

## **GIS Applications and Integration on Transportation Planning and Design Projects**

### **Presenter**

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Data sharing and integration between GIS and CAD-based engineering has traditionally been tedious and inefficient. Engineers and GIS professionals are becoming more comfortable with the others' trade; technology and spatial data is starting to flow between the different teams. Bridging this gap between GIS and CAD can be difficult but is not impossible. This presentation will highlight three different transportation projects and discuss how GIS was implemented, and varying degrees of CAD integration. Projects include multiple stages of the transportation planning process, starting with alternative screening, environmental impact statements, and finally PS&E (plans, specifications, and estimates) design.

Building a strong GIS foundation for transportation projects allows for better communication and collaboration among the project team, stakeholders, and the public. Once this foundation is established it allows for standardization of all spatial data among the design and planning teams. This results in increased efficiency and helps key stakeholders make quick and informed decisions by providing a rapid way to evaluate and visualize the project as well as the impacts it has on the environment and community.

Comments: Even though CH2M HILL is a consultant this presentation focuses entirely on how we use GIS internally on our large transportation projects. There will be no CH2M HILL marketing or sales pitch".