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## Implementing a GIS-Based Pavement Assessment and Management System Challenges and Successes

### Presenter

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Prince George's County, Maryland's Department of Public Works and Transportation (DPW&T) has partnered with the JMT Technology Group to implement a countywide pavement assessment and management system (PAMS) for all County maintained roadways. The project has several goals, including the development of an ongoing and cost effective maintenance program to provide the largest overall improvement to the road network given available funding levels. PAMS includes the MicroPAVER pavement management system, a custom web application and an ArcGIS Desktop solution for managing and analyzing pavement condition data and formulating roadway improvement projects. MicroPAVER, a single user desktop application, was implemented to analyze pavement distress data, develop pavement deterioration curves and assign pavement condition index (PCI) scores to inspected County maintained roadways. JMT then designed, developed and deployed a custom ArcGIS Server/Silverlight API solution that provides all DPW&T employees with broad access to the pavement data collected during the condition survey and MicroPAVER implementation, including PCI scores and high resolution digital photos of pavement surfaces and right of ways along inspected roadways. An ArcGIS Desktop solution was also developed to maintain ownership and work history records for the pavement network, and track changes to be imported into MicroPAVER. The desktop solution is now being expanded to support the County's work planning efforts by recommending and prioritizing roadways for improvement based on deteriorated pavement condition, citizen complaints, work history records, estimated improvement costs and fiscal year budget constraints.