New Painted Contrast Markings Increase Visibility, Save Money

Perhaps you've noticed the new white and black dash line markings that divide highway lanes along some sections of the interstate system in NDOR's Districts 1 and 2 in eastern Nebraska.

According to Matt Neemann, NDOR Traffic Control Engineer, placement of these new contrast markings began in June, with more planned in the near future in those districts as well as in Districts 5 and 6 in western Nebraska.

According to Neemann, these markings are a safety enhancement for lighter color paved roads. The new lines are a different form of contrast markings that are more visible on white concrete pavement than the previous tape markings, and will help delineate the lane lines in dawn and dusk conditions.

The contrast markings consist of a standard 10-foot long white dash line followed by a 10-foot long black dash line, with a 20-foot gap in between. Previous contrast markings used by the department have consisted of using 4-inch preformed white tape 10 feet in length with 1½-inch black tape on each side and a 30-foot gap in between.

Cost Effective

The material being used for the new contrast markings is a two component, durable polyurea, with embedded reflective glass beads on the white line and non-reflective black grit on the black lines. The material has an expected life of 4-6 years, about the same as the tape. A big advantage, in addition to giving a better contrast, is the liquid pavement markings are more cost effective – at least half the price of the tape markings, according to Neemann.

The NDOR is installing contrast markings on approximately 78 miles



Photo by Jay Bailey

This section of recently painted contrast stripes is located on I-80 west of Gretna, near Church Road. Advantages over the previously used contrast tape include better contrast and cost savings.

of interstate and freeway systems. They are primarily being installed along east-west roadways, with the exception of some of the interstate system running north and south, including parts of I-680 with the highest traffic volumes.

Four Districts

There are 45 miles of the new painted contrast stripes on I-80 in Districts 1 and 2, between the US-77 south junction, Mile Marker (MM) 397, and Giles Road, MM 442, as well as 6 miles on I-680 in Omaha, from I-80 to Fort Street. In District 6, over 20 miles of contrast striping will be done by the end of the summer on four segments of I-80 between Big Springs, MM 106, and Lexington, MM 237. Also, after completion of the Roscoe to Paxton project in the fall, an additional 12 miles of striping will be completed, for a total of 32 miles in District 6. In District 5, an additional 11 miles will be included after the completion of the Potter-Brownson project in Spring 2015.

Neemann said the painted contrast

stripes have been used in quite a few other states, including many on the East Coast, as well as some in the Midwest, including Kansas, Missouri, Oklahoma and Texas. NDOR did research in some of these states before proceeding with the new process.

The use of the black and white contrast markings follows the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) guidelines, which state that black is an allowable color, when used in conjunction with certain other colors, including white, where a light-colored pavement does not provide sufficient contrast with the markings. In this case, it is considered a contrast-enhancing system.

As the use of painted contrast stripes continues to increase across the interstate systems in Nebraska, Neemann believes the benefits of comparable durability, better contrast and cost efficiency will ensure an even greater presence in the foreseeable future. •