

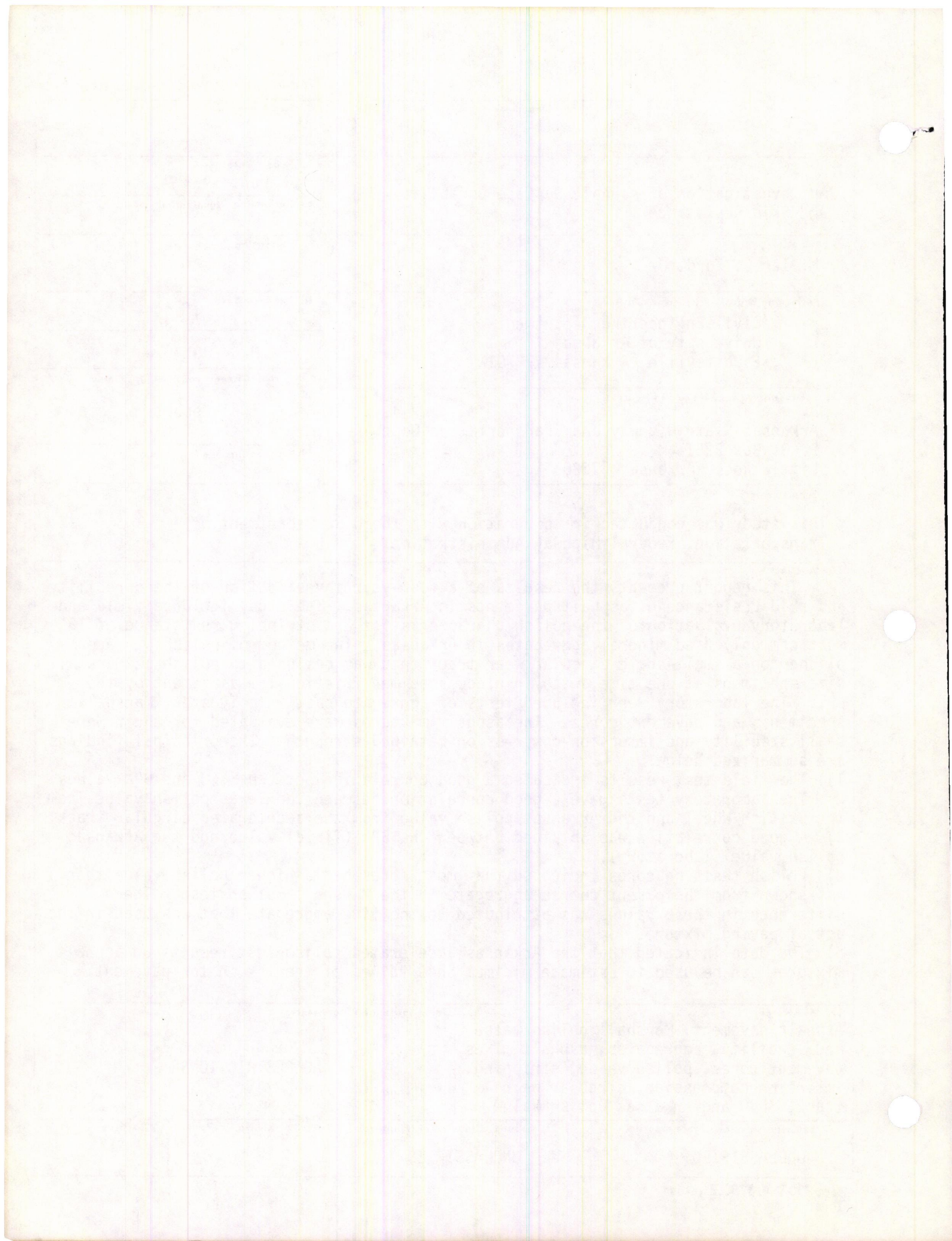
ASPHALT SURFACE DURABILITY AND SKID RESISTANCE

INVESTIGATION

MILLER C. FORD, JR.
CIVIL ENGINEERING DEPARTMENT
UNIVERSITY OF ARKANSAS
FAYETTEVILLE, ARKANSAS

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16. Abstract This report presents the results of a four-year investigation of the durability and skid resistance of asphalt pavements in Arkansas. The study included field and laboratory evaluation of the polish characteristics and stripping resistance of 18 most commonly used mineral aggregates in Arkansas. The method of polish was accomplished on a small-scale circular wear track that was designed to polish 12 Marshall size specimens at one time, with in-place specimen frictional measurement by the BPT. The laboratory work included tests of aggregate cast in polyester, Marshall specimens, and pavement cores. The asphalt mixtures were evaluated for their Marshall stability and immersion-compression retained strength. The principal findings are summarized below: 1) The field test results indicated a good correlation between SN40 and BPN values. 2) The laboratory tests gave a good correlation between the Texas polish value from the British Wheel and the Arkansas polish value from the accelerated circular track. 3) A good correlation was obtained between the BPN (field) value and the Arkansas polish value (laboratory). 4) Polish tests on cores indicated that most cores had a higher polish value than was shown from the parent coarse aggregate in the Marshall polish test. The difference in these values was attributed to the fine aggregate that was used in the actual paving mixture. 5) The data indicated that the Arkansas accelerated polish test results on asphalt mixtures can be used to estimate minimum SN40 values of the mix in the pavement.					
17. Key Words Asphalt pavement, Marshall polish value and stability, aggregates, asphalt mixes, pavement cores, polish value, stripping, immersion-compression, circular wear track, SN40 and Arkansas Polish Value.			18. Distribution Statement NO RESTRICTIONS		
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by
Miller C. Ford, Jr.

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