

# Project Profile

## General Project Information

**Project Location:** South 71st Street  
Sedgwick County, KS

**Road Owner:** Sedgwick County

**Application:** Warm Open and Gap Graded Mix

**Date Placed:** June 11, 2008

**Applicator:** Hall Brothers



Given the success of the NovaChip® ultrathin bonded wearing course, Road Science, LLC™ in conjunction with Sedgwick County, Kansas, decided to experiment with an open and warm mix application of NovaChip. Road Science and Sedgwick County conducted this trial south of Wichita on 71st street west of Hayesville, KS. The warm mix NovaChip sections were part of a larger study having a combined section length of 8,000 feet. Traffic was less than 5,000 ADT. The existing surface was oxidized dense graded HMA of several years in age. No rutting was apparent, but slight to moderate severity transverse cracks were noted.

## Mix and Trial Information

Two warm mixes of different gradations, open and gap, were made using a chemically modified asphalt binder. Target discharge temperatures for the open and gap graded mixtures were 160°F and 180°F, respectively. Trial variables included 65, 80 and 100 pounds per square foot spread rates, as well as NovaBond Polymer Modified Asphalt Emulsion (PMAE) application rates of 0.15 and 0.25 gallons per square yard (GSY). Each test section was 792 feet long and 13 feet wide, creating test sections of 1,144 square yards.

## Construction Information

Both warm mixes were placed using the Vogele SF-1800 spray paver. Two 10-ton tandem steel wheel Ingersoll-Rand rollers were used. The pavement temperature at the start of the paving was 81°F. The high air temperature during the paving reached a high of 91°F. The open graded mix delivered to the paver ranged from 148°F to 177°F. Mix temperatures on the gap graded mix delivered to the paver ranged from 151°F to 159°F.

## Photos



Sedgwick County warm mix from pug mill discharge



Finished Bonded BM-1 Test Sections

*For more on this project, the BondTekk process or other solutions available in your area, contact your local Road Science representative at 877 354 1851*

