Evaluating Transit-Oriented Development (TOD) in Denver, Colorado

Project Timeframe: 9/1/2008 – 9/30/2009

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Project Funding
National Center for Intermodal Transportation: $10,000
Federal and Matching Funds: $18,250
Total Funding: $28,250

Project Objective
The objectives of this project are to evaluate TOD development in Denver to determine its overall regional impact and see if it is meeting its stated goals. During this project, already completed TOD development in Denver will be evaluated and a baseline for the future analyses of the impact of TOD development will be created.

Project Abstract
The goal of this project is to establish a baseline to help gauge the impact of transit-oriented development (TOD) in Denver in response to the development of the Regional Transportation District (RTD) light and commuter rail transit system. This baseline will be set for both the recently opened Southwest and Southeast light rail corridors as well as the new corridors proposed in the RTD FasTracks initiative. TOD is one method suggested in the FasTracks initiative to help meet the program goals of improved economic development opportunities, improved quality of life, and balancing transit needs with future regional growth. Issues such as the influence of TOD on transit ridership and total trip generation will be analyzed. TOD’s impact on traffic congestion, environmental quality, and energy consumption will also be evaluated. Different scales of analysis will be conducted from the station and corridor levels to the county and district levels. Comparisons of development in transit and non-transit nodes and corridors will also be done.

Task Description
Data on population and economic development in the vicinity of current and future rail transit stations and along the current and future corridors will be obtained from RTD and
other sources. Additional data on ridership, trip generation, traffic congestion, environmental quality, and energy consumption will also be obtained from RTD, the Denver Regional Council of Governments (DRCOG), and other sources. A TOD database will be established using Geographical Information System (GIS) software. Time-series analysis will reveal the impact of transit provision on land use change in the station areas and along the corridors. Regression analysis will be conducted to determine the relationship between TOD activity and transit ridership, overall trip generation, traffic congestion, pollution emissions, and estimated energy consumption. Final results will provide a baseline of TOD activity and impacts that can be used for comparisons in future years.

Technology Transfer
At least one paper will be prepared and submitted to a refereed conference, such as the TRB Annual Meeting, for presentation. An additional conference presentation will made at the Association of American Geographers Annual Meeting. At least one paper will be submitted to appropriate transportation journals, such as the Transportation Research: Part A or Journal of Transport Geography. Results of the proposed project will also be disseminated through the various websites associated with NCIT and ITI where those interested will be able to access the final report.

Benefits of Project
This project will add substantially to the current knowledge about the impact of TOD development in Denver. At this time, land use, demographic and travel information is available for station areas and corridors from the Denver Regional Transit District (RTD) and Denver Regional Council of Governments (DRCOG). This project will enhance these data, and also expand them into areas as yet not examined, such as other parts of counties within the Denver metropolitan area. It will also compare transit and non-transit locations. The findings will be valuable in that they will set a baseline from which future TOD development can be compared. It will also begin examining the impact of TOD on areas beyond stations and corridors. The findings will be used by anyone in the Denver region directly involved in the development of the transit lines themselves as well as others involved in land use development in general. In the future, any of these entities could use the baseline developed here to continue to examine changes in the future. In addition, from the research conducted here changes could be made in TOD strategies if they are found to not be attaining their desired ends.