

### 4.3.3

### Multi-Level Linear Referencing System (MLLRS) Cost/Benefit Value Analysis Study

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This report documents the outcome of the Value Analysis (VA) Study which was conducted for the AASHTO Standing Committee on Planning under NCHRP funding. The study took place at the Iowa Department of Transportation in Ames Iowa on April 6-8, 2011. Participants came from AZ, CA, IA, MD, MN, NC, ESRI and Intergraph.

The purpose of the VA Study was to identify the costs and benefits of implementing and maintaining a statewide Multi-Level Linear Referencing System (MLLRS). The VA Study followed the SAVE International 6-step job plan which helped to identify the various aspects of a statewide MLLRS including; System Needs, Constraints, Performance Attributes, Qualitative and Quantitative Benefits, Defined Users/Business Units, System Functions, Alignment with the 10 Functional Requirements of Report 20-27, Costs for Developing and Maintaining a Baseline MLLRS and Implementation Considerations. The findings of the study represent a 5-year breakeven point for the baseline and the optional functional elements with potential overall cost/benefit savings of \$12.6 million for a state with 25,000 miles of road network.