SYNOPSIS

The Standard Specifications for this project included requirements for placing two 500 foot test sections of Type B asphaltic concrete with 1-1/2 per cent asbestos fibres (mix size 3/8 inch, lift thickness 3/4 inch) as part of the regular construction of the surface course. These requirements were designed to provide asbestos modified mixtures for laboratory analysis and road performance evaluation. This report provides the preliminary results and analysis of test data obtained from tests on the mixtures placed on the roadway. Previous research by G. S. Zuelke (1) and J. H. Kestzman et al (2) indicated that asphaltic concrete mixtures modified with asbestos fibres improved stability, decreased permeability, and allowed the use of higher bitumen contents. This study indicated that the addition of asbestos fibres would permit the use of higher bitumen contents, theoretically improving durability, without adverse results. An indication was also obtained to the effect that asbestos mixtures were more difficult to compact in the field.

PURPOSE

The principle purpose of this study is to evaluate the effect of asbestos fibres in fine dense graded asphaltic surface courses.

SCOPE

This study is limited to one project and to one basic asphaltic concrete mixture. The following excerpt from the project specifications defines the general limits of the basic experiment.

"For a minimum of two 500 ft. sections which will be designated by the engineer, asbestos fibres shall be substituted for 1-1/2% of the total dried mineral aggregate. The asbestos fibres shall be of a type recommended by the manufacturer for use in asphaltic concrete and be approved by the engineer. The fibres shall be added to the hot aggregate by methods and procedures approved by the engineer.

The contractor shall submit information relative to the additional costs for adding asbestos fibres to the asphaltic concrete mix."

Inasmuch as the scope is limited to one project and one mixture, the evaluation is limited to the specific conditions and parameters associated with the project.