Addressing Climate Change Vulnerabilities to Transportation Infrastructure

(Jason Hyde – Cambridge Systematics)

The National Oceanic and Atmospheric Administration’s National Climate Assessment predicts major modifications to the Midwest’s climate over this century. Changes in precipitation, temperature, and potentially the water levels of the Great Lakes are expected to yield more frequent and severe weather events, flooding, changing freeze-thaw cycles, wildfires, and other challenges that will seriously impact transportation infrastructure. For the Michigan Department of Transportation (MDOT), Cambridge Systematics (CS) is using a risk management approach that considers the expected likelihood and impact of these events to help the DOT understand how to address potentially more frequent and severe weather events. The project team is identifying potential climate change and extreme weather risks and addressing how this information can be integrated into MDOT’s asset management systems and decision-making processes. As part of this project, CS is working with the DOT and an advisory committee of outside stakeholders to identify critical assets. Based on climate modeling for the region, the project team is collaborating with MDOT and the TAC to perform a vulnerability assessment, identifying assets potentially at risk in the future, and integrating this information into the state’s existing asset management practices. CS is also conducting a more urban-focused vulnerability assessment for the six-county Capital Area Metropolitan Planning Organization (CAMPO) in Austin, Texas. Mr. Hyde is a member of both project teams, and his presentation will represent a hybrid of the lessons learned from both the Michigan and Austin area efforts as they apply to transportation planning and asset management in the Chicagoland area.