

TOWN OF EAST GREENWICH, RHODE ISLAND

DEPARTMENT OF PUBLIC WORKS.

**INVITATION TO BID**

Notice is hereby given that sealed Bids will be received by the Town Manager of the Town of East Greenwich, Rhode Island at his office in the Town Hall, until 2:00 P.M. prevailing time, MARCH 16, 2017 for the following:

**"BULK MATERIALS & ROAD STRIPING"**

In accordance with the technical specifications. All of the above work, known as the "Bid" to be performed in accordance with the specifications.

The work to be performed under this contract consists of furnishing all plant, labor, materials, equipment, tools, transportation, and all incidentals, related work, and overhead items, and performing all work required for the Bid, in strict accordance with the specifications, including the invitation for bids and the proposal which are hereby made a part of the specifications.

Bids for the above work must be made on forms furnished by the Town Manager. Specifications, other Contract Documents, and the Form of Bid may be examined and obtained during week days except Saturday, between the hours of 9:00 A.M. and 4:00 P.M. at the office of:

**Town Clerk's Office**  
**Town Hall**  
**125 Main Street**  
**East Greenwich, RI. 02818**

The Town of East Greenwich acting through its Town Manager reserves the right to reject any or all bids or any part thereof, to waive defects in same or to accept any proposal deemed to be in the interest of the Town of East Greenwich.

TERMS AND REQUIREMENTS FOR BIDDING ON:

**"BULK MATERIALS & ROAD STRIPING"**

1. All Bids must be submitted in sealed envelopes or wrappers with the title of the project to which they relate endorsed thereon and addressed to the

Town Manager Thomas E. Coyle III,  
East Greenwich Town Hall,  
125 Main Street,  
East Greenwich, Rhode Island, 02818.

and will be received by the Town Manager at the office of the Town Clerk in the Town Hall 2:00 P.M. prevailing time: **MARCH 16, 2017**, at which time said Bids will be opened by the Town Manager or his Designee.

2. The Bids must be in strict accordance with the accompanying specification.
3. The price proposed should be stated both in WRITING AND IN FIGURES and any Proposal not so stated may be rejected.
4. Each Bidder is required to state in his proposal his full name and place of business, both written and printed.
5. The Town Manager reserves the right to reject any or all Bids or any part thereof, to waive defects in same or to accept any proposal deemed to be in the interest of the Town of East Greenwich
6. Performance and Bid Security is not required, although other sections of this document may or may not refer to a performance or bid security. This reference is deleted in its entirety.
7. All formal Bids will be opened at the time specified on the Bid Form and read in public by the Town Manager or his designated representative in the council chambers or other suitable location. All Bidders or interested parties may attend the Bid opening. A tabulation of all Bids received shall be available for the inspection of any interested party.

8. The Awarding Authority will make award to the lowest qualified Bidder. In determining the lowest qualified Bid, the Town Manager will consider factors besides price. These factors shall include, but not be limited to: local firms having their principal place of business within the Town limits shall be given due consideration, all things being equal in the bid; the trade-in value of specific makes of equipment as opposed to another; the life expectancy of the items to be purchased; delivery dates; warranties and guarantees offered; the maintenance costs of varying models of vehicles or equipment; the experience and reputation of the bidder and manufacturer; availability of service and parts; any previous dealings which the bidder has had with the Town: the quality and adaptability of the supplies or contractual services which are bid to the particular use required.
9. Copies of manufacturer's warranty shall accompany the Bid.
10. The bid prices shall remain in effect for a period of one (1) year from the date of award by the Town Council, however, the Purchasing Agent may, upon mutual agreement with the vendor, for one year following the initial bid award, purchase additional quantities of materials, supplies, or equipment for which they had previously established the lowest and best bid, by referring to the particular bid price with the vendor.
11. The Town of East Greenwich shall use the unit prices offered by the bidder, and when indicated, the specified minimum delivery is an estimated quantity only, and the Town is not bound to purchase any minimum.
12. Intent; These specifications describe the minimum requirements for materials, work and accessories. Any parts or accessories not specifically mentioned, but which are necessary for a complete and efficient product as described within the Bid, shall be included.
13. Or Equal Clause: Whenever a material, article or piece of equipment is identified on the plans or in the specifications by reference to manufacturers or vendors names, trade-names, catalogue numbers, etc., it is intended merely to establish a standard; and, any material, article, or equipment of other manufacturers and vendors which will perform adequately the duties imposed by the general design will be considered equally acceptable provided the material, article, or equipment so proposed, is in the opinion of the Manager, of equal substance and function. It shall not be purchased or installed by the contractor without the written approval of the Town Manager.
14. Estimated total quantity is an estimate only, and should not be taken as an overall total.

15. Warranty: The attached specifications shall act as the basis for the vendor's normal guarantee relating to product quality and normal inspection shall apply to the products and equipment furnished under this specification.
16. Qualifications of Bidder: Bids will be considered only from firms or authorized agents of such firms, which meet the following qualifications:
  - a) The firm is a producer, supplier or authorized vendor for the specified products or equipment as listed within. The Town may make such investigations as it deems necessary to determine the ability of the Bidder to furnish and deliver the product, and the Bidder shall furnish to the Town all such information and data for this purpose as the Town may request. The Town reserves the right to reject any bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Town that such Bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional Bids will not be accepted.
17. All material and construction methods shall be in strict conformance with the latest revisions of "Rhode Island Department of Transportation Standard Specifications for Roads and Bridge Construction".

**SUPPLEMENT TO SPECIFICATIONS**

**TOWN OF EAST GREENWICH, RHODE ISLAND**

RECEIPT AND OPENING OF BIDS

The Town of East Greenwich (the "Town") invites and will receive Bids on the forms attached hereto, all information on which must be appropriately completed. Bids will be received at the office of the Town Manager until 2:00 P.M. **MARCH 16, 2017** and publicly opened and read aloud on the aforesaid date. The envelopes containing the Bids must be sealed and addressed to the Town of East Greenwich, 125 Main Street, East Greenwich, R.I. 02818, and plainly marked "**Misc. Bulk Materials & Road Striping**" IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS AND INFORMATION.

GENERAL INFORMATION

1. The Town of East Greenwich plans to buy as indicated in the attached specifications.

Supplier is not to separate the supplement from the proposal form, but must return same complete.

Bid is not to include any taxes from which the Town of East Greenwich is exempted by law; the Town will complete tax exemption forms required by supplier.

2. Preparation of the Bid: All Bids shall be made on the Contractor's Bid Form attached hereto and shall give the amount of Bids for work in both words and figures and must be signed by the Contractor as Bidder. Additional copies of the BID Form may be obtained from the Town Manager. All blank spaces in each BID Form together with appropriate schedules must be completed in full in ink or typewritten, in both words and figures.

In case of a discrepancy between the total shown in the Bid and that obtained by adding the products of the quantities of items at the unit prices, the sum as written out in words in the Bid Form shall govern and any errors found in said products, and in the addition, will be corrected.

Each Bid, together with the appropriate schedules, must be submitted in a sealed envelope bearing on the outside the name of the Bidder, its address, and plainly marked "**Misc. Bulk Materials & Road Striping**" For the Town of East Greenwich. If forwarding by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed as specified in the Bid. The Town Manager may consider as irregular any BID not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all Bids.

Any Bid may be withdrawn prior to the above scheduled time for the opening of Bids or authorized postponement thereof.

Any Bid received after the time and date specified above shall not be considered.

3. Bid Security: Not required.
4. Bid Qualification: Each supplier shall present evidence that he/she is normally engaged in the purveying of the type of material bid upon. The supplier shall make himself/herself thoroughly familiar with the contents of the notice before submitting his conditions, and specifications of this notice, no bid shall be considered from the suppliers who are unable to show that they are normally engaged in the purveying of the type of material bid on.
5. Delivery: Material shall be delivered and installed and ready for operation on or before the dates indicated Per the Specifications. If the supplier fails to deliver or install the material as required in the time indicated, or subsequently agreed to, a credit may be taken in the bid price of 1/10 of 1% per day at the discretion of the Town Manager, of the Town of East Greenwich.
6. Acceptance or Rejection: The Town of East Greenwich reserves the right to reject any or all proposals, to accept any bid or waive any informality in the proposal as deemed advisable in the best interest of the Town. The Town also reserves the right to award the bid on a per item basis.
7. The Town agrees to pay for the material within thirty (30) days after acceptance. Acceptance means 100% delivery of satisfactory material to comply with our specifications.
8. If the material, which the supplier bids, does not completely meet our specifications, the supplier must submit detailed specifications of his material with his/her bid. If the supplier does not submit said specifications, and his/her material does not

meet our specifications, the Town of East Greenwich reserves the right to refuse such material and obtain it from another source.

9. Exceptions to Specification: If the material offered differs from the provisions contained in this specification, such differences must be explained in detail on sheets attached to the proposal, and if such deviations do not depart from the intent of this notice and are in the best interest of the Town, the proposal will receive careful consideration.
10. Tests. Before approval, the Public Works Director or his Agent shall have the right to inspect and test the material furnished in accordance with this notice.

TOWN OF EAST GREENWICH  
OFFICE OF THE TOWN MANAGER  
125 MAIN STREET  
EAST GREENWICH, RHODE ISLAND

***PROPOSAL***

***SPECIFICATIONS***

***BULK MATERIALS & ROAD STRIPING***

***MARCH 16, 2017***

TOWN OF EAST GREENWICH

SPECIFICATIONS

**MISCELLANEOUS BULK MATERIALS & ROAD STRIPING**

SPECIAL PROVISIONS

GENERAL

Unless otherwise specified herein all material specifications shall adhere to the Standard Specifications for Road and Bridge Construction, Department of Transportation, Division of Public Works, State of Rhode Island and Providence Plantations, most recent revision.

PURCHASING PROCEDURE (For Road Building Materials Only)

Operationally, it is in the best interest of the Town to consider individual job site delivered costs for road building materials when granting bid awards. In some cases, this could result in award of bid(s) to vendor(s) nearest the individual job site, notwithstanding the lowest bid price submitted. These purchases will depend on the vendor having previously submitted bids and being able to supply the materials as specified when and where required. Unit bid prices shall remain in effect for one (1) year upon award by the Town Council, and may be extended for an additional year upon agreement by both parties to the original established lowest and best bid for the particular bid price item.

MEASUREMENT AND PAYMENT

All materials furnished under this contract will be measured by the Director of Public Works according to United States standard measure.

The method of measurement and computations to be used in determination of quantities of materials furnished under the contract will be those methods generally recognized as conforming to good engineering practice.

The quantity of materials determined for payment by the net weight shall be weighed in tons in hauling vehicles on scales furnished by and at the expense of the Bidder. Bids for processed materials from vendors that do not own a scale approved by the State of Rhode Island will not be considered.

The term "ton" will mean the short ton consisting of 2000 pounds avoirdupois. **All processed materials, including washed sand, concrete sand, bank run sand, Stone Dust, processed gravel, crushed stone or crushed gravel, infield mix, asphalt materials and rip rap, which are measured or proportioned by weight shall be weighed on accurate, approved scales by competent, qualified personnel.** Trucks used to haul material being paid for by weight shall be weighed empty daily and at such times as the Director of Public Works directs, and each truck shall bear a plainly legible identification mark.

Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable to the Director of Public Works, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level capacity and all loads shall be leveled when the vehicles arrive at the point of delivery, or the heap computed for quantity to the satisfaction of the Director of Public Works.

When requested by the Bidder and approved by the Director of Public Works in writing, material specified to be measured by the cubic yard may be weighed and such weights will be converted to cubic yards for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Director of Public Works and shall be agreed to by the Bidder before such method measurement of pay quantities is used.

Net certified scale weights will be used as a basis of measurement for all processed materials. The scales for weighing processed materials shall be either the beam-type or the sprinkle dial type. They shall be accurate within 0.5 percent throughout the range of use. Scales shall be sealed as often as the Director of Public Works may deem necessary to assure their continued accuracy. The Bidder shall have on hand not less than 10 fifty-pound weights for frequent testing of all scales.

Weight Slips. The Bidder shall furnish the Director of Public Works computer printed weight slips, or other slips approved by the Director, that clearly identifies the accurate weight of the materials being furnished. If required by the Director the slips shall also show the tier weight of the vehicle in addition to the weight of the materials.

## CONTROL OF MATERIALS

Source of Supply and Quality. The Director of Public Works reserves the right to approve the source of supply of each of the materials specified before delivery is started. Only materials conforming to the requirements of these specifications and approved by the Director of Public Works shall be used in the work. If, after trial, it is found that sources of supply, which have been approved, do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the Bidder shall furnish approved materials from other approved sources. No material, which, after approval has in any way become unfit for use shall be furnished.

Samples and Test. The Director of Public Works may require that all materials furnished, be inspected, tested and approved by the Director of Public works and any materials furnished but not tested and approved by the Director of Public Works, may be considered as defective and unauthorized and therefore not paid for. Tests will be made by and at the expense of the Town unless otherwise noted in these specifications. A sample consisting of approximately fifty (50) pounds, furnished by the Bidder at no cost to the Town, may be picked up by a representative of the Director of Public Works and forwarded to the Materials Division, State House, Providence, Rhode Island to determine if the materials meet specifications.

Tests will be made in accordance with the latest revision to the standard method of American Association of State Highway and Transportation Officials, the American Society of Testing and Materials or other standards accepted by the Rhode Island Department of Transportation in effect at the time of bidding, unless otherwise specified. All materials being furnished are subject to inspection, test or rejection any time during the preparation and use.

The Director of Public Works reserves the right to retest all materials which have been tested and accepted at the source of supply, after the same have been delivered, and to reject all materials which, when retest, do not meet the requirements of the specifications.

### PICK-UP

Loading of materials shall be performed with a mechanical loader of at least two (2) cubic yard capacity. Materials will be loaded on Town trucks between the hours of 7:30 A.M. and 3:00 P.M., except Saturdays, Sundays, and legal holidays.

### DELIVERY

Materials will be delivered by the Vendor to the Town of East Greenwich, Highway Garage, Bear Swamp Road, East Greenwich, Rhode Island, between the hours of 7:30 A.M. and 3:00 P.M., except Saturdays, Sundays, and legal holidays, or to a specific job site in the Town of East Greenwich.

## **#1 Bank Run Gravel**

### SPECIFICATIONS

Bank Run Gravel shall consist of sound, tough, durable particles of crushed or uncrushed gravel, free of loam, clay, vegetable matter or other deleterious substances and soft elongated pieces of rock or laminated pieces. This material shall also meet the following gradation requirements.

<u>Sieve Size</u>	<u>Gradation % Passing</u>
3-1/2"	100%
1/4"	30 - 65%
#40	5 - 30%
#100	0 - 10%

## **#2 Washed Sand For Oiling & Ice Control**

### SPECIFICATIONS

Sand shall consist of clean, sound, tough and durable particles containing not more than 3% silt or dust by actual dry weight using AASHTO Method T-11.

<u>Sieve Size</u>	<u>Gradation % Passing</u>
1/4"	100%
#20	30 - 60%
#50	7 - 30%
#100	3 - 8%

## **#3 Bank Run Sand**

### SPECIFICATIONS

Sand shall consist of clean, hard and durable particles graded to meet the following requirements:

<u>Sieve Size</u>	<u>Gradation % Passing</u>
1/2"	100%
1/4"	95 - 100%
#20	40 - 70%
#50	7 - 30%
#100	3 - 8%

## **#4 Concrete Sand**

### SPECIFICATIONS

Concrete sand shall be sand consisting of clean, hard, durable, coated particles of quartz or other rock, free from lumps of clay, soft or flaky material, loam, organic or other injurious materials. In no case shall sand containing lumps of frozen material be used. Concrete sand shall contain not more than 3 percent of material finer than #200 sieve, using AASHTO Method T11. Concrete sand shall be uniformly graded from coarse to fine and shall meet the following gradation requirements:

<u>Sieve Size</u>	<u>Gradation % Passing</u>
3/8"	100%
#4	95 - 100%
#8	80 - 100%
#16	50 - 85%
#30	25 - 60%
#50	10 - 30%
#100	2 - 10%

## **#5 Stone Dust**

### SPECIFICATIONS

Sand Chips shall consist of clean and uniformly graded dust or sand screening from crushed gravel free of loam, inorganic silt or clay or vegetable matter.

<u>Sieve Size</u>	<u>Gradation % Passing</u>
1/2"	100%
3/8"	100%
#4	95 - 97%
#8	60 - 67%
#16	40 - 45%
#30	30 - 35%
#50	20 - 25%
#100	0 - 20%

## **#6 Processed Gravel**

### SPECIFICATIONS

Processed Gravel shall consist of sound durable particles of crushed gravel, free of loam, clay, vegetable matter and soft elongated pieces of rock and shall be hard and durable enough to resist weathering, traffic abrasion and crushing. This material shall also meet the following gradation requirements.

<u>Sieve Size</u>	<u>Gradation % Passing</u>
2 1/4"	100%
1 3/4"	95 - 100%
3/4"	60 - 75%
1/4"	25 - 45%
#40	10 - 25%
#100	3 - 12%

## **#7 Crushed Stone or Crushed Gravel**

### SPECIFICATIONS

Crushed Stone or Crushed Gravel shall consist of clean, sound, tough, durable rock, free from loam, clay, vegetable matter, and shall not contain more than one percent (1%) crusher dust by weight. This material shall also meet the following gradation requirements.

<u>Sieve Size</u>	<u>Gradation % Passing</u>
2 1/4"	100%
2"	90 - 100%
1 1/2"	30 - 55%
1 1/4"	0 - 25%
1"	0 - 5%

**#8 Cement and Road Patching**  
**& Asphalt Paving Materials**

SPECIFICATIONS

- A. More or less one hundred (100) cubic yards of Concrete per year for various purposes to be furnished to project site in Vendor's mixer, as required in accordance with the following:
1. Four (4) yard minimum order.
  2. Delivered price per cubic yard shall be all inclusive. No other charges shall be incurred by the Town.
  3. Concrete shall meet requirements of Section 600 Portland cement concrete for Class X, 3/4" mix, and minimum 28-day compressive strength of 4000 lbs. Concrete and Section M.02 for materials as specified in Department of Transportation, Division of Public Works, Standard Specifications for Road and Bridge Construction, State of Rhode Island, Revision 1971.
- B. More or less two hundred and fifty (250) tons of Cold Patching Material to be furnished and loaded on Town trucks or delivered to Highway Garage in accordance with specifications as follows:
1. Material to be a plant mix utilizing asphaltic materials and mineral aggregate.
  2. Material must be capable of being spread at nominal atmospheric temperature.
  3. Material must be manufactured in accordance with recommendation of the Asphalt Institute.

## #9 Screened Loam Borrow

### SPECIFICATIONS

- 1) The loam borrow material to be furnished shall consist of loose, fertile, friable natural topsoil, typical of productive soils in the vicinity, obtained from naturally well-drained areas that have never been stripped. The loam borrow shall be free of refuse, stumps, roots, rocks, brush, weeds, stones 1" in diameter or larger, lumps, coarse sand, noxious weeds, sticks or litter.
- 2) Loam borrow shall be classified as a sandy loam by the USDA textural classification system as determined by sieve and pipette or hydrometer analysis. Loam borrow shall have the following mechanical analysis.

Textural Class	Percent of Total Weight	Avg. Percentage
Sand (0.05-2.0mm range)	45-75	60
Silt (0.002-0.05mm range)	15-35	25
Clay (less than 0.002mm)	5-20	15

3. Loam borrow shall contain not less than 4 percent or more than 7 percent organic matter as determined by the loss of weight by ignition of oven-dried samples. Test samples shall be oven-dried to a constant weight at a temperature of 230 degrees F.
4. Loam borrow shall not be excessively acid or alkaline, and shall not contain any phytotoxic materials or unacceptable concentration levels of any substance harmful to plant growth as determined by the soils testing laboratory. Loam borrow shall have a pH value range between 5.0 and 6.5. Maximum soluble salt index shall be 100. The electrical conductivity (EC2) of a 1:2 soil-water suspension shall be less than or equal to 1.0 milliohms/cm. Aluminum concentration levels shall be less than 200ppm.
5. Loam borrow shall not be worked, excavated, or delivered in a frozen or muddy condition. Soil structures shall not be destroyed through excessive and unnecessary handling or compaction.

## #10 Diamond Mix (Infield)

### SPECIFICATIONS

This material shall consist equally of brown silt, fine sand, clay. The loam to be mixed shall consist of loose, friable, sandy, screened loam or screened loam topsoil free of a mixture of subsoil, refuse, stumps, roots, rocks, brush, weeds and stones. The Diamond Mix shall be uniformly graded coarse to fine and shall meet the following gradation requirements:

MIXTURE COMPOSITION			
<u>% GRAVEL</u>	<u>%SAND</u>	<u>% SILT</u>	<u>%CLAY</u>
1.6	51.2	42.0	5.2

SIEVE SIZE	GRADTION % PASSING
.5 in.	100%
#4	98.4 %
#10	90.7 %
#20	82.8 %
#40	75.1 %
#60	68.8 %
#100	62.2 %
#200	47.2 %

## #11 Rip Rap

### SPECIFICATIONS

1. The material for rip rap shall consist of broken stone produced from sound ledge or large boulders with at least three fractured faces on each particle and shall be free from overburden, spoil, shale or organic material. The stone shall have a minimum density of 160 pounds per cubic foot. It shall be angular in shape with its minimum dimension not less than one-third of the maximum dimension. Stone for placed riprap shall have one flat face and shall be roughly square or rectangular to facilitate lying.

2. Bedding for Rip Rap

Bedding stone shall conform to the quality requirements of Section M.10.03, rip rap and shall conform to the following gradation:

Percentage passing sieve by Weight

3 1/2"	100
3"	90-100
2"	60- 80
1"	0- 20
3/4"	0- 5

3. Stone for Rip Rap

Stone for riprap shall meet the requirements of Section M.10.03 and conform to one of the following classes as specified, and shall be well graded within the size specified:

Class Size	Gradation
A	1 lb. to 100 lbs.
B	5 lbs. to 120 lbs.
C	75 lbs. to 150 lbs.
D	50 lbs. to 400 lbs.
E	50 lbs. to 1,500 lbs.

Fifty percent (50%) by weight of the particles in each of the designated class sizes shall be greater than the average of the weights specified.

Not more than five percent (5%) of the pieces will be allowed to exceed the maximum size. However, in no case shall the maximum sized particle be greater than fifty percent (50%) of the largest specified, except that large size stone may be allowed in Placed Rip Rap when approved. In addition, not more than five percent (5%) of the particles specified shall consist of spalls smaller than half the smallest sized required.

**#12 PERMANENT COLD PATCHING MATERIAL**

1. DESCRIPTION

This material shall be a plant mixed pavement patching material capable of storage in a stockpile composed of mineral aggregates and a modified bituminous material, approved by the Awarding Authority. The mix provided shall meet the gradation contained herein.

The material shall be uniform, workable, coated, free of contaminants or debris, or ice, and have a wet, shiny, visual appearance at the time of delivery.

2. MATERIALS

A. Aggregates: Aggregates shall conform to the size designation as shown below and in accordance with ASTM C-136 for standard test method:

SIEVE% PASSING	OPEN GRADED STONE
1/2" (12.5mm)	100
3/8" (9.50mm)	85-100
#4 (4.75mm)	5-40
#8 (2.36mm)	0-15
#16 (1.18mm)	0-2

ASTM C-131	Los Angles Abrasion	35.0% Max
ASTM C-127-128	Specific Gravity	0.98

B. Bituminous Material: The bituminous material shall be either Tuff Patch by Triram Corporation or an approved equal all prepared from a base asphalt stock of either AC-10 or AC-20 and meeting the following requirements:

ASTM D-1310	Flash Point (TOC): 94 degrees C (200°F) 200°FMin.
ASTM D-2170	Kinematic Viscosity @ 60°C (140°F): 400-4000
ASTM D-402	Distillate Test (Volume of original sample):

To 225°C (437°F): 0-2%
To 260°C (500°F): 3-15%
To 315°C (600°F): 20-65%

Residue from distillate at 360°C (680°F): 70-90%

Tests on Residue:

ASTM D-2171            Lbs. Viscosity at 60°C(140°F): 60-350 Poises  
ASTM D-5                Penetration:200 Min. (using cone method)  
ASTM D-113             Ductility at 4°C(39°F): 1 cm/min:100 Min.

The bituminous material shall be available in various grades so that one such grade will enable a stockpile to remain pliable and workable at a temperature of -15°F(-26°C).

3. COMPOSITION OF MIXTURES:

The aggregate gradation and bituminous material quantities shall meet the requirements given in Table 1 below. The Job Mix Formula, design computations, and trial batch tests shall be submitted to the Awarding Authority, or their Engineering designate, for review prior to shipment of material. Information shall be supplied including aggregate gradations, aggregate type and sources of supply, bituminous material amount and type including any additives; and temperature ranges for the material preparation. Submission of the above design and test information shall be required each time a change is made in the production design, producer, aggregate type or source.

TABLE I  
COMPOSITION OF STOCKPILE PATCHING MATERIALS

SIEVE% PASSING	OPEN GRADED STONE
1/2" (12.5mm)	100
3/8" (9.50mm)	85-100
#4 (4.75mm)	5-40
#8 (2.36mm)	0-15
#16 (1.18mm)	0-2
Total Liquid	4.0-7.0%

The final Job Mix Formula Total Liquid Content, when received by the Awarding Authority, shall not vary more than 0.5% from the design content when tested in accordance with ASTM D2172 Method A (including the ash) or method E. The master ranges given above in Table I shall govern over the final job mix design content and allowable variations. All aggregate percentages in the table are based on the total weights of aggregate.

The bituminous material percentage is based on the total weight of the mix and shall include any additives.

The mixture, after obtaining field working temperature following mixing, shall meet the following requirements:

#### STRIPPING TEST

A sample for test is to be obtained by removing a sample toward the top of the stockpile and at a one-foot depth and removing a similar sample toward the bottom of the stockpile at least one foot up from the toe of the stockpile and one foot into the stockpile. The two samples shall be combined to form one test sample. A suitable size test sample of the plant mixed material shall be permitted to cure at normal laboratory temperature for at least 24 hours after which it shall be placed in a glass jar, fitted with a tight cover, and completely covered with distilled water. The jar and contents shall then be allowed to stand for a period of 24 hours at normal laboratory temperature (approximately 70°+/-F) (21°C). The sample shall then be shaken vigorously for a period of 15 minutes. The water shall then be poured from the jar and the sample removed to a flat surface and be permitted to air dry after which it shall be visually examined for stripping of the bituminous film from the aggregate. The aggregate surface shall be at least 95% coated with the bituminous film.

#### 4. FIELD PERFORMANCE

The mixture shall be capable of maintaining all of its performance features after remaining in an uncovered stockpile of 100 tons or more for up to 12 months. The field performance, as specified in the Section, shall meet a minimum of 90% effectiveness. The mixture shall be capable of maintaining adhesive qualities in areas which are damp or wet at the time of placement and, shall not bleed (flush) when overlaid with bituminous concrete.

Provided an approved material was used in the application, and provided the mixture was stockpiled and applied in accordance with the manufacturers recommendations, and Awarding Authority records can document the application date and locations as well as the method of placement, ambient temperature and weather, the following field performance criteria will be used to measure the effectiveness of the patch material: A total of 20 patches will be used for the rating process, ten each within two discrete areas from one another preferably representing two different work crews. The rating of the patches for the field performance may be undertaken by the Awarding Authority, or their designate Engineer, at any time but a minimum of two ratings will be performed during each patch season.

1. The in-place patch shall not ravel out. Light raveling will be acceptable whereas heavy raveling will be unacceptable.

RAVELING: Raveling is the wearing away of the pavement material surface caused by the dislodging of aggregate particles; it will be an indication of poor in-place patch adhesion performance. LIGHT raveling is viewed as loose aggregate particles, coated or uncoated, existing on or near the patch and having a patch surface texture that exhibits a pitted surface texture. HEAVY raveling will be an indicative of a loss of aggregate particles greater than two stone thicknesses in depth from the original placed surface normally taken from the elevation of the adjacent pavement surface.

2. The in-place patch shall not distort. Light distortion will be acceptable whereas medium or heavy distortion will be unacceptable.

DISTORTION: Distortions are localized pavement material surface areas having elevations slightly lower or higher than those of the surrounding pavement. Distortions can cause discomfort and/or a safety hazard, and/or vehicle damage, requiring a reduction in speed for safety. LIGHT Distortion is measured as having a deviation from the normal plane of the roadway less than or equal to one inch. MEDIUM OR HIGH Distortion is measured from the normal plane of the roadway that is in excess of one inch. Generally, distortion will exist as a depression within the patch area or a bump or shove of material at the downside of the patch to the traffic flow.

5. STOCKPILING AND HANDLING PROCEDURES:

Following production, the patch material should be allowed to cool to ambient temperature prior to field use by storing 24 to 48 hours in piles no greater in height than six feet. Once ambient temperature levels are reached, the patch material can be molded to meet local needs being sure to avoid traveling on the patch material with loaders or trucks. The stockpile of patch should be placed on a clean, hard paved surface preferably away from blowing dust. Avoid contamination from other sources. To take advantage of the solar heat effects, the ideal stockpile is rectangular in shape with sloped sides and ends. The stockpiles are placed in southeasterly to northwesterly directions; this allows the operator to work off the southeast face during the morning hours providing additional workability at sub-zero temperatures. These modified patch material stockpiles form a thin protective crust after a few weeks. This crust plays an important role in the longevity of the stockpile. It should not be disturbed except for the portion that gets mixed in while loading trucks, which should be loaded, if possible, from the shorter rectangular end of the stockpile. Do not freshen or work the entire pile to disturb the protective crust. If moisture has penetrated the stockpile, subsequently freezes and creates visible ice crystals inside of the pile, the

material should be placed inside overnight at a minimum temperature of 50°F(10°C). Material returning to the stockpile at the end of the day should be placed near the working face followed by mixing with fresh material on a 50/50 basis during the next load out.

## 6. INSPECTION, TESTING AND ACCEPTANCE

The Producer shall contact the Awarding Authority office 72 hours in advance to arrange for the inspector, or their designate, to oversee the preparation of mixtures. All submittals as required by this specification are to follow immediately after design/production of the material. If inspection is not performed at the time of mixture preparation, samples from the stockpile will be tested by the Awarding Authority to determine acceptability of the mixture prior to shipment. Two samples will be lifted from each separate stockpile, one sample taken towards the top and twelve inches inside the pile while the second sample is to be taken one foot off from the toe of the stockpile and one foot inside the pile. The results of the two tests will be averaged and compared to the design Job Mix Formula. Performance evaluation will be conducted randomly by the Awarding Authority and at the discretion of the Awarding Authority but in no case less than two such performance evaluations per patch session as given in Section 4 of this specification. The Awarding Authority inspector, or designate, will follow and document the patch placement. A minimum of fifteen documentation for each of two separate working crews shall be considered for each initial performance evaluation. Follow-up condition evaluations may be conducted at any time after placement for up to 12 months. Each follow-up condition evaluation will be reported and submitted to the Highway Department. Less than 90% effective performance at any time after the placement of the patching material shall be considered unacceptable when at least twenty patches have been evaluated.

The initial approval of a mixture or the initial acceptance of material shall in no way preclude further examination and testing if unsatisfactory results are achieved. The acceptance at any time shall not bar its future rejection.

### **#13 Painted 12" Stop Lines and Crosswalks (White)**

#### **SPECIFICATIONS**

The pavement marking shall consist of the installation of latex acrylic painted white 12" stop lines and crosswalks with reflective glass beads additive on various Town roads.

### **#14 Painted 4" Centerline (Yellow) and Edge line (White)**

#### **SPECIFICATIONS**

The pavement marking shall consist of the installation of latex acrylic painted white 4" edge line and latex acrylic painted yellow 4" centerlines with reflective glass beads additive on various Town roads.

### **#15 Painted 4" Parking Lot Lines (White)**

#### **SPECIFICATIONS**

The pavement marking shall consist of the installation of latex acrylic painted white 4" line on various Town parking lots. The parking lot stripping layout shall be included.

### **#16 Painted Handicap Symbol (White)**

#### **SPECIFICATIONS**

The pavement marking shall consist of the installation of latex acrylic painted white handicap symbol. The symbol shall meet ADA and State requirements. The symbols shall be installed on Town parking lots and on various Town roads.

### **#17 Calcium Chloride/Sodium Chloride Mix**

#### **SPECIFICATIONS**

This material shall consist of a mixture of 10% calcium chloride and 90% sodium chloride. The two products shall be thoroughly mixed.

## **#18 Sodium Chloride**

### SPECIFICATIONS

This material shall consist of loose granular sodium chloride, free of clumps.

## **#19 Shredded Pine Bark**

### SPECIFICATIONS

This material shall consist of loose natural pine bark mulch.

## **#20 Stained Wood Chips**

### SPECIFICATIONS

This material shall consist of loose natural hardwoods wood chips stained dark red in color.

## **#21 WINTER SAND**

### SPECIFICATIONS

Aggregate shall be clean sand of hard, durable, sharp-grained particles free from vegetable or organic matter, lumps, or balls of clay or other deleterious substances, used for winter sanding.

The gradation shall meet the grading requirements as follows:

Sieve Designation % weight passing square mesh sieve

<u>Sieve Size</u>	<u>Gradation % Passing</u>
3/8 inch	100%
#4	80-100%
#50	0-35%
#200	0-3%

TOWN OF EAST GREENWICH, RHODE ISLAND  
BID SHEET  
BIDS DUE: MARCH 16, 2017  
MISCELLANEOUS BULK MATERIALS & ROAD STRIPING

VENDOR'S NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_ PHONE NO. \_\_\_\_\_

**1. BANK RUN GRAVEL**

- A. Picked Up by Town \$ \_\_\_\_\_ Ton  
\*P/up Location: \_\_\_\_\_  
B. Delivered by Vendor \$ \_\_\_\_\_ Ton

**2. WASHED SAND**

- A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_  
B. Delivered by Vendor \$ \_\_\_\_\_ Ton

**3. BANK RUN SAND**

- A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_  
B. Delivered by Vendor \$ \_\_\_\_\_ Ton

**4. CONCRETE SAND**

- A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_  
B. Delivered by Vendor \$ \_\_\_\_\_ Ton

**5. STONE DUST**

- A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_  
B. Delivered by Vendor \$ \_\_\_\_\_ Ton

**6. PROCESSED GRAVEL**

- A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_  
B. Delivered by Vendor \$ \_\_\_\_\_ Ton

**7. CRUSHED STONE OR CRUSHED GRAVEL**

- A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_
- B. Delivered by Vendor \$ \_\_\_\_\_ Ton

**8. CEMENT & ROAD PATCHING & ASPHALT PAVING MATERIALS**

- A. Concrete - 4000 PSI
  - 1. Delivered by Vendor \$ \_\_\_\_\_ C.Y.  
(Four yard minimum)

B. Cold Patch

- 1. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_
- 2. Delivered by Vendor \$ \_\_\_\_\_ Ton

**9. SCREENED LOAM**

- A. Picked Up by Town \$ \_\_\_\_\_ C.Y.  
P/up Location: \_\_\_\_\_
- B. Delivered by Vendor \$ \_\_\_\_\_ C.Y.

**10. DIAMOND MIX (INFIELD)**

- A. Picked Up by Town \$ \_\_\_\_\_ C.Y.  
P/up Location: \_\_\_\_\_
- B. Delivered by Vendor \$ \_\_\_\_\_ C.Y.

**11. STONE FOR RIP RAP**

Item            Class Size

11.1            A

- A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_
- B. Delivered by Vendor \$ \_\_\_\_\_ Ton

11.2            B

- A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_
- B. Delivered by Vendor \$ \_\_\_\_\_ Ton

11.3 C

A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_

B. Delivered by Vendor \$ \_\_\_\_\_ Ton

11.4 D

A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_

B. Delivered by Vendor \$ \_\_\_\_\_ Ton

11.5 E

A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_

B. Delivered by Vendor \$ \_\_\_\_\_ Ton

**12. PERMANENT COLD PATCHING MATERIAL**

A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location \_\_\_\_\_

B. Delivered by Vendor \$ \_\_\_\_\_ Ton

**13. PAINTED 12" STOP LINES & CROSSWALKS**

A. Installed in Town by the Vendor \$ \_\_\_\_\_ P. L. F.

**14. PAINTED 4" CENTERLINE AND EDGELINE**

A. Installed in Town by the Vendor \$ \_\_\_\_\_ P. L. F.

**15. PAINTED 4" PARKING LOT LINES**

A. Installed in Town by the Vendor \$ \_\_\_\_\_ P. L. F.

**16. PAINTED HANDICAP SYMBOL**

A. Installed in Town by the Vendor \$ \_\_\_\_\_ Per Symbol

**17. CALCIUM CHLORIDE/SODIUM CHLORIDE MIX**

A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_

B. Delivered by Vendor \$ \_\_\_\_\_ Ton

**18. SODIUM CHLORIDE**

- A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_  
B. Delivered by Vendor \$ \_\_\_\_\_ Ton

**19. SHREDDED PINE BARK**

- A. Picked Up by Town \$ \_\_\_\_\_ C. Y.  
P/up Location: \_\_\_\_\_  
B. Delivered by Vendor \$ \_\_\_\_\_ C. Y.

**20. STAINED WOOD CHIPS**

- A. Picked Up by Town \$ \_\_\_\_\_ C. Y.  
P/up Location: \_\_\_\_\_  
B. Delivered by Vendor \$ \_\_\_\_\_ C. Y.

**21. WINTER SAND**

- A. Picked Up by Town \$ \_\_\_\_\_ Ton  
P/up Location: \_\_\_\_\_  
B. Delivered by Vendor \$ \_\_\_\_\_ Ton

\*PLEASE INDICATE WHERE MATERIAL MAY BE PICKED UP.  
P. L. F.-PER LINEAR FOOT  
C. Y. -CUBIC YARD

**SUCCESSFUL BIDDER MAY NOT WITHDRAW BID PRICES FOR A PERIOD OF ONE YEAR FOLLOWING BID OPENING.**

**BIDS MAY BE SUBMITTED ON ANY ONE OR ALL ITEMS.**

Addenda Received: Yes: \_\_\_\_\_ No: \_\_\_\_\_

Addenda #: \_\_\_\_\_ Received By: \_\_\_\_\_

Addenda 2 Received: Yes: \_\_\_\_\_ No: \_\_\_\_\_

Addenda #: \_\_\_\_\_ Received By: \_\_\_\_\_

Addenda 3 Received: Yes: \_\_\_\_\_ No: \_\_\_\_\_

Addenda #: \_\_\_\_\_ Received By: \_\_\_\_\_

\_\_\_\_\_

(Typed Name of Company)

\_\_\_\_\_

(Typed Company Address)

\_\_\_\_\_

(Typed City or Town of Company) (State) (Zip Code)

( \_\_\_\_\_ ) \_\_\_\_\_

(Phone) area code (fax)

\_\_\_\_\_

(Typed Name of Company Official)

\_\_\_\_\_

(Signed Name of Company Official)

I certify that the above price is free of all State and Federal Taxes

\_\_\_\_\_

(Signed Name of Official) (Date)

**TOWN OF EAST GREENWICH,  
RHODE ISLAND  
OFFICE OF THE TOWN MANAGER  
INVITATION TO BID**

Notice is hereby given that sealed bids will be received by the Town Manager of the Town of East Greenwich, Rhode Island, at his office in the Town Hall, 125 Main Street, East Greenwich, Rhode Island, until 2:00 P.M. prevailing time, MARCH 16, 2017, for the following:

**"BULK MATERIALS & ROAD STRIPING"**  
FOR THE  
PUBLIC WORKS DEPARTMENT

All the above work, known as the "Bid" is to be performed in accordance with the specification. The work to be performed under this contract consists of furnishing all plant, labor, equipment, product, service, tools, transportation, and all incidentals, related work, and overhead items, and performing all work required for the Bid, in strict accordance with the specifications, including the invitation for bids and the proposal which are hereby made a part of the specifications. Specifications, other Contract Documents, and the Form of Bid may be examined and obtained during weekdays except Saturday, between the hours of 9:00 A-M. and 4:00 P.M. at the office of the:

**Town Clerk**  
**Town Hall**  
**125 Main Street**  
**East Greenwich, R. I., 02818**

The Town of East Greenwich acting through its Town Manager reserves the right to reject any or all bids or any part thereof, to waive defects in the same or to accept any proposal deemed to be in the best interest of the Town of East Greenwich. "Individuals requiring interpreter services should contact the Town Clerk's office at (401) 886-8606 via RI Relay #711 (800-745-5555 TTY) or in writing at least forty eight (48) hours in advance of the scheduled bid opening.