

# **Town of Montville**

## INVITATION FOR PROPOSALS ULTRA-THIN BONDED WEARING COURSE BID # 2020-10

The Town of Montville is soliciting bids for Ultra-Thin Bonded Wearing Course.

All proposals are due no later than 6/4/2020 at 10:00 AM and must be received at the Finance Office prior to the due date and time. A proposal must be delivered by regular or overnight mail to the Town of Montville, Finance Office, 310 Norwich/New London Turnpike, Uncasville, Connecticut 06382, with the proposal contained in a sealed envelope marked “ULTRA-THIN BONDED WEARING COURSE”. The proposal must be signed by a Company official. Proposals will be opened and read aloud in the Finance Office, and interested persons may attend the opening remotely under procedures that will be posted on the Town of Montville’s website.

In addition to other reservations and conditions contained in the proposal documents, the Town of Montville reserves the right to waive any technical defects in the proposals received; to waive any formalities or irregularities; to reject any and all proposals for any reason, including that it or they do not conform to the terms and conditions described herein, as determined by the Town in its sole discretion; to accept or reject any part of any proposal received; to present and negotiate terms of a contract together or separately with any party submitting a proposal; to determine qualifications exclusively and finally; to request additional qualifications; and to select any proposal or part thereof based on any combination of factors, including the amount proposal, the time of completion, and the Town’s best interests. The Town further reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether or not that proposal is selected.

It is the intent of the Town to award this contract to the lowest responsible bidder who is capable of performing work for all listed bid items. All bid items must be filled out to constitute a qualifying bid. The Town of Montville reserves the right to reject any or all bids and waive any informalities or irregularities in the bid procedure or bids.

The Town may hold the bids for a period not to exceed sixty (60) days from the date of the bid opening to review the bids and investigate the bidders’ qualifications prior to awarding the contract.

All bidders are advised the Town of Montville has enacted through resolutions the following special conditions concerning Town bids and purchases.

1. For all Town purchases of goods and services not utilizing State or Federal funds, any Town bidder that has submitted a bid not more than 15% (fifteen percent) higher than the low bid may be awarded the project provided such Town based bidder agrees to accept the award of the bid at the amount of the low bid. If more than one Town based bidder has submitted bids not more than 15% (fifteen percent) higher than the low bid, and have agreed to accept the award of the low bid, the lowest responsible bidder shall be the one of such Town based bidders that submitted the lowest bid. That within the bidding process that all businesses claiming to be Montville businesses, provide the Finance Department (Assessor’s Section) with sufficient documentation to prove that they are in compliance with property tax assessments, including motor vehicle tax assessments.
2. Seller agrees that as a condition of his sale of goods and/or services to the Town of Montville, the Town of Montville will be authorized to deduct from the proceeds due Seller an amount not to exceed 25% of the total amount due Seller. Said amount is to be applied against any unpaid and overdue taxes, assessments, fees, or other charges levied by the town of Montville or any agency

thereof against the Seller. The Seller further agrees that Seller shall insure that Seller has the right to withhold an amount not to exceed 25% from each subcontractor working for the Seller, and providing goods and/or services to the Town of Montville, and to remit such withheld money to the Town in full or partial satisfaction of any unpaid and overdue taxes, assessments, fees, or other charges levied by the Town of Montville or any agency thereof against such subcontractor.

### **INSTRUCTIONS TO BIDDERS**

Bids shall be submitted on the enclosed forms. Incomplete forms may be cause for disqualification of the Bid. Bids must be signed by an authorized representative/officer/agent of the Bidder.

The Town of Montville shall be the sole judge as to whether any Bid complies with these specifications, and such a decision shall be final and conclusive. Bidders shall state any exceptions taken to the Bid specifications.

The Town of Montville is exempt from the Connecticut sales tax, Federal excise taxes, and the provision of the Federal-Robinson-Patman Act.

### **CONTRACT PERIOD**

The contract period shall be for one year, beginning on July 1, 2020 and ending on June 30, 2021.

The Town reserves itself the option to extend the use, terms, conditions and prices of this bid annually, up to a maximum of two (2) years after the first year in which the contract is awarded. Such extension must be mutually agreed upon between the town and the Contractor.

It is the intent of this Request for Bids that all political subdivisions and districts located in the State of Connecticut be entitled to make purchases of materials, equipment, or supplies from the resulting bid award. Each participating entity shall be billed by and make payment directly to the successful bidder. In the event of a failure or breach in performance of any such bid by a participating entity or the successful bidder, The Town of Montville, specifically and expressly disclaims any and all liability for such defective performance or breach, or failure of either party to perform in accordance with its obligations, covenants.

### **SPECIFICATIONS**

#### **ULTRA-THIN BONDED WEARING COURSE**

##### **POLYMER MODIFIED ASPHALT EMULSION BONDING MATERIAL**

The liquid bituminous material shall be a cationic asphalt emulsion, polymer modified, containing at least 65% total residue. The cationic asphalt emulsion shall be obtained from a storage facility that has been approved by the Director, Materials Bureau, Connecticut State Department of Transportation, within the current calendar year, prior to the start of work.

##### **HOT AGGREGATE/ASPHALT MIXTURE FOR WEARING COURSE**

The wearing course shall be a plant mixed hot asphalt concrete and shall be a mixture of single size coarse aggregate, fine aggregate, mineral filler and asphalt cement. The single aggregate shall be nominal 1/4 inch for type A mix or nominal 3/8 inch for type B mix, meeting the gradation in Data Table II. This hot asphalt concrete shall be obtained from a facility that has been approved by the Director, Materials Bureau, Connecticut State Department of Transportation, with in the current calendar year, prior to the start of work. The asphalt content of the mix shall be 4.8 - 5.30% by weight of the total mix and must be computed

based on the actual job mix.

### **SURFACE PREPARATION**

The following items will be performed by the Town, unless otherwise directed. It is inherent of the Contractor to assure them that all of the following items have been completed, prior to the start of the project, and so as to assure the successful outcome of the project.

A. Manhole covers, water valves, catch basins, and other such drainage structures shall be clearly referenced for location and adjustment after the surfacing operation.

B. Thermoplastic traffic markings shall be removed. All vegetation at the edge of pavement shall be removed.

C. Pavement cracks and joints, greater than 1/4 inch wide, shall be cleaned and filled with an approved material prior to the surfacing operation.

D. Before applying the PPST serious surface irregularities shall be corrected. Wheel ruts greater than 1 inch in depth should be filled prior to the surfacing operation.

E. The pavement surface area to be treated shall be cleaned by a rotary power broom.

### **APPLICATION**

Ultra-Thin Bonded Wearing Course shall be placed on a dry or damp, but not on a wet, pavement surface. The pavement temperature shall be not less than 50°F and rising. The tack/seal coat shall be applied by the asphalt emulsion spray system mounted on the overlay machine. The sprayer shall accurately and continuously monitor the rate of spray with a uniform application across the entire width to be overlaid. The rate of spray shall be 0.2 (+ 0.05) gallons per square yard. The asphalt emulsion shall be applied at a temperature of 140° F - 180°F. No wheel or other part of the paving machine shall come into contact with the tack/seal coat before the wearing course mixture is applied. The hot asphalt concrete wearing course shall be delivered to the lay down machine at a temperature of 315° F + 15° F. The application rate of the hot asphalt aggregate mixture shall be 60 pounds per square yard, +/- 5 pounds per square yard, for

nominal 1/4 inch mix, and 65 pounds per square yard, +/- 5 pounds per square yard for nominal 3/8 inch mix. The hot asphalt aggregate mixture shall be spread over the polymer modified asphalt emulsion tack/seal within seconds of the spray application of the tack/seal coat. Where shape correction is necessary or the old surface is porous the application rate may need to be increased. The material shall be smoothed over the full width using an ironing type screed to ensure an even mat.

Compaction of the wearing course shall be carried out using a minimum of a steel wheeled double drum roller of minimum deadweight of 10 tons before the material temperature has fallen below 180° F at mid-layer.

**BASIS OF PAYMENT**

The accepted quantities of Ultra-Thin Bonded Wearing Course will be paid for per square yard per project. A project is defined as any work requiring a single mobilization. If road has not been prepped with shim or a leveling course, added cost for shimming with the mixture may be applied. Price includes: furnishing materials, equipment, labor and bond coat, insurance, as required, and all incidentals necessary to complete this work. Pay items will be broken down as follows: 10,000 to 14,999 square yards, 15,000 to 19,999 square yards, and 20,000 or more square yards.

**MATERIALS AND SPECIFICATIONS**  
**Ultra Thin Bonded Wearing Course**

**DATA TABLE I**

**POLYMER MODIFIED CATIONIC EMULSION TACK/SEAL COAT**

The tack/seal coat materials shall be emulsion modified with an approved polymer, using either a natural or synthetic latex. It shall be smooth and homogeneous and shall conform to the following requirements and be available on site at a temperature of not less than 140°F.

<b>TEST</b>	<b>METHOD</b>	<b>MIN</b>	<b>MAX</b>
Surfactant	Cationic	-	-
Base Asphalt PG 58-28	ASTM D3381	-	-
Polymer Content % mass of Distillation Residue	Spectrophotometer (Texas Method)	3.0	-
Total residue by evaporation	ASTM D244	65	-
Viscosity @ 25 (77°F),SSF	“	20	100
Storage stability, 1 day, % Sedimentation	“	-	1.0
Sieve Test, %	“	-	0.10
Demulsibility,% by wt Residue	“	40	-
Setting Time (minutes)	Observation	3	7

-

**DATA TABLE II**

**SINGLE SIZE COARSE AGGREGATE COMPONENT GRADATION**

<b>ASTM</b>		<b>TOTAL % PASSING BY WT</b>	
<b>US</b>		<b>TYPE A</b>	<b>TYPE B</b>
3/4		-	-
1/2		-	100
3/8		100	85-100
1/4		85-100	30-55
4		40-60	24-45
8		21-37	21-37
16		16-26	16-26

**DATA TABLE III**

**COARSE AGGREGATE PROPERTIES**

<b>TESTS</b>	<b>METHOD</b>	<b>Light Medium Traffic &lt;200 heavy veh/day</b>	<b>Heavy Traffic &gt;200 heavy veh/day</b>
Los Angeles Abrasion Value%	ASTM C131	<25	<20
Polish Value, %	ASTM D3319	>50	>50
Water Absorption, %	ASTM C127	<2	<2
Flakiness Index, %	NFP18-561	<20	<15
Crushing Ratio, %	Observation	100	100
Overall Cleanliness (% pas #30)	ASTM C142	<2	<2
Asphalt Affinity*, %	ASTM D3625	>95	>95

\*anti-stripping agents may be required to provide acceptable values

**DATA TABLE IV**

**FINE AGGREGATE COMPONENT GRADATION**

<b>ASTM</b>		<b>% PASSING BY WEIGHT</b>
<b>US</b>		<b>Type A or B</b>
#4		100
#8		90-100
#16		60-80
#30		45-60
#50		30-40
#100		20-30
#200		15-25
Crushing ratio, % minimum (observation)		100
Sand Equivalency, % minimum (ASTM D2419)		60

\*Mineral Filler, if required, may be Hydrated Lime, Fly Ash or Baghouse Fines 100% passing #100, 80% passing #200

**DATA TABLE V**

**ASPHALT CEMENT**

<b>PROPERTY</b>	<b>METHOD</b>	<b>PG 64-22</b>
Viscosity, 60°C (140°F) Poise (Regional)	ASTM D 3381	2,000 + 400
Penetration, 25°C (77°F), 100g, 5 sec, min	ASTM D5	60
Softening Point° C (F)	ASTMD 36	45-51(113-124)

\*Asphalt cement may be modified by the addition of a thermoplastic polymer

**DATA TABEL VI**

**COMBINED AGGREGATE GRADATIONS - DESIGN TARGET ENVELOPES**

<b>AASHTO STANDARD SIEVE SIZES</b>		<b>TOTAL % PASSING BY WT</b>	
<b>US</b>		<b>TYPE A</b>	<b>TYPE B</b>
3/4		-	-
1/2		-	100
3/8		100	85-100
1/4		85-100	30-55
4		40-60	24-45
8		21-37	21-37
#16		16-26	16-26
#30		12-20	12-20
#50		8-16	8-16
#100		5-10	5-10
#200		5-7	5-7

**TRAFFIC CONTROL – ALL PROCESSES**

If Municipality is in charge of traffic control:

Municipality shall be responsible for traffic control patterns throughout the term of Contract. Municipality shall be responsible for providing traffic control personnel, as well as supplying, erecting, maintaining, moving and removing all signs, sign supports, barricades, traffic cones, traffic delineators, and any other materials necessary to establish the traffic patterns.

If Contractor is in charge of traffic control:

Contractor shall be responsible for traffic control patterns throughout the term of Contract. Contractor shall be responsible for providing traffic control personnel, as well as supplying, erecting, maintaining, moving and removing all signs, sign supports, barricades, traffic cones, traffic delineators, and any other materials necessary to establish the traffic patterns. Contractor controlled traffic includes 3 flaggers. Should additional flaggers be needed, there will be an “additional flagger” pay item by the day.

**PRICE PAGE**

**Ultra-Thin Bonded Wearing Course**

<b><u>Project Size</u></b>	<b><u>Type A</u></b>	<b><u>Type B</u></b>
10,000 – 14,999 SY	/per SY	/per SY
15,000 – 19,999 SY	/per SY	/per SY
20,000+ SY	/per SY	/per SY

Traffic Control, Contractor Supplies \$ \_\_\_\_\_/sq. yd.  
 Added Tonnage for Shim \$ \_\_\_\_\_/ton  
 Additional Flagger \$ \_\_\_\_\_/day

_____	_____
BIDDER	SIGNATURE
_____	_____
COMPANY NAME	DATE
_____	_____
TITLE	PHONE
_____	_____
ADDRESS	FAX