ADDENDUM # 2

TO: All Bidders

FROM: Essex County Department of Public Works

Date: March 26, 2018

Subject: CR 43 Shore Airport Road, Roadway Surface Preservation
Town of Ticonderoga, Essex County, New York
PIN 1760.50/ D035459

The following, issued to the bid document holders of records, indicates changes to the bid documents for the CR 43 Shore Airport Road, Roadway Surface Preservation.

1. The Bid Opening for this contract remains **Thursday, March 29, 2018 at 2:00 PM** at 7551 Court Street, Elizabethtown, NY 12942

2. However it appears that my question about asphalt cement grade wasn't addressed. This is a large part of the hot mix cost assumption and we cannot reasonably assume what AC grade you would like used in the hot mix. Can you look into this and let Brian and I know how to proceed.

Response: The PG Binder that should be used for the project is PG 58E-34. The attached special note should be inserted into the project manual.

3. There still appears to be an issue with Item 637.34 – Office Technology And Supplies. This item is listed with a quantity of 1, a unit price of "one dollars and cents", which does not generate an extension ("Amount Bid") of $5,000.00, as depicted on page BS-6. Could the County please clarify?

Response: The "estimated quantity" listed on page BS-6 of the bid sheets should be changed to $5,000.00. This generates an extension of $5,000.00.

END ADDENDUM NO. 2

SPECIAL NOTE

PG BINDER AND MIX DESIGN LEVEL

Requirements of this note apply to all Section 402 and Section 404 Asphalt (HMA and WMA) items in this contract.

PG BINDER

Use polymer or Terminal Blend Crumb Rubber modified **PG 58E-34** (Extreme) meeting the requirements of AASHTO M 332, ***Standard Specification for Performance Graded Asphalt Binder using Multiple Stress Creep Recovery (MSCR)***, for the production of hot mix asphalt mixtures for this project. In addition, the binder grade must also meet the **elastomeric** properties as indicated by one of the following equations for $\%R_{3.2}$:

1. **For $J_{nr3.2} \geq 0.1$, $\%R_{3.2} > 29.371 * J_{nr3.2}^{-0.2633}$**
2. **For $J_{nr3.2} < 0.1$, $\%R_{3.2} > 55$**

Where
$R_{3.2}$ is % recovery at 3.2 kPa
$J_{nr\,3.2}$ is the average non-recoverable creep compliance at 3.2 kPa

When terminal blend CRM PG binder is used, the following shall apply:

- Crumb rubber particles shall be finer than #30 sieve size.
- The CRM PG binder shall be storage-stable and homogeneous.
- The Dynamic Shear Rheometer (DSR) shall be set at 2-mm gap.
- The CRM PG binder shall be 99% free of particles retained on the 600 µm sieve as tested in accordance with Section 5.4 of M 332.

Use of polyphosphoric acid (PPA) to modify the PG binder properties is prohibited for mixtures under this contract. This prohibition also applies to the use of PPA as a cross-linking agent for polymer modification.

MIX DESIGN

The mixture designs must be developed in accordance with the criteria specified in the HMA items that are appropriate for an Estimated Traffic Level of **<30** Million ESALs.

Note: The PG binder for this project will be modified with polymer or CRM additives to meet the requirements stated above. Handling of the HMA shall be discussed at preconstruction and pre-paving meetings.