

TRANSIT ORIENTED DEVELOPMENT PROGRAM

Transit oriented development (TOD) is mixed-use, compact development that is meant to favor pedestrians and transit over automobile use. Focusing development efforts in and around existing and future public transportation and major public transit corridors is an eminent way to improve accessibility and mobility within a region, along with fostering sustainable development, improving air quality, and enhancing quality of life. TOD, or Transit Supportive Development, provides benefits such as preserving open space, providing a pedestrian-friendly environment, encouraging new economic activities, and reducing urban sprawl by providing a mix of uses within a short walk, bike or transit trip (commercial, housing, entertainment, parks, and offices in one concentrated area).

Sprawl is probably the single largest contributor to oil addiction and global warming due to its very design (or lack thereof). Sprawl forces everyone to drive many miles daily for everything, which in turn requires constant road expansions and repairs, encouraging more cars and driving, and more sprawl. It's a vicious cycle consuming ever more oil, and spewing out more pollution, exacerbating global warming and local air quality problems. The revitalization and densification of existing cities and towns into walkable, mixed-use communities, with a serious focus on bicycles, buses and trains as the major forms of transportation should be given top priority over automobiles.

In a comprehensive review of dozens of studies, published by the Urban Land Institute, researchers conclude that urban development is both a key contributor to climate change and an essential factor in combating it. They warn that if sprawling development continues to fuel growth in driving, the projected 59 percent increase in the total miles driven between 2005 and 2030 will overwhelm expected gains from vehicle efficiency and low-carbon fuels. According to their research, even if the most stringent fuel-efficiency proposals under consideration are enacted, "vehicle emissions still would be 40 percent above 1990 levels in 2030 – entirely off-track from reductions of 60-80 percent below 1990 levels by 2050 required for climate protection."¹

The Opportunity

Knoxville already has an example of TOD in its downtown, which is dense, walkable and is increasingly becoming a vibrant city center. Density bonuses and relaxation of parking requirements, which allow developers to create more rentable, useable space on a site, can be an incentive to developers. Although Knoxville's existing transit system does not include bus rapid transit or a rail system, TOD can still be developed on a small scale in the areas where it is permitted and allowed to grow over time, in tandem with supportive improvements to transit.

As part of the Transit Development Plan, the Knoxville-Knox County Metropolitan Planning Commission (MPC) will be working with Knoxville Area Transit (KAT), the City of Knoxville, and the Tennessee Department of Transportation (TDOT) to analyze the opportunity for TOD development. As part of a corridor analysis, local development regulations will be reviewed and recommendations made of how to improve them to support transit. The study will also examine corridors where redevelopment at higher densities could help transit have a strong propensity to flourish. Land use scenarios, policy discussions, and rights-of-ways analysis could be undertaken

¹ Ewing, Reid, Trisha Riggs, and David Goldberg, 2007. *Growing Cooler: The Evidence on Urban Development and Climate Change*. Retrieved October 29, 2007. <http://www.uli.org>.

to see the likelihood of the success of more intense services. The outcomes of this study could serve as the foundation for a more comprehensive TOD plan for the City.

Benefits of TOD

TOD is not just development near transit, its development that also:

- Increases “location efficiency” so people can walk, bike and take transit
- Boosts transit ridership and minimizes the impacts of car traffic
- Provides a rich mix of housing, jobs, shopping and recreational choices
- Provides value for the public and private sectors, and for both new and existing residents
- Creates a sense of community and of place
- Reduces dependence on foreign oil
- Reduces pollution and environmental destruction
- Reduces incentive to sprawl and increases incentives for compact development

Integrated-use developments such as TOD create a broader, more balanced tax base for municipalities. Public maintenance and infrastructure costs are lower for higher-density development because of the greater economies of scale and shorter runs of lower tech infrastructure.²

Sample measures that could be utilized to evaluate a TOD program might include:

- Housing density along major transportation corridors
- Square footage of mixed use developments
- Number of improved intersections (for pedestrian safety)
- Public perception surveys
- Estimated amount of private investment
- Transit mode share
- Comparison of mode shares from non-TOD neighborhoods in the region
- VMT

Program Design

In order for a TOD program to be successfully implemented in the City of Knoxville, key players such as the City, Knoxville Regional Transportation Planning Organization (TPO), the Metropolitan Planning Commission (MPC), and Knoxville Area Transit (KAT) must all support the policy that all future land use and transportation decision will strive to intensify and diversify land uses and enhance pedestrian circulation along existing and future transit corridors and within key locations. A TOD program for the City of Knoxville would include four key elements:

1. Corridor planning—identification of key transit supportive corridors
2. Joint Development Program—a development and management program designed to secure appropriate private and public sector investments at key locations

² Zimmerman, Todd, Laurie Volk, and Peter Katz. *Eight Factors*. 1999. Retrieved October 26, 2007. www.zva.cc/zva_8.pdf.

3. Development Review Process—a forum for reviewing proposed development projects along key transit supportive corridors
4. Outreach and Education Program—develop educational materials, including presentations geared towards a diverse audience of developers, citizens, and elected officials

Implementing the elements of a TOD program would require a partnership between key stakeholders. A TOD program would likely take six months to a year to create. Implementation would take place in stages over a number of years. Implementation would be highly dependent on public funding for infrastructure improvements and private investments interests and might take many years to fully reach its potential.

Costs and Benefits

Costs

While demand for such smart-growth development is growing, government regulations, government spending, and transportation policies still favor sprawling, automobile-dependent development. Existing land use and local zoning regulations will have to be reviewed and amended in order to support TOD. Transportation spending will have to be reallocated from road projects to transit supportive projects. Enhancing the physical environment along TOD identified corridors will take significant public and private investments over a number of years. A comprehensive study to examine costs would be required to accurately reflect indirect and direct costs.

Potential Funding

Most federal transportation funding is flexible therefore; it may be possible to flex highway construction/expansion money toward transit, bike, and pedestrian projects.

Benefits

Transit investment has double the economic benefit to a city as highway investment. Transit can enable a city to use market forces to increase densities near stations, where most services are located, thus creating more efficient subcenters and minimizing sprawl. Transit enables a city to be more corridor-oriented, making it easier to provide infrastructure. Transit enhances the overall economic efficiency of a city; as denser cities with less car use and more transit use spend a lower proportion of their gross regional product or wealth on passenger transportation.³ In addition, a TOD program would help to reduce vehicle emissions in East Tennessee, promote individual health by creating more walkable and bikable neighborhoods, and reduce commute travel time.

Implementation Strategy

Key players

City of Knoxville – (Mayor, City engineers, policy division, finance, City Council, etc....)
 Knoxville-Knox County Metropolitan Planning Commission
 Knoxville Regional Transportation Planning Organization

³ Newman, Peter and Jeffrey Kenworthy. *Sustainability and Cities: Overcoming Automobile Dependence*, Island Press. Washington, DC, 1999.

Knoxville Area Transit
Tennessee Department of Transportation
Development community (builders, realtors, lenders)
Business community
Neighborhood groups
Private-sector professionals (planners, engineers, and architects)

Key tasks associated with implementation of a TOD program

- Identify transit opportunity areas or corridors by analyzing factors such as historic development patterns, population, employment densities, and travel patterns.
- Develop guidelines for developers on the principles of transit friendly communities, communities that are oriented towards the pedestrian and that support bicycling as a means of transportation.
- Identify transit hubs or nodes that could serve as mini-transit centers along primary corridors.
- Integrate land use and transportation decisions with greenhouse gas consequences
- Incorporate greenhouse gas emission impacts into transportation planning decisions (LRTP, KAT's TDP, SRTP etc...).
- Develop a comprehensive parking best practices and strategies manual that is transit supportive.
- Amend zoning regulations in order to include provisions for transit supportive land uses along existing and future transit corridors.
- Adopt a transit first policy.
- Adopt and implement a complete streets policy.
- Create incentives for new developments to locate in transit friendly communities and corridors.
- Develop a public outreach plan.
- Identify public/private partnerships.
- Expand the Smart Trips Program.

Case Studies

Key components of successful TOD programs include, but are not limited, to the following:

- Supportive market conditions
- Commitment to transit
- Strong local leadership
- Supportive public policies and tools:
 - supportive local development regulations
 - supportive transportation policies
 - moderate to high density
 - a mix of uses
 - pedestrian oriented design standards and guidelines
 - incentives for encouraging development and redevelopment near transit

- pedestrian connectivity
- reduced parking
- Public/private partnerships

Resources (*incomplete list*)

Organizations providing research and tools

Urban Land Use Institute – <http://www.uli.org>

Transit Oriented Development - <http://www.transitorienteddevelopment.org/>

Reconnecting America - <http://www.reconnectingamerica.org/>

American Public Transportation Association - <http://www.apta.com/>

Victoria Transportation Planning Institute – <http://www.vpti.org>

Smart Growth America - <http://www.smartgrowthamerica.org>

Tennessee Department of Transportation

Additional Resources

Blezer, Dena and Gerald Autler. *Transit Oriented Development: Moving from Rhetoric to Reality*. The Brookings Institution Center on Urban and Metropolitan Policy, 2002.

Ewing, Reid, Trisha Riggs, and David Goldberg, 2007. *Growing Cooler: The Evidence on Urban Development and Climate Change*. Retrieved October 29, 2007. <http://www.uli.org>.

Kushner, James A. *The Post Automobile City: Legal Mechanisms to Establish the Pedestrian Friendly City*.

Tumlin, Jeffrey. *How to Make Transit Oriented Development Number One: Put the Transit Back*. Planning, May 2003.

Newman, Peter and Jeffrey Kenworthy. *Sustainability and Cities: Overcoming Automobile Dependence*, Island Press. Washington, DC, 1999.

Zimmerman, Todd, Laurie Volk, and Peter Katz. *Eight Factors*. 1999. Retrieved October 26, 2007. www.zva.cc/zva_8.pdf.

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