

OFFICE MEMORANDUM



MICHIGAN  
STATE HIGHWAY DEPARTMENT

July 6, 1965

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To: E. A. Finney, Director  
Research Laboratory Division

From: A. J. Permoda

Subject: Progress Report on Test Applications of 3M's "Instant Set" Paint Striping. Research Project 65 NM-138. Research Report No. R-532.

"Instant Set" striping, discussed at New Materials Committee meeting of April 6, 1965, consists of powdered plastic including reflective elements. This material is heat-fused to the roadway at thicknesses in the range of regular paint striping (10 to 15 mils) and dries almost instantaneously. Application equipment meters the powdered plastic while utilizing bottled-gas flame to preheat the roadway and to melt the plastic, effecting fusion to the roadway.

Detroit Tests

This striping came to the attention of the Department when Mr. A. Lampe, local 3M representative, invited members of the Traffic Paint Subcommittee, including the writer, to a private demonstration in Detroit on September 15, 1964. On the following day, the 3M Company, by previous arrangement, test applied Instant Set at two intersections in the City of Detroit. According to 3M representatives, Instant Set was then still under development and had only average durability, but its instantaneous drying made it appealing for crosswalk striping in cities. Because of this, the producer was then restricting field tests of Instant Set to several selected cities, including Detroit.

In accordance with the New Materials Committee request, the condition of the Detroit striping was inspected on April 8, 1965, after 6-1/2 months of service. Fig. 1 shows that the comparison paint striping generally was slightly more durable than Instant Set striping.

Lansing Tests

Since Instant Set's fast-drying property may have potential for Departmental use as specialty striping of the crosswalk type, the New Materials Committee suggested a demonstration and test application of the current formulation. Committee members observed application in Lansing on June 16, 1965, at Cedar St. intersections

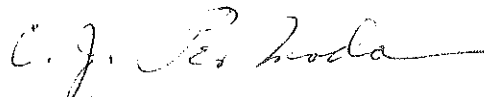
E. A. Finney

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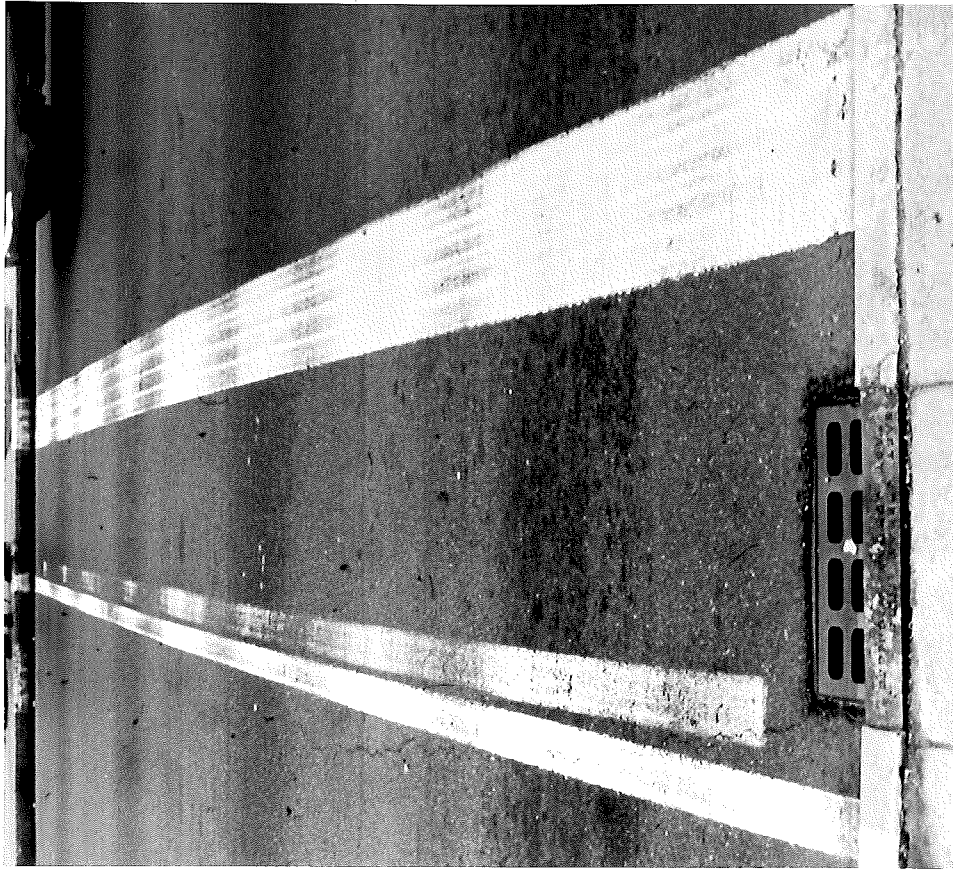
with Saginaw and Grand River. Standard paint comparison striping was deposited on June 17-18 alongside the Instant Set stripes (Fig. 2). The material's fast-dry greatly facilitated application. Condition of the dual striping will be inspected periodically and reported.

OFFICE OF TESTING AND RESEARCH



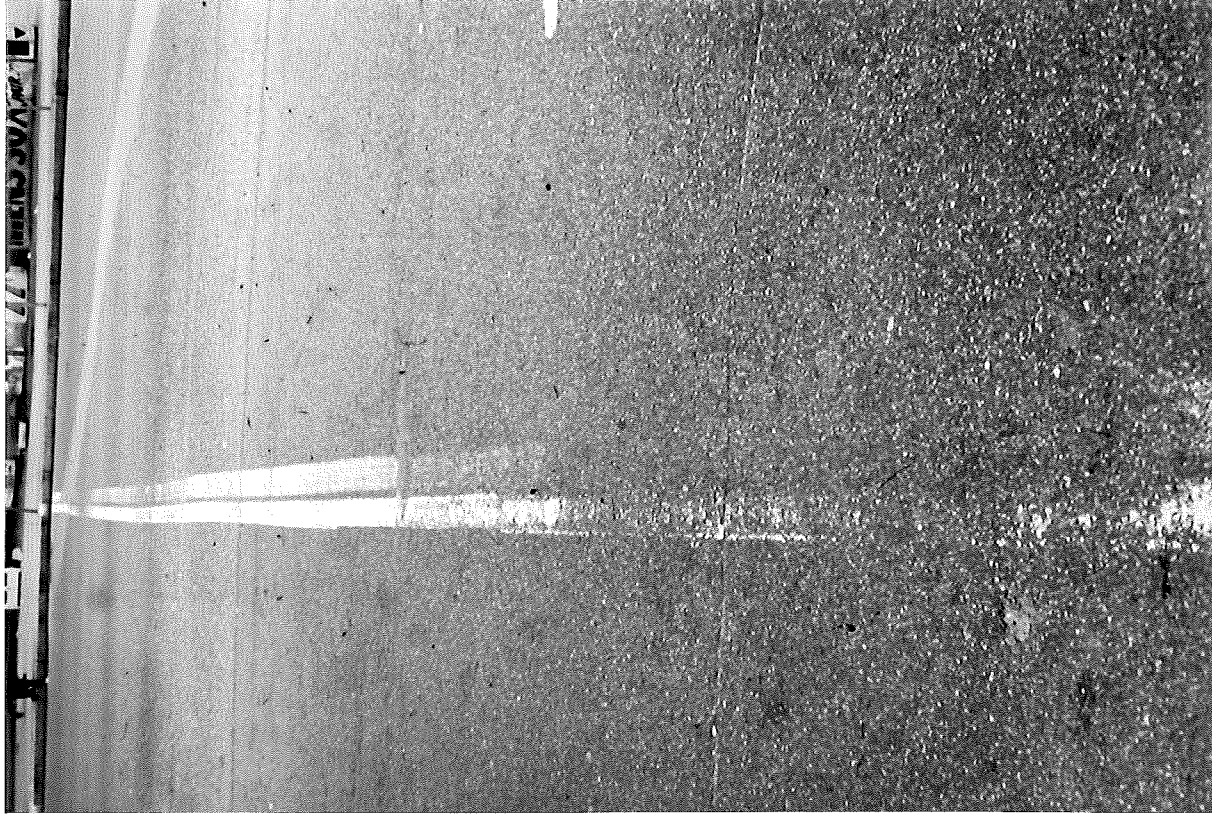
A. J. Permoda, Supervisor  
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AJP:nl



Woodward at Larned (south crosswalk)

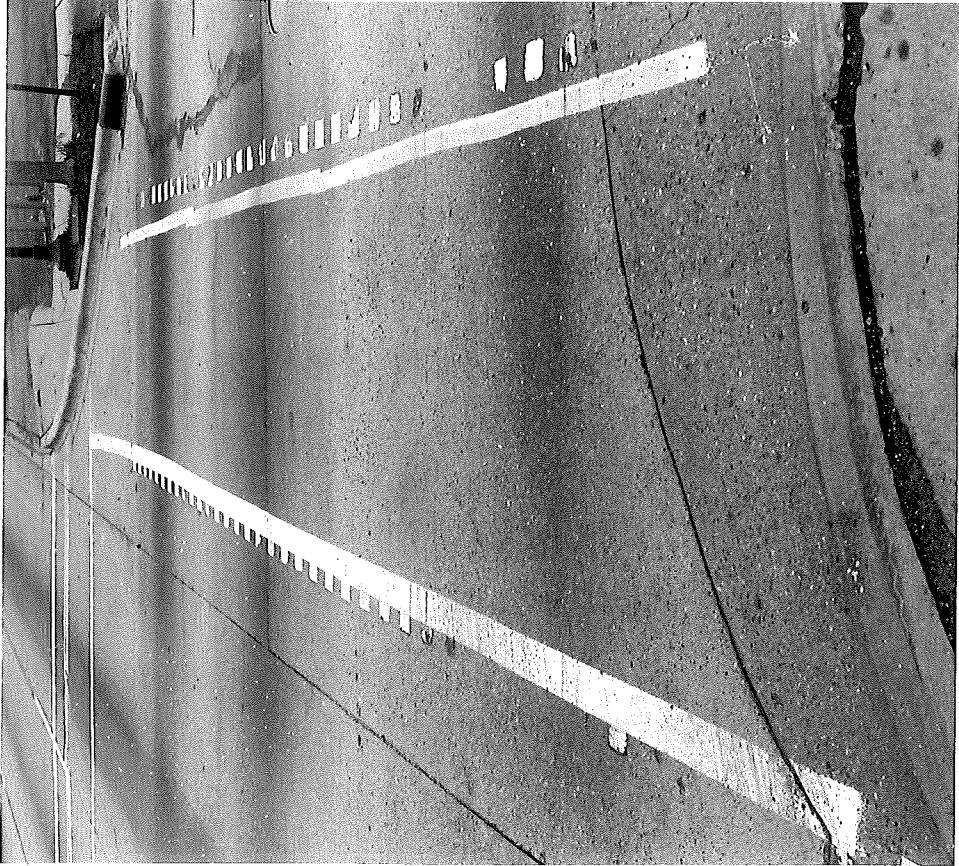
Figure 1. Appearance of Instant Set and comparison paint striping in Detroit after 6-1/2 months of service. In both photos, the 6-in. Instant Set stripe is at right and the 4-in. comparison stripe at left. On Woodward the wide stop line or "stop bar" is regular traffic paint.



Randolph (US 25) at Monroe (north crosswalk)



Grand River at Cedar (east crosswalk)



Saginaw at Cedar (north crosswalk)

Figure 2. Initial appearance of Instant Set and comparison paint striping in Lansing. In both photos, the 6-in. Instant Set stripe is at left, and the 4-in. comparison paint stripe at right.