

OFFICE MEMORANDUM



MICHIGAN
DEPARTMENT OF STATE HIGHWAYS

April 15, 1966

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

From: A. J. Permoda

Subject: Final Report on Test Applications of 3M's "Instant Set" Paint Striping.
Research Project 65 NM-138. Research Report No. R-576.

The memorandum supplements Research Report No. R-532, dated July 6, 1965 which stated that the condition of crosswalk markings at two Cedar Street intersections in Lansing, consisting of applications of Instant Set and comparison standard traffic paint, would be inspected and reported periodically.

At the New Materials Committee meeting of September 8, 1965, you presented photographs of the test striping after 2-1/2 months of service, showing that it was almost equivalent in durability to companion traffic paint. Both were worn through in tire tracks under turning movement. Single (10-15 mil) and double thicknesses of "Instant Set" were subject to chipping failure where applied as a stopbar on concrete at Cedar and Grand River, but not on a bituminous base at the intersection or at Cedar and Saginaw. "Scotch Lane" tape striping, added by the Traffic Division, exhibited about equivalent durability.

After four months of exposure, all test markings exhibited progressive erosion and abrasion loss, as shown in Figure 1.

After eight months of service (mid-February 1966), all test markings had about disappeared except for faint traces.

At the two Lansing intersections, test crosswalk markings of "Instant Set" were almost equivalent in durability to the comparison traffic paint markings. The "Instant Set" was more durable on bituminous than on concrete roadways. All three test stripings were about worn out during six months of test service as crosswalk markings. The advantage of "Instant Set" was its almost instantaneous drying which greatly facilitated application at intersections having heavy traffic volumes.

OFFICE OF TESTING AND RESEARCH

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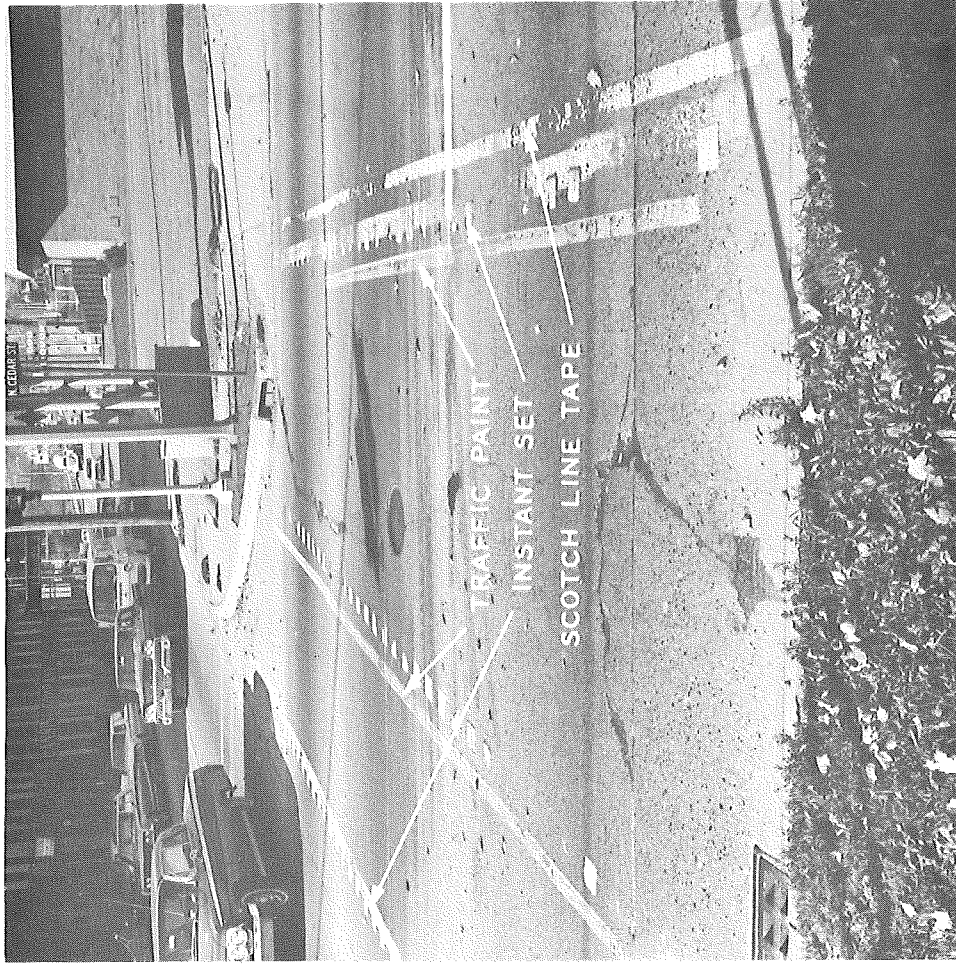
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Cedar at Grand River (north crosswalk).



Cedar at Saginaw (north crosswalk).



Cedar at Saginaw (north crosswalk).

Figure 1. Appearance of test marking on concrete pavement at two intersections after four months of service. Stripe application widths are 4 in. for traffic paint and "Scotch Lane" tape, and 6 in. for "Instant Set." Plastic squares at Cedar and Saginaw are from older installation.