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AEMA ANNOUNCES 2014 PAST PRESIDENTS' AWARD FOR EMULSION EXCELLENCE

The Asphalt Emulsion Manufacturers Association (AEMA) is pleased to announce the presentation of its 2014 Past Presidents' Award for Emulsion Excellence to:

Agency	The Chickasaw Nation Roads Department
Contractor	PSI Seal Masters, Inc.
Emulsion Supplier	Ergon Asphalt & Emulsions, Inc.

The announcement was made during AEMA's 41st Annual Meeting, held in Aventura, Florida; the award was presented by AEMA President Mark McCollough, Asphalt Materials, Inc.

The Asphalt Emulsion Manufacturers Association's Past Presidents' Award is in recognition for a specific project of excellence utilizing asphalt emulsions which exemplify the highest quality of workmanship, and compliance with the best standards of practice. Projects submitted may include the use of emulsions in pavement preservation applications, pavement rehabilitation applications or the use of emulsions in building pavement structure.

ROAD NAME:	Village Road
DESIGNATION:	12998
LENGTH:	1 Mile
LOCATION:	Kingston, Oklahoma
MILE MARKER:	None
DIRECTIONS:	Located 1 mile east of Kingston, Oklahoma, on Hwy-70 to Village Road
PAVEMENT DESIGN:	6" aggregate base, stabilized with C K D, 4" Type A and 2" Type B asphalt
TRAFFIC VOLUME:	50-75 cars daily

Village Road is a mile-long Hot Mix Asphalt roadway that was constructed nearly ten years ago along with the Chickasaw Children's Village.

It had not received maintenance since its construction. Cracking and oxidation had taken a heavy toll on the pavement. Aesthetically, the road stood in stark contrast to the well-kept Children's Village grounds.

OPTIONS FOR REPAIRING THE PAVEMENT

Hot Mix Asphalt Overlay -- ≈ \$140,000 **OR** Pavement Preservation Methods -- ≈ \$45,000

SELECTED METHODS / PRODUCTS

CRACK SEAL:	Crafco Super Shot 125 Melter/Applicator Crafco Road Saver 515 Crack Sealant
CHIP SEAL:	3/8" Limestone Aggregate CRS-2+

The **Chickasaw Nation Roads Department** chose to restore Village Road using pavement preservation best practices, starting with crack sealing. Their objective was to protect the base from moisture, provide a smooth surface on which to apply a chip seal, and prevent existing cracks from returning to the surface. An internal crew crack sealed the pavement using a **Crafco Super Shot 125 Melter/Applicator**, and 2,600 lbs. of **Crafco Road Saver 515** crack sealant.

Contractor **PSI Seal Masters, Inc.** followed with a chip seal using **3/8" limestone aggregate** and the polymer-modified asphalt emulsion, **CRS-2+**. A calibration issue with the distributor's onboard computer on the front end of the job caused the binder application rate to be lighter than the expected 0.4 gal/sq yd. The issue was quickly corrected, but a portion of the pavement received only 3/4 of the material needed to securely hold the aggregate to the surface of the roadway.

The Chickasaw Nation Roads Department's **Nick Woodward** and Ergon Asphalt & Emulsions' **Johnny Roe** planned to apply a heavy fog seal of **CQS-1F** at 0.15 gal/sq yd to compensate for the lost binder and improve the aesthetics of the surface. But on the day of application, they devised a superior solution. The fast curing emulsion would allow a double fog seal to be utilized, which would provide better coverage, last longer and result in a much darker surface.

By applying the product in two layers, each at 0.10 gal/sy for a total of 0.20 gal/sy, more material could be utilized while greatly reducing the risk of runoff.

PSI Seal Masters, Inc. shot the CQS-1F on one side of the mile-long road at 0.10 gal/sq yd. They then returned to their starting point and applied the fog seal to the other side of the pavement at the same rate. Warm, dry weather and engineered fast cure times allowed the fog seal to dry in approximately 20 minutes, preventing any runoff. Once the material had cured, crews immediately applied a second coat at 0.10 gal/sq yd.

Crack Seal: Sealed existing cracks against water intrusion into the base which would weaken it and make it vulnerable to load-related damage.

Chip Seal: Halted oxidation, sealed the entire roadway against water, and provided a durable high friction surface.

Double Fog Seal: The double fog seal produced a dark, textured look that rivals the appearance of hot mix asphalt. It provided initial and long-term aggregate retention, as well as stripe delineation for safety. The combination of these three treatments is expected to provide the pavement with approximately 10-13 years of service life.

Customer Satisfaction: All parties were extremely pleased with the final results. Following the project's success, the Chickasaw Nation elected to use the double fog seal method and CQS-1F on a road in Ada, Oklahoma, where they achieved similar results.

For photos, or to receive this release in Word format, contact kennedy@krissoff.org.

Full details of the project follow the Past Presidents' Award Link on www.aema.org.

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