

**Financing Transit Oriented Development:
Barriers in Four Geographic Contexts**

A MURP Professional Paper

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Preface

This paper is written to satisfy the requirements of the Master of Urban and Regional Planning degree, but originates in a term paper written for a class during my degree program at the Humphrey Institute for Public Affairs. That paper had a general focus on transit oriented development and barriers to securing financing for TOD projects.

Written in early 2005, the original paper was intended to be a springboard towards satisfying the professional paper requirement through a more extensive paper. My intention was to revisit and focus the paper on specific financial barriers and potential solutions. The paper was written during a continuing mixed-use and transit development boom, with eager equity partners in real-estate investment trusts and pension funds seeking new real estate project investments across the country. Since 2005, the real estate market has declined significantly amid lender overextension and subsequent timidity, a foreclosure crisis, a weakened economy, and general development malaise. Rising fuel costs and booming transit ridership, coupled with declining purchasing power (and resulting decline in transit revenue sources), have painted a mixed picture for the future of transit oriented development. While demand continues for the TOD development form, significant oversupply of standard condominium and apartment properties has created significant strain on new transit-oriented higher density projects. Many projects proposed during the 2000s have been withdrawn or are languishing in various stages of development, sale, or foreclosure.

This respite from the intense development boom is a mixed blessing. On one hand, unstable economic growth has pushed investors and lenders strongly away from real-estate investments and towards safer, traditional investments. On the other hand, rising fuel costs, a market shift towards location efficient housing, and increased interest in transit have given extended life to transit-oriented development projects. Communities are also now able to reflect on the benefits and pitfalls of past public investment and design strategies in TOD, and readjust future plans accordingly.

This paper is written to apply geographic contexts to the finance of transit oriented development, to provide context for planning applications and processes. The intent is to

illustrate that TOD-related public investment strategies in one context may not apply to another; this paper identifies four geographic contexts for TOD projects, vets the financial barriers to achieving this development, and suggests solutions for public and private investment to overcome barriers.

Abstract

Transit Oriented Development (TOD) is a major topic in the connection between land use and transportation. Much study of TOD measures transportation objectives such as increased transit mode share or vehicle trip reduction, or land use planning objectives such as effective revitalization or increased property value. An emerging field of research focuses on direct and indirect barriers to TOD development finance. While many have identified a number of constraints and potential solutions to barriers, this paper recognizes the barriers and appropriate solutions vary by geographic context. In addition to an overview of development finance for mixed use development, this paper identifies barriers and strategies to secure TOD finance in four unique geographies.

Introduction

This paper is about development finance around transit. The paper is divided into several sections arranged in two parts. The first part provides background information and context on transit oriented development and an overview of development finance. These sections are necessary to understand the difficulty of financing transit oriented development through conventional financing mechanisms. The bulk of the paper, detailed in the second part, explores four different urban geographic contexts- inner city neighborhoods, central cities, auto-oriented suburban areas, and greenfield/rural development. The problems, issues, contexts, and solutions to financial barriers affecting transit oriented development types differ in each of the four geographic contexts. Through a variety of methods- case studies, literature review, and interview data, I detail the key issues and offer solutions to increase success in financing TOD.

Defining Transit Oriented Development

To begin a discussion of transit oriented development (TOD), the definitions and goals of contemporary TOD practice are explored. These definitions and goals establish the policy framework for TOD and the social benefits that planning for TOD can provide.

Transit oriented development (TOD) is a resurgent phenomenon in planning and real estate development. While the TOD label is contemporarily applied to specific, higher-density development projects and plans, the concept is reflected in most pre-World War II American cities' development patterns. Prior to the preponderance of automobile traffic, urban development was constrained to walking distances and later, to the extent of various forms of streetcars (horse-drawn, electric, etc.). Development patterns concentrated on streetcar routes, whose franchisees sold and developed land as they built new track. As expected, land in close proximity to streetcar routes was developable for commercial use at higher intensity and cost, with lower-density residential patterns occurring further from lines. In most American central cities, these development patterns continue today.

As with any policy or academic subject, TOD has a number of definitions from multiple sources. Morris (1996) includes a standard definition in *Creating Transit-Supportive Land-Use Regulations*, a Planning Advisory Service Report of the American Planning Association:

Transit Oriented Development refers to residential and commercial centers designed to maximize access by transit and non-motorized transportation, and with other features to encourage transit ridership. A TOD neighborhood has a center with a rail or bus station, surrounded by relatively high-density development, with progressively lower-density spreading outwards. (APA PAS Report No. 468 1996)

Goals of TOD

Other entities with a TOD interest take the definition a step further, including specific goals toward which a transit-oriented project should aspire. Hank Dittmar (2004), in *New Transit Town*, provides a "performance based definition", claiming successful TOD projects achieve five goals:

- Location Efficiency- conscious placement of homes in proximity to transit

- Rich Mix of Choices- activities within walking distance
- Value Capture- transit's ability to shift transportation expenditures to wealth-building activities such as home ownership
- Placemaking- Attractive and pedestrian friendly places
- Resolution of the tension between node and place- appropriate local context of a regional system

The Center for Transit Oriented Development defines transit-oriented development using a “performance-based definition”. The Center builds on Dittmar, and says TOD should:

- Increase “location efficiency” so people can walk and bike and take transit
- Boost transit ridership and minimize traffic
- Provide a rich mix of housing, shopping and transportation choices
- Generate revenue for the public and private sectors and provide value for both new and existing residents
- Create a sense of place

These new goals and design focus, as well as the project-oriented focus of TOD, separate contemporary TOD from the intrinsic transit orientation of past development patterns. The APA's definition focuses on the physical characteristics of TOD, while Dittmar focuses on benefits a TOD project should provide, branching into more esoteric concepts such as wealth-generation from avoided costs of transportation for individuals. The Center for TOD balances these definitions, with description and ambition.

Examples of Transit Oriented Development

With the definitions and goals of TOD established, what does a TOD project look like? Growing numbers of examples exist in regions across the United States, taking on a variety of forms. These include projects in the urban core, in central city neighborhoods, in suburban areas, and in commuter towns. Many TOD projects are redevelopment projects, though greenfield TOD occurs in suburban areas and commuter towns. In each geographic context, brownfield (polluted, rehabilitated land) development can be used for TOD. Several example projects and approaches are explored in this paper, with best practices for overcoming common financial barriers tailored to specific markets. To better understand how financing barriers affect TOD projects, a brief overview of development finance is in order.

Overview of Development Finance

To many, real estate development is about building. Common conceptions are that developers are master builders and dealmakers who purchase land themselves to construct various improvements, profiting from the increased value or newfound revenue stream. More accurately, development skill is not acquired in applying sales skills, charming various elected officials on a new project, or even understanding the construction process. Instead, successful real estate developers properly manage various risk factors. Risk factors can take several forms:

- Entitlement risk- The risk a project may not receive legal authority to proceed. This might result from failure in the public approval and permitting process, from legal challenges, or from real estate claims and title problems.
- Construction risk- The risk a project may fail due to construction difficulty, delay, or related problems. Engineering and design problems can create construction risk, as can inefficient or unqualified construction teams. Development teams rely on strong partnerships with well established design, engineering, and construction firms to mitigate this risk.
- Market Risk- The risk that a project will not have suitable market demand. This risk is not limited to project completion- increasing pre-sale and pre-lease requirements are introducing market risk to projects. Some projects have lengthy development timeframes, and shifting market conditions may eliminate project demand prior to the start of construction. Development teams mitigate this risk through comprehensive and objective market analyses, skilled sales teams, and flexibility in project type and design.
- Financial Risk- This paper focuses on financial risk in real estate development. Financial risk is the uncertainty that a developer will have available capital throughout the development process for entitlement, property acquisition, design, construction. Financial risk also extends to long-term debt financing and cash flow.

To manage risk throughout the entire development process, successful developers rely on relationships with various firms and individuals. To mitigate financial risk, developers commonly use two primary financing partnerships, including equity and debt. Investors and lenders evaluate the various risks tied to a project proposal, then offer and price financial mechanisms according to their perceived risks (Venner and Ecola 2007, 17).

Equity

In the context of this paper, equity refers to an ownership stake in a venture. With any lending model, equity is essential to secure financing. With nothing to lose, a borrower may have little motivation to overcome adversity to deliver a project, greatly increasing the odds it will fail. To

meet equity requirements, developers must assemble adequate equity to secure financing (Bayster 2005).

Past development models relied on high developer equity, where a developer was responsible for ownership and equity risk in a project. However, few modern developers have the available capital to unilaterally meet equity needs to secure debt financing. For TOD, projects are typically larger scale, multi-phase projects that require significant equity investment. This project complexity typically increases equity requirements. To secure loans for large projects, most developers use outside equity partners to leverage financing. In return for an equity stake, partners are promised a stake in any proceeds. Developer capital is often used to secure external partners' equity investments, possibly in addition to providing a matched contribution to secure equity requirements (Bayster 2005).

Equity investors can vary, from extremely short-range capital sources to long-range patient investors. Investors may be additional development firms assisting with the development of the project, even informing or guiding decision making processes. In contrast, passive investors such as real estate investment trusts, pension funds, wealthy individuals or institutions offer capital in exchange for promised rates of return (Venner and Ecola 2007, 18) . Equity interest in TOD can be difficult to obtain. As Venner and Ecola (2007) write, "While real estate investment underwrites to short-term cash flows... the bulk of the financial returns for TOD may come in the mid- and long-term, a time period minimized in importance by conventional underwriting practices" (21). In other words, typical real estate equity investment practices are not suited to TOD return schedules. Developers are challenged to find patient investors willing to accept longer-term returns on equity investment. Though they are well suited to long-term equity returns, public sector partners are very rarely equity partners in private development projects. Available funding streams and policy direction limit equity involvement from public sources.

Debt

When equity requirements are satisfied, developers turn attention to debt financing. Developers secure loans to execute a development from construction to long-term finance. Unlike equity investors, lenders do not obtain an ownership stake in a development project. Instead, they loan

funds toward a project with the promise of future payment. This payment is based on a risk assessment, and return rates are priced accordingly. Banks are typical sources of debt financing, generally requiring lower rates of return than equity investors. Capital debts typically follow three tracks in development finance- construction loans, permanent mortgages, and mezzanine debt (Bayster 2005, 16).

Construction loans are used to build development projects, providing credit to a developer to purchase materials, pay contractors, and satisfy other development costs as the project rises. Typical construction loans feature higher, adjustable interest rates compared to typical low fixed rates of permanent financing. Most banks require a permanent mortgage to be secured before authorizing construction loan funds. This way, the bank has a strong chance the construction loans will be paid off when the project is complete, and the unsustainable construction debt load will not become permanent financing.

Permanent loans are long-term debts that provide low-cost financing for a successful completed project with adequate cash flows. Developer-based permanent loans are not used on for-sale property types (such as condos or single-family homes), because purchasers arrange their own mortgage arrangements. Most lenders will underwrite up to 70 to 80 percent of a development project's Loan-to-Cost ratio for permanent financing, with the remaining cost secured through equity arranged by the developer (Bayster 2005, 17).

When construction and permanent debt is not adequate to cover a project's development cost, developers are increasingly turning to mezzanine financing. Mezzanine finance can function as equity capital or as debt, and typically requires higher rates of return than other debt sources.

These are generally sought when a developer wishes to avoid a (risky) equity position in a development. While not ideal for all situations, a mezzanine financed development may enable a mixed-use project to be developed. For example, if a TOD developer wants to develop a condominium residential with retail mixed-use near a rail station, the costs of developing the property are likely higher than average. Suppose a local bank is willing to finance the project, but only up to the standard cost for similar projects. To build the project, the developer must bridge the gap caused by the extra costs of TOD, that come in the form of finding financiers,

evaluating projects, building code requirements, and parking structure construction. To bridge this gap the developer turns to mezzanine financing. A mezzanine lender might agree to finance the loan, secured by the retail component of the development. The developer then sells the condominiums, leases the retail, and repays the project debts to banks and investors, taking home a healthy margin and providing the community with new, owner occupied housing and shopping opportunities near a rail hub, made possible by mezzanine finance (Cunningham 2005, Herrick 2005).

Standard Property Types

As described above, lenders and equity investors evaluate various risks of development projects, in order to extend financing terms and determine rates for various projects. Due to the volume of requests for financing and investments, lenders have developed models for various project types. Through these lending models, lenders and investors can quickly analyze the viability of a project and price financing and expected return for a developer.

Increasingly, lenders and investors have become segmented within standard property types. Christopher Leinberger (2005) argues there are nineteen standard property types, in two general categories. These are shown in Table 1.

Table 1. Standard Real Estate Product Types

Income Products		
Office	Industrial	Retail
Build-to-Suit Office Mixed Use Urban Office/ Retail/ Restaurant Medical Office Multi-Tenant Office	Multi-Tenant Bulk Warehouse Build-to-Suit Industrial	Grocery Anchored Neighborhood Center Big Box Power Center Lifestyle Center
Rental Apartment	Miscellaneous	Hotel
Garden Apartments Urban Apartments	Self Storage Mobile Home Park	Various Types

For Sale Products		
Entry Level	Move-Up Housing	Luxury Housing
Retirement (various types)	Second Home Hotel	

Leinberger argues the specialization and segmentation of capital sources for standard development product types has led to overly narrow analysis, limiting the sources and costs of financing for innovative product types such as mixed use and TOD. This has become particularly true as real estate investment trusts (REITs) have dominated the equity landscape. As Leinberger notes, “REITs today nearly all specialize in one product type or another. A banker may spend an entire career understanding the suburban office product, and as a Wall Street investment analyst may focus 100 percent of his or her time understanding the details of entry-level, for-sale housing and the companies that produce it” (Leinberger 2005, 25).

This specialization, Leinberger argues, creates an inability to secure traditional financing at affordable rates. He says, “Most equity investors and bankers, who may have spent much of the past twenty years specializing in a single product type, will not know how to evaluate the financial projections, and will simply refuse to underwrite the risk. Those willing to invest in something different will insist on a higher level of compensation” (Leinberger 2005, 26).

Restrictive models that do not account for TOD advantages are deplored by Robert Cervero (2004) as well. He argues “standard designs, cost pro formas, and building code templates need to be challenged for...TOD project[s] in large part because the TOD market is not ‘standard’...New housing built near rail stops often appeals to single professionals, childless couples, and empty-nesters who value amenities as much as the amount of living space and who often own fewer cars... than the typical urban household” (Cervero 2004, 32). In other words, the value added by rail transit creates strong demand for TOD projects that traditional pro forma analysis in a lending institution cannot account for.

A survey of New Urbanist lenders and developers by Joseph Gyourko (2000) echoes Leinberger’s argument. Survey respondents “were unanimous in their belief that the complexity of developing and meshing multiple uses raises the risk level... Complexity tends to make each project relatively unique, and lenders and investors generally attach significant return premiums to nonstandard investments” (Gyourko and Rybczinski 2000, 740).

Evaluating TOD and Mixed-Use Development- Barriers to Financing

With the goals and benefits of TOD described, combined with the context of the basics of development finance, the remainder of this paper explores the following questions:

1. If TOD and mixed-use development does not fall under a standard property type, thus restricting or out-pricing available capital sources, what can be done to increase the acceptance of TOD to financiers?
2. Can public agencies, seeking the location efficiency, placemaking, trip reduction, and transit ridership benefits stated in TOD goals, contribute to the viability of projects without overextending taxpayers through direct equity participation or debt financing?

The answers to both of these questions involve mitigation of development risks for TOD projects. This mitigation can range from infrastructure upgrades to effective planning of public processes. Given limited private and public resources, the key to minimizing risks is to correctly identify the risk factors a project may face, and to apply the correct strategy to improve the perception of a transit-oriented development to capital sources. Though many risks have no boundaries, certain risk factors for TOD break down on different geographies and built environments. This paper identifies four urban geographies, the primary financial TOD risk factors, and appropriate public and private mitigation strategies to facilitate conventional TOD financing. The four types of areas include:

- **Inner City Neighborhoods-** areas adjacent to central business districts, typically with lower real estate values, potential gentrification concerns, and frequently with polluted, brownfield development sites.
- **Central City Neighborhoods-** outlying areas of central cities, typically streetcar suburbs with strong neighborhoods and commercial corridors. Introducing TOD in these areas depends on preserving neighborhood character and cultivating or maintaining a sense of place. Infrastructure investments are particularly important in these areas.
- **Developed Suburban Cities-** areas developed after World War II with automobile-oriented design characteristics. Redevelopment is an increasing concern in these areas, and willingness to accept urban development patterns becomes an issue.
- **Developing Areas-** typically greenfield development on the fringe of a metropolitan area. Transit-oriented development in these communities should be approached

cautiously from the public investment side, given the limitations of transit in determining travel behavior benefits in outlying areas. Mixed use and New Urbanist development patterns should be based on community placemaking, not on transit infrastructure.

Through exploration of each of these geographic contexts, the financial barriers to TOD investment and potential solutions will be identified and discussed.

Barriers to TOD Financing in Inner City Neighborhoods

Inner city neighborhoods are inherently transit oriented. American inner city neighborhoods were usually developed during eras where walking or horse transportation (such as early horse-drawn streetcars) were the dominant modes of travel. Mixes of land uses are common, frequently within the same structures. However, even these older transit-oriented areas have barriers to redevelopment in support of new or existing transit investments. These barriers affect a TOD project's risk factors, directly affecting the financial viability of a project. Many of these challenges are most applicable to inner city areas, specifically land assembly, market risk, social goals and political concerns over gentrification of lower-income areas, and contamination associated with brownfield redevelopment sites.

Inner city neighborhoods can vary widely. Some are very wealthy, while others are severely impoverished. In many cities, wealthier inner city neighborhoods are redeveloped or revitalized areas that previously were dominated by mixed income or lower income areas. Because these neighborhoods are revitalized, they are atypical and spared from many constraints common in this geography due largely to market forces. However, some issues identified in this section do apply to infill TOD in gentrified neighborhoods.

Market Risk

The most important factor in determining a TOD project's viability is its market risk. If a project proposes a development product that will not sell (or lease, in the case of income-producing property), the construction and entitlement risks are irrelevant. Market risks are varied in inner city neighborhoods. Terrence Farris (2001) notes "Many inner-city neighborhoods are challenging development environments because of deteriorated infrastructure, patterns of disinvestment and abandonment, and a lack of supporting facilities and services like grocery

stores and convenience retail outlets” (Farris 2001, 7). Farris also says many developers are dissuaded from inner-city development by “economic conditions, household income, community participation, environmental conditions, and state and local housing requirements”, as well as the complexity of risk analysis in untested environments. In other words, the push factors of inner city neighborhoods do not support private redevelopment and infill practices.

In response to Farris’ pessimistic view on urban infill prospects, William Hudnut (2001) points out that during the 1990s, the ratio of central city residential construction grew from 27 percent to 43 percent of all residential construction, while increasing 64 percent itself in value (Hudnut 2001, 37). Hudnut continues by stating demand is strong and growing for infill development, for three reasons. First, aggregate growth will require development of all property types as population growth adds 60 million new people to the United States by 2020, particularly through immigration. Second, aging baby boomers seeking the convenience of urban environments further adds to this demand, coupled with growing rejection of sprawl-based development patterns for young and old populations. Finally, Hudnut argues the emerging “information economy” of the 21st century is based in larger cities, and “urban infill helps create the supply to meet that demand” (Hudnut 2001, 36).

While his analysis does not single out inner city neighborhoods, Hudnut provides a number of examples of successful infill projects in blighted areas of Chicago, Atlanta, Denver, Jacksonville, and other American cities. Still, most of these development projects are the result of direct public participation at the federal, state, and local level. Others require heavy investment by non-profit groups such as Habitat for Humanity. Despite private developers’ involvement, the role of the public sector is critical in the context of market risk for mixed use and TOD investments, as further explored below.

Hudnut acknowledges the projects cited are isolated success stories, but he also says, “They add up! Infill development may not contribute a lion’s share of construction in a regional market... [but] the infill market is gaining momentum” (Hudnut 2001, 35). Charles Bohl (2000) echoes this sentiment, stating “New Urbanism cannot make inner-city revitalization occur in weaker markets, where it is already difficult to attract private investment, but it may be able to take

advantage of untapped market niches to provide urban housing alternatives” (Bohl 2000, 792). In other words, focusing on niche opportunities is a more effective strategy than attempting to begin wholesale redevelopment of blighted areas. Acknowledging and capitalizing on niche opportunities is an appropriate strategy for developers seeking TOD financing in inner-city neighborhoods.

Land Assembly Costs

Due to inner-city neighborhoods proximity to the CBD, land costs are traditionally high, regardless of property and neighborhood conditions. In his description of barriers to urban infill as a means to achieve smart growth, Farris (2001) says “developers would typically pay from \$0.25 to \$4.00 per square foot for open land in standard suburban residential sites. Site assembly... in a built up urban environment for marginal or blighted areas might cost around \$15 per square foot” (Farris 2001, 9). The high cost of land, despite vacant or underused parcels, requires significant land write-down costs for TOD development, often placed on the books of local government through TIF districts, community development grants, or other financing.

Negative externalities are a further complication of land assembly. Adjacent properties in poor condition can inhibit a project, requiring a larger project (at higher cost and risk) to overcome (Farris 2001). Suchman and Sowell (1997) write, “an infill project in a run-down area should be large enough to create its own environment” (Suchman and Sowell 1997, 13). To overcome negative externalities, projects must grow larger and larger in the inner city. Developers with adequate capital to accomplish this scale of development are usually disinterested in the challenge, and lenders are unwilling to finance the risks associated with the large project in an unproven market (Farris 2001).

In addition, the legacy of “urban renewal” policy has favored clearing blocks of land and beginning again, often with poor results. These efforts have also galvanized communities against large-scale redevelopment. Combined with high costs of land and an existing transit network, opportunities for TOD in inner city neighborhoods are typically limited to infill development and spot redevelopment, which cannot “create its own environment” to overcome

negative externalities and obtain development financing, except in niche opportunities as stated above.

Project Phasing

Occasionally, early public development funding can lead to later private investment, as discovered in San Jose, California, at the Ohlone-Chynoweth light rail station, as described by Shanti Breznau in *New Transit Town* (Dittmar and Ohland, 2004). In the station area surrounding one of San Jose's new light rail line stations, low-income housing units established an initial market which led to the eventual development of luxury apartments. Initially, 135 very-low income apartments were built in the station area, followed by 194 medium low-income units. "The public subsidies that were used to build [early projects] paved the way for market rate [luxury apartments], thereby serving to leverage private investment.... This indicates that well-designed and well-maintained affordable housing may be used to stimulate market interest" (Dittmar and Ohland 2004, 208). In other words, residential investments by the public not only provided housing to families likely to use transit, but also spurred real estate development from the private sector. Though this specific example is not an inner city neighborhood, a similar market-oriented investment strategy, properly sited and executed, could trigger private sector redevelopment activities in some circumstances.

Social Goals and Governmental Participation in Development

With high land costs and significant market risks associated with inner-city neighborhood TOD, it appears some form of direct public financial participation is required to underwrite and match private involvement in inner-city TOD. Charles Bohl notes, "Outside of public housing projects... inner-city applications of New Urbanism are virtually nonexistent" (Bohl 2000, 766). Market forces alone cannot spur inner-city TOD, requiring public financial involvement to advance development and reinvestment.

Bohl details the involvement of the federal agencies in New Urbanist development, specifically through the HOPE VI program administered by the US Department of Housing and Urban Development. Through federal housing programs, large-scale redevelopment of distressed public housing and adjacent property has introduced New Urbanist, transit-accessible design in

inner-city neighborhoods. Still, Bohl cautions that “Severely distressed neighborhoods exist because of myriad wider societal conditions, and simply redesigning neighborhoods that will ultimately retain heavy concentrations of low-income residents is destined to be a disappointment in the long term” (Bohl 2000, 791). While public financial participation can trigger project development of new housing and affordable housing, the broader causes and contexts of poverty are much more complex. Initial public investment does not guarantee future private investment in inner-city neighborhoods, and the scope of public housing programs must address wider goals than securing financing for private development.

Gentrification is a major concern of many residents and community activists in the context of inner-city neighborhood investment. Bohl states that “New Urbanism is not immune to the adversity and distrust experienced in participatory forums, particularly those involving disadvantaged populations that have traditionally been excluded from decision-making processes” (Bohl 2000, 793). Farris notes politicians are afraid to approve projects involving displacement of low income residents, noting “even if relocation were financially and physically beneficial, social disruption is a real concern from an equity perspective, and well as politically” (2000, 24).

Hudnut’s response to Farris does not directly address gentrification concerns, instead noting the broader benefits of infill development, that they “bring new life to their communities, physically, socially, and economically. They can lead to a positive domino effect for further urban revitalization” (Hudnut 2001, 32). Still, with further revitalization comes the risk of gentrification, which will continue to become a major issue in urban housing policy, particularly as it relates to TOD and new transit investments.

Brownfield Development

Some inner city areas do present opportunities for large-scale redevelopment. In particular, abandoned or underused industrial areas have potential for redevelopment and adaptive reuse. In addition, many older industrial areas are served by rail lines, which may have been abandoned by freight users and purchased by public entities for transit uses. Together, these factors hold strong potential for large-scale TOD in inner-city areas. However, significant risk

can be associated with brownfield projects, resulting in financing premiums. Farris explores this issue:

Compared with vacant suburban land and farms at the edge of a city, built-up environs tend to have more extensive costs even for determining whether contamination exists... hazards are sometimes not found until demolition and site clearance are underway, thereby deterring investment and making projects less feasible and riskier. Also, the whole brownfield litany of present and future liability issues, financing constraints, and so on add to the problems of revamping older areas. (Farris 2000, 10)

Gilliland (2000) completed a survey of brownfield development, finding that of 107 sites that required remediation, land cleanup costs and site remediation cost over \$6.50 per square foot more than comparable land costs in greenfield development. Thus, public participation in land write-down is critical to enabling private TOD reinvestment.

Central City Neighborhoods

Unlike their inner-city counterparts, neighborhoods further outside a city's CBD typically have more long-term residents, stable property values, and moderate-to-higher incomes. Unlike inner-city neighborhoods where direct governmental and non-profit involvement is usually essential for TOD investment to occur, the public's role in outlying neighborhoods involves managing entitlement risk through effective planning and strategic investment in infrastructure. Through inclusive public involvement and mitigation of construction risk through infrastructure renewal, cities can provide development risk mitigation equivalent to a significant cash infusion, thanks to decreased expectations on rates of return and avoided costs, while avoiding direct financial participation in development projects.

To explore these issues, a case study of a TOD-specific planning process surrounding the 46th Street Station along Minneapolis' Hiawatha LRT line is provided. The *46th Street TOD Strategy* was a planning effort by the Minneapolis Community Planning and Economic Development (CPED) Division. Working with a team of consultants, the CPED led a planning study to identify specific TOD sites and strategies, as well as appropriate public investment. The plan is scheduled for completion in early 2009, to be followed by a rezoning study.

Public Participation

One of the most important public strategies to assist in the financing of TOD is through mitigation of entitlement risk. If a project cannot secure planning and zoning approvals or the approval process is drawn out and costly, a project may fail. If a developer and city can streamline the development process, financing commitments are more likely to be secured, at lower cost. In past decades, cities and developers would collaborate (and sometimes conspire) behind closed doors to expedite approvals and secure entitlements. Today this practice is rare, and a more effective strategy has developed through include public participation in planning.

Starting the Dialogue: Master Planning

In Minneapolis, the city's planning department followed an inclusive multi-step planning process to have neighborhood representatives and citizens guide the city's development vision. The city began planning for TOD early, with consultant Farr Associates the city developed the *46th & Hiawatha Station Area Master Plan* in 2001. The planning process featured a Community Steering Committee, multiple public workshops, and additional stakeholder meetings. As a result of the community-led plan, the neighborhood had a strategically titled "Consensus Plan" to guide development. The plan featured recommended land uses, building heights, and neighborhood open and green space. The planning process contained disagreement between some members of the community and the city regarding density, building heights, and parking, as well as concerns about impacts on Minnehaha Park, a historic and regional park destination adjacent to the study area (Farr Associates 2001).

Group work during the planning process revealed disinterest in tall buildings. A majority of groups restricted building heights at two stories, lower than allowable heights for single-family homes in the same neighborhood (Farr Associates 2001, 7-8). Still, some groups favored higher building heights and most groups showed preferences for mixed-use development including residential and retail space. By addressing issues of density, acknowledging threats, and documenting preferences early in the planning process, the city was able to prepare a consensus plan to serve as policy guidance for development in the station area.

The planning process guided difficult conversations in advance of development proposals. Through the plan, neighborhood residents discussed issues generally, rather than airing issues by rallying against specific developers' plans. Prospective developers could also use the document to determine community consensus on acceptable project types.

Implementing the Vision: TOD Strategy

The 2001 *Master Plan* provided a foundation for specific studies and strategy in the station area. A concurrent development boom resulted in hundreds of new residential units, facilitated in part by rezoning approval grounded in policy guidance in station area plans. As development slowed after 2005, generalized planning recommendations were not sufficient to trigger plan implementation, particularly for larger scale projects and for riskier mixed-use components of plans. More advanced study was required, prompting the *46th Street TOD Strategy*. Completed between 2006 and 2008, the *TOD Strategy* sought to provide an implementation document for the community's station area plan. The plan used a Community Advisory Committee (CAC), which met throughout the two year planning process. The CAC provided an advisory role, and was made up of citizen and business community appointees from area neighborhoods and councils.

A major focus of the *TOD Strategy* was conceptual design of potential developments on individual sites. After exploring the market feasibility and development expectations for the area (using a national market consultant), project staff developed specific site alternatives for community input on several "opportunity sites". The project team developed multiple configurations of identical unit counts and commercial square footage. Some scenarios provided taller buildings with significant open space, while other scenarios offered a blockier three-story build out of the site. Working in groups, the CAC and community members compiled the best and worst of each configuration, which the project team refined into a TOD strategy plan. Three dimensional renderings were prepared to show sketches of preferred site alternatives. As the opportunity sites move toward development, developers and planners will have a strong understanding of adopted plans and policy acceptable to area residents.

Through the consensus approach gained by inclusive and consistent participation, developers will submit future projects with confidence that entitlement risk is managed, and will be able to demonstrate community acceptance of specific TOD projects to equity partners and financiers.

Infrastructure Investments

In addition to generating community consensus on redevelopment, the *46th Street TOD Strategy* plan focuses on infrastructure. Infrastructure investments are an increasingly popular strategy for communities to focus plan implementation efforts. The compact form and higher densities of TODs make projects easy to serve with water, sewer, and other provisions. On the other hand, cities rarely have invested enough in maintenance of utilities and other services, making the costs of providing increased service levels difficult. Rebuilding water lines, sewage, and other services to meet increased demand at infill or redevelopment sites can strain fiscal resources for a project (Dekle and Mofson 1997). However, infrastructure investment by public partners can improve the financial viability of a project by installing, improving, or relocating infrastructure.

Three primary infrastructure challenges impede TOD in the Hiawatha Line's 46th Street Station area, including environmental concerns, private utilities, and transportation-related infrastructure provision. Several secondary infrastructure issues arise as well, including pedestrian crossing improvements and streetscape. By remedying these challenges with public design and investment, development projects are more likely to succeed at lower cost and decreased risk, making them more attractive to developers and financial institutions.

Environmental Concerns

Stormwater management is a major concern in development, particularly in dense environments without room for traditional retention pond management. Although TOD can make efficient use of available land and decrease aggregate impervious surfaces, sites are typically intensely developed, leading to a greater percentage of impervious cover. This creates a need for effective stormwater management practices. In the *46th Street TOD Strategy*, project consultants likened the existing pre-war stormwater management system to a car without seat belts and airbags. While the absence of these features does not impact its basic function, it

creates significant casualties. Likewise, the stormwater system in the area is designed to take water directly from rooftops and parking lots and quickly move it in tunnels to Minnehaha Creek and the Mississippi River. This succeeds in the function of draining stormwater, but causes significant environmental problems from contaminants and from hydrologic “bounce” from storm events. The system is also operating near capacity, so development projects must take steps to minimize impacts and contain stormwater on-site.

Innovative stormwater management was a common theme throughout the *TOD Strategy*. Consultant engineers were present at each public workshop and several CAC meetings to explain the benefits and design of low-impact stormwater management practices. Many of these were tied to public improvements, such as street reconstruction with pervious sidewalk and tree plantings, below-grade infiltration basins, and harvestable rainwater storage strategies. By constructing these improvements, the city or other public entities can improve the local environment and ensure effective and environmentally friendly storm water management. For developers, individual projects will not have to carry the cost and scale of beginning a district wide storm water management system. This represents a significant direct cost savings through avoided improvements, and increases developable area on individual development sites. In effect, the developer can build more product at lower cost thanks to an environmentally friendly public initiative. In turn, investors and lenders may look more favorably on a project building upon this infrastructure.

Private Utilities

Electrical and other utilities can have major impacts on development projects. The Hiawatha corridor contains regional power transmission lines. These high-profile power lines are essential to the city’s and region’s power grid, and are cost prohibitive to bury. In the 46th Street Station area, power lines are predominantly supported by tower lattice structures, in contrast to the lower-profile monopole design north and south of the station area. The structures have large footprints that greatly constrict potential development, on each side of an existing (though rarely used) railroad spur track. To remedy this situation, the TOD Strategy document identifies a potential solution by replacing the lattice structures with monopoles, citing the development

benefit as a potential justification for city investment. Excel Energy, the lines' owner, may participate as well through an upgraded network or system.

The power lines run along an old railroad corridor, which once carried passenger traffic to Minnehaha Park, and still serves industrial users along the corridor, though most rail traffic is north of 38th Street. The city of Minneapolis purchased the underlying rail corridor south of 42nd Street from Soo Line Railroad, but the railroad (operated by Minnesota Commercial Rail) continues to hold an easement for use of the line, primarily for storage. Through this arrangement, the rails cannot be removed, but the city has substantial flexibility in use and management of the railroad corridor. By reconfiguring use of rail right-of-way, the city can establish a corridor of publicly owned land that meets the railroad's needs, provides a more compact provision of power transmission lines, accommodates adjacent development storm water, and even provides a "greenway" trail for pedestrians and bicyclists. This corridor development strategy would turn a railroad-owned overgrown eyesore into a community amenity while facilitating development. The various improvements will be reflected in public infrastructure improvements in the *TOD Strategy* document, and improvements can be bundled or unbundled to meet available public and private funding sources.

Though not directly explored at 46th Street, communication infrastructure is an additional infrastructure strategy that can improve the viability of TOD. Through the Mineta Transportation Institute, Siembab, Graham, and Roldan (2001) explored fiber networks as a facilitator of TOD. Telecommunication networks typically follow public right-of-way, as access is cheaper and easier along an existing right-of-way than piecemeal easements from individual landowners. Traditionally, cities are the primary points-of-contact for fiber network installers. However, new rail transportation corridors provide DOTs and transit agencies an opportunity to partner with telecommunications providers to install advanced communications systems. In addition to supporting local and regional economic competitiveness, transit agencies and DOTs frequently use the network for operations- cameras, vehicle operations, and other uses (Siembab et al 2001, 21). The authors also argue that communication infrastructure provides an outstanding opportunity for public-private partnerships and can offer an incentive to TOD,

saying “direct access to fiber, network services, and network access centers... are realistic in that they can be realized with off-the-shelf technologies at costs far less than the costs of other TOD incentives.” (Siembab et al 2001, 23). The authors conclude that establishing advanced communication infrastructure can support private TOD investment in several ways, including:

- Attracting a technological anchor tenant to an office/retail component of a TOD.
- Add to the borrowing power of residential developers able to market benefits.
- Improve access to technology for traditionally disadvantaged populations. By providing a technology component in a community center or other feature a developer is likely to build anyway, developers could leverage public investment in libraries, workforce centers, or other communications-driven enterprise (Siembab et al. 2001, 93).

By facilitating and partnering with communications providers, transit agencies and cities can support these infrastructure improvements that provide direct benefit to the agencies and trigger development of transit-oriented communities by improving borrowing power.

TOD in Suburban Communities

Suburban communities also plan for TOD, yet still find barriers to successful finance of TOD projects. Many communities planning for LRT investments are developed first-ring suburbs and second- or third-ring developing communities. These communities plan for increased density to maximize station area opportunities. In many communities, transit corridors follow historic rail rights-of-way. These corridors are frequently surrounded by obsolete industrial properties, which are prime redevelopment sites. In addition, rail-served communities likely grew their downtowns adjacent to rail service. Adjacent industrial-transportation corridors are prime sites for transitway-related redevelopment. Still, suburban areas have significant redevelopment challenges, including aversion to increased density, site assembly challenges, and lender aversion to non-standard property types.

Managing Redevelopment Expectations

Within first-ring suburban communities, there is often great resistance to the increases in density and changes in character that accompany redevelopment. In these communities, senior citizens and single family homeowners are accustomed to the character of their community, and often oppose redevelopment vocally. When developing the Excelsior-Grand redevelopment

project in St. Louis Park, Minnesota, TOLD Development pursued a mixed-use development project served by transit. The developer experienced great resistance to the higher densities and changes that accompanied the mixed use project, though the project's completion was highly regarded and frequently emulated throughout the region's inner-ring cities. Fear of density is a common theme in planning, summarized here by Carolyn Deckle and Phyllis Mofson (1997):

A type of NIMBY (not in my backyard) issue, psychological resistance to higher densities stems from the attitude cultivated in recent decades by popular culture and public policy that high densities contribute to crime, environmental degradation, and general declines in quality of life. The 30-40 year trend will not be corrected overnight, but a new public education campaign that density, if planned correctly, can enhance--rather than hurt--our quality of life by allowing for the preservation of green space outside clearly defined urban development boundaries; encouraging pedestrian and transit-oriented developments and reducing our reliance on the automobile; by building cohesive communities; and, in so doing, by reducing the opportunities for crime to occur (Dekle and Mofson 1997).

In other words, we have been conditioned to reject density because it is seen as a forbearer of blight and crime, but a counter-campaign could show the value of higher density projects such as mixed use and TOD. Increased intensity of land use is necessary to provide incentives to redevelop outdated land uses. Still, more than a decade after Deckle and Mofson's publication, density remains a significant hurdle in local government decision making regarding TOD. Fear of density and change can even build physical walls inside a community. In San Jose, California, a single family neighborhood near a TOD project required a wall be built to "protect" their neighborhood from affordable housing projects next to the light rail station (Dittmar and Ohland 2004, 201).

Retrofitting suburban communities to accommodate growth and higher densities is a barrier as well. "We also have to think about how to provide parks and other neighborhood services because neighborhoods won't accept new housing unless they are assured that there will be adequate services," says San Jose deputy planning director Laurel Prevetti (Dittmar and Ohland 2004, 200). While intensifying developed land use, additional services and open space must be provided, and must be sufficiently sized and programmed to meet the needs of new residents. As with central city neighborhoods, infrastructure can also be a challenge in suburban cities.

Site Assembly

Local governments should also consider various incentives to facilitate TOD projects, including project partnership. The City of Saint Louis Park, Minnesota developed a plan for a community downtown area, missing from the Minneapolis bedroom community that developed largely in the 1950s. To facilitate this transformation, the city took an active role in assembling the land around a proposed mixed-use downtown center. Were the eventual developer to assemble this land, landowner hold-outs, zoning difficulty, and other problems would have increased costs dramatically, and the prospect of lengthy land acquisition would deter equity investors. By slowly acquiring land and reserving the power of condemnation through eminent domain, the City was able to assemble a large parcel ready for redevelopment.

Strategic Development through Phasing and Horizontal Mixed Use

Lender preferences for conventional real estate products were explored early in this paper as a widely applicable barrier to alternative development types. These challenges continue, and are particularly suited to developed and developing suburban locations. In this geography, a city may not have the financial strength to support infrastructure or other investments that reduce costs or build equity to generate a product, and the local market does not benefit from special treatment lenders might give high-value inner city land. However, creative financing, project phasing can establish a track record for profitability, and strategic structures of uses can generate TOD outcomes with standard product types

In securing the financing for Excelsior & Grand (St. Louis Park, MN), Bob Cunningham of TOLD Development hired a mortgage broker to find financing for the project. The project required a construction loan and long term debt. To build the project, TOLD development's mortgage broker found a union pension fund (Cunningham 2005). Provided the entire project was built using union contractors, the union pension fund provided the loan for construction costs. To find long term debt financing, the developer turned to US Bank, a traditional lender in both commercial and residential real estate income properties. The project type was unfamiliar to the bank, but financing was secured because the developer had a long standing relationship with the lending institution (Cunningham 2005).

Phased projects can produce early capital flows to finance and support later phases. Starting with residential uses may provide cash flows to support financing of other housing types and provide equity capital for more profitable (albeit risky) endeavors such as retail and office development. A Rutgers study of TOD suggested the use of phasing to demonstrate market viability, examine assumptions, and allow for the evolution of TOD over time (Renne and Wells 2002). In the Twin Cities region, St. Louis Park's Excelsior and Grand followed a phased approach. Not only does the phased approach finance subsequent development, but also helps to attract conventional financing thanks to the development's success. The \$150 million dollar Excelsior and Grand development was built in several phases. TOLD Development president Bob Cunningham advises potential developers, "If you start small and the development works, you can get bigger and more creative projects approved" (Cunningham 2005). He adds that if a small project fails, it is less disastrous for a developer's future prospects.

In concurrence with Cunningham's assessment, Parson and Sigal add in *New Transit Town* that because TOD projects are often catalysts for neighborhood improvement and placemaking, their true value is not captured initially. Thus, the cost to construct the project is greater than its initial value. The project's value recaptures the outlay, but only in the long term. Thus, phasing the project to minimize risk may also maximize long-term investors' return on investment (Dittmar and Ohland 2004, 93).

Conventional thinking on mixed-use development includes retail or commercial uses under residential units. These property types have different construction methods, preferred dimensions, and markets. Lenders specializing in retail cannot offer financing to the residential components of projects, and vice versa. By separating these uses horizontally on a site, developers can market a project's finance to traditional lenders. Lenders then apply traditional models to analyze the risk of a project. For example, instead of building a block-long retail/office building with condominiums above it, a developer could build two half-block buildings, separating the uses. This separation of uses would allow lenders to evaluate the different components of the development on their own merits, using traditional techniques.

In analyzing developer attitudes towards TOD, Cervero (2004) writes “A handful of developers felt strongly that TOD design guidelines should not overemphasize vertically mixed uses, such as ground-floor retail and upper-level residential. They explained that outside of dense urban locations, building mixed-use products in today’s marketplace can be a complex and risky proposition; few believe that being near a train station fundamentally changes this market reality” (Cervero 2004). In other words, by giving lenders simple and straightforward buildings to analyze, horizontal mixed use may be a more attractive model to establish alternative development models such as TOD in suburban areas. Parzen and Sigal (Dittmar and Ohland 2004) point out those developers who simplify their TOD designs to separate mixed-use buildings find construction and permanent debt financing become available, especially when developers work with larger banks in major cities, where lenders have experience with mixed-use and live-work buildings already.

Critics of horizontal mixed uses claim that horizontal mixed use buildings “sell out” to attract financing, but the synergistic land uses that form the tenants of mixed use and TOD do not demand all uses take place in one building (Dittmar and Ohland 2004, 97). Indeed, creative “horizontal mixed use” can enhance the character of a place. For example, by placing separated retail uses near the transit station, the Ohlone-Chynoweth station area in San Jose created a physical center of the project, the small scale of which was not overshadowed by hulking mixed-use apartment buildings (Dittmar and Ohland 2004, 207). If initial phases of projects prove successful with horizontal mixed use, a subsequent vertical mixed-use phase may be looked on favorably, particularly if the same developer and lenders are involved.

Commuter Towns and TOD

Most geographic areas described in this analysis have focused on developed areas served by light rail or intensive bus transit services in medium to higher-density areas. In contrast to these geographies, developers in fringe areas are primarily engaged in greenfield development. Transit plays a very different role in these lower density areas, primarily by providing peak-period express trips by bus or rail. Some cities have developed plans for “town center” developments intended to become a focal point of the community in the future. Bus transit may

play a role in this development type, but cities usually focus on commuter rail as the eventual mode (Ramsey, 2008). Commuter rail typically provides peak-period only travel to and from central business districts (Metropolitan Council 2008, 14).

Transit oriented development in this geography features many common challenges as inner-ring suburbs, including opposition to density and lender reluctance toward non-standard property types. In addition, the utility of commuter rail must be analyzed as it relates to the goals of TOD. The short span and CBD-orientation of this rail mode may not result in non-work travel reductions nor in the location efficiency TOD proponents seek. Therefore, while finance barriers to TOD remain strong in developing areas, the benefits of commuter rail might suggest a land use strategy that does not include TOD. Instead, the objectives of commuter rail systems are best accomplished by providing adequate parking, trail access, and connecting transit services to include as many transit riders as possible from a broader, low-density area. While placemaking and mixes of choices may be an important civic planning function, they should be a separate focus from station area development planning.

Commuter Rail Travel Behavior

John Niles and Aaron Hibshoosh evaluated travel patterns and travelers' responses to TOD (Nelson et al. 2001). The researchers found that given long term increases in the share of non-work trips (which now comprise of 80% of all trips, say the researchers), and the relative geographic dispersion of non-work destinations, mass transit cannot cost-effectively provide transportation between the large number of activity nodes non-work opportunities provide. Commuter rail is generally attractive to workers in central business districts, but cannot provide daily transportation needs outside of this long commute.

Robert Cervero and GB Arrington (2008) analyzed seventeen TOD projects with multiple modes and geographic contexts. The authors attempted to determine trip reduction as compared with standard Institute of Transportation Engineers (ITE) rates. Commuter rail station-area developments in Philadelphia and New Jersey were included in the comparison. By analyzing trip rates for these projects, the authors argued that development exactions for roadway improvements may be too high for TOD projects, unnecessarily increasing development costs

(Cervero and Arrington 2008, 2). However, the authors found developments near commuter rail stations provided a lower reduction in vehicle trips than those in denser areas. These projects produced about 26 percent fewer trips than ITE rates, compared with an average of 47 percent fewer for all projects, and up to 90 percent fewer peak-period trips for dense areas served by light rail (Cervero and Arrington 2008, 9). While a 26 percent lower rate for vehicle trip generation is significant, the authors found the commuter rail TODs did not generate nearly as significant an impact as frequent, networked transit lines. A reason for any reduction, suggest the authors, is self-selection of residents- downtown workers are more likely to live in TODs.

Taken together, these studies show the benefit of transit services in low-density areas served by commuter rail is limited to downtown-bound work trips, and the mode *itself* cannot generate localized trip reduction like some transit modes. Therefore, the primary benefit of commuter rail is reduction of vehicle-miles traveled on long-distance trips on highway corridors. Even with self selection in residences near commuter rail, the number of downtown workers in a TOD dozens of miles from the CBD is likely to be small due to lower densities and intervening opportunities (Cervero and Arrington 2008, 13). In the small radius within walking distance of a commuter rail station, a more effective land use to generate VMT reductions can be achieved through provision of park-and-ride lots. By accommodating as many downtown workers from as broad an area as possible, the transportation goals of commuter rail are accomplished. Bike, bus, and pedestrian connections at the station can further increase this utility. This does not mean supportive residential land uses are not appropriate in a commuter rail station area. Indeed, station-area planning can incorporate pedestrian-oriented environments that allow for reduction in vehicle trips. Still, park-and-ride demand in the broader catchment area should be accommodated first to ensure the primary benefit of commuter rail (VMT reduction on regional highway systems) is accomplished most efficiently. While a station area can provide a focal point for community identity, this should be pursued relative to the transit system's utility.

Placemaking: Mixed Use and Alternative Development in Developing Areas

While outlying suburban communities are provided with greenfield opportunities to develop TOD, the most common opportunity for development is generally commuter rail or express

buses. For example, the city of Ramsey, Minnesota is implementing a new “town center” that will provide retail, office, residential, and public space in a walkable environment (Ramsey, 2008). A commuter rail line set to begin operations in 2009 will run next to the development but will not stop in Ramsey in its first phase. A city-run bus service will travel to downtown Minneapolis on weekdays, with service from a city-owned parking ramp. Ramsey leads the popular project at the municipal level, but the project is undergoing a revision after transitioning from the death of the project’s developer and a resulting bankruptcy and foreclosure process (Ramsey 2008). The community’s effort is not spent on TOD development, but instead on development in support of community placemaking. The city is attempting to create a destination area and improve the community’s image. Past development in Ramsey followed arterial roadways in strip malls buffering curvilinear streets with single-family homes, with limited walkability and few housing options. With the town center, the city is re-branded with additional green space, civic uses, mixes of private residences and commercial uses, and improved design throughout. Still, the development is not a TOD, and land uses follow traditional lending models and parking requirements. While public investment strategies could trigger mixed-use projects, trip reduction and transit usage would not result in payback of these investments, as seen in more dense areas (Cervero 2008).

Summary and Conclusion

There are several significant barriers to successful finance of mixed use development. Direct financing barriers include lender segmentation by product type, high equity requirements, and expensive debt. Additional barriers vary by geography, with market constraints and direct public financing needed in inner city neighborhoods. Central city neighborhoods have stronger markets, but require substantial infrastructure investments and careful public processes to manage entitlement risk. Suburban areas must embrace increases in density and match expectations about the form and scale of TOD to its function and market over time. In developing areas, communities must accept the limited role transit can play in the overall transportation system and center plans on the community, rather than the transit station.

By implementing appropriate public strategies described to overcome TOD financial barriers, local governments can indirectly assist TOD developers to obtain conventional and specialized financing to implement development projects that address community goals and market needs while reducing vehicle travel, offering new choices and location efficiency, and supporting transit. Careful attention to a project's geographic context can ensure the proper barriers are identified and appropriate strategies chosen to improve a development's risk profile.

In time, as more mixed-use and TOD projects are completed, specialized lenders and conventional financing may become routine. For today's TOD pioneers in the public and private sector, hard work to ensure financial success of TOD projects will pave the way for standardized TOD lending in years to come.

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