



# **Task 4 Technical Memorandum**

## **Summary of Similar Projects/ Best Practices**

### **Draft**

September 2008





## Table of Contents

<b>Section</b>	<b>Page</b>
Introduction.....	3
1.0 Development at Transit Stations (Transit-Oriented Development).....	3
1.1 Standard Characteristics of Transit-Oriented Development.....	4
1.2 Benefits of Transit Oriented Development.....	4
2.0 Case Studies.....	5
2.1 Orenco Station, Hillsboro, Oregon.....	6
2.2 Mockingbird Station, Dallas, Texas.....	7
3.0 Development at Transit Stations in the Mountain Community.....	8
3.1 Benefits of Transit Development in Mountain Communities.....	9
3.2 Challenges of Transit Development in Mountain Communities.....	9
3.3 Impacts of Transit Development in Mountain Communities.....	10
4.0 Implementation Strategies.....	11
4.1 TOD Planning.....	11
4.2 Apply Market Knowledge to Development.....	11
4.3 Zoning/Land Use Assemblage.....	12
5.0 Financial Tools.....	12
5.1 Local Actions.....	13
5.2 State Funding.....	14
5.3 Federal Funding.....	14
6. 0 References.....	16



## Introduction

The I-70 Coalition is in a unique position to develop a vision for Advanced Guideway System (AGS) stations on the I-70 corridor, based on land use opportunities and community vision. Nationwide, the move towards transit friendly planning is occurring due to a desire for; increased transit ridership, economic revitalization, limited sprawl and a more sustainable community with less reliance on the automobile. A well planned community with an integrated transit station can generate investment and attract new businesses and revitalize existing businesses. When introducing transit to a community, it is important to capitalize on land uses to take advantage of transit.



Advanced Guideway System

This memorandum highlights the standard characteristics and opportunities associated with development around transit stations, or Transit Oriented Development (TOD), and summarizes several nationwide best practices. However, the Coalition and team members recognize that today’s standard TOD characteristics are drawn from urban or metro settings, and typically reflect urban development patterns supported by a significant population base. This review of TOD best practices is intended to provoke thought about the commonalities applicable to development in this unique mountain corridor setting. It is not anticipated that national urban TOD models will be consistent with the I-70 corridor due to the difference in density, targeted market for ridership, and development constraints found in mountain communities.

### 1.0 Development at Transit Stations (Transit-Oriented Development)

The American Public Transportation Authority’s (APTA) Transit Resource Guide states that “Transit-Oriented Development (TOD) is compact mixed use development, located within an easy walk of a transit stop, generally with a mix of residential, employment and shopping opportunities designed for pedestrians without excluding the auto.”<sup>1</sup>



Addison Circle, Texas

Development focused around a transit station provides an opportunity to live, work and play within close proximity. Transit development is not appropriate for every station. It is important that the development around a station is viable without transit. When development is viable, development focused around a station has the

<sup>1</sup> The American Public Transportation Authority’s (APTA) Transit Resource Guide

potential to generate investment, attract new businesses, maintain affordability and maintain the region's quality of life.

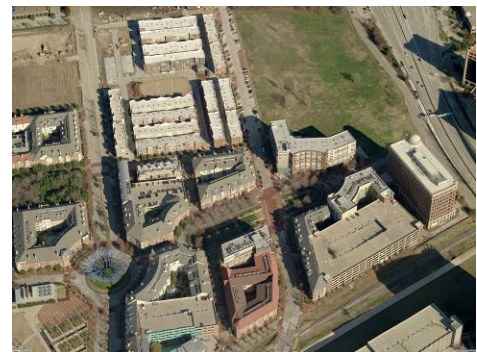
## 1.1 Standard Characteristics of Transit-Oriented Development

The typical characteristics of development around a transit station (drawn from numerous urban examples):

- Moderate to high density
- Mix of land uses
- Destinations within an easy walk
- Pedestrian oriented
- New construction or redevelopment
- Quality infrastructure
  - Signature streets (streetscapes)
  - Plazas/public spaces
  - Gateway
  - Open space/trails
- Spatial Organization
  - Urban form
  - Street grid
  - Pedestrian linkages
  - Public spaces
    - Plazas
    - Open Space
    - Art
- Maximizes access to local public transportation



Power Plant Baltimore



Spatial Organization

## 1.2 Benefits of Transit Oriented Development

When development is focused around a transit station, there are many benefits to the people who live and work within this area. The transit development often includes a higher level of amenities than a typical development. A high quality of life is created with the combination of signature streets, design elements, public plazas, parks and a quality pedestrian experience. By creating a walkable community centered around a high quality train system, it is possible to live a higher quality of life with more opportunity to walk and less stress.

TOD contributes to a more sustainable environment. Concentrating development around a transit station minimizes sprawl and increases mobility by providing an alternative to the car.

This in turn reduces household transportation costs, dependency on oil and pollution. A draft of a new federal study for the Transit Cooperative Research Program evaluated 17 transit oriented development sites to measure the connection between TOD and trip generation and has found an average of 44% fewer daily vehicle trips than estimated by the Institute for Transportation Engineers (ITE) Trip Generation Manual.<sup>2</sup>

Studies have shown that there are increased property values around transit stations. “Properties within a 5 or 10 minute walk of a transit station are valued at 20-25% higher than comparable properties further away.”<sup>3</sup> People are willing to pay higher property values to avoid traffic congestion and to live a higher quality life. “Evidence to date shows that real estate development near transit stops enjoys land-value premiums and generally out-performs competitive markets. This generally holds for residential housing (especially condominiums and rental units) as well as office, retail, and other commercial facilities.”<sup>4</sup>



Mockingbird Station, Texas

Transit oriented development allows for:

- A focused development
- Improved mobility
- Congestion mitigation
- Increased revenue
- Increased opportunities for economic development
- Diversity of economic base

## 2.0 Case Studies

TOD's are being built across the United States with varying levels of density and size. The following is an example of two successful TODs.

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<sup>2</sup> Draft Transit Cooperative Research Program Project H-27A

<sup>3</sup> Cervero, Robert et al. *Transit-Oriented Development in the United States: Experiences, Challenges, and Prospects*, Report 102, Transit Cooperative Research Program, 2004; Litman, Todd, *Comprehensive Evaluation of Rail Transit Benefits*, Victoria Transport Policy Institute, June 2006.

<sup>4</sup> Transit-oriented Development in the United States: Experiences, Challenges, And Prospects  
By Robert Cervero, United States Federal Transit Administration, Transit Cooperative Research Program, National Research Council (U.S.). Transportation Research Board, Transit Development Corporation  
Published by Transportation Research Board, 2004

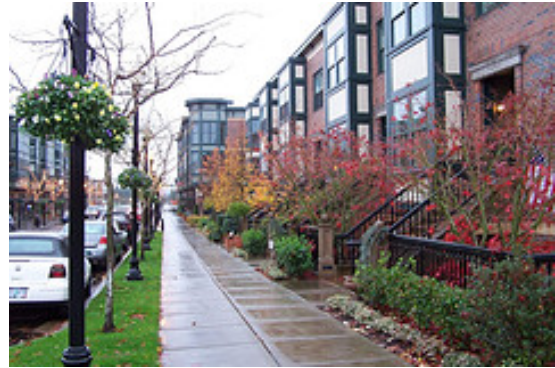
## 2.1 Orenco Station, Hillsboro, Oregon

Orenco Station is a transit oriented development positioned on the West Side Max Light rail line located in Hillsboro. Orenco is a mixed-use development based on a transit station that incorporates pedestrian-friendly streets with a diverse mix of housing, retail and civic uses.

Orenco is often heralded as a poster child for TOD.

The development at Orenco Station consists of:

- Mixed-use development
  - Small lot single family homes
  - Up to 25 dwelling units per acre
  - Town homes
  - Granny flats (an additional separate dwelling unit on a property that would normally accommodate only one dwelling unit)
  - Lofts above retail
  - Rentals
  - Town Center
  - Pedestrian-friendly street design and scale
  - Civic amenities



Orenco, Oregon

The Orenco station area is now considered an attractive and desirable location in which to live. The real estate market has responded positively to the accessibility the station provides, in addition to the design and amenities offered in the area. Anecdotal evidence indicates that current housing values are higher in this area than in the surrounding suburban communities.

Studies in Portland examining the effect of transit have indicated that the real estate market has responded positively to development near stations. One local study found that proximity to transit adds approximately 10% to the value of a house, all other things being equal (1,000 feet away from the station = 10% value differential). Other studies have found that house values increase at increasing rates closer to the station. In general, however, the studies conclude that proximity to transit produced a premium which benefits those who live in these areas.

Transit station development in Portland occurs within a context of a Regional Plan that stresses compact development, growth boundaries and support for mixed-use development. Station areas have been upzoned to densify rail-accessible areas. Portland planners typically use financing tools such as tax increment financing, density bonuses, tax credits, tax deferrals and exemptions. There is also a TOD Property Tax Exemption Ordinance which provides for a ten-year exemption for high density housing and mixed use projects at TODs.

Orenco Station represents a transit-station endeavor in which there was a great deal of public and private planning, design and research. Because of the station's location in a formerly undeveloped area, the private sector also knew that "placemaking" was vitally important. The

developers initiated the development with profitable retail, hotel and multi-family uses first in order to get the station area off the ground and generate revenues in order to subsidize public amenities and future developments.

## 2.2 Mockingbird Station, Dallas, Texas

The Mockingbird Station is a transit oriented development located north of Dallas. The Mockingbird Station is a privately funded infill project. The development at Mockingbird Station consists of:

- Mixed use development oriented around a transit station
  - Entertainment and retail
  - Lofts
  - Office
  - Civic plazas
  - Restaurants and a grocery store
  - Movie theater



Mockingbird Station

Mockingbird Station is popular with students from the nearby university as well as older neighborhood residents.

There is a high level of design as well as the “right” mix of uses including youth-oriented retail, and local restaurants. One of the most popular attractions is an independent film theater which draws customers from a wide-ranging regional area.

The station location, right mix of uses, and high level of design have created value for this community. Studies indicate that between 1997 and 2001, median values of residential and office properties near this rail station increased 20-30% compared with other Dallas metro properties.

The case studies are not intended to be an exact guide for development at stations along the I-70 Corridor, instead they are meant to illustrate what makes a TOD special. It is important to consider the key principles such as the importance of increasing density around a transit station to support transit, pedestrian connectivity, signature streets, civic amenities and a mix of uses and price points.



### 3.0 Development at Transit Stations in the Mountain Community

Transit in Europe has existed for over a hundred years. Stations have become a vital part of the community, providing connectivity and twenty four hour services to its residents. Often towns in Europe focus development and density around stations. For example the Geneva Cornavin Train Station is located in the city center and provides convenient access to local hotels and retail.



Gare de Cornavin, Switzerland

Each development around a station is unique and needs to respond to its unique environment. Development at a transit station on the I-70 corridor will look different than what has been described in the case studies. The communities on the I-70 corridor are not urban and do not intend to rely on increased density to support transit but instead will rely on tourism and employment.

Some of the proposed stations are anticipated to be located at or near an existing activity center such as a ski resort or downtown. This provides a different source for ridership than a typical dense residential development. Each community should understand what type of rider they are serving. What type of rider is riding the transit system and what type of rider is stopping in your community? Is your community serving:

- Front Range day trips (primarily weekend trips)
- Destination tourism- DIA to resorts
- Workforce commuters
- Reverse commuters- commuter trips into the Front Range



Mountain Community

Once there is an understanding of the ridership market then the development can be designed to serve the needs of the community and the transit riders.

In cases where there is an existing activity center, infill development should be evaluated to enhance the activity center. While communities may not want to increase density within their community, they should focus development at stations to maximize the potential to create a 24 hour active environment. Transit can provide a new framework for development, less focused upon auto use. By creating a walkable community centered around a high quality train system, an enhanced experience is created that limits the need for the automobile.



European transit station in the mountains



### 3.1 Benefits of Transit Development in Mountain Communities

Providing development focused around a transit station provides numerous benefits to the people who live in the communities and the tourists who are visiting. For communities that rely heavily on tourism, development oriented around transit can improve the tourist's mobility, allowing a customer to access their destination without the need of a car. By locating a transit station adjacent to a destination and then focusing development around this station, it creates one compact destination for tourist. This allows for:

- A focused development
- Improved tourist mobility allowing customers to access activity centers and retail
- Workforce mobility
- Congestion mitigation
- Increased revenue to your community
- Increased opportunities for economic development
- Diversity of economic base



Vail Village



Congestion on I-70

### 3.2 Challenges of Transit Development in Mountain Communities

There are challenges that the communities along the I-70 corridor may face when setting the stage for development oriented around transit in the mountains. Some of the challenges include:

- Protecting view corridors
- Existing land use patterns may not be transit friendly
- Zoning may not support mixed-use development
- Whether codes address form based zoning (A method of regulating development to achieve a specific urban form.)
- Maintaining community character
- Impacting existing infrastructure
- Providing adequate infrastructure to serve access needs
- Obtaining funding for infrastructure and high quality public spaces



Mountain Community Character

- Availability of greenfield development (easier solution and has potential to move station site to the cheaper location)
- High cost for land and infill development
- Community concerns over higher density
- Matching market opportunities to community values

Transit will provide connectivity between the different communities on the I-70 Corridor. This will not only link the communities along the corridor but will also link the land uses. It will be important for the communities to coordinate their planning efforts to make sure that their plans compliment each other and the proposed land uses maximize opportunities for all communities along the corridor.



Mountain Community Character

### 3.3 Impacts of Transit Development in Mountain Communities

While development at a station would provide many benefits to a community it could also create localized issues including:

- Gentrification
- Change in the character of a neighborhood
- Increased local traffic
- Increased housing costs
- Population influx of reverse commuters

With proper planning these impacts can be mitigated.



Increased local traffic



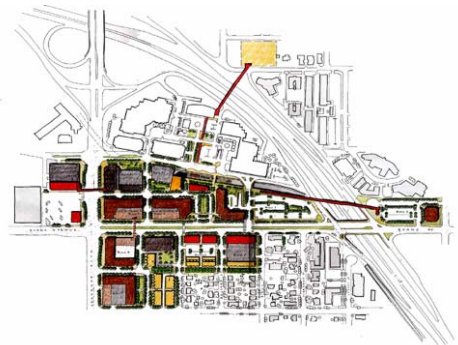
## 4.0 Implementation Strategies

There are many components that need to be set in place to properly plan for development at a transit station. From broad brush planning that addresses community visioning to detailed analysis of the economic market, zoning and required infrastructure improvements.

### 4.1 TOD Planning

To prepare for a future regional transit system along the I-70 corridor, community planners need to get involved early on in the process and set the stage for development within their communities. Each community should develop a station area plan that includes:

- A community vision
- Guiding principles
- Street configuration
- Pedestrian linkages
- Local transit interface
- Building massing / scale
- Community character



Station Area Plan

Once a station area plan has been adopted by the community, architectural and urban design guidelines should be developed. The guidelines provide the next level of detail specifying direction for materials, façade treatments, signage, lighting type, landscaping, street trees and street furniture.

### 4.2 Apply Market Knowledge to Development

Transit stations do not create a “market” for new development; however, they play an important role in shaping the environment so that development can potentially take place. A market study is often part of station area planning and is an important component in identifying potential land uses in station areas and how much of each of the land uses there should be. Market studies typically:

- Examine local, regional, and corridor land use and economic trends.
- Identify potential market niches for your station area and community
- Identify your potential customer
- Identify the mix of land uses (residential, retail, office, etc.) and how much of each use can ideally be accommodated within the area
- Identify timing; the market may not be ready for a use currently but it may be ready in a few years.
- Quantify potential revenues

Keeping abreast of market changes as the planning and subsequent development occur are key components of a successful development. Because the market changes over time, the planning process needs flexibility in order to accommodate these changes.



### 4.3 Zoning/Land Use Assemblage

Zoning provides a means of regulating development as it pertains to land use. The communities should evaluate what zoning works best for their community. They can evaluate updating their existing zoning to set land use and parking regulations that would serve a mixed use development or they can evaluate using form based code. Form based code focuses on the urban form as opposed to the type of land uses. Form based code directs sidewalk / rights of way (ROW) width, building placement, building massing, scale of blocks, height restrictions, shared parking and architectural features.

There are additional zoning and planning tools that could be applicable to transit station areas which enhance the potential for additional densities and to achieve desired public goals. Tools include the following:

- TOD Zones (including overlay zones) – TOD zones typically allow for increased densities and reductions in required parking in an area, enable mixed-use development, and may prohibit uses that may not be transit-supportive. It may also be linked to design guidelines for a station area or to a form based code.
- Density Bonuses – Ordinances enacting TOD zones may also include a provision for density bonuses in exchange for provision of affordable or workforce housing or other desired public amenity.
- Transfer of Development Rights (TDRs)– TDRs have been most often used to preserve historic buildings and target growth. If a property is developed below its maximum allowable density, the unused density associated with the lower density building can be sold to another building, allowing them to exceed the density limitations on their site. There is typically a “sending” area (area below the maximum densities) and “receiving area”.

Since transit station development often occurs in areas with a number of different property owners, assembly of land for redevelopment may be a necessity. This process is often challenging and so land assemblage by a jurisdiction can provide a very attractive incentive to a developer. Challenges include lack of funds for assembly, eminent domain issues, and land speculation which sometimes drives up land values in advance of the transit and development actually being in place.

### 5.0 Financial Tools

Because of the complexities associated with these transit station developments, public sector financial participation may be necessary in order to create an environment conducive for private sector interest and participation. The public sector does have some financial tools and these tools can be made available to assist with a variety of different types of development or redevelopment including development at transit stations.



## 5.1 Local Actions

- Reduced Development Fees / Expedited Development Review – Because the review and permitting process can be lengthy and costly for developments, strategies such as one-stop review programs, expedited development review, and reduction in fees can be helpful particularly for transit station developments. Incentives can include having a Transit Station “Team” in place at the City able to expedite questions and processes for the development.
- Parking Districts – may be used in transit station areas. These districts set up a management entity and process through which new developments have the option of paying into a parking fund rather than constructing parking. The management company then constructs and operates the pooled parking for the entire district.
- Commercial Linkage Ordinances – are a method of financing affordable / workforce housing that recognizes that there is a link between job creation and the need for new housing. These programs require developers of commercial buildings to either construct affordable housing or pay into an affordable housing trust fund. The fee is typically assessed on a per square foot basis and may differ depending on the type of commercial development (retail, hotel)
- Tax Increment Financing (TIF) – Tax increment financing is an often used method of financing redevelopment (specifically improvements offering public benefits, such as site acquisition and/or clearance, hazardous materials removal, and infrastructure such as streets, utilities, parks, and parking). TIF is a tool to use future gains in taxes to finance the current improvements that will create those gains. The tax increment can be placed on both property and retail sales taxes, although it generally works best on projects with a large retail component. It is usually administered through an Urban Renewal Authority.
- Bond Financing – Bond financing can be used to fund public improvements and are paid back through property tax revenues, charges and special assessments –
  - Special Tax Assessment Districts – Districts which are governed by a local jurisdiction; and funds infrastructure improvements associated with development. These districts fund infrastructure improvements associated with development and are paid back through special assessments on property owners.
  - General or Public Improvement Districts – Most useful in financing public improvements for a specific areas. Methods of repayments include property tax revenues, tolls, and charges.
  - Business Improvements Districts – Created to construct public improvements support economic and business development through planning, marketing, and management. They can also issue bonds and levy and collect taxes
  - Title 32 Metropolitan Districts – Popularly used tool by developers to finance roads, water, sewer, and other public improvements. Methods of repayment include property taxes, fees, etc.
- Sales Taxes- sales taxes in a development area can be raised or allocated to public improvements at transit station areas, through fee programs such as public improvement



fees (PIF), or through Enhanced Sales Tax Incentive Programs (ESTIP). ESTIP is an additional sales tax collected by a municipality over and above a base amount negotiated by the City or Town Manager. The funds are typically used to pay back designated public infrastructure improvements.

- Public-Private Partnerships – increasingly popular tool to encourage private development particularly in areas where there is a public policy goal and the public can play a role in helping to mitigate infrastructure or cleanup costs.

## 5.2 State Funding

State Departments of Transportation can play an important role in facilitating transit station development. In some circumstances, transit station development can be facilitated through disposition and redevelopment of underutilized state-owned land near transit stations. In such cases, the state may also be able to provide financial assistance with land assembly.

- The Department of Transportation has programs oriented towards transit station planning and development. They include the:
  - Surface Transportation Program (STP – Enhancement) - Enhancement funds can be directed towards pedestrian/ bicycle enhancements, parking facilities, and even housing developments.
  - Congestion Mitigation Air Quality (CMAQ) – CMAQ funds are available for station area planning for portions of the project area within the metropolitan planning organization region
  - State Infrastructure Bank (SIB) – The SIB can make low interest loans or provide credit enhancement to local and private entities for public transportation improvements
- Other Fees (including Rental Car / Recreation Usage) - The State of Colorado is currently examining ways to bolster funding for transportation improvements. A rental car fee is a method which has been suggested as a way of raising funds. Recreation usage is another area impacted by transportation and potentially a source of funding.

## 5.3 Federal Funding

Federal funding is directed to the development of transit through existing programs such as the New Starts and Small Starts program at the Federal Transit Administration which currently funds most of the nation's transit improvements. One of the criteria in receiving federal funding is support for transit-station developments that would support ridership. Other agencies' programs can be accessed to support transit station developments including:

- Department of Agriculture – The construction of community facilities (bus or transit buildings) may be eligible for grants and low interest loan programs in rural areas
- Housing and Urban Development – Housing development funds and programs can be accessed to help provide for workforce or affordable housing at transit stations.

# I-70 Coalition

*Land Use Planning Study for Rail Transit Alignment throughout the I-70 Corridor*



- Environmental Protection Agency (EPA)- The EPA provides funds and technical assistance to states and local communities to clean up and redevelop potentially contaminated lands.
- Economic Development Administration (EDA) – there are grants available for planning which support communities’ economic development needs.



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