

ADVANCING EQUITABLE TRANSIT-ORIENTED DEVELOPMENT

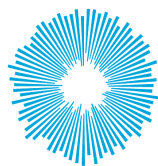
# Steps to Avoid Stalled Equitable TOD Projects

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Ian Carlton  
UC BERKELEY

AND

William Fleissig  
COMMUNITAS DEVELOPMENT



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# Table of Contents

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I	<b>Introduction</b> .....	3
II	<b>Findings: Common Causes of TOD Stall and Failure</b> .....	9
	A Key Lessons	
	B Readiness Factors	
	C “Unexpected” Costs and Hurdles Equitable TOD Sponsors Should Expect	
III	<b>Recommendations: Toward Successful Equitable TOD</b> ...	24
	A Strategies for “Upstream” Process Improvements	
	B Strategies for “Downstream” Process Improvements	
IV	<b>Appendix A: Research Approach</b> .....	35
V	<b>Appendix B: Developing a TOD Investment Scorecard</b> ....	37
VI	<b>Appendix C: Glossary</b> .....	38
	<b>Acknowledgements</b> .....	44

To read the Executive Summary or case studies referenced throughout this research, visit [www.LivingCities.org](http://www.LivingCities.org).



# Introduction

Regions across the U.S. have been working to create more sustainable urban development, with building near public transit playing a critical role. Transit-oriented development (TOD) can contribute to creating a healthy regional economy, promising to reduce commutes, produce vibrant mixed-use places, and provide housing with easier access to jobs and services.

To optimize housing and transportation affordability, proponents advocate developing affordable housing and locating mid-skill jobs and critical services like childcare and health facilities near transit stops. Living Cities and others consider this more inclusive form of TOD to be “**equitable TOD**.”<sup>1</sup>

Recently, promoting sustainable urban growth has become a national policy imperative. Smart Growth lobbies, programs such as the Federal Joint Partnership for Sustainable Communities, and new state policies, including California’s SB375, aim to link planning for land use, economic development, housing, and transportation in support of the sustainability agenda.

## **Transit-oriented development, and equitable TOD in particular, have lofty goals but a modest track record.**

Despite investing millions of dollars to promote equitable TOD, stakeholders in government and foundations alike have observed that these projects frequently stall or fail to achieve the aspirations described in land use plans. Even after state-of-the-art sustainable community planning processes have been followed, why do many projects get bogged down during predevelopment?

## **Equitable TOD challenges the conventional predevelopment process**

Predevelopment is the phase when a real estate developer identifies a site and evaluates and pursues strategies to manage risks before fully committing to construction.

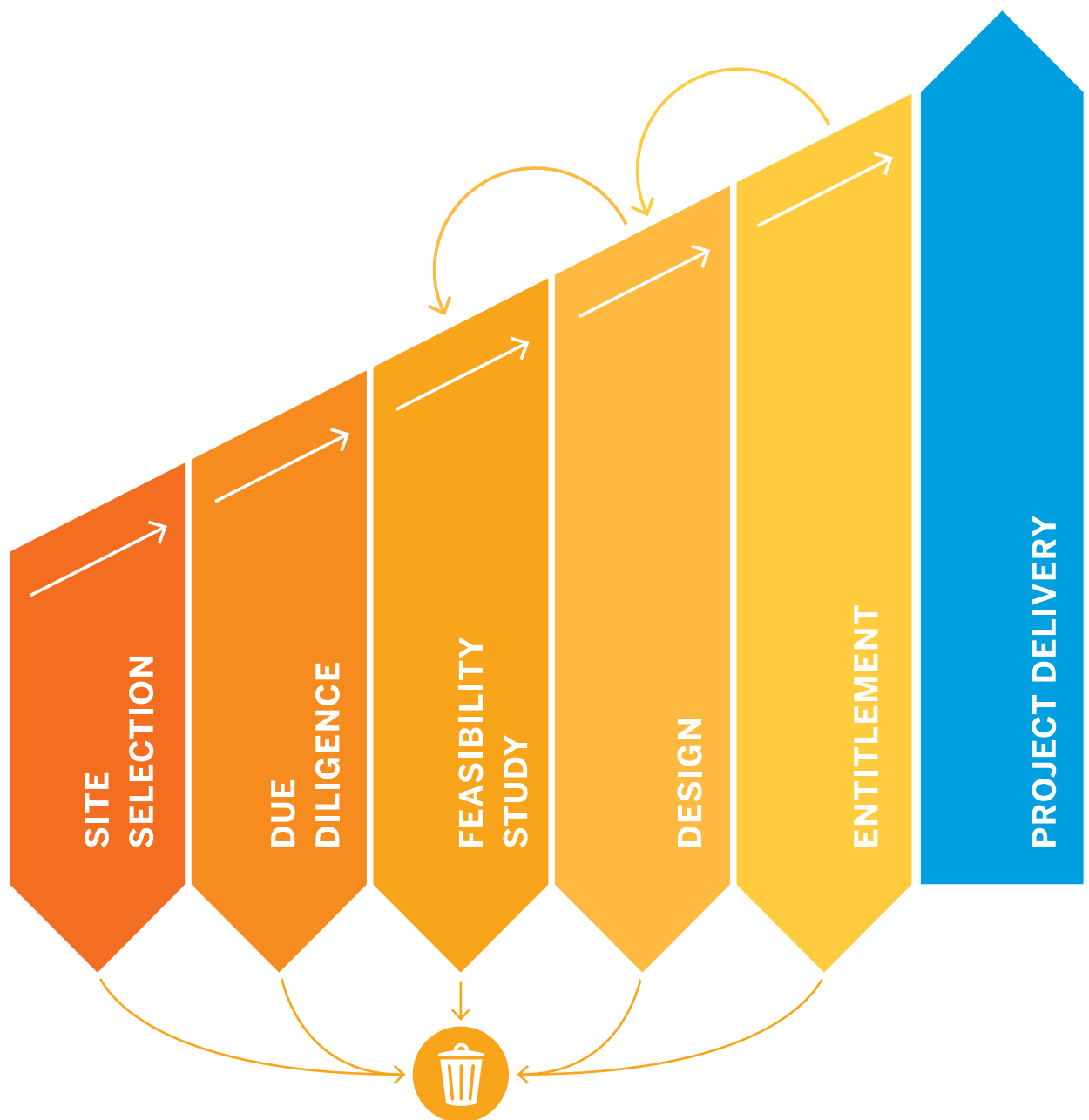
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<sup>1</sup> In a March, 2013 report Living Cities defined equitable TOD as that which: “prioritizes social equity as a key component of TOD implementation. It aims to ensure that all people along a transit corridor, including those who are low income, have the opportunity to reap the benefits of easy access to employment opportunities offering living wages, health clinics, fresh food markets, human services, schools and childcare centers. By developing or preserving affordable housing and encouraging locating jobs near transit, equitable TOD can minimize the burden of housing and transportation costs for low income residents and generate healthier residents, vibrant neighborhoods and strong regional economies.”  
Melinda Pollack and Brian Prater in “*Filling the Financing Gap for Equitable Transit-Oriented Development*,” published by Living Cities, March 2013.

Conventional predevelopment is relevant to a private-sector developer pursuing a market-rate development. For market-rate projects, the predevelopment process is generally described as a series of evaluation steps including numerous decision points when a developer can decide to continue the evaluation, revisit a prior step to achieve more desirable results in subsequent steps, or walk away from the project (see Figure 1).

**FIGURE 1**

**Typical Predevelopment is a developer-led site and project evaluation process, with opportunities to revise proposals to improve feasibility or to exit the process and avoid further costs**



Relative to the traditional relationships and concerns typical of conventional market-rate predevelopment process, equitable TOD includes additional stakeholders, cost drivers, and objectives that may encumber a project's timeline, scope, and budget. The fundamental objectives of equitable TOD — provision and preservation of affordable housing, access to living wage jobs, health clinics, fresh food markets, human services, schools and childcare centers — often mean that projects must incorporate, fund, and operate these services or procure relatively expensive land in developed areas where these services are already available.



Predevelopment evaluations typically assess site conditions, market supply and demand, preliminary architectural designs, and financing capacity. Predevelopment also involves obtaining the necessary regulatory approvals to proceed with a project. Once risks have been adequately mitigated such that financial returns will satisfy investors, developers move from predevelopment to the final design and construction phase of project delivery.

The predevelopment process—in which the developer must identify land, design a project, engage partners, option land, raise equity, secure financing, and navigate politics and community involvement in order to receive regulatory permissions—is costly and time consuming. Part of the cost and time of predevelopment comes from the need to solicit expert advice from architects, brokers, and other consultants. Developers may also work with regulators to be awarded entitlements, with a landowner to negotiate the purchase price of a property, and with potential tenants to secure pre-leases or pre-sales.

TOD projects have ambitious goals, are complex to execute, and face many more obstacles than traditional urban development. These challenges include escalating land values as transit infrastructure is completed, financing that requires a complex mix of funding sources, long timelines and project scales larger than traditional counterparts. And equitable TOD projects face all of the obstacles encountered by market rate TOD,<sup>2</sup> including high standards regarding placemaking, the provision of specific land uses, high density development, mixed-use buildings, and more.

The more ambitious the equitable TOD project, the larger the cast of stakeholders becomes. Thus, the sheer number of actors that play a role in the success or failure of equitable TOD makes it more complicated than conventional development (see Figure 2).

The interaction of these numerous stakeholders can create a cascade of events and decisions that limit the possibility for successful equitable TOD projects to be completed. Some of these events and decisions take place even before the conventional predevelopment process begins.

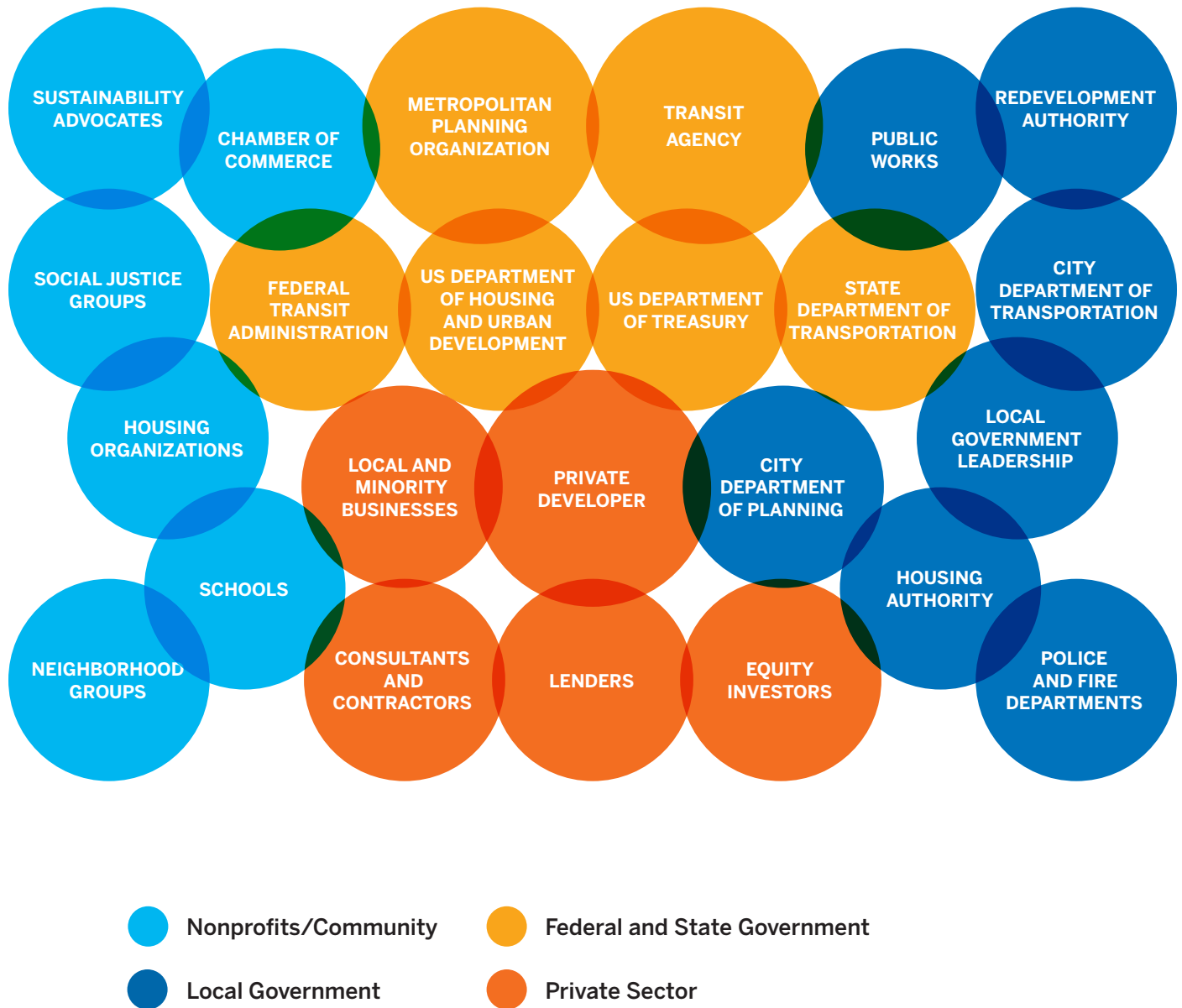
For example, TOD fundamentally relies on the presence of transit infrastructure. Transit agencies, the Federal Transit Administration, and other entities have a strong influence on where transit stops are located and, therefore, have a profound influence on the locations where TOD can be built. These actors' decisions may not consider TOD or considerations of equity as they locate stations and stops. Transit stops are often planned in less expensive locations, far from jobs, or in other locations that diminish equitable outcomes from the start.

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<sup>2</sup> For a thorough discussion, see: Fleissig, William and Ian Carlton; "The Investment/Finance Perspective" in "[Fostering Equitable and Sustainable Transit-Oriented Development](#)"; Living Cities; February 2009

**FIGURE 2**

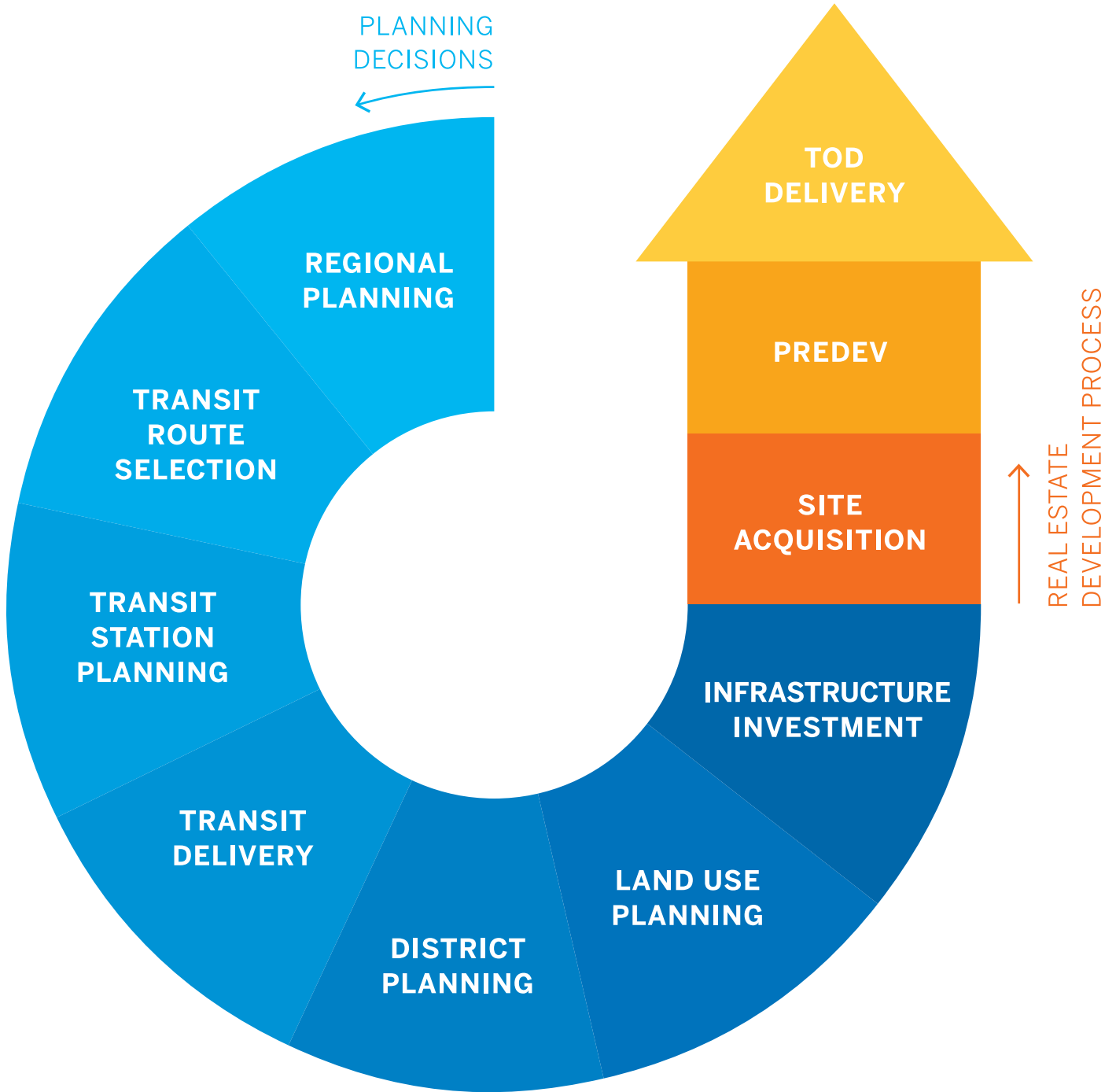
The Equitable TOD predevelopment process is impacted by countless actors



Before a typical project’s predevelopment process begins, therefore, a long set of steps has already taken place to determine everything from available location to available subsidy funding, site plan and many other factors that will influence the success or failure of TOD. To describe how upstream decisions affect TOD, often decades later, we illustrate below the broad process of decision making that leads to the availability of sites for TOD.

**FIGURE 3**

Hypothetical representation of the major steps that impact equitable TOD



Activities considered part of the **“upstream”** planning decisions

Activities conventionally considered part of the **“downstream”** real estate predevelopment process

## PURPOSE OF THIS RESEARCH

Living Cities asked us to help determine how equitable TOD stakeholders can avoid or overcome the complications that emerge during the predevelopment phase. With experience as developers, planners, researchers, and TOD advisers, we brought a real estate and policy perspective to the following questions:

- **Why are equitable TOD projects so frequently stalling?**
- **When is the optimal time to incorporate market/development criteria into the transit alignment/station and site acquisition decisions?**
- **Is there an optimal predevelopment process that would help projects move toward development smoothly?**

This paper describes the many factors that currently make equitable TOD so difficult to complete, and then proposes concrete techniques to address these challenges.

We provide several recommendations related to the planning of TOD—including regional, transit, and land use planning—and changes to the equitable TOD site evaluation process that we believe will help reduce the need for substantial subsidies.

Finally, we describe tools that could help cities, regions, developers, and investors produce more equitable TOD more affordably, with better managed risk, and swifter, more reliable results.



Our analysis is based on more than a dozen case studies, including both station area developments and individual projects. The cases are available online at [www.LivingCities.org](http://www.LivingCities.org).

### **Transit district cases\***

- 1 Pearl District, Portland, OR
- 2 The Round, Beaverton, OR
- 3 Rosslyn-Ballston Corridor, Arlington, VA
- 4 North Hollywood, Los Angeles, CA
- 5 NoMa, Washington D.C.
- 6 White Flint Metro, Montgomery County, MD

### **Equitable TOD project cases**

- 1 Adams & Central, Los Angeles, CA
- 2 Quincy Center, Quincy, MA
- 3 MacArthur Park Apartments, Los Angeles, CA
- 4 Denver Design District, Denver, CO
- 5 The Crossings, San Leandro, CA
- 6 Market Creek, San Diego, CA
- 7 Fruitvale Village, Oakland, CA

\* **Note:** All station area case studies include equitable TOD projects or planning elements





# Findings:

## Common Causes of TOD Stall and Failure

To understand the obstacles encountered by many equitable TOD projects and how stakeholders can avoid or overcome these obstacles, we researched more than a dozen projects and districts around the country. We investigated both the development processes for individual equitable TOD projects and the evolution of entire TOD districts where projects have been completed. Based on this research, we have identified several themes and pinpointed critical predevelopment process steps and success factors.

Here, we offer seven key lessons from our research. Then we describe the common predictors for TOD success that emerged from our analysis. Finally, we summarize the many sources of escalated TOD project costs described by project sponsors as “unforeseen,” which commonly threaten equitable TOD success.<sup>3</sup>



## KEY LESSONS

### LESSON 1:

Equitable TOD costs are high and financial returns are low as compared to “standard” development

### LESSON 2:

Upstream planning decisions are not aligned with downstream real estate goals

### LESSON 3:

Conventional feasibility studies routinely miscalculate TOD viability

### LESSON 4:

Infrastructure investment is critical to TOD

### LESSON 5:

The key role of market-rate development is often overlooked

### LESSON 6:

Early planning for TOD inflates land costs long before construction begins

### LESSON 7:

Gap funding is often necessary to solve common TOD roadblocks

<sup>3</sup> See Appendix A for our research approach and methodology. Transit district case studies and project case studies are available online at: [www.LivingCities.org](http://www.LivingCities.org)

<sup>4</sup> Fleissig, William and Ian Carlton; “*The Investment/Finance Perspective*” in “*Fostering Equitable and Sustainable Transit-Oriented Development*”; Living Cities; February 2009



## LESSON 1:

# Equitable TOD costs are high and financial returns are low as compared to “standard” development

Advocates of equitable TOD aspire to high standards of development. As a result, the latest generation of plans, policies, and entitlement processes for urban, walkable, and mixed-use TOD have burdened projects with extra costs compared to competing real estate investments. In addition; equitable TOD projects are financially hampered by reduced revenues due to their affordability; added risk and complexity due to the number of funding sources that are typically combined; and extra costs from the provision of services and design amenities.

**Reasons equitable TOD costs are greater than “standard” development may include:**



**Urban infill land vs. “greenfield” land**



**Upgraded urban utilities vs. “greenfield” utilities**



**Environmental cleanup vs. unblemished or low-impact prior use sites**



**Mid- and high-rise construction vs. low-rise construction**



**Mixed-use buildings vs. single use buildings**



**Structured parking vs. surface parking**



**Higher design scrutiny vs. lower design scrutiny**



**Dense, gridded street network vs. minimal street network**



**Pedestrian and bicycle accommodations vs. auto-centric infrastructure**

Because of these factors, equitable TOD projects are more difficult to develop than other suburban or infill real estate products, and have difficulty competing for investment dollars.



## LESSON 2:

# Upstream planning decisions are not aligned with downstream real estate goals

Transit and land use planners generally determine station locations and infrastructure plans using decision criteria that do not take into consideration the site conditions needed to foster private development. TOD projects are heavily impacted by upstream decisions made by stakeholders who may have acted decades earlier.

For instance, projects in our case studies were impacted by a regional agency's choice to locate a station at a particular intersection along a corridor rather than between intersections,

The options are limited by our mission. We're targeting sites near transit so the [transit] service is already there or [transit] plans are firm.

—TOD ACQUISITION FUND MANAGER

where development was more feasible. In other instances, projects were impacted by transit agency decisions to incorporate certain parcels into "park and ride" lots, but not to take ownership of adjacent parcels key to future joint development efforts. Other case study projects, like Fruitvale Transit



Village, ground to a halt because the land use plans and stakeholder expectations developed "upstream" under prior market conditions were inflexible.

Not only do early decisions affect real estate activity down the road, but foundational steps may even run counter to producing feasible real estate projects. This misalignment was at least partially explained by the numerous and varied decision makers involved in each process step, the varied professional "languages" they spoke, and the objectives or criteria they pursued. Decision makers had very different decision criteria, and the timeframes for their decision making were not aligned (see Table 1).

Take, for example, efforts by transit planners to limit costs. In some instances, transit routes were built along unused former freight rail facilities purchased for a relatively low price. While the resulting routes achieved the transit agency's cost effectiveness goals, entire lengths of transit exhibited poor real estate conditions, deficient infrastructure, and insufficient amenities for decades into the future. Sites near these stations presented few opportunities for real estate development precisely because they fulfilled upstream decision criteria that ignored downstream stakeholders.



If the station had been 500 feet [north], it would have been better for landowners and developers but we just had to make do.

—TRANSIT AGENCY TOD MANAGER

**TABLE 1**

**Typical Predevelopment is a developer-led site and project evaluation process, with opportunities to revise proposals to improve feasibility or to exit the process and avoid further costs**

MILESTONE STEP:	TRANSIT FACILITY PLANNING	LAND USE PLANNING	DISTRICT MANAGEMENT	STANDARD REAL ESTATE EVALUATION	AFFORDABLE DEVELOPMENT EVALUATION
<b>Decision Makers:</b>	<ul style="list-style-type: none"> <li>• Federal Transit Administration</li> <li>• Transit agency board</li> <li>• Agency planners and consultants</li> <li>• Metropolitan Planning Organization*</li> </ul>	<ul style="list-style-type: none"> <li>• City Government</li> <li>• Metropolitan Planning Organization*</li> <li>• State Government</li> </ul>	<ul style="list-style-type: none"> <li>• City Government</li> <li>• Redevelopment Authority/ Agency*</li> <li>• Property owners</li> <li>• Investors</li> </ul>	<ul style="list-style-type: none"> <li>• Investors/ Lenders</li> <li>• Developers</li> <li>• Architects</li> <li>• Engineers</li> <li>• Contractors</li> <li>• Regulators</li> </ul>	<ul style="list-style-type: none"> <li>• Investors/ Lenders</li> <li>• Developers</li> <li>• Architects</li> <li>• Engineers</li> <li>• Contractors</li> <li>• Regulators</li> <li>• Advocates</li> </ul>
<b>Decision Criteria:</b>	<ul style="list-style-type: none"> <li>• Least cost per passenger</li> <li>• Popular vote</li> <li>• District representatives</li> </ul>	<ul style="list-style-type: none"> <li>• Greenhouse gas emissions</li> <li>• Trips</li> <li>• Affordability</li> <li>• Economic Development</li> <li>• NIMBY*</li> </ul>	<ul style="list-style-type: none"> <li>• &gt; 50% of property owners see positive ROI</li> <li>• “But for” test*</li> <li>• Economic development</li> </ul>	<ul style="list-style-type: none"> <li>• Risk adjusted ROI* / ROE* / IRR*</li> <li>• Market supply and demand</li> </ul>	<ul style="list-style-type: none"> <li>• % AMI*</li> <li>• Funding qualification requirements</li> <li>• Community needs assessments</li> </ul>
<b>Planning Duration:</b>	10+ years	3–5 years	2 years	6–9 months	6–18 months

\*Not sure what a term in this chart means? Check out the Glossary starting on page 38

By filing for zoning code exceptions, re-scaling projects, identifying new funding sources, and waiting for the next election cycle, the developers of most projects we studied were able to overcome these obstacles. Yet, time is money for development of any kind, and delays have financial consequences. In our cases, the time between the first conceptualization of TOD and groundbreaking for the first TOD investment varied from one year to two decades.



The plans showed a tower, but the developer dropped out because they could only justify low-rise. —ARCHITECT



### LESSON 3:

## Conventional feasibility studies routinely miscalculate TOD viability

Our case studies revealed that major investments in sites, and initial investments in building projects, were based on evaluations that overlooked numerous potential pitfalls characteristic of TOD projects in particular.

For example, TOD demand analyses failed to segment the market to identify demand for the smaller units with fewer parking stalls, a common feature of TOD. Expected lease rates were also overly optimistic in some instances. In addition, leasing limitations placed on building managers by some TOD funding sources were not considered. For instance, buildings funded with New Market Tax Credits cannot lease space to “sin businesses.”

A naivete with respect to TOD also affected project feasibility studies. While assessments considered land costs and “sticks & bricks” costs, they often failed to incorporate specifically TOD-related costs and uncertainties. TOD-related costs include the myriad community benefits that are necessary to secure community support, but can make a project cumbersome, difficult to entitle, and less financially feasible. TOD-related uncertainties are caused by the heavy involvement of the public sector in most TOD, and the risk that this entails. For instance, schedule changes and the allocation of costs between public and private players often fluctuate widely for TOD projects. Also, pencil-out projections sometimes did not account for reduced building efficiencies due to the features of projects located near transit and in pedestrian-oriented neighborhoods.

They didn't know what they were getting into. To get one grant [needed to keep paying staff], they had to add a clinic. To get another grant, [the developer] had to add a bike facility. It was a creative but complicated way of keeping the project alive. —PUBLIC OFFICIAL



As the first new project in the area, we had to build the grocery and park and [make it a safe] space because the community planned it, but didn't fund it. We knew that going in, but we didn't know how difficult it would be.

—AFFORDABLE HOUSING DEVELOPER

We found that projects often stalled due to “unexpected” cost burdens related to items that are quite common to high-quality TOD projects. Some sponsors did not anticipate that they would be required to use union labor for many aspects of construction while others did not anticipate that they would need to incorporate green components to be eligible

for certain government funds. All of these “unexpected” burdens are, in fact, quite common for TOD projects, and additional due diligence on the part of project stakeholders could have helped them avoid many of the surprises that forced them to redesign parts of the project, request new permits, identify and win new grant funding, or renegotiate loan terms midstream.

In many instances, inadequate feasibility analyses could be attributed to the lack of sophistication of project sponsors. For example, developers may not have had prior experience working on mixed-use projects or had not dedicated enough of their budgets to contingency in locations where projects would be under significant scrutiny by regulators and subject to numerous design changes. In other instances, experience could not help developers predict that changing market conditions would lead to additional project burdens. For instance, when public infrastructure funds fell through after tax receipts declined, an affordable housing project in the Denver Design District had to fund a city’s major infrastructure project in order to save the project.

**We couldn’t make it work because of costs, but the city councilor kept calling and begging us to keep going because the project could help provide the basic services and infrastructure that the community lacked—[which was] precisely the problem when you add all those costs to the pro forma. —NON-PROFIT DEVELOPER**





## LESSON 4:

# Infrastructure investment is critical to TOD

The infrastructure necessary for successful TOD includes the basic utility and transportation infrastructure required to support vertical development, as well as all the major place-making elements in a station area (plazas, parks, bike and pedestrian connections, etc.), and the social infrastructure (daycare facilities, schools, performing arts venues) to make a community a desirable location.

Yet, transit-oriented environments are not created overnight. They are typically the result of many phases of infrastructure investment. While adequate infrastructure is clearly a prerequisite for development, we found that typical TOD district development did not involve a major overhaul of the area's primary infrastructure at the outset. Rather, infrastructure improvements occurred regularly throughout the maturation of a TOD district.

We found that infrastructure investment could rarely be entirely funded by the value captured through real estate development (for example, through development exactions or impact fees). Instead, the public sector had to fund some of the area's infrastructure to alleviate the cost burden from prospective developments. In successful cases, modest infrastructure investments occurred prior to real estate development, often without funding from anticipatory sources such as tax increment financing (TIF). We learned from our project-level cases that these early investments sometimes acted as "good faith" gestures on the part of the public sector, demonstrating a commitment to the vision for an entire station area. Developers responded to these investments with investments of their own.

Creative public-private infrastructure funding is often key. In several of our case studies, such as The Denver Design District and Quincy, the private sector financed and built infrastructure first, and either sold it to the public sector, or granted it to the public for continued operation and maintenance. Self-assessment districts were another tool used successfully by groups of private landowners to fund offsite investments in place-making, parks, and other features that made private properties more valuable. In NoHo, Pearl, and White Flint, the bonding capacity of local governments was used to fund improvements at lower borrowing costs than those available to private development entities.



## LESSON 5:

# The key role of market-rate development is often overlooked

Achieving the goals of equitable TOD often depends on the success of market-rate housing development. For example, tax increment financing (TIF) generated by new market-rate development commonly funds both affordable housing subsidies and infrastructure. Likewise, assessment district funds are generated predominantly by market-rate developments, and district expenditure items often provide substantial benefits to affordable projects.

In other cases we studied, affordable housing relied on inclusionary zoning, which requires that a certain percentage of total housing units be made affordable to low-income residents. If a larger share of housing is made affordable, inclusionary zoning is often supplemented with density bonuses that allow for more total development. Therefore, as with the TIF and special assessment models, the provision of affordable housing through inclusionary zoning relies on the development of market-rate housing, which in turn relies a strong real estate market.





## LESSON 6:

# Early planning for TOD inflates land costs long before construction begins

The announcement of a new transit investment can lead to land speculation. This rise in value may be justifiable based on market dynamics, but in other instances, land speculation is based on expectations that far exceed what markets can practically support.

Because TOD planning is so often formulaic and based on templates, land use plans may describe visions that do not match market conditions. Unsophisticated landowners may hold onto land in spite of reasonable purchase offers because they expect impending development will increase their value. Then, unrealistic prices can lead to frozen land markets, an inability to accumulate lots necessary for development, and stalled TOD investment.

A few speculative holdouts can threaten the development potential on other parcels in a station area owned by realistic developers. Because the costs of infrastructure and amenities are often spread among multiple developments in an area, undeveloped parcels shift and concentrate the cost burden of those improvements to first movers. Sponsors who wish to proceed with development must either pick up the tab for others, or risk building a product that lacks some desired infrastructure and amenities.

Even if high land prices are justified by market demand, higher prices carry risks. Higher land costs may reduce the project's profitability, which, for TOD with equitable goals, is already more circumscribed than for a standard development project. And if a major project runs into trouble, a smaller number of firms may be willing to step in to complete the expensive project.

Projects on sites with high land value require larger or higher-end developments to cover their cost, both of which increase absorption risk. Larger projects must absorb a larger share of overall market demand, while higher-end product reduces the size of the market that can buy or lease it. Finally, there is less potential to reposition a higher-end product as rental, for instance, rather than for-sale.



## LESSON 7:

# Gap funding is often necessary to solve common TOD roadblocks

Many of our conversations with TOD project stakeholders included a discussion of the numerous funding sources that projects had to rely upon to fill the funding gaps that arose during their predevelopment processes. The speed and creativity with which additional gap funds were identified saved many projects.

Gap funding in our case study projects typically came as subsidy from a local government, a local redevelopment authority, or a philanthropic institution. In some cases, like Fruitvale Transit Village, gap funding was even dedicated via earmark by the Federal Government. Gap funding was also sometimes generated by local property owners themselves. The Quincy project is an extreme example, where the developer established the district, managed its funding, and benefited from the expenditures.

Self-assessment districts, benefit assessment districts, and other hyper-local funding sources were often called upon to fund specific project components that were within the mission of local organizations. For instance, the cost of storm water facilities included in the Denver Design District development project was assumed by a local district just to save the project. In some instances, like Fruitvale, Market Creek, MacArthur Park, and San Leandro, gaps were filled by identifying a public or mission-driven use of space in a project either to generate lease revenue by mission-driven tenants or to obtain grants and subsidies through the inclusion of a particular use.

## B READINESS FACTORS

We identified a number of factors that could signal whether a site or project was “ripe” for development as well as factors that can inhibit equitable TOD.

The following set of conditions, which we call “readiness factors,” correlates with projects that moved smoothly through the predevelopment process; conversely, those projects without the following factors tended to stall.



### PROJECTS AND SITES RIPE FOR DEVELOPMENT FEATURE THE FOLLOWING:


•	There is strong market demand for the specific uses proposed in the project.
•	The development team includes a member highly experienced in TOD.
•	The project is advocated by a political champion.
•	Support for the project by proponents of neighborhood redevelopment outweighs not-in-my-backyard (NIMBY) opposition.
•	There is potential for additional site assembly surrounding the property.
•	Funding sources exist to support brownfield cleanup efforts, should they arise.
•	Districts have been formed that provide hyper-local governance, and generate a funding source for both infrastructure and direct project subsidies.
•	The project is located in an area designated as a redevelopment zone, where projects are eligible for redevelopment funding.
•	The local entitlement process is predictable. While it may remain very difficult to obtain entitlements, the steps to obtain permits are clear.
•	A public input process is in place, or is planned for the development.
•	City staff in all key agencies (parks, transportation, public works, economic development) exhibit an understanding of TOD, and real estate development in general.

## C “UNEXPECTED” COSTS AND HURDLES EQUITABLE TOD SPONSORS SHOULD EXPECT

TOD project sponsors routinely face costs they have failed to predict, as we describe in Lesson 3. Those cost burdens can cause projects to stall or fail.

Offsite concerns, generated by features adjacent to or even far from the project site, may become the development’s responsibility during the predevelopment process. In many instances, constituents suggest that the project include extras during the project’s entitlement process or when projects sought grant funding or loans. Even if the developer successfully argues against including these offsite items in their project’s program, that discussion in itself is time consuming, and often requires the retention of costly advisors. If the developer agrees to the item, the additional project cost could also stall the process while the developer is forced to seek out new sources of funding.

### COMMON OFFSITE EXPENSES

	Provide <b>retail uses</b> , if food, goods, and other services are not available in convenient proximity.	Provide or help fund district-based <b>green infrastructure</b> (water recycling, district heating, etc.)	
	Fund <b>place-making amenities</b> in the vicinity (street trees, pocket parks, etc.)	Construct basic <b>utilities</b> and potentially contribute to utility improvements in the project vicinity (sewer, water, electric, etc.)	
	Fund and even construct <b>public access facilities</b> (local roads, off ramps, bike lanes, etc.) Projects may be expected to provide green access facilities (paths connecting project to green space, shuttles, etc.)	Incorporate or fund <b>social infrastructure</b> (schools, sports facilities, community centers, libraries, etc.)	
	Provide shared <b>parking infrastructure</b> (vehicle, bicycle, and other parking)	Supplement existing <b>emergency services</b> through impact fees (police and fire staff or facilities)	
	Contribute to <b>local entertainment</b> facilities (hotels, event space, entertainment venues, etc.)	Provide <b>programming</b> for public spaces (community events, parades, etc.)	
	Relocate power lines and other unsightly <b>infrastructure</b> elements underground.	Remediate existing <b>large block sizes</b> in the immediate area (provide streets, walkways, or paseos to break down size of blocks)	



## COMMON ONSITE PROJECT ROADBLOCKS

TOD projects commonly faced delays during the predevelopment process. Traits that tended to cause delayed project schedules included:



The provision of **affordable housing**, a complex undertaking, led to project delays. In many urban transit station locations, TOD projects could not proceed through entitlements or receive public financial support if they did not include at least some affordable housing units. Additionally, political interests were more involved in projects with affordable housing so project sponsors were more likely to receive political support during predevelopment. The complexity of delivering affordable housing was determined in each project by a number of compounding factors, including:

The greater the percentage of affordable units among all units in the building, the more complex financing and design became.

The lower the target was for the percentage of area median income of residents, the more complex financing became.

The inclusion of large residential units required additional funding, complicated designs, and often indicated the need for additional family services.

The inclusion of supportive services required design modifications, additional funding sources for both capital and operating expenses, and limited the pool of qualified property managers.



Projects that did not guarantee **jobs to local workers**, hire unionized trades people, or provide on-the-job training were likely to face obstacles during entitlements and were less likely to be eligible for public funding sources.



Projects that were required to protect, preserve, or restore **natural features** (e.g., wetlands, riparian corridors, watersheds, steep slopes, prairies, etc.) were more likely to stumble during predevelopment.



Projects that did not include **sustainability features** (green roofs, onsite power generation, TDM program for tenants, etc.) were more likely to stall.



Projects in close proximity to stations that did not include **transit-related infrastructure** (for example, bus turn-around facilities) as well as bike and pedestrian amenities for transit patrons (for example, bike lanes and illuminated cross walk signage) were likely to be revised during predevelopment.



Projects that did not include **state-of-the-art street designs** were likely to face roadblocks. Desirable street design included:

- a gridded street pattern;
- blocks that were small or medium sized (or provided walkways or paseos to break down the size of larger blocks);
- continuing existing street patterns through the project;
- place making elements—with a focus on pedestrians—in all public spaces.



Commercial projects that did not **cater to particular types of tenants** often faced entitlement difficulties. For example, projects had to incorporate strategies that addressed locally owned businesses in the leasing plan. Also, projects that were required to include commercial space but were found to be in locations that were unattractive to lessees faced financial obstacles.



Project programs that did not reflect the latest **smart growth best practices** were more likely to experience delays. Smart growth features included:

- A mix of land uses within the same project (i.e., “Mixed use”).
- Active uses on the ground floor, particularly ground floor retail.
- A high percentage of “usable” open space for gathering and recreation as compared to uninhabitable open areas such as parking planters and traffic islands.
- Enhancement and expansion of community spaces such as plazas, squares, parks, etc.
- Parking placed in above- or below-grade structures.
- Structures located at minimum setback lines with continuous façade along street frontages.



Projects that did not incorporate **high-caliber, contextual architectural design** elements were less likely to be entitled. Desirable design elements included:

- Project incorporated existing structures.
- Style was reflective of the local context.
- Building materials reflected local resources.
- Facades were broken down to reduce overall massing.
- Height and bulk were compatible with existing neighborhood.
- Project addressed nearby natural features.



## OTHER COMPLICATING FACTORS

Finally, the research identified a number of other factors that fundamentally complicated predevelopment and increased the likelihood that a project would stall. These included the following items:

- Projects that included **land or assets that were under public ownership** were more complex to execute than those that were completely privately held. The inclusion of a public entity as a co-owner meant different parties were at the table throughout the process and that land transactions, project designs, and even some of the most basic changes to the project required additional approvals by the public entity.
- Projects that were required to **retain or replace features preexisting on the site** were more complex than projects that started with blank slates. For instance, projects that were required to replace transit agency parking stalls that had existed on the site were more difficult to design, finance, and build. Often, these features did not have a revenue stream and their inclusion in the new project added considerable expenses. Also, they sometimes required costly design features to allow for separate access. In all cases, they added an additional stakeholder at the table whose interests needed to be heeded. A classic example of this is the retention of a historical structure or historical façade that did not contribute to the economics of the project.
- Projects that were required to **set aside a portion of the property for open space or other uses** were often faced with more complex design processes, limits on revenue generating space, the cost of improving and/or programming the space, and the operational costs of ensuring the cleanliness, usefulness and security of the set-aside space. As an example, green infrastructure such as storm water management swales and other bioretention elements are increasingly required and can consume considerable buildable area and complicate the physical design of structures. Public plazas, green spaces, and even solar arrays all add considerable complexity and cost to a project.
- Projects located in settings with **unusual or suboptimal physical features** are more likely to face predevelopment issues. In addition to site issues common to any development—slope, water table depth, substrate type, soil contamination—TOD projects may also face physical impediments like transit station portals, subway ventilation shafts, station boxes, as well as the vibration and noise impacts of passing trains. Projects that were saddled with high land costs were required to achieve a certain scale, cater to a higher-end market, or seek grants and gap funding to succeed. Projects with high land costs faced risks that could be avoided by smaller, more nimble projects that become feasible when the land cost is lower.



## Recommendations:

Toward successful, equitable TOD

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### STRATEGIES FOR “UPSTREAM” PROCESS IMPROVEMENTS



#### RECOMMENDATION

**Incorporate market assessments into all planning activities early**

Real estate investors frequently blame their project’s predevelopment difficulties on a transit agency’s decade-old planning decision. For most TOD projects, transit agencies and many other upstream actors have, indeed, made decisions long before, without adequately considering the market realities “downstream.”

We believe that by incorporating aspects of real estate development feasibility evaluations into their decision-making processes, these upstream actors can better align their decisions with the needs of equitable TOD sponsors to come. This type of informed early decision-making would certainly have helped prevent or alleviate many of the problems encountered by the case study projects we investigated.

In Figure 5, we suggest steps that the various public sector actors could take to help incorporate equitable TOD thinking early, and to help promote more successful TOD outcomes in their regions.



**FIGURE 5****Incorporating steps for market assessment into early TOD planning decisions**

MILESTONE	STEPS	NOTES
Regional Planning	<ul style="list-style-type: none"> <li>Identify Priority Development Areas (PDA's) where locals are expected to direct infrastructure investments and other efforts that support development</li> <li>Direct infrastructure funding to support identified PDA's</li> <li>Upgrade major trunks of transportation systems</li> </ul>	<ul style="list-style-type: none"> <li>Incorporate real estate analytics to establish realistic future development demand in each PDA</li> <li>Target % of funding to locations where matching private investment is likely to be leveraged</li> </ul>
Transit Route/ Station Selection	<ul style="list-style-type: none"> <li>Identify preferred route, mode of transit and stations based primarily on transportation demand models</li> </ul>	<ul style="list-style-type: none"> <li>Prioritize route and station alternatives that assure long-term ridership from economically feasible development</li> <li>Evaluate alternatives that enhance corridor-wide opportunities to produce more equitable community benefits</li> </ul>
Transit Station Planning	<ul style="list-style-type: none"> <li>Determine platform locations, auto and pedestrian access, road circulation, and future location(s)/quantity of auto parking</li> </ul>	<ul style="list-style-type: none"> <li>Maintain flexibility in station standards to address specific development parcels, pedestrian connections and/or public places that are proximate to the station platform.</li> </ul>
Transit Delivery	<ul style="list-style-type: none"> <li>Make specific spending and design decisions on transit guideway, road and bike access, construction management and station layout/design</li> </ul>	<ul style="list-style-type: none"> <li>Use the transit construction process for strategic land takings to improve local road network, eliminate blight or make critical land available for future re-use.</li> </ul>
Land Use Planning	<ul style="list-style-type: none"> <li>Establish preferred land uses, allowable densities, heights, building forms, open space locations, and required infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Incorporate market demand, absorption and phasing considerations into physical land use plans</li> <li>Target planning efforts to station areas where development is likely to be economically feasible</li> </ul>
District Planning/ Infrastructure Investments	<ul style="list-style-type: none"> <li>Establish city and property owner sponsored district that to implement station area plan, focused on infrastructure and improvements to the public realm. Evaluate district formation in setting station planning goals, desired community benefits and level of required infrastructure</li> </ul>	



## RECOMMENDATION

# Use a Transit Corridor Approach

The literature on TOD has long called for the incorporation of market perspectives in transit planning and TOD policies often require market perspectives to be a consideration in land use planning processes. However, our conversations with local and regional TOD policy experts indicated the track record of incorporating market perspectives was mixed.

In fact, it was not clear to many TOD experts how future development metrics and private investment interests might be brought to bear on planning decisions many years before transit service would be provided. Most developers have a tolerance to make investment decisions within a 3-5 year time horizon; most critical decisions regarding station locations and local access are set 7 to 10+ years before transit service comes on line.

We proposed a technique and piloted our method recently, in Minneapolis, Minnesota. We were asked by the Southwest LRT Community Works, a coalition of stakeholders including Metropolitan Transit Agency (Metro Transit), Hennepin County, six local jurisdictions, employers, property owners, housing advocates, the Minnehaha Watershed District, and ULI Minnesota, to provide results of real estate feasibility analyses at a relatively early stage of the transit planning process.

Prior to Metro Transit embarking on preliminary engineering, the Southwest Transit Alliance brought in the Urban Land Institute and our team, along with a panel of local and national developers, for a three day workshop to evaluate the potential equitable TOD opportunities for five designated stations. We prepared a handbook and hosted a Transit Corridor Workshop to focus specifically on the upstream transit planning process for Minneapolis' proposed Southwest Corridor. To help stakeholders along the proposed corridor to understand the development potential at several proposed stations, we conducted a market analysis, toured prospective station areas, and interviewed transit planners, economic development officials, land use planners, and other stakeholders.

We then identified strengths and weaknesses of the proposed transit station locations, pinpointed key development opportunities, and recommended critical infrastructure

enhancements and options for policy intervention to promote development. All of the findings were incorporated into a handbook that helped frame the discussion that occurred at the workshop.

As a result of our work, and based on the panel's SW Corridor market and development evaluation, the communities and transit agency are seeking to relocate the transit alignment to serve an existing regional mall; and considering additional land acquisition for joint-development opportunities in certain stations. For further information, see [www.swlrtcmmuutyworks.org](http://www.swlrtcmmuutyworks.org).

While transit is planned over the course of decades, developers seek to invest in land two to five years prior to delivering a product. In Minneapolis our analysis and community engagement process brought a development perspective into the transit planning process early, with very encouraging results.



## RECOMMENDATION

# Formulate a TOD Planning Checklist

In 2009, we proposed a new concept for contemporary TOD: TOD 3.0. Our publication, “Aligning Transit and Real Estate: An Integrated Financial Strategy,” funded by Living Cities, proposed that equitable TOD today requires a more integrated policy and financing approach to succeed.<sup>5</sup>

Based on the evidence from our case study analyses, there is a growing demand for a comprehensive TOD-focused tool that can help inform decision-making for all stakeholders throughout the TOD 3.0 planning process. The tool, like a Swiss Army knife, could have tailored sections—with one tool for land use planners, and another for transit station designers—to address the distinct perspectives and roles of various TOD stakeholders.

While there is no single formula or process for successful equitable TOD implementation, we believe successful projects can be produced if “upstream” decisions are made with “downstream” real estate development feasibility in mind.

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<sup>5</sup> Fleissig, William and Ian Carlton; “*The Investment/Finance Perspective*” in “*Fostering Equitable and Sustainable Transit-Oriented Development*”; Living Cities; February 2009

B

## STRATEGIES FOR “DOWNSTREAM” PROCESS IMPROVEMENTS

The very goals inherent in equitable TOD make its development cumbersome. Livability and accessibility goals—whether mission-essential for project sponsors, or mandated for the project by policy—often cause a project to stall, as we have seen, until gap funding can be found or market demand increases.

New development is expected to deliver “livability benefits” like new locally-owned retail outlets, enhanced public realms, new public services, sustainable energy production facilities, and other features desired by communities. Additionally, as equitable access to newly-developed livable communities has become a policy priority, preserving existing affordable housing and providing new affordable housing have become common expectations for most TOD development.

Balancing TOD project feasibility with ambitious project goals is a major challenge. As we have described, our research on equitable TOD projects showed that typical predevelopment evaluations inadequately predicted actual costs and timeframes for projects in light of common challenges. These predevelopment evaluation practices, which evolved in the context of greenfield, auto-oriented development, must be reformulated if we are to complete more equitable TOD projects successfully.

We propose the following strategies to better inform investors and communities interested in equitable TOD projects.



## RECOMMENDATION

### Consider “market-readiness” during equitable TOD site selection

To accomplish successful TOD today, sponsors should focus their site selection choices on station areas and development sites where the goals of equitable TOD can most likely be achieved without becoming embattled during the predevelopment stage.

Our case studies suggested that the obstacles TOD projects face could almost always have been identified early in the predevelopment process if a thorough, and financially-oriented, development feasibility evaluation had been undertaken by project stakeholders.

Most categories of real estate development have very clear feasibility criteria that have been perfected over many projects, in many markets. These criteria enable sponsors and lenders to measure the level of risk, and thus decide whether to pursue a project in a particular location valued at a specific price.

TOD lacks a similar set of criteria for assessing potential project risk. There also isn't a tool for evaluating whether the equitable mission goals for TOD can be realistically achieved with a given amount of money. We believe that this process—a series of steps that include evaluations leading to “go” or “no-go” decisions by real estate investors—is vitally important for project stakeholders in equitable TOD.

Site selection and development feasibility are the bread and butter of the real estate profession. However, the basic diagnostic steps need to be updated to address unique equitable TOD considerations. A readiness evaluation tool would allow project sponsors to assess project feasibility more accurately in today's development environment.



## RECOMMENDATION

# Formulate a Site Evaluation Checklist for potential equitable sites and projects

Any state-of-the-art, equitable TOD project faces myriad potential pitfalls during predevelopment. Current project assessment tools are primarily based on policy desires, land use plans, and zoning standards, but do not incorporate critical components of equitable TOD development – land assemblage, infrastructure costs, livability benefits, and unpredictable project scheduling.

To help expand the scope of factors considered during predevelopment, therefore, we propose developing a TOD Site Evaluation Checklist (see Table 2) for stakeholders to use in evaluating the feasibility of a site or proposed equitable TOD project.

Using our knowledge of common TOD roadblocks, such a checklist would allow stakeholders more accurately to anticipate required community and physical amenities, infrastructure and project funding requirements, and extended timeframes.

**TABLE 2**  
**Example TOD Site Evaluation Checklist**

<p><b>A STANDARD FEASIBILITY ANALYSES</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Sales/Lease demand evaluation</li> <li><input type="checkbox"/> Market supply and pipeline evaluation</li> <li><input type="checkbox"/> Project cost evaluation</li> <li><input type="checkbox"/> Equity and debt evaluation</li> <li><input type="checkbox"/> Political evaluation</li> <li><input type="checkbox"/> Cash flow analysis</li> <li><input type="checkbox"/> Investor return evaluation</li> </ul>	<p><b>D OFFSITE FACTORS</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Blocks</li> <li><input type="checkbox"/> Street Network</li> <li><input type="checkbox"/> Pedestrian and bike connections</li> <li><input type="checkbox"/> Green access</li> <li><input type="checkbox"/> Entertainment</li> <li><input type="checkbox"/> Emergency services</li> <li><input type="checkbox"/> Unsightly uses and derelict buildings</li> <li><input type="checkbox"/> Retail</li> <li><input type="checkbox"/> Place making</li> <li><input type="checkbox"/> Auto access</li> <li><input type="checkbox"/> Parking</li> <li><input type="checkbox"/> Social</li> <li><input type="checkbox"/> Programming</li> </ul>
<p><b>B READINESS FACTORS</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Demand</li> <li><input type="checkbox"/> Champions</li> <li><input type="checkbox"/> Assembly</li> <li><input type="checkbox"/> Districts</li> <li><input type="checkbox"/> Entitlements</li> <li><input type="checkbox"/> Staff capacity</li> <li><input type="checkbox"/> Experience</li> <li><input type="checkbox"/> YIMBY</li> <li><input type="checkbox"/> Brownfields</li> <li><input type="checkbox"/> Redevelopment</li> <li><input type="checkbox"/> Public input</li> </ul>	<p><b>E ONSITE FACTORS</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Affordable housing</li> <li><input type="checkbox"/> Jobs</li> <li><input type="checkbox"/> Pre-existing features</li> <li><input type="checkbox"/> Sustainability</li> <li><input type="checkbox"/> Transit infrastructure</li> <li><input type="checkbox"/> Complete streets</li> <li><input type="checkbox"/> Tenants</li> <li><input type="checkbox"/> Smart growth practices</li> <li><input type="checkbox"/> State-of-the-art architecture</li> <li><input type="checkbox"/> Social services and training space</li> <li><input type="checkbox"/> Education and recreation space</li> </ul>
<p><b>C OTHER COMPLICATING FACTORS</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Public ownership</li> <li><input type="checkbox"/> Retain or replace features</li> <li><input type="checkbox"/> Space set-asides</li> <li><input type="checkbox"/> Safety and security</li> <li><input type="checkbox"/> Physical site features</li> </ul>	





**RECOMMENDATION**

**Develop a TOD Investment Scorecard**

A TOD Investment Scorecard based on the informed site evaluation process described in the previous recommendations would allow investors to compare the feasibility of potential sites and proposed equitable TOD projects. A TOD feasibility score could then be used to help stakeholders assess site potential, and develop appropriate short- and long-term strategies to better position sites for future development.

**TABLE 3**

Example TOD Investment Scorecard could produce a site feasibility score.

TOD SITE	FINANCIAL FACTORS	READINESS FACTORS	OFFSITE FACTORS	ONSITE FACTORS	OTHER COMPLICATING FACTORS	TOD SCORE	EXPECTED OUTCOME
Site 1	Lighter	Lighter	Darker	Lighter	Lighter	57	Project will require assistance
Site 2	Darker	Darker	Lighter	Lighter	Darker	39	Site is inadequate
Site 3	Lighter	Lighter	Lighter	Lighter	Lighter	82	TOD is likely to succeed



Lighter colored boxes indicate that fewer potential hurdles were identified and darker boxes indicate that major obstacles were identified. Note: A lighter score for readiness factors indicates a greater number of positive indicators. (See Appendix B for more detail)

## CONCLUSION

If more market-based thinking were part of every upstream planning process, then project sponsors could consider a potential site knowing that a project's financial capacity could support its required livability benefits. Similarly, by the time developers and investors conducted feasibility evaluations of a site downstream — informed by the type of site evaluation checklist described on pages 31–32 — equitable TOD would be a more viable proposition.

As long as current procedures persist, we contend that equitable TOD projects will remain so complicated to finance and develop that few projects envisioned in regional plans will be realized. When they are developed, they will continue to demand enormous public subsidies and precarious funding structures — and often fail to achieve the desired community benefits. Few savvy developers will choose to embark on equitable TOD, thus reducing the number of entities capable or willing to take on these financially risky and time-consuming efforts.

By rigorously matching specific equitable goals to each development site and station location, we can deliver more equitable community benefits to a broader mix of citizens. We believe the methods we describe will help decision makers and developers to consider equitable TOD factors at each planning and investment milestone in the TOD development process.

IV

## Appendix A: Research Approach

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For this project, which investigated predominantly how and why questions, we utilized a case study approach. Although the panel of cases was not intended to be fully representative, and no individual case provided a model for equitable TOD, together they helped provide an understanding of predevelopment success factors, including the potential (a) dependency, (b) necessity, (c) sufficiency, and (d) hierarchy of various predevelopment factors. The cases demonstrated a variety of strategies and paths of development. Historical narratives of each case can be found online at [www.LivingCities.org](http://www.LivingCities.org).

### **Extended and condensed case study write-ups**

As part of the analysis, we developed extensive historical narratives of the case studies. In order to draw key lessons, we then created the condensed historical narratives.

### **Case study summary matrices**

To aid in our analysis, we developed numerous matrices that allowed us to compare and contrast information about the various case studies. Table 4 was developed to be a directionally accurate appraisal of the presence or absence of particular features in each case. At one point in our process, we suspected that the features listed in the table were critical predevelopment success factors. Through the development of the table, we came to realize that many of the factors we suspected were critical might not have been necessary considerations for successful equitable TOD implementation. The last column in the chart indicates our thoughts on critical factors after the completion of the case study research.

To read the case studies, visit [www.LivingCities.org](http://www.LivingCities.org).

**TABLE 4**

Example matrix that aided in identifying critical predevelopment success factors based on TOD district case studies.

POTENTIAL PREDEVELOPMENT SUCCESS FACTORS	PEARL DISTRICT	THE ROUND	MARKET CREEK	FRUITVALE	ROSSLYN-BALLSTON	NORTH H'WOOD	WHITE FLINT	NOMA	WAS THE FACTOR CRITICAL ACROSS THE CASES
Strong Market	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Probably
Development Expertise	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Maybe
Determined Sponsor	Indicates a Notable Absence	Indicates Presence	Indicates Presence	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Maybe
Redevelopment and Urban Renewal Funds	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Maybe
Site Suitability and Proximity to Transit	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Probably
Community Engagement	Indicates a Notable Absence	Indicates Presence	Indicates Presence	Indicates Presence	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Maybe
Community Mission	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	No
Creation of "Place"	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Maybe
Incentive Zoning	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	No
Anchor Tenants	Indicates a Notable Absence	Indicates Presence	Indicates Presence	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Maybe
Predictable Entitlement Process	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Indicates a Notable Absence	Indicates Presence	Indicates a Notable Absence	Maybe
Transit Agency Participation	Indicates a Notable Absence	Indicates Presence	Indicates a Notable Absence	Indicates Presence	Indicates Presence	Indicates Presence	Indicates a Notable Absence	Indicates Presence	Maybe
Public Infrastructure	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Indicates Presence	Indicates a Notable Absence	Indicates Presence	Indicates Presence	Probably
Progressive Parking Standards	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates Presence	Indicates a Notable Absence	Indicates a Notable Absence	Indicates a Notable Absence	No

Indicates Presence      Indicates a Notable Absence



# Appendix B: Developing a TOD Investment Scorecard

To develop the basis for a TOD Investment Scorecard, we evaluated each case study for a range of financial factors, readiness factors, and cost factors to discover how they correlated with project success. Indeed, the typically unrecognized equitable TOD considerations we identified in analyzing our case studies did correlate with each project’s course through predevelopment.

As Table 5 suggests, a TOD investment scorecard would allow developers to compare the relative feasibility of different potential projects and sites. If a site exhibited more readiness factors, it would likely fare better through predevelopment. If a developer or other equitable TOD project sponsor identified significant offsite and onsite costs and complicating factors, that site or project could be expected to face delays, financing challenges, and other complications during predevelopment.

**TABLE 5**  
Retrospective evaluation of the five project-level case studies.

CASE STUDY	FINANCIAL FACTORS	READINESS FACTORS	OFFSITE FACTORS	ONSITE FACTORS	OTHER COMPLICATING FACTORS	TOD SCORE	EXPECTED OUTCOME	ACTUAL PERFORMANCE
Adams & Central, Los Angeles, CA	Light	Light	Dark	Dark	Light	73	Modest Stall	Modest Stall
Quincy Center, Quincy, MA	Light	Light	Dark	Dark	Dark	69	Moderate Stall	Prolonged Stall
MacArthur Park Apartments, Los Angeles, CA	Dark	Light	Light	Dark	Dark	66	Moderate Stall	Moderate Stall
Denver Design District, Denver, CO	Light	Light	Dark	Dark	Dark	44	Prolonged Stall	Prolonged Stall
The Crossings, San Leandro, CA	Dark	Light	Dark	Dark	Dark	42	Prolonged Stall	Prolonged Stall
Fruitvale Village, Oakland, CA	Dark	Light	Dark	Dark	Dark	33	Prolonged Stall	Prolonged Stall
Market Creek, San Diego, CA	Dark	Dark	Dark	Dark	Dark	19	Prolonged Stall	Prolonged Stall

Lighter colored boxes indicate that fewer potential hurdles were identified and darker boxes indicate that major obstacles were identified.

# Appendix C:

## Glossary of Key Terms

**A Absorption** — The rate at which available real estate is sold or leased in a specific real estate market during a given time period. It is calculated by dividing the total quantity of available real estate (e.g. # of homes, square feet of commercial space, etc.) by the average number of sales or leases per month. The figure shows how many months it will take to exhaust the supply of real estate on the market.

**Affordable Housing** — For families or individuals who earn less than 120% of the Area Median Income (AMI), housing where the occupants pay no more than 30 percent of their annual income on total housing expenses.

**Apartment Conversion** — The change of use of a building either to or from rental apartments. Examples include the conversion of an office building to apartments or the conversion of an apartment building to condominiums.

**Area Median Income (AMI)** — Midpoint in the family-income range for a metropolitan statistical area or for the non-metro parts of a state. The figure often is used as a basis to stratify incomes into low, moderate and upper ranges.

**B Bioretention** — A process by which storm water runoff is retained in a shallow planted depression (often called a “bioretention basin” or “rain garden”) before it is infiltrated into the ground or discharged downstream. The purpose of bioretention is to filter pollutants and sedimentation from storm water, reducing the contamination of watersheds.

**Bonding Capacity** — The amount of public debt (i.e. bonds) that a government can secure for the purpose of financing the infrastructure needs of the issuing municipality. Bonding capacity is based on the amount of cash, liquid or readily liquidated assets, revenues, track record, and credit quality of the municipality.

**Borrowing Cost** — The total charge for taking on a debt obligation that can involve interest payments and other financing fees.

**Brownfield** — A former industrial or commercial site where future use is affected by real or perceived environmental contamination.

**Building Efficiency** — A measure of the proportion of a building that is rentable area, which excludes shared and mechanical areas such as those occupied by elevators,

equipment, hallways, lobby, restrooms, etc. Formula:  $\text{rentable area} \div \text{total floor area} \times 100$ .

**Business Improvement District (BID)** — A defined area within which businesses pay an additional tax or fee in order to fund improvements within the district’s boundaries. Grant funds acquired by the city for special programs and/or incentives such as tax abatements can be made available to assist businesses or to recruit new business. BIDs provide services such as street cleaning, security, capital improvements, construction of pedestrian and streetscape enhancements, and marketing the area. The services provided by BIDs are supplemental to those already provided by the municipality.

**C Community Benefits** — Amenities and/or mitigations provided to a local community by a developer. Community benefits are often negotiated between a developer and the community and can be formalized in a Community Benefits Agreement (CBA). In exchange for the agreed-upon benefits, community groups may agree to publicly support a project, or at least not oppose it.

**Contingency** — A clause in a purchase contract outlining conditions that must be fulfilled before the contract is executed. Both buyer or seller may include contingencies in a contract, but both parties must accept the contingency.

**D Debt** — An amount of money borrowed by one party from another. A debt arrangement gives the borrowing party permission to borrow money under the condition that it is to be paid back at a later date, usually with interest.

**Debt Service Coverage Ratio (DSCR)** — The ratio of cash available for debt servicing to interest, principal and lease payments. It is a popular benchmark used in the measurement of an entity’s ability to produce enough cash to cover its debt payments. The ratio is used in commercial banking and may be expressed as a minimum ratio that is acceptable to a lender. The higher this ratio is, the easier it is to obtain a loan.

**Development** — See real estate development

**Development Exaction** — A concept in real property law where a condition for development is imposed on a parcel of land that requires the developer to mitigate anticipated negative impacts of the development. Exactions are similar to

impact fees, which are direct payments to local governments instead of conditions on development.

**“But For” Test** — When considering an area that will involve additional property taxes to be used for public amenities or other infrastructure assistance in a specific district (typically using Tax Increment Financing designation), municipal officials must ask the question “will the same kind of private investment occur here without an incentive?” In order to designate that area as a taxing district, the answer to this question must be “No.” “But for” the incentive provided by the financial incentives collected from the district, development would not occur in the designated area.”

**Development-Oriented Transit** — Refers to the notion that transit can be designed with future development in mind. Successful development-oriented transit must be designed based on adequate real estate development assessments.

**Downstream** — Pertaining to the latter part of a process or system.

**Due Diligence** — An investigation or audit of a potential investment. Due diligence serves to confirm all material facts in regards to a sale.

**Economic Development** — Generally refers to the sustained, concerted actions of policymakers and communities that promote the standard of living and economic health of a specific area. Such actions can involve development of human capital, critical infrastructure, regional competitiveness, environmental sustainability, social inclusion, health, safety, literacy, and other initiatives.

**E Entitlements** — The rights obtained through government approvals required to construct an improvement to land.

**Environmental Remediation (Environmental Cleanup)** — The removal of pollution or contaminants from environmental media such as soil, groundwater, sediment, or surface water for the general protection of human health and the environment or from a brownfield site intended for redevelopment. Remediation is generally subject to an array of regulatory requirements, and also can be based on assessments of human health and ecological risks where no legislated standards exist or where standards are advisory.

**Equitable TOD** — Transit-oriented development that prioritizes social equity as a key component of implementation. It aims to ensure that all people along a transit corridor, including those who are low income, have the opportunity to reap the benefits of easy access to employment opportunities offering living wages, health clinics, fresh food markets, human services, schools and childcare centers. By developing or preserving affordable housing and encouraging locating jobs near transit, Equitable TOD can minimize the burden of housing and transportation costs for low income residents and generate healthier residents, vibrant neighborhoods and strong regional economies.

**Equity** — An owner’s financial interest in a property; calculated by subtracting the amount still owed on the mortgage from the fair market value of the property.

**F Feasibility Study** — An evaluation of the potential of a proposed project that is based on extensive research, in order to give full comfort to project sponsors. Feasibility studies aim to objectively and rationally uncover the strengths and weaknesses of a proposed project, the resources required to carry through, and ultimately the prospects for success. In simplest terms, the two criteria to judge feasibility are cost required and value to be attained.

**Fixed-Guideway Transit** — A transit facility using and occupying a separate right-of-way or rail for the exclusive use of transit and other high-occupancy vehicles.

**Funding District** — Locally-driven public financing alternative that enables municipalities to fund public works, infrastructure and development projects. Funding districts often employ tax increment financing to pay project costs.

**G Gap Funding** — Money needed to fund the development or operations of a project that is not currently provided by cash, equity or debt. Funding gaps can result from increased costs or reduced revenues, and are often associated with redevelopment or affordable housing projects. Gap funding can be covered by private investment, but is most often provided by the public or philanthropic sectors through grants, low- or no-interest loans, or tax credits.

**Green Infrastructure** — A general name given to an approach using environmentally friendly techniques to manage storm water. Green infrastructure includes green roofs, porous/ permeable pavement, swales, rain gardens and rainwater barrels.

**Greenfield** — An undeveloped site, especially one being evaluated and considered for commercial development.

**Greenhouse Gas (GHG) Emissions** — Any of the gases whose absorption of solar radiation is responsible for the greenhouse effect, including carbon dioxide, methane, ozone, and the fluorocarbons.

**H High-Rise** — A multi-story building served by elevators that meets a certain minimum height. There is not a general consensus about the exact height range that defines a high-rise, however 12 stories is a common minimum threshold. Buildings above 40 stories are often referred to as “skyscrapers”.

**I Impact Fee** — A fee that is imposed by a local government on a new or proposed development project to pay for all or a portion of the costs of providing public services to the new development. Impact fees are usually implemented to help reduce the economic burden on local jurisdictions that are trying to deal with population growth.

**Incentive Zoning** — Zoning in which incentives (e.g. relaxation of height restrictions; additional density) are offered to a developer for providing public benefits like building a desired

public improvement, or building in areas that require economic development. It is also termed bonus zoning.

**Inclusionary Zoning** — Zoning ordinances that requires that a certain percentage of total housing units be made affordable to low-income residents in order to receive approvals.

**Infrastructure** — The fundamental facilities and systems serving a country, city, or area, such as transportation and communication systems, power plants, and schools. In a TOD context, infrastructure includes all the major place-making elements in a station area and the social infrastructure to make a community a desirable location.

**Internal Rate of Return (IRR)** — The discount rate often used in capital budgeting that makes the net present value of all cash flows from a particular project equal to zero. Generally speaking, the higher a project's internal rate of return, the more desirable it is to undertake the project.

**J Joint Partnership for Sustainable Communities** — A partnership among the U.S. Environmental Protection Agency, the U.S. Department of Housing and Urban Development, and the U. S. Department of Transportation that aims to help communities improve access to affordable housing and transportation while protecting the environment. For more information, visit: <http://www.sustainablecommunities.gov/>

**L Land Basis** — The measure of how much a plot of land is worth, not counting any buildings but including improvements such as utilities. Land basis may also include adjustments such as transaction costs and legal fees.

**Land Speculation** — An investment in land with an exceptionally high risk, with the intent to achieve above-average returns, generally during a relatively short period of time. Speculation involves buying something on the basis of its potential selling price rather than on the basis of its actual value.

**Land Use Planning** — A branch of public policy encompassing various disciplines which seek to order and regulate land use in an efficient and ethical way, thus preventing land-use conflicts.

**Lease** — A contract granting use or occupation of property during a specified period in exchange for a specified rent.

**Leverage** — Any technique where borrowed capital (debt) is used to increase the potential return of an investment that exceeds the amount personally contributed by the investor. The most common form of leverage in real estate transactions is the use of a mortgage to purchase a home.

**Light Rail Transit (LRT)** — An electric railway with a 'light volume' traffic capacity compared to heavy rail. Light rail may use shared or exclusive rights-of-way, high or low platform loading and multi-car trains or single cars.

**Loan-to-Value (LTV) Ratio** — A financial term used to express the ratio of a principal loan amount to the value of an

asset. Loan-to-value is one of the key risk factors that lenders assess when qualifying borrowers for a loan. Higher LTV ratios are considered more risky.

**Low-Rise** — A building that is only a few stories tall. There is no universally accepted height requirement for a building to be considered a low-rise, although one to four stories is common. Some define the term as any building that is shorter than a high-rise, though others include the classification of mid-rise.

**M Market Analysis** — Analysis of the demand for and supply of real estate in a prescribed area. Market analyses aim to predict the demand for real estate based on past and present demographic and economic data, and measure the supply of real estate based on current figures and estimates of the future pipeline. Market analyses can be utilized either to test the market viability for a proposed project or to discover what real estate products may be under-supplied in a given market to inform a development program.

**Market-Oriented Planning** — Urban planning, including land use and transportation, that relies on market analysis and often includes a stronger or more prominent role for the private/business sector in the planning process.

**Market-Rate Development** — Development that is economically viable based on market-based costs and revenues.

**Metropolitan Planning Organization (MPO)** — A federally mandated and federally funded transportation policy-making organization in the United States that is made up of representatives from local government and governmental transportation authorities. Federal funding for transportation projects and programs are channeled through this planning process for metro areas larger than 50,000 population.

**Mid-Rise** — A multi-story building that is taller than a low-rise building and shorter than a high-rise. There is no universally accepted height requirement for a building to be considered a mid-rise, although four to twelve stories is common.

**Mission-Driven Developer** — A real estate developer who pursues projects for both financial returns and other benefits such as community building or the provision of affordable housing.

**Mixed-Use Development** — In a broad sense, mixed-use development is any urban, suburban or village development, or even a single building or complex of buildings, that blends residential, commercial, cultural, institutional, or industrial uses, where those functions are physically and functionally integrated, and that provides pedestrian connections.

**N New Market Tax Credits** — A Federal program that provides tax credit incentives to investors for equity investments in certified Community Development Entities, which invest in low-income communities. The credit equals 39% of the investment paid out over seven years. The goal of the program is to spur revitalization of low-income and impoverished communities across the United States and Territories. For more information, visit: <http://www.irs.gov/pub/irs-utl/atgnmtc.pdf>



**New Urbanism** — An urban design movement that promotes walkable neighborhoods containing a range of housing and job types. Established in the early 1980s, New Urbanism is strongly influenced by urban design standards that were prominent until the rise of the automobile in the mid-20th century; it encompasses principles such as traditional neighborhood design (TND) and transit-oriented development (TOD). It is also closely related to regionalism, environmentalism and the broader concept of smart growth.

**NIMBY (Not-In-My-Backyard)** — A characterization of opposition by residents to a proposal for a new development because it is close to them, often with the connotation that such residents believe that the developments are needed in society but should be further away. Opposing residents themselves are sometimes called Nimbies.

- O Office of Sustainable Housing and Communities (OSHC)** — A department within the U.S. Department of Housing and Urban Development and part of the Partnership for Sustainable Communities. Its goal is to support local and regional economic development, energy conservation, and increased transportation and housing options. For more information, visit: [http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/sustainable\\_housing\\_communities](http://portal.hud.gov/hudportal/HUD?src=/program_offices/sustainable_housing_communities)

**Option** — A contract in which the seller extends and keeps open an offer for the sale of real estate for a fixed amount of time, at a fixed price, to a particular potential buyer.

- P Park-and-Ride** — Parking facilities with connections to public transport that allow commuters and other people headed to city centers to leave their vehicles and transfer to a bus, rail system (rapid transit, light rail, or commuter rail), or carpool for the remainder of the journey. Park-and-rides are generally located in the suburbs of metropolitan areas or on the outer edges of large cities.

**Pencil-Out Evaluation** — A preliminary calculation to determine the economic viability of a project.

**Place-Making** — The design, construction and management of distinctive, livable spaces (and associated programs) that promote a community's "health, happiness and well being."

**Predevelopment** — The phase when a real estate developer identifies a site and evaluates and pursues strategies to manage risks before fully committing to the construction of a new project.

**Pro Forma** — A financial statement prepared in advance of a planned transaction, such as an acquisition or new development, or a change in capital structure such as incurrence of new debt or issuance of equity. The pro forma models the anticipated results of the transaction, with particular emphasis on the projected cash flows, net revenues and (for taxable entities) taxes.

**Program** — The planned scope of a development project which results from a research and decision-making process often

called "programming". A project's program typically includes the types and sizes of spaces within a project, as well as the relationship among those spaces. Program is informed by a number of factors, including, but not limited to, project goals, economic constraints, site requirements, and regulations.

**Public-Private Partnership (PPP or P3)** — A government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies. PPP involves a contract between a public sector authority and a private party, in which the private party provides a public service or project and assumes substantial financial, technical and operational risk in the project. In return for their investment, the private companies receive payment directly from the users of the service (and not from the taxpayer) or from the government partner. Public sector contributions may include capital subsidies, revenue subsidies, or in-kind contributions (such as the transfer of existing assets).

- R Real Estate Development** — A multifaceted business, encompassing activities that range from the renovation and re-lease of existing buildings to the purchase of raw land and the sale of improved land or parcels to others. Developers are the coordinators of the activities, converting ideas on paper into real property. Real estate development is different from construction, although many developers also construct.

**Real Estate Finance** — Generally refers to the capital market for real estate investment including debt, equity, and public funds. Real estate finance may be used to fund existing properties, construction, development, and community redevelopment projects.

**Redevelopment** — Process of demolition of the existing improvements and construction of new improvements on a site. The new improvements are often a different type from the old. "Urban redevelopment" refers to the renovation of a blighted area within a city.

**Redevelopment Authority** — A government subdivision created to improve blighted, deteriorated, or otherwise economically depressed areas; to assist property owners displaced by redevelopment; and to issue bonds or other instruments necessary to fund the programs. Goals are normally accomplished in partnership with private developers.

**Regional Planning** — Deals with the efficient placement of land use activities, infrastructure, and settlement growth across a larger area of land than an individual city or town.

**Revitalization** — The rehabilitation of city areas by renovating or replacing dilapidated buildings with new housing, public buildings, parks, roadways, industrial areas, etc., often in accordance with comprehensive plans. Also known as urban revitalization, urban renewal, or urban redevelopment.

**Right-of-Way** — A type of easement granted or reserved over the land for transportation purposes, such as for a footway,

carriageway, trail, driveway, rail line or highway. A right-of-way is reserved for the purposes of maintenance or expansion of existing services within the right-of-way.

**Return On Equity (ROE)** — The amount of net income returned as a percentage of investors' equity. Return on equity measures a project or corporation's profitability by revealing how much profit is generated with investors' money. ROE is expressed as a percentage and calculated as:  $\text{Return on Equity} = \text{Net Income} / \text{Investor's Equity}$

**Return on Investment (ROI)** — A performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. To calculate ROI, the benefit (return) of an investment is divided by the cost of the investment; the result is expressed as a percentage or a ratio. The return on investment formula:  $\text{ROI} = (\text{Gain from Investment} - \text{Cost of Investment}) / \text{Cost of Investment}$

**SB 375 (The Sustainable Communities and Climate Protection Act of 2008)** — A State of California law that instructs the California Air Resources Board (CARB) to set regional emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use and housing policies to plan for achievement of the emissions target for their region.

**Self-Assessment District** — A defined area within which residents or businesses elect to pay an additional tax or fee in order to fund improvements within the district's boundaries.

**Setback** — The minimum distance from the property line to where a structure may be built, as regulated by zoning statutes or restrictions in the deeds in various locales. Setbacks are intended to prevent buildings from being built so close to each other that they cut off the light to and ventilation from surrounding areas.

**Sin Business** — Goods or services considered by many citizens to be socially objectionable. Casinos, liquor stores, and adult entertainment venues are examples of common sin businesses. Sin businesses may be subjected to special regulations including special taxes or prohibitions in certain areas.

**Sink** — To distress a development project to the point that it cannot proceed.

**Site Assembly** — The acquisition of multiple contiguous parcels to create a larger property for development.

**Site Conditions** — Generally refers to the physical attributes of a site, including topography, hydrology, debris, contaminants, utilities, buildings and other improvements.

**Smart Growth** — An urban planning and transportation theory that concentrates growth in compact walkable urban centers to avoid sprawl. Its goals are to achieve a unique sense of community and place; expand the range of

transportation, employment, and housing choices; equitably distribute the costs and benefits of development; preserve and enhance natural and cultural resources; and promote public health.

**Social Infrastructure** — Refers to the community facilities, services and networks that help individuals, families, groups and communities to meet their social needs, maximize their potential for development and enhance community wellbeing.

**Soft Money** — Money contributed to a development or investment that is tax deductible; a term used to describe costs that do not physically go into construction, like interest during construction, legal fees, and architectural fees.

**Solar Arrays** — Electrical device consisting of a large array of connected solar cells used to generate power.

**Special Purpose District** — Independent governmental units that exist separately from, and with substantial administrative and fiscal independence from, general purpose local governments such as counties, municipalities, and townships. Special districts may administer airports, water ports, highways, mass transit, parking facilities, fire protection, libraries, parks, cemeteries, hospitals, irrigation, conservation, sewerage, solid waste, stadiums, water supply, electric power, and gas utility.

**Sponsor** — The individual or organization responsible for the identification and definition of a project, and for making the project's business case. Developers are most often considered sponsors of their projects.

**Stall** — To bring to development project a temporary standstill

**Station Area Typology** — A categorization of the types of areas that surround transit stations. Station area typologies identify the important differences between places and destinations within regions based on factors such as transit type, existing development, desired land-use mix, building scale and density, parking, and existing and desired residents and businesses. Typologies are helpful tools in identifying appropriate performance and descriptive benchmarks for station areas.

**Sticks And Bricks** — Refers to the physical attributes of a building, including foundations, vertical construction, building systems, and interior fit-outs.

**Storm Water Management** — Anything associated with the planning, maintenance, and regulation of facilities that collect, store, or convey storm water.

**Streetcar** — Rail transit vehicles designed for local transportation, powered by electricity received from an overhead wire.

**Streetscape** — Refers to urban roadway design and conditions as they impact street users and nearby residents. Streetscaping recognizes that streets are places where

people engage in various activities, including but not limited to motor vehicle travel. Streetscapes are an important component of the public realm (public spaces where people interact), which help defines a community's aesthetic quality, identity, economic activity, health, social cohesion and opportunity, not just its mobility.

**Sustainable Communities** — Places that have a variety of housing and transportation choices, with destinations close to home. As a result, they tend to have lower transportation costs, reduce air pollution and storm water runoff, decrease infrastructure costs, preserve historic properties and sensitive lands, save people time in traffic, be more economically resilient and meet market demand for different types of housing at different prices points. Rural, suburban, and urban communities can all use sustainable community strategies and techniques to invest in healthy, safe and walkable neighborhoods, but these strategies will look different depending on the community's character, context, and needs.

**Sustainable Development** — Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

**T Tax Increment Financing (TIF)** — A public financing method that creates funding for public or private projects by borrowing against the future increase in property-tax revenues ("tax increments"). TIF is based on the assumption that current improvements will create the conditions for future gains in economic development, which, in turn, generate additional tax revenues. The mechanism was designed to channel funding toward improvements in distressed, underdeveloped, or underutilized parts of a jurisdiction where development might otherwise not occur.

**Transportation Demand Management (TDM)** — The application of strategies and policies to reduce travel demand (specifically that of single-occupancy private vehicles), or to redistribute this demand in space or time. A demand management approach to transport has the potential to deliver better environmental outcomes, improved public health, stronger communities, and more prosperous and livable cities.

**Tenant** — A person who occupies land or property rented from a landlord.

**TOD District** — A defined area around a transit facility that is subject to policies and plans that encourage transit-oriented development (TOD).

**Transit Corridor** — A transportation corridor is generally a linear tract of land that contains lines of transportation like highways, railroads, or canals.

**Transit Planning** — The professional discipline responsible for developing public transport systems. It is a hybrid discipline involving aspects of transport engineering and traditional urban planning. Transit planners are responsible for developing routes and networks of routes for urban transit

systems, and are increasingly involved in discourse with urban land use issues such as transit-oriented development.

**Transit-Adjacent Development** — Development that is proximate to transit, but lacks the density, design and mix of uses necessary to take full advantage of transit resources and provide the benefits associated with TOD.

**Transit-Oriented Development (TOD)** — Concentrated urban growth near transit facilities that is designed to foster economic, social, and environmental benefits for local communities and society at large.

**Tod 3.0** — An emerging model of transit-oriented development that aligns transit planning and urban planning to deliver "Livability Benefits" to transit corridors.

**U Upstream** — Pertaining to the early stages in process or system.

**Urban Planning** — A technical and political process concerned with the control of the use of land and design of the urban environment, including transportation networks, to guide and ensure the orderly development of settlements and communities. It concerns itself with research and analysis, strategic thinking, architecture, urban design, public consultation, policy recommendations, implementation and management. Also known as city or town planning.

**V Value Capture** — A type of public financing that recovers some or all of the value that public infrastructure generates for private landowners. Value capture internalizes the positive externalities of public investments, allowing public agencies to tax the direct beneficiaries of their investments. Types of value capture include tax-increment financing (TIF), special assessment districts or improvement districts, infrastructure impact fees, joint development, air rights, exactions, public easements, or other non-possessory interests.

**Vertical Development** — Refers to the development of buildings on land, as opposed to the development of the land itself, which is referred to as horizontal development.

**W Walk-Up Station** — A transit station typology that is defined by an emphasis on pedestrian (and bicycle) access. Walk-up stations do not provide extensive parking, but may include facilities for passenger pick up and drop off.

**Y Yimby (Yes-In-My-Back-Yard)** — A characterization of support by residents to a proposal for a new development. YIMBY is in direct contrast and opposition to the NIMBY phenomenon.

**Z Zoning** — A device of land-use planning used by local governments to designate permitted uses of land. Zoning may be use-based (regulating the uses to which land may be put), or form-based (regulating building height, lot coverage, and similar characteristics), or some combination of these.

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## VIEWS AND OPINIONS

The views and opinions expressed in this paper are those of the authors and not necessarily the organizations that have sponsored this work or individuals who have participated in our research. Our vantage point as developers, investors, and consultants provides a unique interpretation of the world of equitable transit-oriented development that may not be shared by all stakeholders within the field. We consider this paper as one more piece of evidence in an ongoing conversation about equitable TOD and would appreciate any and all feedback that readers care to share with us.

### William Fleissig

will@communitas.us.com  
www.communitas.us.com

### Ian Carlton

ian@IanCarlton.com  
www.IanCarlton.com

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Living Cities harnesses the collective power of 22 of the world's largest foundations and financial institutions to develop and scale new approaches for creating opportunities for low-income people and improving the cities where they live. Its investments, research, networks, and convenings catalyze fresh thinking and combine support for innovative, local approaches with real-time sharing of learning to accelerate adoption in more places.

### LIVING CITIES CONTACT:

#### Amy Chung

achung@livingcities.org  
www.livingcities.org

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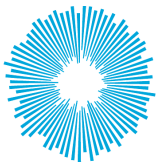
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1040 Avenue of the Americas, Floor 17 New  
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1730 M Street NW, Suite 400  
Washington, DC 20036

[www.LivingCities.org](http://www.LivingCities.org)

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