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Fast Track Portland Cement Concrete Pavement	Final Report, 2-87 to 4-97
5. AUTHOR(S)	**6. PERFORMING ORGANIZATION ADDRESS**
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8. ABSTRACT

In 1987, 1.5 km (0.935 mi.) of Spruce Hill Drive in Bettendorf, Iowa was reconstructed. It is an arterial street with commercial usage on both termini with single family residential dwellings along most of the project. A portland cement concrete (PCC) pavement design was selected, but a 14 day curing period would have been an undue hardship on the residents and commercial businesses. An Iowa DOT Class F fast track concrete was used so the roadway could be used in 7 to 10 days.

The Class F concrete with fly ash was relatively sticky and exhibited early stiffening problems and substantial difficulty in obtaining the target entrained air content of 6.5%. These problems were never completely resolved on the project.

Annual visual field reviews were conducted through 1996. In November 1991, severe premature distress was identified on the westbound two lanes of the full width replacement. The most deteriorated section in a sag vertical, 152 m (500 ft.) of the westbound roadway, was replaced in 1996. Premature distress has been identified on a dozen other conventional PCC Iowa pavements constructed between 1983 and 1989, so the deterioration may not be related to the fact that it was fast track pavement.

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