

Title: Concrete Maturity Progress: Survey of Departments of Transportation

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Abstract: Results are provided from a concrete maturity survey that was distributed to representatives of 50 departments of transportation (DOTs) in the summer of 2000. The purpose was to display the state of national advancements and practices relating to concrete applications for predicting in situ portland cement concrete strength. Information such as DOT project and research details, method of maturity determination, state applications, and general attitudes toward the concept was requested. Representatives from 44 states replied to the 12-question survey. Results revealed that about 73% of the states that responded either have conducted or are currently involved in at least minor research with the concept. Furthermore, approximately 30% of the represented states have protocol or specifications governing the use of this developing technology. Representatives throughout the United States have reported that maturity is being used to predict critical strengths for such actions as pavement opening to the public; pavement opening to construction traffic; structural acceptance; and formwork removal for bridges, pavements, and other highway structures.