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Context Sensitive Solutions and Transportation Planning: The Detection of Land-Use, Historic and Cultural Resources, Community Features and Their Integration into the Planning Process

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ABSTRACT

With safety and the efficient movement of people and goods as a tenet for most transportation projects, it is possible to understand how community and quality of life become secondary aspects of the transportation planning process. With escalating construction and fuel cost; it is becoming more important that new corridor developments respect and integrate the surrounding community context.

"Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist." (FHWA)

At this point, CSS applications are rare and most State Department of Transportation's (DOT) are exploring ways to incorporate CSS. As part of a larger USDOT Research and Innovative Technology Administration (RITA) grant we have explored alternatives for the detection of community, land-use, historical and culturally significant features using spatial technologies so that these features can be evaluated and integrated into the planning process. US Highway 49 in Mississippi was the original test bed for the project with secondary testing occurring on Interstate 69 SIU 9. This paper details the methodologies and resulting applications for community feature location, extraction and the integration of these results into the planning process.