

## NCITEC Project Summary

**Project Title:** **Using a Typological Approach to Assess the Impact of Transit-Oriented Development and Intermodal Transportation in the United States (Phase I)**

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**Keywords** \_Transit-oriented development (TOD), intermodal transportation

**Funds Requested** \$50,000

**Match:** \$50000

**Start Date:** July 2012

**Completion Date:** December 2014

### Project Summary

Many large cities in the United States are experiencing an explosion of interest in starting new or expanding existing rail transit systems. Currently there are 33 light-rail systems and eleven heavy rail systems in use across the country. Along with this new focus on building and expanding rail transit in the U.S., there has also been an emphasis on transit-oriented development (TOD). Upon examining the current state of knowledge on TOD in the United States, studies examining the impact of TOD on an urban areas' transportation system are rare. The impact of TOD on intermodal and freight transportation has not been studied. Concerns are that increases in TOD will limit the utilization of intermodal transportation modes in urban areas. However, some officials believe that increased TOD will lead to reduced energy consumption due to increased ridership on public transportation and increased use of intermodal transportation. Other research centered on land use development mostly at the local or individual station level is quite abundant.

This project is going to focus on the research gap of the impact of TOD on the passenger and intermodal freight transportation system in American metropolitan regions. It will use a TOD typology which also is rare in TOD research to examine a number of related variables and the effects of TOD on: 1) modal and intermodal movement of freight and passenger 2) congestion 3) energy consumption through reduced numbers of trips 4) reduced energy consumption through use of more intermodal options 5) and improved mobility.

Data will be obtained from land use development data, transit ridership data, travel behavior data, and quality of life data in two large metropolitan areas. Denver and Boston. Station-areas in the chosen metropolitan areas will be assigned typological designations similar to those found in Denver. Results of these analyses will be disseminated in a final report and through presentations at national and regional conferences such as TRB and TRF.