Township.

Signed and sealed this _____ day of _____, A.D. 2018.

IN THE PRESENCE OF:

Title:

Principal

Title:

SEAL

Title:

Surety

Title:

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____
_____ of _____
_____, as PRINCIPAL and _____
_____ a corporation incorporated under the laws of the State of
_____ as SURETY, are held and firmly
bound unto the _____
in the full and just sum of _____
(\$ _____) dollars, lawful money of the United States of America, to be paid to the
said _____ or its assigns, to which payment well and truly to be made, we
bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally,
firmly by these presents.

WHEREAS, the above bounden Principal has entered into a contract with the above
municipality, hereinafter called Obligee, bearing even date herewith, for 2018 Additional
Highway Micro-Surface Program:

for approximately the sum of _____
(\$ _____) dollars.

NOW, THEREFORE, the condition of this obligation is such that if the above bounden
PRINCIPAL shall and will promptly pay or cause to be paid in full all sums of money which
may be due by contract or otherwise, to any individual, firm, partnership, association or
corporation, for all material furnished or labor supplied or performed in the prosecution of the
work, whether or not the said material or labor entered into and became component parts of the
work and for rental of the equipment used and services rendered by public utilities in, or in
connection with the prosecution of such work, then this obligation to be void, otherwise to
remain in full force and effect.

PAYMENT BOND (Continued)

The PRINCIPAL and SURETY, hereby, jointly and severally, agree with the Obligees herein that any individual firm, partnership, association or corporation, which has performed labor or furnished material in the prosecution of the work as provided, and any public utility which has not been paid in full therefore, may sue in assumpsit on this Payment Bond in his, their, or its own name and may prosecute the same to final judgment for such sum or sums as may be justly due him, them or it, and have execution thereon. Provided, however, that the Obligees shall not be liable for the payment of any costs or expenses of such suit.

RECOVERY by any individual, firm, partnership, association or corporation hereunder shall be subject to the provisions of the "Public Works Contractors' Bond Law of 1967", Act No. 385, approved December 20, 1967, P.L. 869, which Act shall be incorporated herein and made a part hereof, as fully and completely as though its provisions were fully and at length herein recited.

It is further provided that any alterations which may be made in the terms of the contract or in the work to be done or materials to be furnished or labor to be supplied or performed under it or the giving by the Obligees of any extension of time for the performance of the contract or any other forbearance on the part of either the Obligees or the Principal to the other, shall not in any way release the PRINCIPAL and the SURETY or SURETIES of any such alteration, extension or forbearance being hereby waived.

IN WITNESS WHEREOF, the said PRINCIPAL and SURETY have duly executed this Bond under seal this _____ day of _____, 2018.

IN THE PRESENCE OF:

Title:

Title:

Contractor

Title:

Surety Company

Title:

ROAD MATERIALS

POLYMER-MODIFIED EMULSIFIED ASPHALT PAVING SYSTEM (MICRO-SURFACING):

1. DESCRIPTION - This work is the construction of a polymer-modified emulsified asphalt paving system, commonly known as micro-surfacing, to fill ruts and/or resurface existing pavements.

Micro-surfacing material is classified into three mix types as follows:

- a. **Type A.** Used to seal cracks, fill voids and shallow (less than 1/2 inch) ruts, and provide a scratch course or surface seal. Use a double application, when specified, to meet total design pounds per square yard for surface courses.
 - b. **Type B.** Used to fill moderate (1/2 inch to 1 1/4 inch) ruts; and provide a scratch course, a leveling course, a seal coat, or a surface treatment. Use a double application, when specified, to meet total design pounds per square yard for surface courses.
 - c. **Type Rut Fill (RF).** Used to fill deep (2 inch) ruts in a single pass.
2. MATERIAL -
 - a. **Bituminous Material.** Class CSS-1hPM (E-8CPM) as specified in Bulletin 25. Obtain material from an approved producer and source listed in Bulletin 15 and provide quality control testing and certification as specified in Sections 106.03(b) and 702.1(b)1.
 - i. **Polymer Modifier.** Provide a latex based modifier capable of making a micro-surfacing mix which cures fast enough to allow traffic to be placed on the pavement within 1 hour, without damaging the surface.
 - b. **Aggregate.** Provide coarse or fine aggregates from sources listed in Bulletin 14. Provide fine aggregate Type B or better meeting the quality requirements of Table A, Section 703.1(c) and coarse aggregates meeting the quality requirements of Table B, Section 703.2(a). The final gradation must meet the final gradation specified in Table A of this specification. For wearing courses, provide aggregate with at least the SRL designation specified. To achieve the specified SRL, the Contractor may provide a blend of two aggregates if the blend has an SRL designation equal to or better than that specified. Blends are 50% by weight of each aggregate. Blend the aggregates using an approved method.
 - c. **Filler.** Supply filler, when required to maintain the percent by weight passing the 75 μ m (No. 200) sieve, as specified in Section 703.1(c)1 consisting of any approved, non-air entrained, Type 1, Portland cement free of lumps or hydrated lime as specified in Section 723.1.

ROAD MATERIALS (Continued)

- d. **Water.** Section 720.2 and free of harmful soluble salts.
- e. **Other Additives.** Supplied by the manufacturer to control mix set time in the field due to varying ambient environmental conditions.
- f. **Mixture Composition.** Size, uniformly grade, and combine aggregate fractions in such proportions that the total aggregate and filler in the JMF conform to the composition by weight percentages specified in Table A. Perform the tests identified in Table B for each mix design and provide the test results to document each mix design's characteristics.

Submit a certified mix design(s) using a Micro-Surfacing Mix Design and Materials Analysis Form TR-483 to the District Materials Engineer/District Materials Manager (DME/DMM) at least 2 weeks before its use in the work. Clearly show for each mix design the proportions of aggregate, filler, percent polymer-modified emulsified asphalt and asphalt residue, based on the dry weight of the aggregate, and the design cure time. Ensure that all of the materials used in the mix design represent the materials proposed for use on the project. If minor adjustments are required during construction, based on field conditions, provide the changes in writing to the Representative.

- i. **Quality Control Plan and Job-Mix Formula (JMF).** Prepare a QC Plan, as specified in Section 106, and submit it for review at the start of the project and at least annually thereafter. Include the number of applications and the mix design used with each application in the QC Plan. Do not start work until the QC Plan has been reviewed and the JMF has been submitted.

When unsatisfactory results or other conditions make it necessary, a new JMF may be required. If a change in sources of materials is made, submit a revised JMF to the DME/DMM before using any new material.

- ii. **Uniformity.** Produce each mix type within the ranges specified in Table C.

ROAD MATERIALS (Continued)

TABLE A			
SIEVE SIZE	COMPOSITION, TOTAL PERCENT BY MASS (WEIGHT) PASSING		
	TYPE A	TYPE B	TYPE RF
12.5mm (1/2-inch)	100	100	100
9.5mm (3/8-inch)	100	95 – 100	90 - 100
4.75mm (No. 4)	85 – 100	65 – 85	55 – 75
2.36mm (No. 8)	50 – 75	46 – 65	40 – 55
1.18mm (No. 16)	40 – 65	28 – 45	24 – 40
600µm (No. 30)	25 – 45	19 – 34	19 – 34
300µm (No. 50)	13 – 25	10 – 23	10 – 20
75µm (No. 200)	5 – 15	5 – 15	5 – 15

Note: Material finer than the 75 µm (No. 200) sieve will be determined as per PTM No. 100.

TABLE B			
MICRO-SURFACING MIX DESIGN PROPERTIES			
Property	Test Method		Test Requirements
Wet Cohesion:	ISSA TB 139	30 Minutes	12 kg-cm min
	ISSA TB 139	60 Minutes	20 kg-cm min or near spin
Wet Track Abrasion Loss:	ISSA TB 100	1 Hour Soak	50 g/ft ² max
	ISSA TB 100	6 Day Soak	75 g/ft ² max
Mix Time:	ISSA TB 113		120 seconds min
Classification of Compatibility:	ISSA TB 144		11 grade points min
Wet Stripping:	ISSA TB 114		Pass (90% min)
Loaded Wheel Test:	ISSA TB 147		Vertical 10% max, Lateral 5% max

Note: Provide aggregate with a minimum sand equivalency of 65 as determined by AASHTO T 176. If the sand equivalency is <65m the aggregate may be approved as long as the Plasticity Index (PI) is zero. Test the PI as per AASHTO T 89 and AASHTO T 90 and meets the methyl blue test.

ROAD MATERIALS (Continued)

TABLE C				
MIX TYPE	MINIMUM SURFACING APPLICATION THICKNESS(inch)	ASPHALT RESIDUE (% by weight of Aggregate)	SINGLE APPLICATION RATE (Pounds per Square Yard)	DOUBLE APPLICATION RATE (Pounds per Square Yard)
A	(1/4)	6.5 – 8.5	25 – 30	35 – 40
B	(3/8)	5.5 – 7.5	35 – 40	40 – 55
RF	N/A	5.5 – 7.5	22 – 38	

Note A: Provide mix set additive for each mix type as required.
 Note B: Filler for each mix type to be from 1% to 2% ± 0.5% by weight of dry aggregate depending on weather conditions.
 Note C: It is permissible to increase asphalt content for slag and other absorptive aggregates at the discretion of the DME/DMM.

- g. **Mixture Acceptance.** Provide a certified calibration sheet for the mixing equipment for each mix design to be used within 60 days before its use on the project. Record mixing equipment meter readings of material control devices on a Run Sheet, daily, for each mix design. Calculate the percent cement or hydrated lime, total emulsion, asphalt residue based on the dry weight of the aggregate, and the yield square yard.

Certify the mixture composition and application rate based on quality control tests and Run Sheet calculations. Send certifications to the Inspector-In-Charge within 1 working day following any quality control testing. Certify mixtures and each shipment of material delivered to the job site as specified in Section 106.03(b)3.

- h. **Bituminous Tack Coat.** Section 460.2

- i. **Certification.** Section 106.03(b)3.

Certify each shipment of material delivered to the job site.

3. CONSTRUCTION -

- a. **Preplacement Meeting.** Hold a preplacement meeting on site or at a location that is acceptable to the Representative with both Contractor and PennDOT personnel present before placing any material on the project. Identify any areas of concern in the pavement that may show any signs of fatigue or excessive rutting at the preplacement meeting. Also review the Specification, QC Plan, source of supply list, and the Aggregate Delivery Plan. It may be necessary to hold more than one preplacement meeting on larger projects with multiple State Routes.

ROAD MATERIALS (Continued)

- b. **Weather Limitations.** Apply when entire surface is in a condition to allow satisfactory penetration and adhesion and the atmospheric temperature is 50F minimum during the entire placement. Under no circumstances will the 50F minimum temperature requirement to be waived even for night work. Do not apply mixture if rain is imminent or if freezing temperatures are expected within 24 hours after application. Remove and replace rained on mixture before it sets. Do not apply from September 16 to April 30 in Districts 1-0, 2-0, 3-0, 4-0, 10-0, and 5-0 (Monroe, Carbon, and Schuylkill Counties only) and from October 1 to April 30 in Districts 6-0, 8-0, 9-0, 11-0, 12-0, and 5-0 (Berks, Lehigh, and Northampton Counties only). No exceptions to weather limitations will be allowed, unless directed in writing by the District Executive.
- c. **Aggregate Delivery Plan.** Before the start of work, submit an Aggregate Delivery Plan to the DME/DMM for approval. Include in the plan the number of trucks that will be used to haul aggregates to the micro-surfacing machine in order to keep it moving continuously to limit starting and stopping.

All aggregates being delivered to the micro-surfacing machine must be screened directly into the truck.

All screening plants must be equipped with a scalping screen with a 3/8 inch maximum square opening for Type A and with a 1/2 inch maximum square opening for Type B and Type RF.

- d. **Mixing Equipment.** Produce mixture in a self-propelled, front feed, continuous-loading mixing machine equipped with a chain-dragged conveyor belt aggregate delivery system interconnected with a positive displacement, water-jacketed gear pump to accurately proportion ingredients. Truck mounted units may be allowed on projects less than 20,000 square yards except for limited access highways and for all municipal projects. Locate filler feed so that the proper amount of cement is coating the aggregate before charging into the mixer. Provide a spray bar to completely wet the aggregate dropping down into the pug mill with additive and water.

Provide a continuous-flow, twin shafted, multi-bladed pug mill at least 50 inches long. Introduce polymer-modified emulsified asphalt beyond the first quarter point of the mixer to ensure thorough mixing of aggregate, cement, additive, and water before polymer-modified emulsified asphalt is added. Meet manufacturer's recommendations for blade size and side clearance. Provide readily accessible material control devices, placed so that the Inspector is able to determine the amount of each material being used at any time. Calibrate each material control device before production of each mix type. Equip the machine with a water pressure system and nozzle spray bar to provide a water spray ahead of and outside the spreader box, when required.

ROAD MATERIALS (Continued)

- e. **Spreading Equipment.** Spread the mixture uniformly by means of a mechanical type squeegee box attached to the mixer and equipped with paddles mounted on adjustable shafts to continually agitate and distribute the material throughout the box. Provide sufficient turbulence to prevent the mix from setting up in the box, forming excessive side build-up, or forming lumps. Attach flexible front and rear seals, in contact with the road, to prevent loss of mixture from the box. Furnish rut filling equipment with movable steel strike-off bar. Operate spreading equipment to prevent loss of the mixture on super elevated curves and to leave a uniform, skid-resistant application of aggregate and asphalt on the surface. Operate spreading equipment to achieve a uniform consistency without skips, lumps, or tears in the finished surface.

- f. **Conditioning of Existing Surface.** Section 409.3(g)1 and as follows:

Immediately before placing mixture, clean the surface of vegetation, loose materials, dirt, mud, and other objectionable items. Ensure all pavement markings and legends are completely removed before placing any mixture. Before placing mixture on existing concrete surfaces, apply tack coat over the entire area as specified in Section 460. Do not apply tack coat on existing asphalt surfaces. Apply water to dampen entire surface immediately before placing mixture.

- g. **Spreading and Finishing.** Section 409.3(h) and as follows:

Spread the mixture to seal cracks, fill voids, and to leave a uniform surface. When filling ruts, take care to restore the designed profile of the pavement cross section. Avoid excess crowning (over filling) of rutted areas. Use squeegees and lutes in areas inaccessible to the spreader box.

Carry a sufficient amount of material at all times, in all parts of the spreader box, to obtain complete coverage. Water may be sprayed into the spreader box, to facilitate spreading, without harming the mix. Lumps, balls, or unmixed aggregate in the finished surface is not allowed.

Adjustments to the additive may be required to slow mixture set time where hand spreading is needed. When hand spreading, pour mixture in a small windrow along one edge of the surface to be covered and spread uniformly by hand squeegee or lute.

Make a neat seam where two passes join. Immediately remove excess material from the ends of each run.

- i. **General Requirements.** Ensure mixture properly sets within one hour of placement. If mixture takes longer than one hour to properly set, the Representative will give the Contractor a warning and an opportunity to immediately correct mixture application and set time. If the mixture takes

ROAD MATERIALS (Continued)

longer than one hour and twenty minutes to properly set, stop placement operations immediately.

- ii. **Mixture Set Time.** Remove and replace mixture if mixture set time takes longer than one hour and twenty minutes.
- h. **Compaction.** Before opening to traffic, compact using a pneumatic-tire roller as specified in Section 108.05(c)3.f, except having tire pressures of 40 pounds per square inch to 60 pounds per square inch. Roll the entire surface area of the placed mixture. On a double application, roll the entire surface area of the placed mixture for each application.
- i. **Sampling and Testing.** At least 2 weeks before the start of work, under the direction and supervision of the Representative, obtain samples of the aggregates from stockpiles designated and constructed for each mixture type and each project. Obtain a minimum sample size of 3 pounds using guidelines for stockpile sampling specified in PTM No. 607. Immediately deliver the samples to the Representative for testing. Passing aggregate acceptance test results are required before placement of the mixture. All acceptance samples will be obtained and all acceptance tests will be performed by the Representative in accordance with PTM No. 616 and PTM No. 100 using the following frequency:
 - **When the projected quantity of aggregate for the specified mixture type is less than 500 tons.** The entire quantity will be designated as one lot and divided into three equal sublots for sampling. Under the direction and supervision of the Representative obtain a sample from each subplot and immediately deliver the samples to the Representative for testing. One of the three subplot samples will be randomly selected and tested in accordance with PTM No. 1 by the Representative and tested for compliance with Table A. If the sample tested meets the specification, the entire lot will be considered acceptable for delivery to the designed project. If the sample fails, the remaining two samples will be tested and the Representative will determine the percent within limits (PWL) according to Section 106.03(a)3. If results indicate a PWL for the material less than 90, the Representative will reject the stockpile. After the entire rejected lot has been blended, screened, or replaced, retesting for acceptance of the aggregate will be performed. When retesting is performed, all subplot samples will be tested in accordance to Section 703.5(b)2. All acceptance testing will be performed by the Representative. All test results will be recorded on a TR-4126A aggregate report form.
 - **When the projected quantity of aggregate for the specified mixture type is 500 tons or greater.** The aggregates will be divided into equal

ROAD MATERIALS (Continued)

lots at the discretion of the aggregate supplier, but in no case will the lot exceed 1000 tons. Each lot will be divided into three equal sublots. Under the direction and supervision of the Representative obtain a sample for each sublot. All three samples for each lot will be tested and the Representative will determine the percent within limits (PWL) according to Section 106.03(a)3. If results indicate a PWL for the material less than 90, the Representative will reject the stockpile. If the test results for each lot meets the specification and are in compliance with Table A, the entire lot is acceptable for shipment to the project. If the test results fail to meet the specifications, the lot will be rejected. Retesting for lot acceptance will be performed as described above. All acceptance testing will be performed by the Representative. All test results will be recorded on a TR-4126A aggregate report form.

- j. **Blending Aggregates on the Project.** Requests to blend aggregates on the project to meet gradation requirements from Table A and the method of blending must be approved in writing by the DME/DMM before the start of work. Include on the QC Plan a detailed description of equipment used to blend aggregates, a list of supplier codes for aggregates being blended, and the percentages of each aggregate being blended. Set up a portable laboratory at the blending site equipped to perform PTM No. 616 and PTM No. 100 tests for acceptance of aggregates on the project. The Contractor's aggregate technician must be a PennDOT certified aggregate technician before performing any aggregate testing at the staging area in the presence and direction of the Representative. Aggregates will be accepted as specified in Section 483.3(i). Provide aggregate for use in all mixture Types including each application of a double application of a mixture Type having the SRL designation indicated in the bid proposal. An aggregate designation or blends, equal to or better than that specified, may be supplied.
- k. **Test Strip.** On the first day of work the Representative will identify a location to perform the test strip. The test strip will be prohibited on a limited access highway. Construct a test strip to demonstrate the mixture's ability to be laid in multiple stone thicknesses and to be opened to traffic within one hour after placement. Construct the test strip in the same manner and condition as required on the project. Construct the test strip over one-full lane width and between 100 feet and 550 feet long. Apply the mixture at an application rate representative of the application rate for the project. Test the mixture in accordance with ISSA Test Method TB 102 in the presence of the Representative. The Representative will evaluate and approve the test strip based on its ability to be opened to traffic within one hour and on its ability to have a set time of 10 minutes, maximum, as determined by ISSA Test Method TB 102.

Do not continue with work until the Representative has approved the test strip. The Representative does not have the authority to waive or eliminate the test strip requirement. If this work is to be performed a test strip is mandatory. The test strip will be payable in accordance with Section 483.4.

ROAD MATERIALS (Continued)

1. **Defective Work.** As specified in Section 105.12 and as follows:

Unless otherwise directed in writing by the District Executive, satisfactorily correct pavement not meeting the following criteria:

- i. **Application Rate.** Calculate yield at the end of each day's application. Areas where application rates deviate from the acceptable ranges in Table C will be considered defective work. Failure to meet the acceptable ranges in Table C will require an additional minimum 8.14 kg/m² (15 pounds per square yard) application or the District Executive, with the concurrence of the Director of the Bureau of Project Delivery, may allow the Contractor to leave the defective lot in place. The Department will pay for the defective lot at 50% of the contract unit price.
- ii. **Finished Surface.** Provide a finished, uniform surface texture meeting the following requirements:
 - No areas of excess asphalt (flushing) greater than 5% of the finished surface area. Areas of excess asphalt are characterized by a smooth, shiny surface that may be tacky to the touch. Bleeding at joints is not allowed.
 - No tear and/or drag marks greater than 1 inch wide and 3 inches long.
 - No more than 12 tear and/or drag marks greater than 1/2 inch wide and 4 inches long per 10 feet of a lane.
 - No clumps and/or other foreign objects greater than 1 1/2 inch in diameter.
 - No completed sections of micro-surfacing which exhibit washboard or ripple patterns exceeding 100 linear feet. If these areas exist they will be considered defective work, as determined by the Representative, and will require surface correction.
 - No longitudinal streaks with greater than a 1/4 inch ridge, bump or depression, as measured with a 10 foot long straightedge.

ROAD MATERIALS (Continued)

- iii. Longitudinal Joints. Make a neat seam where two longitudinal passes join with no greater than a 1/4 inch bump, ridge, or depression as measured with a 10 foot straightedge. Do not overlap longitudinal joints more than 4 inches, except on irregular roadway widths when approved by the Representative.
- iv. Longitudinal Edges. Place material to the final widths specified. Make a neat longitudinal edge along the roadway lane, shoulder, and/or curb lines.

Place edges flush with curbs. Place edges with no more than ± 3 inches horizontal variance in any 100 feet of roadway.
- v. Transverse Profile. Fill ruts to have no depressions as measured with a 10 foot long straightedge.
 - **Opening to Traffic.** Do not allow traffic on newly completed surface course until mix has set sufficiently to prevent pick-up and until directed by the Representative.

4. MEASUREMENT AND PAYMENT -

a. **Micro-Surfacing.**

- i. **Area Basis.** Square Yard
- ii. **Mass (Weight) Basis.** Ton

Under the direction and supervision of the Representative complete measurements based on the combined tonnages of aggregate, filler, and polymer-modified emulsified asphalt actually used; computed as follows:

- **Aggregate.** Measure aggregate quantity using the calibrated, dry weight from the aggregate control device. Make a deduction for moisture naturally occurring in the aggregate by using PTM No. 513.
- **Filler.** Compute filler quantity from the fines feeder control device.
- **Polymer-modified emulsified asphalt.** Compute polymer-modified emulsified asphalt quantity by weight used.

b. **Bituminous Tack Coat.** Section 460.4

PROJECT NOTES:

The Contractor will be responsible for posting no parking signs along these streets and notifying residents of the project prior to its start.

A staging area will be available for the project at the North Londonderry Township

Highway Garage. A paved pad will be provided for the aggregate and a loader with a 2 ½ yard bucket will be available to transfer the materials. Water will also be provided via a 2” hydrant.

The distance from the North Londonderry Township Garage to micro-surface site is approximately 2.5 miles with 5 minutes of travel time.

COOR

**SPECIAL PROVISIONS TO CONTRACT
CONTAINS IMPORTANT INFORMATION FOR THE CONTRACTOR**

The Prime Contractor and subcontractors must comply with all of the following provisions that are marked with an "X".

- X Traffic Control and Safety Devices to be provided by the Contractor.
(Maintenance and Protection of Traffic to comply with current MUTCD, Publication 212 and Publication 213.)
- X Delivery tickets for all materials.
- X CS-4171 Certificate of Compliance and/ or TR-465 Daily Bituminous Mixture Certification required for all materials.
- X Notify the Municipality 5 working days prior to start of project.
- X Work to be completed on or before 10/1/2018 . After 10/1/2018 Liquidated damages apply at the rate of \$ 200.00 per calendar day.
- X Roadway to be power broomed by (contractor municipality) prior to start of project.
- X Excess material to be removed by (contractor municipality) .
- X Municipality to inspect project.
Need Bill of Lading for each shipment of bituminous material per Section 702.1(c) of Specifications 408.
Tack Coat required per Section 460, or 409 for superpave, of Specifications 408 and is incidental to paving item unless noted otherwise.
Prime Coat required per Section 461 of Specifications 408.
Bituminous Seal on all abutting pavement and curbs required.
Saw cut or Milled Paving Notch required and incidental to paving item unless noted otherwise.
Scratch/ Leveling Courses to be placed at the discretion of appointed inspector(s).
Full width pavement with one pass required.
- X Municipality reserves the right to limit work completed.
Taper pavement the last 3 feet to curb.
For FOB Source bids, hauling distance will determine selection of bid award.
Municipality reserves the right to procure material which best suits their requirements after all bids and items are reviewed.
- X Completion of NON-COLLUSION AFFIDAVIT required.
- X Incidental Preparation and clean up required. (Project Construction Materials)
The municipality reserves the right to make an award on the basis of the aggregate total for all like items on which quotations are received.
- X Provide design, which meets Specifications Form 408 to the municipality 5 days prior to start of work.
- X Contractor responsible for defects that occur within one year of applications.
- X Contractor required to review proposed project with Municipality's Representative prior to bidding.
Oil Samples required from each distributor truck by contractor (1) one quart : A.M. & P.M. and witnessed by municipality and retained by municipality. (Oil samples must be placed in an approved type container that is compatible with oil sample.)
At least three random stone samples to be taken by contractor on project site witnessed by municipality and retained by municipality.
Complete all testing in accordance with Specification Form 408 Section 409 except for superpave volumetric testing.
Notice to Proceed will be the date of Contract acceptance.
Final Completion Certificate & Notice of Completion required.
- X Future award of Contract will be based on quality of work as determined by the municipality.
Contractor, notify all residents of pending work to be performed.

My signature signifies that I have read and understand the above special provisions to this contract, and by being authorized by this company to act as their authorized representative, and on their behalf hereby agree to adhere to any and all of the provisions pertaining to this contract.

Contractor's Representative	Date
Company	

Municipality's Representative	Date
North Londonderry Township	Municipality

NORTH LONDONDERRY TOWNSHIP

2018 Additional Micro Surface Program

