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FEDERAL TRANSIT ADMINISTRATION

Planning for Transit-Supportive Development: A Practitioner's Guide

Executive Summary

JUNE 2014

FTA Report No. 0052
Federal Transit Administration

PREPARED BY

Dr. Colette Santasieri
Director, Strategic Initiatives
New Jersey Institute of Technology

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SPONSORED BY

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Office of Systems Planning
U.S. Department of Transportation
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Metric Conversion Table

SYMBOL	WHEN YOU KNOW	MULTIPLY BY	TO FIND	SYMBOL
LENGTH				
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
VOLUME				
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liter	L
ft^3	cubic feet	0.028	cubic meters	m^3
yd^3	cubic yards	0.765	cubic meters	m^3
NOTE: volumes greater than 1000 L shall be shown in m^3				
MASS				
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
TEMPERATURE (exact degrees)				
°F	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	°C

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13. ABSTRACT

"Planning for Transit-Supportive Development: A Practitioner's Guide" is a toolkit of practical and innovative measures to help Metropolitan Planning Organizations (MPO's), regional planners, transit agencies, and local government elected officials, staff, land use planners, and transit planners integrate transit planning with local land use planning. This guide includes best practices, guidance, success stories, useful techniques, transferable examples, and lessons learned, aimed at providing planners at the regional, corridor, and local levels with ideas on how to integrate, accommodate, and assess transit-supportive development and transit investment. Included are numerous success stories for integrating transit planning and land use planning. This guide seeks to go beyond just highlighting case studies by providing a link between the regional, corridor, and local planning processes for integrating land use and transit and examining regions that have successfully developed and integrated plans. The guide is meant to be a resource for planners to assist them in the development and implementation of strategies to integrate transit and land use planning in an effort to encourage transit-supportive development.

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FOREWORD

Public Law 109-59: Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005 identified funding for TELUS for Transit. With that funding, the New Jersey Institute of Technology conducted national research on transit-supportive development which culminated in "Planning for Transit-Supportive Development, A Practitioner's Guide." This guide is a toolkit of best practices, guidance, success stories, useful techniques, transferable examples, and lessons learned designed to assist Metropolitan Planning Organizations (MPOs), regional planners, transit agencies, local planners, and local governments with integrating transit planning with local land use planning. It provides a link between the regional, corridor, and local planning processes for integrating land use and transit. This guide is a resource document.

LIST OF PREPARERS

The following were major contributors to this document:

- New Jersey Institute of Technology, Office of Research and Development, Strategic Initiatives: Colette Santasieri, Ph.D.; Sean Vroom; Robert Hughey
- AECOM Planning + Design: Timothy Jackson; Addie Webber, AICP; Jane Lim-Yap; Troy P. Russ, AICP
- Van Meter, Williams, Pollack, LLP: Tim Van Meter, Greg Yanito, Cheney Brooke Bostic
- PlaceMatters, Inc.: Ken Snyder, Jocelyn Hittle, Jason Lally
- Citiventure, Associates, LLC: Marilee Utter
- E. D. Hovee & Company, LLC: Eric Hovee
- Paul Bay, P.E., Transportation Consultant
- Robert Dunphy, Transportation Consultant
- Editorial and graphic services for the original report were provided by Reichman Frankle, Inc.: Rose E. Reichman, Deborah Rood Goldman, Barbara Lord, Nancy Coopersmith

ABSTRACT

"Planning for Transit-Supportive Development: A Practitioner's Guide" is a toolkit of practical and innovative measures to help Metropolitan Planning Organizations (MPO's), regional planners, transit agencies, and local government elected officials, staff, land use planners, and transit planners integrate transit planning with local land use planning. This guide includes best practices, guidance, success stories, useful techniques, transferable examples, and lessons learned, aimed at providing planners at the regional, corridor, and local levels with ideas on how to integrate, accommodate, and assess transit-supportive development and transit investment. Included are numerous success stories for integrating transit planning and land use planning. This guide seeks to go beyond just highlighting case studies by providing a link between the regional, corridor, and local planning processes for integrating land use and transit and examining regions that have successfully developed and integrated plans. The guide is meant to be a resource for planners to assist them in the development and implementation of strategies to integrate transit and land use planning in an effort to encourage transit-supportive development.

SECTION

1

Introduction to Transit-Supportive Development

The Partnership for Sustainable Communities (PSC) defines sustainable communities as "places that have a variety of housing and transportation choices, with destinations close to home." The PSC describes the advantages of achieving sustainable communities:

> As a result, many sustainable communities have reduced air pollution and storm water runoff, have helped to decrease infrastructure costs and preserve historic properties, save people time in traffic, and meet market demand for different types of housing at different price points. Developing more sustainable communities is important to our national goals of strengthening our economy, creating good jobs now while providing a foundation for lasting prosperity, using energy more efficiently to secure energy independence, and protecting our natural environment and human health" (Partnership for Sustainable Communities 2011).

Transit investments, housing, and environmental policies must be coordinated more closely at the regional level to achieve the goals of sustainability on the local level.

In theory, coordinating regional transit and land use planning to improve sustainability sounds simple; however, in practice, it has proven to be difficult. A 2009 Transit Cooperative Research Program (TCRP) study of transit agency roles in regional planning calls the task of coordinating regional land use plans and transit planning a "major challenge," mainly because transit plans are prepared on a regional level, and land use planning and zoning are implemented on a local level (Bay 2009).

The transit-supportive development audience is large and diverse, and there are no hard and fast rules on how to best integrate transit planning with land use planning. Because of these two factors, the New Jersey Institute of Technology (NJIT), with funds provided by the Federal Transit Administration (FTA),conducted national research on issues related to transit-supportive development in an effort to determine how transit planning and land use planning can be successfully integrated. That research resulted in the preparation of "Planning for Transit-Supportive Development, A Practitioner's Guide."

What is Transit-Supportive Development?

The term "transit-supportive development" broadens the definition of a concept that has existed for years—that the utilization of effective and predictable transit encourages surrounding development, which, in turn, supports transit. The basic principle is that convenient access to transit can be a key attraction that fosters mixed-use development, and the increased density in station areas not only supports transit but also may accomplish other goals, including reducing urban sprawl, reducing congestion, increasing pedestrian activity, increasing economic development potential, realizing environmental benefits, and building sustainable communities.

The term "transit-oriented development" (TOD) has been defined in many scholarly works (Cervero 2004) and used by several organizations. TOD is most commonly defined as a mixed-use community extending for ¼ to ½ mile from a public transit station. The elements of this community include housing, retail, offices, civic uses, and open space; pedestrian-friendly infrastructure and amenities; higher densities than surrounding areas; and compact design (i.e., narrower streets, smaller building setbacks). TOD represents a neighborhood or a collection of developments and public amenities. For the purposes of describing and evaluating the development possibilities that can support and be supported by transit, this study has gone beyond the traditional TOD definition.

The term "transit-supportive development" emanates from NJIT's extensive interaction and coordination with regional and local planners who stressed that the achievement of a broader set of transit/land use goals would require a different approach to considering the types of development that may be supported by transit and which, in turn, may support transit. Transit comes in many forms that can provide the links that are vital to sustainable growth. Not every region has the transit modes or developmental patterns that typically have been considered most appropriate for TOD. The regional planning questions for these areas are how to support clustered and compatible development around (and within) existing centers, and how to encourage and plan for the type of mixed-use developments that can create walkable, sustainable communities in existing suburban areas lacking town centers.

Effective and predictable transit can act as a catalyst for an array of sensible development types. The issue is how best to encourage the merging of land use planning and transit planning across a region and across transit modes. It is important to realize that mode and level of service should be expected to change as areas develop and redevelop, so that today's strategies can help provide tomorrow's solutions. Thus, the term transit-supportive development has two meanings. First, it is a different approach to planning—one that integrates transit planning with local land use planning. Second, it describes the type of development that may be supported by transit and that, in turn, may support transit.

Challenges Facing Transit-Supportive Development

There are many challenges facing implementation of successful transit-supportive developments:

- **Disconnects in the planning process** – Many different entities are involved in or influence the planning and implementation of transit systems and transit-supportive development. They include the federal government, state government, and regional planning organizations such as MPOs, transit agencies, railroad owners, redevelopment authorities, municipal governments, private developers, business organizations, neighborhood organizations, and lending institutions. Operational "silos" among these entities lead to single-focus criteria and decisions. Successful transit-supportive development requires support from all of these players to integrate transit planning and land use planning. Success requires an alignment of all of the entities' goals, a shared common vision, an understanding of the implications of their decisions, and an advocate to keep the project a continual priority.
- **Structural challenges** – Structural challenges include the absence of a local plan and zoning ordinances that support transit-supportive development, especially mixed land uses and higher densities. Currently, the predominantly-used Euclidian zoning system often prohibits transit-supportive development. In addition, one of the biggest challenges is in assembling an adequately-sized parcel of land to construct a transit-supportive development. In cases where land assemblage is possible, the costs may be prohibitively expensive.
- **Timing** – Transit corridor design starts years and even decades before the system becomes operational. Real estate developers, however, are market-driven and generally start to plan development projects two to three years before the system becomes operational. Transit-supportive development has been widely viewed as the last step in the process and has been generally expected to accommodate earlier, foundational decisions that often discourage or even preclude walkable destination developments around the stations.
- **Costs and risks** – Transit-supportive developments are often more expensive to build because of high-end external finishes associated with place-making and greater building code requirements set by the local jurisdictions (Utter 2009). Structured parking generally costs three times as much as surface parking. Higher densities require more parking spaces and more building materials of all kinds. Creating a compact district also requires significant street systems, as well as water, sewer, and other utility improvements. In an existing neighborhood, it is common that older infrastructure systems need a major overhaul and investment. In suburban locations, entire street networks as well as extension of utilities for long

distances can be prohibitive in cost. Creating common areas and community facilities such as fountains, plazas, and bike stations add additional costs, as does mixed-income housing where the developer is expected to forgo profit on a percentage of the units. Local approvals for transit-supportive developments are often difficult to obtain. Communities may resist the concept of additional density and activity. In a real sense, transit-supportive developments are a regional amenity situated in a local community. The region may be eager to see the development, but the local neighborhood may not. The cost to developers increases when an extended public and legal process is required. Transit-supportive developments are a challenge to finance. Some lenders may be unfamiliar with mixed-use development and require a greater amount of equity from the developers. Lenders frequently require additional fees or higher interest rates to compensate for their perception of greater risk.

The Disconnect between Transit Planning and Land Use Planning

Several levels of government play a role in transit and/or land use planning. Physical planning that impacts transit and land use typically takes place at federal, state, regional, and local levels. However, the decision-making that occurs at these levels typically does not effectively coordinate the transit investments with the land use policies. Table ES-1-1 illustrates the traditional involvement of the levels of government in transit investment and land use decision-making.

Table ES-1

Stakeholders and Their Traditional Involvement in Transit Investment and Land Use Decision-Making

	Transit Investments	Land Development
Federal Transit Administration	Significant	None
State government	Some	Some
Metropolitan Planning Organizations	Significant	Some/Little/None
Transit authorities	Significant	Some/Little/None
Local (municipal and county) governments	Some	Some/Significant
Developers (private; not-for-profit)	Little/None	Significant

Roles and Responsibilities

At the federal level, when a new transit investment is eligible for funding under the discretionary New Starts program, FTA is strongly involved in determining the planning process and required performance measures. FTA also reviews and ranks competing projects, based on information provided in the planning documents, to determine their eligibility to receive funding under the New Starts program.

State governments play a role in the transit planning process when State funding is needed and when the transit authority falls under the jurisdiction of state government. In the land development process, the State may play a

regulatory role in terms of determining compliance with State planning and environmental requirements. In some instances, the State may play an active role as a developer through an economic development arm.

At the **regional** scale, MPOs and regional transit agencies typically develop plans for new transit capital projects such as new rail lines and intermodal facilities. Such plans generally involve planning at a geographic corridor level, involving a continuous strip of land lying in one or more municipalities. However, MPOs and transit agencies, with some notable exceptions, generally have little or no power to regulate land use or development patterns within a respective corridor.

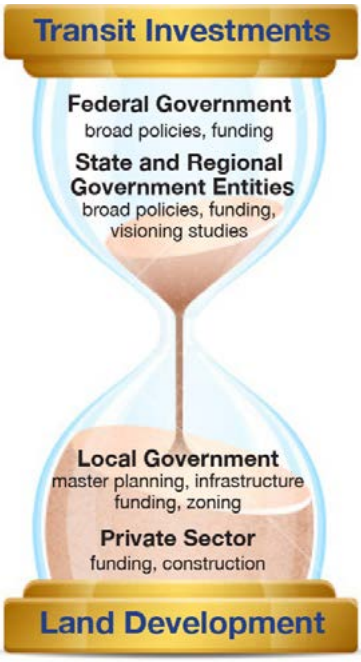
Local (municipal and county) governments oversee and administer the creation of master plans and zoning ordinances, which tend to be the main determinants of land use patterns. Planning and zoning bodies also review individual development plans and projects. Most local governments are ill-equipped to plan and implement major transit projects. In many instances, they are ill-equipped to determine whether site plans placed before them will complement existing and proposed transit investments.

At the **site plan** level, developers and their consultants prepare plans for subdivisions and redevelopment sites, and largely determine what will be built, based on the market. While the various levels of government frame the limits for planning and react to proposals, it is the developers who must originate the concepts and bring forth the ideas. Developers work in a time and money-constrained environment. Upfront costs for land, surveys, plans, and permits must be financed through developers' resources or through borrowing and may not be recouped until the project is completed. Concerns about auto traffic and parking will tend to dominate discussion about access to most development projects. Taking steps to make individual site plans compatible with proposed transit investments is likely to be viewed by developers as a time-consuming and expensive effort that ultimately yields little economic benefit to a development project.

As shown in Table ES-1, a mismatch exists between the planning activities that support the decision-making for transit investments and those that support the decision-making for land use policy and development. Jurisdictions having significant involvement in decision-making for one generally have little involvement in decision-making for the other, leading to a lack of understanding, prioritization, and coordination.

Figure ES-1

Hourglass Planning



Hourglass Planning

The roles and responsibilities of the different entities discussed above generally results in "hourglass" planning, which is public policy issue-oriented, "top-down" planning with locally driven "bottom-up" implementation. Figure ES-1 illustrates the clear division of transit investments and land development responsibilities. Successful change can be realized only when top-down and bottom-up planning merge in the middle.

Coordinating Regional, Corridor, and Local Planning

It is clearly not an easy process to translate the broad policy at the top into a comprehensive regional transit plan, which is then reinforced in corridor planning, and finally meshed with local planning. Those who have been successful generally begin by engaging stakeholders and reaching consensus on a regional vision plan that incorporates transit, sustainability, economic development, housing, and climate issues. Taking a regional perspective in planning has long been seen as the best way to balance multi-jurisdictional issues. However, as previously mentioned, the operational "silos" among entities has led to single-dimension plans dominated by the topic and the goals most important to the agency or organization sponsoring the effort. Whereas those efforts have resulted in many excellent (albeit individual or self-standing) transportation plans, land use plans, economic development plans, and environmental plans, they have rarely lead to the type of coordinated and comprehensive planning guides that form the basis for cooperative regional decision-making and local implementation that are critical to transit-supportive

development. In short, the problem has not been the lack of planning, but rather the lack of coordinated planning.

The Bottom Line

Transit in almost all of its forms can support and encourage thoughtful development and place-making. To do so, it must be emphasized at the federal level, incorporated into a multi-faceted comprehensive regional vision plan, and reinforced and implemented in corridor plans. To succeed, transit needs to be accepted and accommodated by the local communities that regulate development and ultimately control land use. But those communities must be involved early on and throughout the transit planning process.

SECTION 2

Research Methodology

Recognizing that a substantial amount of research has been undertaken, that additional research is needed, and that great real-world examples of integrating transit planning and land use planning exist, NJIT's approach to this study was simple: review and reference good work already completed, conduct original research where needed, and highlight best examples of real-world practices that work. To accomplish this, NJIT assembled a team of professionals to conduct the research that included:

- New Jersey Institute of Technology, Office of Research and Development, Strategic Initiatives
- AECOM Planning + Design
- Paul Bay, Transportation Consultant
- Citiventure, Associates, LLC
- Robert Dunphy, Transportation Consultant
- E. D. Hovee & Company, LLC
- PlaceMatters, Inc.
- Van Meter, Williams, Pollack, LLP

The NJIT Team reviewed existing literature, obtained input from practitioners in the field, and conducted extensive interviews with regional and local planners, transit agency and MPO staff, local officials, developers, and other professionals in the field. While some of the original research was quantitative, the majority was qualitative. After reviewing existing literature and conducting extensive discussions with practitioners in the field and across the country, NJIT developed a list of transit-supportive issues that would benefit from additional research or detailed discussion. Upon agreement from FTA staff, the NJIT team set out to assemble a toolkit centered on these issues. Each section of this Guide is dedicated to an issue, and the tools created for each issue vary. Some issues, such as the common characteristics of successful transit-supportive developments, required new research. The tool provided is the result of that research and presents typologies, common characteristics, and key considerations of successful transit-supportive developments. Other issues, such as premium transit modes, required no original research; rather, a handy guide was prepared that discusses different types of transit modes and how each type can encourage transit-supportive development. A series of corridor and station neighborhood case studies was prepared to illustrate how various locales integrated transit planning and land use planning. These case

studies present a detailed and well-rounded discussion. Finally, transferrable lessons learned on various topics and for each case study were compiled.

Upon completion of the draft of the Guide, NJIT, with assistance from the Delaware Valley Regional Planning Commission (DVRPC, the MPO for the Greater Philadelphia Region) conducted a Focus Group Review Process to gather feedback from a cross-section of ultimate users of the Guide and to improve and strengthen this tool for use by regional and local planners and transit agencies. In choosing focus groups from across the country, NJIT's methodology included choosing a range in MPO size, U.S. geographic distribution, and experience with transit-supportive development (with limited to extensive experience with transit-supportive development, all sharing a strong interest in learning more about the subject). Five focus groups were created, each containing an MPO, at least one transit agency, and a municipality. The focus groups involved in reviewing the Guide included:

- Atlanta Region: Atlanta Regional Commission, Metropolitan Atlanta Rapid Transit Authority (MARTA), City of Decatur
- Austin Region: Austin-Capital Area MPO, Capital Metro Transit, City of Leander
- Nashville Region: Nashville Area MPO, Nashville MTA, City of Nashville
- Philadelphia Region: DVRPC, Southeastern Pennsylvania Transit Authority (SEPTA), NJ TRANSIT, Delaware River Port Authority of Pennsylvania and New Jersey, Tredyffrin Township
- Santa Fe Region: Santa Fe MPO, Mid-Region Council of Governments, North Central Regional Transit District, City of Santa Fe

Each member of the focus groups reviewed each section of the draft Guide. NJIT requested focus group feedback on the usefulness, the content, and the ultimate format of the Guide. Written comments were provided by individual focus group members. Following receipt of the comments, conference calls were held with each focus group to discuss the comments.

SECTION
3

Overview of "Planning for Transit-Supportive Development, A Practitioner's Guide"

Since its inception, the intention of both FTA and NJIT has been to provide a concise and practical guide to encourage transit-supportive development. This guide will assist MPOs, Regional Councils of Government, transit agencies, and regional, county and local government planners in developing and implementing strategies to integrate transit and land use planning.

"Planning for Transit-Supportive Development, A Practitioner's Guide" is a toolkit of best practices, guidance, success stories, useful techniques, transferable examples, and lessons learned, aimed at providing planners at both the regional and local levels with ideas on how to integrate, accommodate, and assess transit-supportive development and transit investment. There are numerous success stories for integrating transit planning and land use planning. This Guide seeks to go beyond just highlighting case studies by providing a link between the regional, corridor and local planning processes for integrating land use and transit and examining regions that have successfully developed and integrated plans and enlisted support at all three levels.

Recognizing three major planning levels—regional, corridor, and local—this Guide provides tools in the form of best practices, guidance, success stories, useful techniques, transferable examples, and lessons learned on all three levels. The Guide's format is as follows:

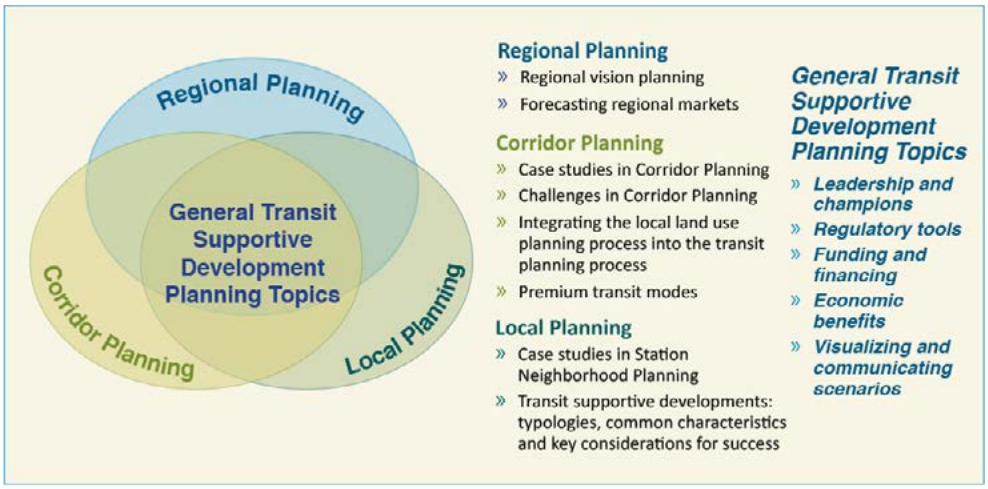
- **General Transit-Supportive Development Planning Topics** – This Guide begins with issues that affect all three planning levels, including leadership and champions, regulatory tools, funding and financing, economic benefits, and visualization tools.
- **Regional-Level Planning** – Specific topics include key ingredients to developing regional vision plans, and methods for forecasting regional markets.
- **Corridor-Level Planning** – Specific topics include premium transit modes, corridor planning case studies, and guidance on integrating transit-supportive development considerations into the transit corridor planning and National Environmental Policy Act (NEPA) processes.

- **Local-Level Planning** – Specific topics include station and transit-supportive development characteristics, and station neighborhood planning case studies.

Figure ES-2 displays how each of the sections in the Guide relate in terms of regional, corridor, and local planning.

Figure ES-2

Relationship of Practitioner's Guide Sections



This Guide is meant to be a resource for MPOs, Regional Councils of Government, transit agencies, and regional, county, and local government planners to assist them in the development and implementation of strategies to integrate transit and land use planning in an effort to encourage transit-supportive development. The Guide is not meant to be read from cover to cover. Not every section will be pertinent to every reader; however, it is anticipated that all readers will find a section that helps them advance the mission of their agency and their planning activities.

Descriptions of Guide Sections

Provided below is an overview of each section of the Guide, which follow Section 1 – Introduction.

Section 2 – General Transit Supportive Development Planning Topics

A. Guiding the Process: Leadership and Champions – This section discusses the need for champions—those who can lead the charge, garner the attention of and motivate the many stakeholders, and build consensus. It discusses the major planning issues associated with promoting transit-supportive development, the roles leaders and champions can play, and the strategies for identifying and engaging leaders and champions. The section provides case studies illustrating how champions influenced specific projects, and features champions from Denver (Colorado), Charlotte (North Carolina), Portland (Oregon), and Albany (New York).

B. Transit-Supportive Development Regulatory Tools – Although a number of transit-supportive development regulatory tools exist at the state, regional, and municipal government levels, the objective of this section is to focus on a few types of regulatory tools that have been successful in some regions of the country. Examples of regulatory tools that serve to concentrate growth within a regional boundary, as well as local level tools that allow for more concentrated growth near transit stations/stops, are provided. A discussion of design standards and guidelines is also provided. Regulatory tools used in Portland (Oregon), Minneapolis-St. Paul (Minnesota), Pennsylvania, Pasadena (California), Palo Alto (California), and Arlington (Virginia) are discussed.

C. Non-Federal Funding and Financing Sources for Major Transit Projects – The purpose of this section is to provide the reader with descriptions of non-federal funding and financing sources for public transit projects. Case studies featuring transit lines in Denver (Colorado), Portland (Oregon), and the Washington, DC area are provided to illustrate the application of the various funding and financing sources. The concluding remarks discuss choosing the "right" funding source.

D. Funding and Financing Transit Supportive Developments – The purpose of this section is to provide an overview of how transit-supportive developments are funded and financed. The section discusses the complexity of funding transit-supportive developments and the difference between funding sources and financing sources and the importance of public-private partnerships. A glossary of funding and financing sources and tools available to both the public and private sectors is provided. Case studies feature transit-supportive developments in Englewood (Colorado), Portland, (Oregon), and Walnut Creek (California).

E. Economic Benefits of Transit Supportive Development – This section addresses the issue of economic benefits of completed transit-supportive development. Demonstrations of economic benefits realized from streetcar systems in Portland and Tampa are provided.

F. Assessing the Potential for Economic and Environmental Benefits of Transit-Supportive Development – This section describes the current state of the art (or best practices) in assessing the potential for economic and environmental benefits of transit-supportive development. It includes guidelines for regional and local transit agencies, development organizations, and city governments of the processes they can use to assess the potential and actual economic and environmental benefits that can be realized from transit-supportive development. This section features assessments of the potential economic benefits that may be realized from new streetcar systems in Boise (Idaho), Reno (Nevada), and San Antonio (Texas).

G. Tools and Techniques for Visualizing and Communicating Scenarios and Alternatives – The purpose of this section is to identify and profile effective tools and techniques that are available for MPOs, regional planning organizations, and other entities interested in not only conveying technical information to stakeholders, but also involving them in the planning process. Best examples of specific tools and techniques are provided to illustrate how specific transportation agencies applied these tools and techniques. Applications and specifications for each tool and technique are presented in a series of tables. These tables give the user a "snapshot" of information to help them determine which tools may be applicable to their needs. This sections features specific tools used in Baltimore (Maryland), Raleigh-Durham (North Carolina), Nashville (Tennessee), Montgomery (Alabama), Chicago (Illinois), San Diego (California), and Sacramento (California).

Section 3 – Regional Planning and Transit Supportive Development

A. Regional Vision Planning: Key Ingredients for Success – Regional vision or scenario plans are prepared by MPOs and other regional planning organizations across the country. This section presents the findings of research that was conducted to determine the key elements to a successful regional vision planning process. The five regions included in this research are Seattle (Washington), San Francisco (California), Sacramento (California), Central Florida, and Binghamton (New York).

B. Forecasting Regional Markets – This section discusses the current practice for forecasting regional models and suggests alternatives methods. Methods being used in the Seattle (Washington) and Portland (Oregon) planning regions are discussed.

Section 4 – Corridor Planning and Transit Supportive Development

A. Quick Reference Guide to Premium Transit Modes – This section provides a quick reference to premium transit modes and illustrates how premium transit modes influence (and are influenced by) the urban form, function, and community character of a region and a corridor. Premium transit modes examined include streetcar, enhanced bus, light rail transit, bus rapid transit (BRT), heavy rail transit (rapid rail transit), and commuter rail transit.

B. Challenges in Corridor Planning: Four Case Studies of Practical, Transferrable Solutions – Planning for a new transit line presents various challenges, such as meeting transit needs, obtaining funding, choosing an alignment, engaging the community, and implementing transit-supportive land use policies and controls to encourage transit-supportive development. This section presents four case studies that address common issues faced by many regions when contemplating,

planning, and constructing new transit lines. Central Avenue in Albuquerque (New Mexico), Interstate MAX (Yellow Line) in Portland (Oregon), the Euclid Bus Rapid Transit (HealthLine) in Cleveland (Ohio), and the Lynx Blue Line (South Corridor) in Charlotte, (North Carolina) are featured.

C. Integrating the Local Land Use Planning Process into the Transit Planning Process: Charlotte – This section illustrates how local land use planning and transit-supportive considerations can be better integrated into the project development and NEPA processes. The experience of Charlotte's planning for the LYNX Light Rail Transit System is presented as an example of successful integration of the federal and local processes. Lessons learned from the City of Charlotte's efforts are provided as a tool for other regions and local governments interested in integrating local land use planning and policy into their strategies for pursuing transit investments.

D. Case Studies in Corridor Planning – A central theme throughout this Guide is the need to integrate transit planning with local land use planning in an effort to create more sustainable communities. Another underlying theme is that there is no "one size fits all," no prescriptive methods, no "silver bullet." Each region (including its transit agency, MPO, governmental entities, and communities) has approached integrating transit planning and local land use planning in a different way. Six case studies are presented to illustrate the various approaches that can be taken in considering local land use impacts as a result of a new transit system or added line, to identify the many and varied stakeholders and decision makers involved in corridor and local planning and implementation, and to discuss the laws, regulations, policies, and plans that can be created and implemented to encourage integration of transit and local land use planning. The featured corridor case studies and the relevant lessons learned are:

- Bay Area Rapid Transit (BART), Richmond-Fremont Line, San Francisco (California)
- Dallas Area Rapid Transit (DART), Red Line, Dallas (Texas)
- Massachusetts Bay Transportation Authority (MBTA), Fairmount Line, Boston (Massachusetts)
- Los Angeles County Metro Rail (Metro), Gold Line, Los Angeles, South Pasadena, and Pasadena (California)
- Portland Streetcar, Portland
- Portland Interstate Metropolitan Area Express (MAX) Light Rail, Westside MAX Blue Line, Portland (Oregon)

Section 5. Local Planning and Transit-Supportive Development

A. Transit-Supportive Developments: Typologies, Common Characteristics, and Key Considerations for Success – Recognizing that transit-supportive developments come in many forms and that locations and real estate market conditions affect the success of these developments, this section presents the results of research conducted on a sample of developments within close proximity to transit stations to provide the reader with some common characteristics of transit-supportive developments. In conducting this study, a typology of the developments studied was developed as a method to further define the characteristics of transit-supportive developments. In addition to identifying common characteristics of transit-supportive developments, key considerations for planning and implementing transit-supportive developments were developed and are provided in this section.

B. Case Studies of Station Neighborhood Planning for Transit-Supportive Development – This section focuses on specific transit station neighborhoods on the transit lines featured in the "Case Studies in Corridor Planning" section of this Guide. Just as there is no one method of integrating transit planning and local land use planning on the corridor level, no one planning method exists on the local level. These case studies discuss various laws, regulations, and polices that can be created and implemented to encourage transit-supportive development around transit stations, illustrate the types of plans that can support mixed-uses and higher densities and address issues (such as parking), present steps the public sector can take to encourage and enable transit-supportive developments, highlight the role of local stakeholders, and feature real-world examples of transit-supportive developments constructed within the station neighborhoods. The five featured case studies in station neighborhood planning and the relevant lessons learned are:

- Hayward Station, BART Richmond-Fremont Line, Hayward (California)
- Plano Station, DART Red Line, City of Plano (Texas)
- Del Mar Station, Gold Line, South Pasadena and Pasadena (California)
- Pearl District, Portland Streetcar Line, Portland (Oregon)
- Orenco Station, Westside MAX Blue Line, Portland (Oregon)

SECTION
4

Lessons Learned

A major benefit of developing retrospective case studies is the opportunity to harness the perspectives of professionals that experienced transit and transit-supportive development planning processes. NJIT assembled and analyzed the insights of these professionals in terms of what worked and what did not, "if I had to do it all over again, I would have…," and "this is how and why we were successful" and crafted lessons learned. While these perspectives are based on specific planning initiatives and projects, their relevance transcends the specific locale and can be applied to projects and planning initiatives in other regions.

The lessons learned are provided as a tool for other regions and local governments interested in integrating local land use planning and policy into their strategies for pursuing transit investments. Many of the sections of this Guide conclude with a lessons learned section. For the purposes of this Executive Summary, NJIT has synthesized some of those lessons learned, sorted them by category and provided them below.

- **Identify project champions.**
  - Community champions are essential to project success. One person cannot do this alone. Assemble a bipartisan team of forward thinking and dedicated community members who have a stake in the successful implementation of the project.
  - Select principal champions who cover a broad range of interests. Select champions from the public, private, and not-for-profit sectors. The private sector often brings funds and credibility, the public sector offers political savvy and support, and, the not-for-profit sector is able to mobilize large numbers of people and communicate to a broad network.
  - Provide a connection for the principal champions. It is important for champions to communicate frequently, collaborate closely on goals and agendas, and trust each other. Engaging champions through small task forces or committees that meet regularly can provide information, support, and inspiration.
- **Educate and engage the public.**
  - Educating the public early and often is critical in gaining support.
  - Clearly and effectively articulate the long-term vision.
  - A critical key to a successful transit and transit-supportive development planning and implementation projects is a community's clear vision of the future.

- Develop a clear and well-defined transit and/or transit-supportive development message. It is essential that the message be understandable and valuable to a large constituency. Images, key messaging, numbers, quantified results, and benefits need to be carefully planned and consistent. Since there are many challenges in implementing a new transit system or transit-supportive developments, performance outcomes are often the best way to explain the objectives, choices, and support needed.
- An emphasis on protecting and enhancing the existing community is important.
- Be clear about the public benefits of the project and quantify them as much as possible. Make the public benefits the key message at the project outset and continue to repeat it. Go "overboard" on public education and communication. Make an exceptional effort to explain the public benefits in small groups and to be as transparent as possible.
- Manage the expectations of the community and don't "overpromise" outcomes from the development—hard numbers and dates never seem to be forgotten. Transit-supportive development projects are prone to changes and delays, and it is inevitable that results will be different from original projections.
- Consider short-term vs. long-term success. In assessing and describing the public benefits of the project, consider the long- term (5+ years) and short-term outcomes. An alternative approach would be to promote a project as the catalyst for long-term neighborhood regeneration. Ideally, give citizens a short-term and tangible plan and a long-term and far-reaching vision to help create a context for the project.
- Political perception is important. The public sector must keep in mind that every decision has potential headlines written in response. The most common concern is that the government is giving public money to rich, private developers on projects that are not needed. Editorials may hint that the public entity is being out-negotiated or outsmarted. Managing the messaging is critical throughout the project.
- Visually depict density. It is common for a community to reject a plan for higher density (near the transit station) because they equate the proposed density to a densely populated city. By visually illustrating what 30 units per acre, 50 units per acre, etc., really look like (with pictures of similar real-worlds developments), citizen concerns may be eliminated.
- Encourage citizens to participate in every stage of project development. Citizen involvement may result in changes to preliminary plans, including the design and location of stations, but when citizens are full partners in the planning, their strong support for the project is likely.

  - Engaging the community in activities such as station placement, station design, and decisions related to public art in station areas helps the community feel a sense of ownership of the project and helps integrate the transit system (e.g., light rail, streetcar, and BRT) into the community.

- **Recognize the importance of public participation and public-private partnerships.**
  - It is essential to have public-private partnerships. The public sector brings resources, and the private sector brings credibility.
  - Developers build projects, but the public sector creates the space.
  - A public/private partnership is the most effective way of attracting developers for the kind of mixed-use, high-density developments that support transit.
  - Public agencies are important partners in transit-supportive development because public investment is critical. Few projects of significance are developed by the private sector alone. Public/private partnerships and public investments in infrastructure (especially parking solutions) are necessary.
  - The private sector is not inclined to believe that simply creating a good plan is enough. They bring a skill set oriented to its execution and implementation—another benefit of public-private partnerships.
  - The private sector responds to the predictability and commitment of the public sector. Since transit planning and implementation is a long process, proactive and nimble public-sector response to market opportunities and trends is important. Demonstration of local public commitment can help garner trust from and impart a sense of predictability to the private sector. Local investments to infrastructure, creation of or changes in transit-supportive policies, and proactive planning assistance can create a positive atmosphere for private-sector participation in transit-supportive development and redevelopment along the transit corridors, even before a transit project had been built or received federal funding.
  - Local government support, whether financial or evidenced through modifications in zoning regulations, is a key element in attracting developers to build higher densities and mixed uses near transit. If local governments fund or offset the costs of infrastructure and recoup costs through other means, such as parking fees, then developers have a better chance of constructing enough housing/office/retail to create the quality and density necessary for the project to succeed. Local government activities may include purchasing and land-banking under-utilized parcels as the money or land become available, rezoning to allow greater densities or heights, creating redevelopment districts or

empowerment zones to assist the developer in qualifying for additional funds and grants, and Tax Increment Financing.

- Investing in public infrastructure is important for supporting transit projects and for encouraging and enabling transit-supportive developments. Commitment to infrastructure investments, from reconstructing underground utilities, to quality streetscape, to modern transit facilities and technology, to branding and way-finding is essential to the success of a sustainable station neighborhood. The transit station design process should take into consideration how adjacent existing and future land uses could be supported. Design should include provisions for pedestrians, bicyclists, transit, vehicles, and landscaping. Business needs for on-street parking and access should also be considered.

- **Emphasize the community context.**
  - Many components are needed to create a livable community. Transit is an important component but it is not the only piece of a sustainable community. Place-making is essential.
  - Design must reflect community values. Throughout the design and planning processes for transit systems and transit-supportive development, transit agencies and local governments should engage the community in developing plans and designs that reflect diverse neighborhoods with a strong sense of community.
  - There must be a commitment to the community. Building trust with the community is a long-term process.
  - Attention to broad community building goals instead of focusing solely on mobility objectives can lead to overall project success. The perspectives of transit agencies and other planning departments must be broadened so that transit is taken as a consideration and not the only driver of community goals. In the end, the transit project will become a community-building project and not simply a mobility project. From the regional transit visioning to project construction and implementation, vigilance is needed in ensuring that actions taken are towards realizing a better, more livable community, and not just a functioning transit project.
  - Not all station areas are the same nor do they offer the same opportunities for development. Transit-supportive development should not be viewed with a one-size-fits-all approach. The key to creating livable, sustainable communities is to create and implement plans that consider the market and every facet of community compatibility. Each transit neighborhood needs to be examined and considered independently, and separate neighborhood plans need to be created.
  - A thorough understanding of the community's needs, goals, and fabric is required prior to implementing any regulatory tool (e.g. zoning). If

the tools don't reflect the community's attributes, the end product may be unsatisfactory.

- What works well for the downtown core area is different from what will work along other neighborhood transit corridors across the city and region.

- **Coordinate/collaborate with public agencies.**
  - Public agency coordination and collaboration are critical.
  - Organizational structure and institutional policies can help ensure integrated land use and transit planning and implementation. In many cases, even within a single jurisdiction, it is difficult to work past the silos of multiple departments, each with its own mission and obligations. A City's organizational structure that places planning, economic development, transportation, and transit all under the City's purview can greatly streamline the way that transit planning is coordinated with the multiple concurrent processes that are occurring. This strategy and organization allows for the greatest level of coordination between transportation and land use issues across city departments.
  - Partnerships between agencies should be formed. For transit projects controlled by a City, coordination between the transit agency and the other departments, such as Planning, should help streamline the planning efforts. Policies to prioritize transit improvements along select corridors and activity centers should be incorporated into citywide plans and programs and translated to street infrastructure investments as well as the new transit service. Cross-departmental coordination can facilitate efficient planning activities for route selections and station locations, as well as actions to encourage and enable transit-supportive development, such as transit-supportive zoning changes and new design guidelines that call for higher densities and mixed-uses.
  - Agency alignment of and commitment to project priorities is important. The shared financial investment in a transit project can translate into a shared responsibility and commitment to ensure that the project not only meets its mobility goals, but its economic development and community-building goals as well.

- **Conduct effective planning and develop plans.**
  - Realizing a regional vision takes time and resources. Commitment to the process by all involved in the process is essential.
  - Plans must be flexible, and the planning process cannot ever stop. Plans, and the resulting public and private investment, have to be constantly updated, augmented, and adjusted to fit the evolving community and the market.
  - Local governmental planning is essential. A local government that creates a transit-supportive plan and implements physical and

regulatory infrastructure to support development makes that municipality more competitive, and ultimately more successful.

- Vision-led transit planning instead of federal process-led transit planning is a key. Successful transit implementation is an outcome of a strong community vision and follow-through with consistent and aggressive policies and programs. Planning processes that go beyond the federally-required minimum planning and environmental evaluations and, instead, use the vision of community building as a framework for true integrated land use and transit planning tend to lead to more successful outcomes.
- Effective land-use planning requires effective timing and support. Creation and implementation of local transit-supportive development plans early in the transit-planning process is a key component to success. Focusing on station neighborhoods, engaging the community, and attending to community character are essential.
- It is never too late to plan effectively for transit-supportive development. While retroactive transit-supportive development planning faces more obstacles than proactive planning, such as challenging access to station areas, and decades of development patterns that have not made transit-supportive development a priority, retroactive planning is possible and can be very effective with strong regional awareness and involved communities.
- A key ingredient to the success of vision planning is broad-based stakeholder participation. A successful vision planning process must include all of the relevant public sector agencies and must expand the audience to include political leaders from the regional and local levels, and representatives from the business, civic, real estate, and environmental communities.
- Presentation of data and planning scenarios to the public should be simple and visual. The display of base-case data, arrangement of scenarios, array of land uses, and demonstration of densities must be easily understandable to the stakeholders and easily manipulated by the planners presenting the data.
- The vision planning process is considered successful when the results of the process are followed and implemented. The key factors to ensuring success—making visions into realities—include consistency and follow-through, financial incentives, and planning assistance to communities.
- Integrate transit investment with land use planning and infrastructure improvements.
- A multitude of tools are available to encourage transit-supportive development. Some tools rely on legal mandates and controls, some are voluntary in nature. Whatever the technique employed at the local level—overlay district, form-based code, incentive zoning, or

intentionally broad development districts—the key to success is a community's clear vision of the future.

  - A thorough understanding of the community's needs, goals, and fabric is required prior to implementing any regulatory tool. If the tools don't reflect the community's attributes, the end product may be unsatisfactory.
  - Creating zoning that enables transit-supportive development is only one key to fostering transit-supportive developments and sustainable communities. A local community should use a variety of complementary tools, and the legal mechanisms should be flexible enough to allow for community changes over time.

- **Design for transit-supportive development.**
  - Place-making is an essential part of transit-supportive developments. Successful transit-supportive developments create places that become destinations in and of themselves and draw people from outside the development. This is accomplished through a variety of place-making features.
  - The public realm, streets, plazas or squares are important design elements, which, if handled well, will contribute to the overall character and success of the community in the market place. The overall quality of the public realm, such as the design of paving, lighting, seating, and other elements, can help to create a lively and well-used pedestrian environment, a fundamental goal of transit-supportive development. Buildings need to be sited to reinforce the public spaces and provide active relationships between retail, open spaces, transit, and housing.
  - An effective street design is essential. The circulation network is important to pedestrian-oriented areas. The design and structure of the circulation network and the dimensions of streets and sidewalks are critical to creating pedestrian character. Vehicular circulation and access to a commercial/retail area and parking must be convenient without negatively impacting the pedestrian quality of the area.
  - An appropriate street width is essential to the pedestrian environment. If the streets are too wide, traffic will flow too quickly and will be a deterrent to pedestrian movement. To ensure the narrowest possible streets, coordination between the developer and local fire department early in the design process is important.
  - The ability to close off streets for activities such as farmers' markets, movie nights, and town festivals is important to the success of the developments. This must be considered during the street and parking design process so that street closures do not hinder vehicular movement or access to parking.

- Visibility of retail is a key design feature. The visibility of a development's retail establishments is essential to promoting the development.
- Appropriate residential densities and mixtures are important. Higher residential density does not necessarily make a project more successful. Creating fewer for-sale units and making them more exclusive can increase sale prices. Lower construction costs of medium-density projects, along with higher per square foot sale prices, can make moderate-density developments more feasible than higher-density developments.
- An understanding of the residential market is critical. Higher-density areas often have a demographic of fewer people per household, thus the availability of smaller units at lower cost and sale price is often important. It is also important to have a range of product types, so that absorption of units is maximized. In urban areas, 1-plus- and 2-bedroom units are often a greater share of the market, as opposed to the 3- or 4-bedroom units applicable to suburban transit-supportive developments.
- With careful and advance planning, infill projects at higher densities can fit unobtrusively into established neighborhoods. The borders between neighborhoods, like the borders between communities, deserve special attention.
- Small but important design details must be worked out in advance. Character-building elements, such as narrowed streets, alternative pavements, street lighting, compressed public utility easements, and above- or below-grade encroachments into rights-of-way must be resolved with city engineers and building officials before land use entitlements are issued.

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U.S. Department of Transportation
Federal Transit Administration
East Building
1200 New Jersey Avenue, SE
Washington, DC 20590
http://www.fta.dot.gov/research