AFFORDABLE HOUSING AND TRANSIT-ORIENTED DEVELOPMENT: A COMPARISON OF OBSERVED POLICY FINDINGS WITH THOSE OF THE CITY OF TAMPA

By

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To the future

ACKNOWLEDGMENTS

As is the case with the planning practice, much must be considered when addressing a topic. To properly acknowledge those that deserve the recognition is a difficult task, but one that must nevertheless be attempted.

First and foremost, I thank my parents for raising me in the manner in which they did. My curiosity, my need for knowledge and my insatiable drive to dream are traits for which I will forever be grateful, and I would not be where I am today without them.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AA	Alternatives Analysis
AARP	American Association of Retired Persons
AHSC	Affordable Housing Study Commission
ARRA	American Recovery and Reinvestment Act
BRT	Bus rapid transit
CATS	Charlotte Area Transit System
CMPC	Charlotte-Mecklenburg Planning Commission
CTOD	Center for Transit-Oriented Development
DART	Dallas Area Rapid Transit
DHA	Denver Housing Authority
DOT	Department of Transportation
DRCOG	Denver Regional Council of Governments
ECODEV	Dallas Office of Economic Development
EPA	Environmental Protection Agency
FLHSR	Florida High Speed Rail
FTA	Federal Transit Administration
GAO	Government Accountability Office
HART	Hillsborough Area Regional Transit
HSR	High-speed rail
HUD	Department of Housing and Urban Development
LRT	Light-rail transit
MFI	Median Family Income
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area

NIMBY	Not in my backyard
RTD	Regional Transportation District (Denver)
TBARTA	Tampa Bay Area Regional Transportation Authority
TCRP	Transportation Cooperative Research Program
TIF	Tax increment financing
TIGER	Transportation Investment Generating Economic Recovery
TOD	Transit-oriented development
TRB	Transportation Research Board
USCM	United States Conference of Mayors

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This research examines the growing connection between housing and transportation. During this time as cities propose, and implement, more advanced transit networks, they are simultaneously seeing a growing need for affordable housing. Tampa, Florida is one such city. This research looks at Tampa, its identified peer cities and their policies and programs that support transit-oriented developments and affordable housing. Tampa officials are preparing for the eventual implementation of a light-rail transit system while the combined housing and transportation costs of its citizens continue consume a greater portion of their incomes in the current economic downturn.

The literature review examines the economic difficulties of providing affordable housing, especially in the face of growing demand. In addition, the economics of providing transit-oriented developments (TODs), and why they are not conducive to affordable housing provisions, are examined. A qualitative examination of best practices for TOD, affordable housing and their co-development identifies common practices, from which to compare Tampa's own policies. Findings suggest that Tampa

is well prepared to support TOD and affordable housing in the same project. Tampa is however missing two crucial components. To ensure successful projects, Tampa needs to continue a proactive planning practice and also develop specific station area plans. Tampa has unique state funding programs, such as the State Housing Initiative Partnership (SHIP) program, the State Apartment Incentive Loan (SAIL) program and the Elderly Housing Community Loan (EHCL) program, at its disposal that can further support its community members through housing and transportation expense reductions. Tampa also makes a point the projects should be held accountable for their schedules and expenses, and that green building practices should be sought out when constructing or renovating affordable housing units. The findings suggest that Tampa's policy makers have worked hard to develop the schedule of programs currently outlined and that the city is aware of the connectivity of the crucial elements that drive a community's sustainability.

CHAPTER 1
INTRODUCTION

Background

The depression, in which the United States' economy currently sits, began in 2007 when the housing bubble burst with a paralyzing sonic boom. The nation and its leaders argue over the best courses of action to rejuvenate the economy, all while people continue to lose their jobs, struggle to find employment and deal with the foreclosures of their homes. Unemployment benefits were extended recently and tax cuts from the President George W. Bush era were extended as well. But a large portion of the country continues to struggle. Additionally, foreclosure rates have been exacerbated by the potentially illegal acts of so called "robo-signers" (temporarily hired employees who do not verify necessary documentation to legally approve foreclosure) (McLaughlin, 2010).

To counter the economic downturn, the American Recovery and Reinvestment Act of 2009 (ARRA), commonly known as the Stimulus, provided of over 780 billion dollars for projects, such as capital resource acquisition and construction, all across the country. Though the final results will not be properly judged for years to come, the economy has arguably begun to make the long and slow journey to recovery. But to rely on the old system of consumption alone will not restore the country to the levels of prosperity it yearns to enjoy again. Employers used the downturn as an opportunity to release some of the glut in their personnel and to enhance the efficiency and effectiveness of the staff that remained (PWC, 2010, p. 7). As a result, jobs and careers that were once prevalent have gone the ways of the dinosaur, or have merely been outsourced in the name of corporate profit (PWC, 2010, p. 4, 7). With the fundamental

shift in employment, a fundamental shift is necessary to restore prosperity. Individuals surviving on unemployment checks are much more concerned about food, housing and transportation, than buying new clothes, cars and jewelry. Thusly, greater attention should be paid to the providing accessible and affordable transportation options with equally as accessible and affordable housing options nearby.

Tampa, Florida

The state of Florida has long embodied the ills of relying on consumption. If not for the invention of air conditioning, the swampy realms of the state may have simply, and arguably smartly, been left to the fishing villages and farms that preceded the technology. Alas, constant horizontal growth has been the state's defining feature, behind only sunshine and Mickey Mouse. Once the housing market crashed, so did Florida's economy. Florida's foreclosure rate has been among the nation's highest. Presently one out of 84 homes is in some stage of the foreclosure process or already possessed by the bank (McLaughlin, 2010); making the state the third worst state in this regard (Behnken, 2010). The City of Tampa and its surrounding areas have not been spared by the housing market downturn. Contributing to the state's trends, Tampa has a foreclosure rate equivalent to one out of every 87 homes in some stage of foreclosure; a rate that is 17th worst in the nation (Huntley, 2008). Tampa even has the unfortunate distinction as being the tenth most difficult city in which to pay rent, according to Forbes (Forbes, 2010).

To the city's credit, members of Tampa's political arena and business sector have been planning for the city's future. Tampa is part of a project to bring high-speed rail (HSR) to Florida; linking with Lakeland and Orlando, and eventually Miami. The initial corridor between Tampa and Orlando has received three allotments of federal

funds totaling almost $2.4 billion (FLHSR, 2010). The project's total cost is estimated to be $2.6 billion. Because the region was diligent and had already completed the necessary environmental impact statements, the project can potentially be completed and operational by 2015.

Recognizing the importance and economic potential of this massive investment, Tampa Mayor Pam Iorio and other figures in power are pushing for more transit connectivity (Napper, 2010). Hillsborough Area Regional Transit (HART), Tampa's transit agency, has completed an Alternatives Analysis (AA) for enhanced transit services throughout the city. The alternatives examined are: enhanced local bus service; bus rapid transit (BRT) with some enhanced local bus service; and light-rail transit with some enhanced local bus service. Furthermore, the AA looks at potential route alignments for the BRT and/or LRT, and provides possible station locations.

Tampa is one of only two of the twenty largest metropolitan regions in the county without a significant capital investment in a transit system; be it BRT, commuter or heavy rail, or LRT (TBARTA, 2006). However, Detroit, the other city devoid of investment, is in position to finally build at least one segment of a LRT line after having received a Transportation Investment Generating Economic Recovery (TIGER) grant from the Federal Transit Administration (FTA) (City of Detroit, n.d.). What makes Tampa's tardiness into the fixed guide way realm intriguing is that the city is not foreign to the means of travel. Tampa, like many cities, used streetcars before the advent of the automobile; its first line opened in 1892 but was closed down in 1946 (TECOline, 2007). In 2002, Tampa began operation of a 2.4 mile streetcar connecting historic Ybor City, the Channelside district and downtown Tampa, with a .3 mile extension soon to

open (TECOline, 2007). A system so limited in scope and service does not adequately prepare a city to implement a larger system such as LRT.

On August 5, 2010, the Hillsborough County Aviation Authority, the governing body of Tampa International Airport, voted unanimously to support LRT (Tampa Bay Business Journal, 2010) and in October 2010, the HART Board of Commissioners recommended and supports the selection of LRT for the initial transit enhancement (Figures 1-1, 1-2, and 1-3). On the November 2, 2010 election ballot for Hillsborough County, there was a measure to increase the sales tax by 1%, bringing the county's sales tax up to 8%. Seventy-five percent of the proposed funds raised would go towards transit improvements, with the remaining 25% allocated for roadway projects, namely maintenance. The measure failed to pass by a margin of 42% to 58% (Sasso, 2010).

Some may view this as a disappointment, but the parties involved were mentally prepared for such a result. Former Congressman, Tampa resident, and LRT supporter, Jim Davis, said before the vote, "this really isn't if, but when this is going to happen… if it doesn't [pass] we will try again until we find a way" (Napper, 2010). The city is so determined LRT will come along that Tampa Mayor Pam Iorio has said that it is not optional to build the modern system and reiterated that those in favor of the technology will "keep at it until it happens" (Holan, 2010). This confidence and resolve stems not only from awareness that the automobile alone is insufficient, but from the City of Tampa's and various stakeholders' examinations of some of the other metropolitan areas around the country that already have LRT systems running.

This research examines the relationship of the transit-oriented development that would populate the areas around a LRT system and affordable housing. The factors that make these types of projects less-affordable and the methods to counter them are investigated to provide an outline for the creation of areas where they can exist more economically than at the present.

Chapter 2 examines the literature pertaining to housing affordability and the associated economics of providing affordable housing. In addition, various aspects of TODs, to include their functions and the economics of creating them, are investigated. Lastly, the transportation and housing connection is explored as it relates to affordable housing and TODs. Chapter 3 outlines the methodology used in my research and analysis. Chapter 4 presents the information found. Chapter 5 is an analysis and discussion of the information found as it pertains to Tampa, to include whether Tampa is in fact in need of affordable housing at all. Recommendations for the City of Tampa are also in Chapter 5. Chapter 6 presents a conclusion and suggests additional avenues of future research to enhance the understanding of the relationship between advanced transportation networks and housing.

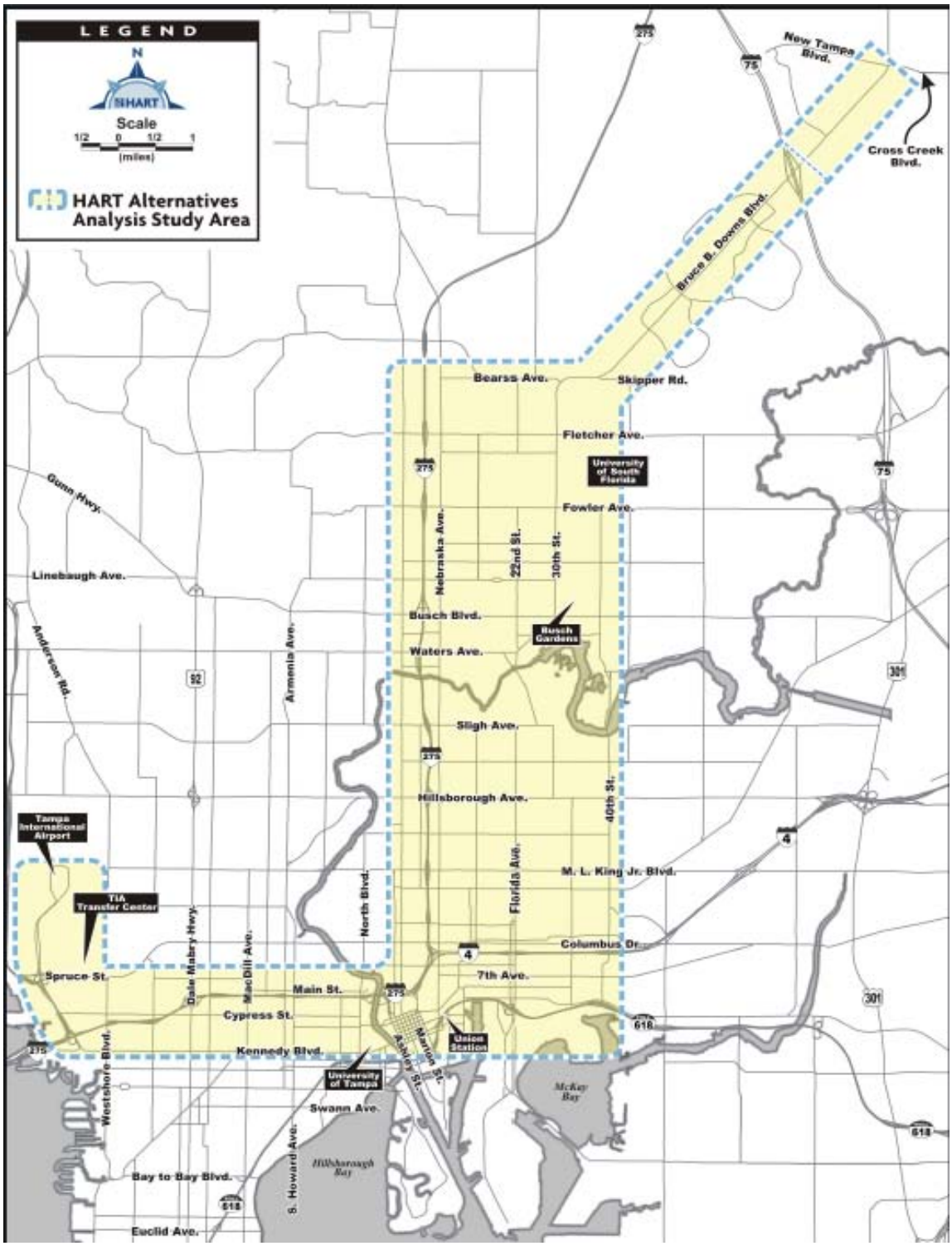

Figure 1-1. Tampa light-rail study area (HART, 2010a)

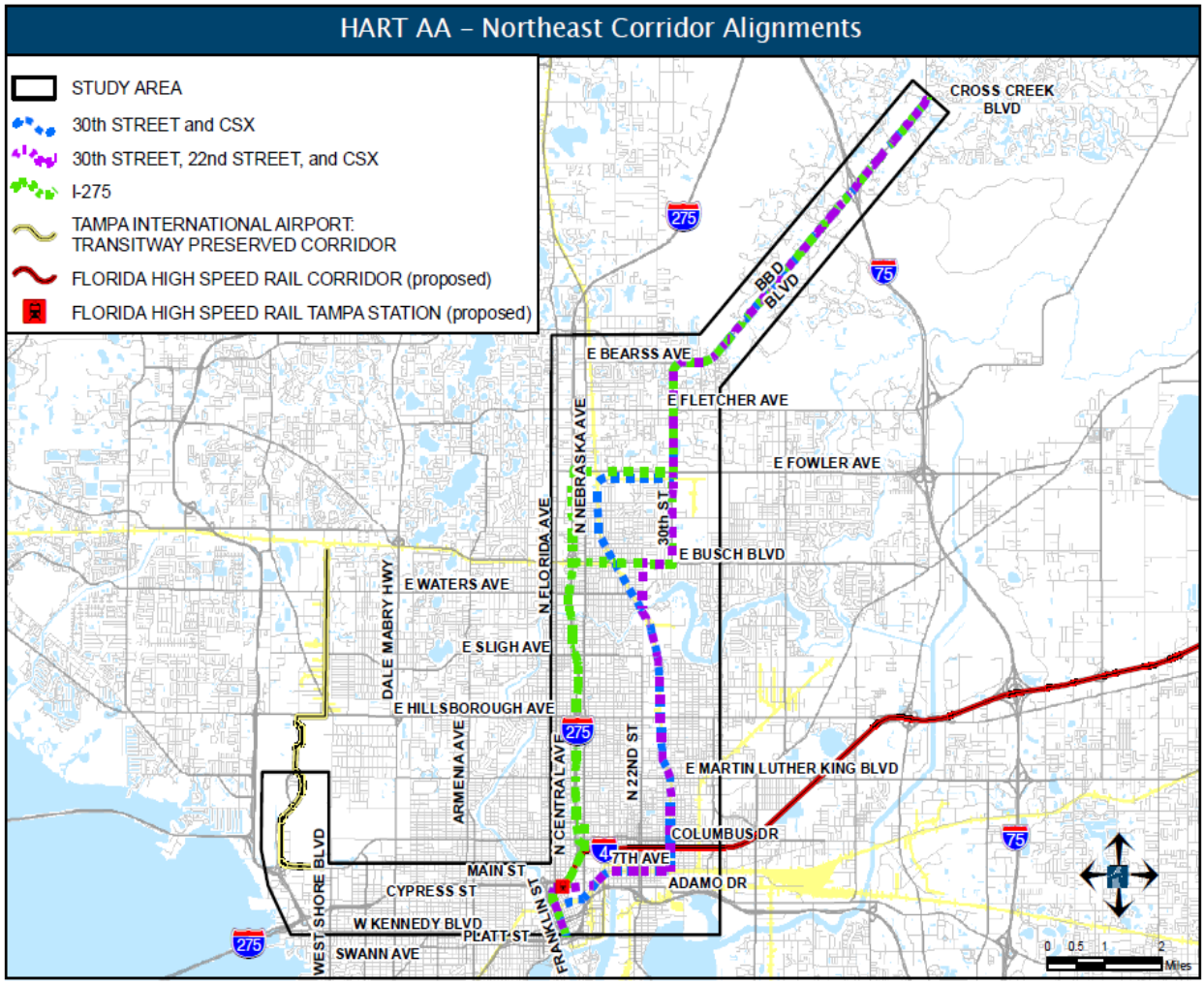

Figure 1-2. Tampa northeast corridor alignments (HART, 2010, slide 10)

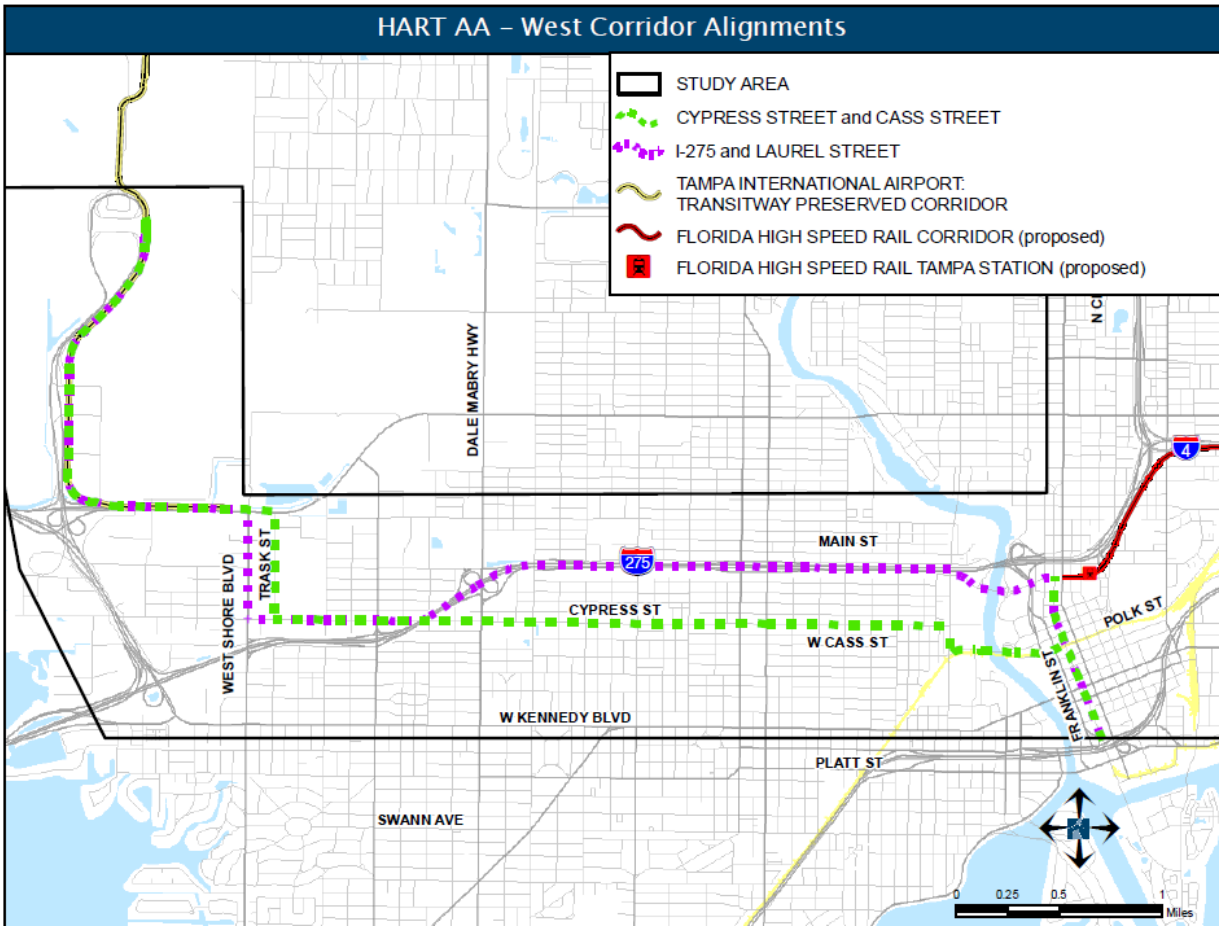

Figure 1-3. HART west corridor alignments (HART, 2010, slide 16)

CHAPTER 2
LITERATURE REVIEW

This chapter examines the various aspects of affordable housing, the relationship between housing and transportation, and the ideal form of development for transit station areas. Furthermore, best practices to account for, and limit the negative impacts of those aspects are discussed. To best understand, the parameters of what constitutes affordability are discussed first.

Affordable Housing

Rent-to-Income Ratio

Planners and other interested parties look to the rent-to-income ratio of households (Levy, 2006, p. 191). Initially, the acceptable threshold thought not to be exceeded for housing expenditure was 25% of income. As of late, economists are looking at a 35% allocation towards housing as being acceptable (Levy, 2006, p. 192). Much of the research I came across oriented evaluations around the 30% threshold. In reality, these numbers are somewhat arbitrary (Levy, 2006, p. 192). One can assume they are notions, like so many others, that were appropriate for one point in time, but no longer reasonable today. Nevertheless, the information exists with these parameters and the best of an imperfect system must be made.

Since 1978, the number of households paying more than 30% of their income on rent has increased by 6.4 million, of which only 2.7 million are the recipients of some form of federally funded subsidization (Quigley & Raphael, 2004, p. 212). Even more alarming, low-income households pay roughly half of their earned income towards housing alone (Arrington & Cervero, 2008, p. 54). According to the National Low-Income Housing Coalition's 2010 *Out of Reach* report, a "full-time, minimum wage

earner could not affordably rent a typical one-bedroom apartment in any county in the country;" that is, to rent a unit without exceeding the 30% threshold (Cohen, Wardrip, & Williams, 2010, p. 6). Not helping this apparent lack of affordable residential options is a widespread disapproval for any actions that may negatively impact a household's property values, especially when those actions are set to occur right in the household's backyard.

Not in My Backyard

Informal discussions of affordable housing often conjure up the mental image of derelict areas, inhabited by the disenfranchised, and undesired by those with the luxury of choice. Over the years, this luxury of choice has resulted in neighborhoods and communities over the years disallowing the development of affordable housing near their properties. They may fear a change in safety, in culture, or the social dynamic of the area around their homes. Most of all, they fear negative impacts on their property values. While this is a common concern (fearing the unknown), with the current downfall of property values, especially residential properties, the desperate could argue they have nothing left to lose, and might as well allow any and all new tenants to move into the area to prevent property values from dropping any further.

All of the fear may be in need of a healthy dose of education and reality however. Though not guaranteed for all scenarios, numerous studies show that more often than not, affordable housing placement has either a positive or neutral impact on the surrounding property values (Galster, 2002) (Nguyen, 2005, p.1). One interesting finding worth noting is that when locating affordable housing in high concentrations, the effect can be a decrease in property values, if the surrounding area has high poverty rates and pre-existing low home values (Galster, 2002, p.2). But, if the large-scale

affordable housing project upgrades the housing stock, has a scale significant enough to change the neighborhood trajectory, and is part of a larger community revitalization strategy, property values may actually benefit (Nguyen, 2005, p. 5). Current residents are likely to prefer a quality affordable housing development over vacant lots or dilapidated buildings (Nguyen, 2005, p. 6). As it stands, there are few incentives for communities to support affordable housing development in argument against the not-in-my-backyard (NIMBY) notion (Lubell & Salamon, 2010). But just because a group of homeowners do not want to see affordable residential units near their homes, does not mean that the demand for such housing is nonexistent.

Demand

As a result of the economic downturn, the housing market has become a buyers' market. Prices for home purchases continue to drop across the country. However, the glut of housing on the market is not resulting in sales because many Americans still cannot afford them (PWC, 2010, p. 3); the ratio of home price-to-income has fallen (Wardrip, 2009, p. 1). As a result, the households that have been foreclosed on are not in the market to buy a new house, nor are the millions of newly unemployed or pre-bust low-income households. The existing lower-income households are now being joined by baby boomers with insufficient retirement savings and young adults who are struggling to find employment in the hunt for affordable housing options, often rentals (PWC, 2010, p. 9). This shows that the issue is not in the availability of roofs to put over households' heads, but in the affordability of said roofs. And as anyone familiar with economics knows, there is no demand issue without a supply issue.

Supply

The real issue with the affordable housing supply is the lack of new unit construction. Developers orient their projects to middle- and upper-income households, so they can increase their profits (Cohen, Wardrip, & Williams, 2010, p. 3) (Lipman, 2005, p. 11). The Harvard University Joint Center for Housing Studies shows that new construction over the last ten years (1995 to 2005) has been developed to serve the top fifth of the rent distribution (Lipman, 2005, p. 12). To make the situation worse, from 1995 to 2005, for every three units added to the rental housing stock, for all incomes, two units were demolished or permanently removed from the inventory (Cohen, et al., 2010, p. 1).

Even though Price-Waterhouse Coopers reports that the safest and most advantageous investments and developments for the foreseeable future (ten years) are mid- and high-rise apartments, and townhouses built around shopping centers and commercial districts (a la mixed-use developments similar to TODs), little development will occur. The banks that were once so willing to provide loans are now fraught with fraud charges for their foreclosure practices (McLaughlin, 2010). On the other hand, life-insurers are willing to consider construction take-outs for apartment projects, provided the developer can front 40% to 60% of the cost in equity (PWC, 2010, p. 10). But, because property values have plummeted, there is little to no equity anywhere available to leverage.

Most decreases in the supply of affordable housing units can be attributed to higher rents (Quigley & Raphael, 2004, p. 202). These rent increases can result from increases in the quality of housing, increases in the quantity of affordable units occupied, or by increases in the price of a quality adjusted unit of housing. The

changes in housing quality can arise from well-intentioned government minimum living standards that cause property owners to invest in their units to keep their contracts with the government (Quigley & Raphael, 2004, p. 200). These added expenses are passed on to the would-be renters. In all, the severely constrained development and the demand from a growing number of young adults and the foreclosed-upon homeowners back in the rental market is yielding lower rental vacancy rates and eventual hikes in the price of rent due to competition (Cohen, Wardrip, & Williams, 2010, p. 3) (PWC, 2010, p. 43).

Production Efficiency

Affordable housing is terribly inefficient to produce. Production efficiency is the ratio of dwelling-unit market value over production cost. Public housing has a production efficiency of .5; meaning the production cost is twice that of the market value (O'Sullivan, 2009, p. 361). This inefficiency derives from two realities. The first being the private sector can produce new low-income housing more efficiently (O'Sullivan, 2009, p. 361). Technologies, superior human capital and other resources, as well as lower opportunity costs contribute to this private sector efficiency. The second reason, there is a plentiful supply of used lower-quality housing. This stock can fluctuate, for example when the government changes quality standards, but whatever older housing units exist they will always cost less than new housing. The demand is greater for older, lower-quality housing (O'Sullivan, 2009, p. 361), when the number one criterion is household finances, as appears to be the current national trend.

Subsidized housing compares more favorably in terms of production efficiency, ranging from .61 to .85 and having a median of .75 (O'Sullivan, 2009, p. 362). Subsidies are another well intentioned program that has unintended consequences.

Property owners, knowing they will receive at least a portion of their requested rents by signing contracts with the government to provide subsidized housing, often choose not to provide unsubsidized housing. Because there is not enough money to subsidize all lower-quality housing, the remaining stock of low-quality housing decreases. These properties are either not rented out because they are allowed to fall into disrepair, or upgrades are made and they filter up to more expensive levels of housing stock (O'Sullivan, 2009, p. 362). Through the process of filtering, the supply of lowest-quality housing is dependent on the construction of housing at all levels (Quigley & Raphael, 2004, p. 205). With the current lending and construction freeze, that stock is not improving. However, even when a property is available for a household to rent with subsidy assistance, they still may not have enough funds to relocate. Market factors such as accessibility and land premiums can raise area rents beyond the 30% threshold, in turn making the units entirely unaffordable to some lower-income households, and not as affordable to others (GAO, 2009, p. 15) (Pollack, Bluestone, & Billingham, 2010, p. 18).

Rather than deal with production inefficiencies, housing voucher programs make use of an available pool of units. Instead of signing contracts guaranteeing a subsidy for a property, vouchers allow the would-be renting household to choose which property would benefit them the most. Vouchers provide a greater range of choice of housing stock for those participating. Vouchers are equal to fair market rent (the 45th percentile of rents in a metropolitan area) minus 30% of a household's income, since that is the arbitrarily expected contribution (O'Sullivan, 2009, p. 364). Because they provide more options, vouchers provide more utility, thus establishing a higher quality of life than if the

household resided in public housing (O'Sullivan, 2009, p. 365). One could also argue that because the decision making is up to the renting household, there will be greater competition amongst properties in the voucher program pool, and the quality of the living arrangements will be greater than properties receiving subsidies or those that are owned and operated by a housing authority. However, voucher accepting property owner(s) volunteer to participate in such a program, and if the owner(s) feel greater, or more reliable, profits can be attained by offering the property at market rates or by up-filtering the property that will likely be the action taken.

The roof over one's head protects him and his own from the elements, provides a sense of ownership, and facilitates the accumulation and distribution of life's other necessities. There is, however, one important condition with housing, and that is people need means to travel to and from the abode. This spawns the concept of the housing-transportation connection.

Housing-Transportation Connection

The relationship between housing and transportation is important to recognize. Everyone needs a place to live while simultaneously needing a means to travel. No single residence includes all of man's necessities, thus there are fiscal and opportunity costs related to where one chooses to live and how one chooses (or may be left with little choice) to transport him or herself. Travel is a derived demand; an individual does not normally receive benefit from the task (Hanson & Giuliano, 2004, p. 339). Perhaps it is because of this derivation that the Bureau of Labor Statistics (BLS) does not categorize transportation as a basic necessity, even though it is the second highest household expenditure, and continues to rise in price (Bernstein, Makarewicz, & McCarty, 2005, p. 5). An increase in travel expense, such as the price of gasoline, will

have a much greater impact on a lower-income household than a household with a higher salary or wages (Bernstein et al., 2005, p. 10).

While a household rent threshold exists, no such standard is in practice for transportation (Transact, 2003, p. 4). One report shows the poorest fifth of American families allot 36% of their expenditures to transportation. Another shows 40% of the same group's after tax income being spent on transportation (Transact, 2003, p. 3). A majority, about 98%, of the transportation expenditures are for the purchase, operation and maintenance of personal automobiles (Transact, n.d.). Together, transportation and housing constitute the livability of a place (Bernstein et al., 2005, p. 6). As recently as early 2010, the average American household spent over 50% of its income on housing and transportation combined (HUD & DOT, 2008, p. 3) (McMillan & Poticha, 2010, slide 10). Many lower-income households have no choice but to continue their rates of spending on transportation. Affordable housing is often located in inner city areas and in suburbs on the outskirts, while jobs are increasingly located in more affluent suburbs (Transact, n.d.). These locations typically lack frequent, if any, transit service or safe pedestrian and bicycle networks (Transact, n.d.). Working households spend, on average, 77 cents on transportation for every one dollar saved in housing costs (Lipman, 2005, p. 8). But, as is the case with most tradeoff scenarios, there is a breakeven point. In the case of housing and transportation, once a household travels more than 12 to 15 miles from its residence to place of employment, the transportation costs begin to outweigh the housing savings for low-income households (Cohen, Wardrip, & Williams, 2010, p. 11). When a lower-income household must purchase and maintain one or two personal automobiles to access job markets, (the most important

destination to access for a household) (Hanson & Giuliano, 2004, p. 336), this nullifies the very purpose of housing assistance programs, which is to help lower the overall cost of living (Transact, n.d.).

There is a potential solution, however. For households spending over 50% of their incomes on housing and transportation, living in location efficient neighborhoods, with good mixes of uses and good access to public transportation, can provide them with a 16% cost savings, when compared to living in automobile dependent areas (Pollack, et al., 2010, p. 14).

For a city such as Tampa hoping to implement an LRT system, multiple policy objectives can be furthered by acknowledging the housing-transportation relationship. As of 2003, Tampa spent the most of any metropolitan area on transportation at $9,300 per year; the equivalent of 24.6% of the average household's budget (AP, 2003). In total, 57.7% of Tampa's expenditures are on transportation and housing; the highest of the 28 major Metropolitan Statistical Areas (MSAs). Transit systems benefit from and depend on racial and economic diversity of the neighborhoods that they serve. Just like the lower-income households, minorities, and renters depend and benefit from living in neighborhoods served by transit (Pollack, Bluestone, & Billingham, 2010, p. 15). In order to do so, the areas around transit stations need adhere to the qualities and characteristics of transit-oriented development.

Transit-Oriented Development

The transportation/land use relationship can be defined as a cycle. The qualities of the transportation system factor into accessibility. Accessibility then plays a role in the location of activities and thus land use patterns. The location of activities, coupled with transportation resources, affects daily activity patterns. The daily activity patterns

then result in travel patterns (Hanson & Giuliano, 2004, p. 239). This cycle, in its definition phase, is neither vicious nor virtuous, it is merely a cycle. At the eye of this vortex should be TOD.

Definition

The Federal Transit Administration (FTA) defines transit-oriented development (TOD) as “compact, mixed-use development near transit facilities and high-quality walking environments” (FTA, 2010). The FTA then goes on to reference the Transportation Cooperative Research Program (TCRP) and its work conducted by the Transportation Research Board (TRB). One such TCRP report says that TOD “refers to moderate- to high-density development, designed with pedestrian priority, located within an easy walk of a major transit stop” (TCRP, 2007, p. 2). This gets more to the heart of what TOD is and the role it can serve in developments. In fact, the report goes on to say that the single most important aspect of a TOD is the walking distance to a transit station (TCRP, 2007, p. 50). Others, such as (Boarnet & Crane, 1998; Loukaitou-Sideris & Banerjee, 2000; and Wilson & Anderson, 1993), are referenced by Richard Wilson as saying that TOD can be described by characteristics such as design and siting, development control issues, and public finance (Wilson, 2005).

The land use and site design can be broken down into density, diversity and design, or the “3 D’s”. Increased densities place more people, jobs and activities within the same area, potentially shortening the distances needed to travel to meet demands. Concentrations of people created by greater densities also help to increase the potential transit ridership market. Diversity refers to the land uses available at a site. A larger array of uses at sites allows for a more evenly distributed travel pattern to and from the site, as opposed to heavy rush hour patterns visible at single use sites. The design

should emphasize pedestrian mobility and accessibility. Without such a focus, the increased density of destinations and diversity of uses in an area are rendered almost pointless (TCRP, 2007, p.49-50).

Essentially, these researchers define TOD by how a jurisdiction might implement such a strategy. TOD cannot so much be described by what it is, but rather by its purpose, functions, goals, designs, forms and scales. Such a notion harkens the response of Supreme Court Justice Potter Stewart in Jacobellis v. Ohio, the colloquialism "I know it when I see it." The significant difference is that there is nothing offensive about smart, sustainable, and potentially, very equitable built environments.

Function

The rationale behind TOD is that of concentrating would-be sprawling development into a form that is more conducive to riding transit (Cervero, 2006, p. 42). By locating in relative close proximity to transit stations and concentrating the growth through medium- and higher-density developments, researchers claim that higher transit ridership returns can be achieved (Arrington & Cervero, 2008, p. 16). TOD can have benefits beyond increased transit ridership (CTOD, 2004, p. 8); it can potentially address housing and environmental issues in cities throughout the United States as well (Wilson, 2005, p. 79).

Some say TODs should focus on efforts such as seeking to create transit villages; revitalization of urban neighborhoods and heightened senses of community; greater social and economic diversity; and improved walking and cycling environments (Hanson & Giuliano, 2004, p. 225). Other researchers claim the goals of TOD is walkability and location efficiency; expanded mobility, shopping and housing choices; regional connectivity; financial return and value capture; and place-making and

community revitalization (Poticha, 2007, slide 3). The Center for Transit-Oriented Development (CTOD) states that a robust mix of land uses is central to TOD. Amenities such as retail and day care, as well as the presence of commercial spaces in residential areas in addition to office development need to all be integrated into station areas (CTOD, 2004, p. 9). More generally, TODs should enable residents to address daily needs within the development, such that fewer automobile trips result (TCRP, 2007, p. 3). This can be done with residential allotments as the significant component, with a mix of shopping and employment (TCRP, 2007, p. 2), creating an all-day and all-week environment (Bernstein et al., 2005) (Cervero, 2008, p. 16).

One TCRP report goes so far as to break down the objectives of TOD down into two subgroups, travel-related and non-transportation objectives. The travel-related objectives of TOD aim to: increase opportunities for residents and workers to meet daily needs by taking transit or walking; attract new riders to public transit, including “choice” riders; shift the transit station mode of access to be less reliant on park-and-ride and more walking oriented; and decrease automobile ownership, vehicular traffic and associated parking requirements that would otherwise be necessary to support a similar level of more traditional development. The non-transportation objectives of TOD may include: providing desirable and affordable housing choices; enhancing a sense of community and quality of life, and supporting economic development and revitalization (TCRP, 2007, p. 2).

These focuses put TOD on a mythical level of sorts, with its attempts to address numerous, typically unrelated issues, that planners routinely encounter. Thusly, TOD has a certain aura to it: the magic bullet in some eyes; an overpriced, exclusive yuppie

theme park in others (TCRP, 2004, p. 377). But before there can be any argument over the merits, or lack thereof, of TOD, certain conditions must be met in the community, city, or region for anything to even be constructed.

Area Characteristics

As mentioned earlier, TODs are often found around fixed guide-way transit networks; heavy rail, commuter rail and LRT. And though, not common, TODs can also be situated around BRT alignments. Regardless of what the mode is, an extensive transit network is necessary for the benefits of TOD to materialize (TCRP, 2004, p. 459). In addition to the advanced network, and quite possibly the impetus to the network's development, an area needs to be experiencing rapid growth, both in population and construction, and needs to be seeing its traffic conditions going from bad to worse (TCRP, 2004, p. 459) (Cervero & Duncan, 2002, p. 6).

Typologies

Considering the various environments in which transit systems and TOD could occur there is, appropriately, an array of station area typologies identified by the literature. Robert Cervero qualifies his four categories of TOD based on the development's relationship to the proximal transit station:

- **Transit-Oriented Development**: has a supporting role
- **Transit-Focused Development**: has a starring role
- **Transit-Joint Development**: is when the transit agency is a land owner and major participant in the financing of the project
- **Transit-Adjacent Development**: projects are located near transit, but do not embrace nor take full advantage of their proximity (TCRP, 2007, p. 2).

The TCRP has a very basic approach to categorizing TODs. Stating that TODs will only occur in two possible environments, its typologies are:

- **City Center TOD**: Generally, these have increased transit ridership, encourage pedestrian activity, and require less on-site parking than more traditional projects.
- **Suburban TOD**: Designed to have passenger drop-off/pickup (kiss-n-ride) parking, as well as park and ride facilities. More of a regional commuter focus; keeping the automobile traffic to a minimum around a locality's activity centers (TCRP, 2007, p. 12).

CTOD provides a thorough breakdown of the expectation for each of its TOD typologies; to include the land use mix, necessary minimum housing density, the extent of regional connectivity of the transit system, and the frequency of the transit system at the station. Refer to Table 2-1 for CTOD's typology breakdown.

Supply

As of 2004, there were over 100 transit-oriented development (TOD) projects throughout the United States; most of which are located around heavy rail, commuter rail and LRT (TCRP, 2004, p. S-1). According to the Center for Transit-Oriented Development (CTOD) and its National TOD Database, by the end of the 2009 calendar year, there were 3,776 station areas and 833 proposed station areas identified (CTOD, 2010). While some of these areas are simply just that, areas, and not TOD projects, the explosion in recognizing TODs over a five year time frame is profound. The perfect TOD storm brings together a mix of uses within walking distance of transit stations, in a design that encourages walking, promotes transit ridership and provides housing choices (CTOD, 2004, p. 9). These characteristics have the potential to foster socially diverse, compact neighborhoods and communities (Hanson & Giuliano, 2004, p. 225), only creating more of an allure to the developments.

Demand

The rapid development of TODs across the country is not by chance. The qualities of TOD, such as social diversity, compactness, functional integration of mixed-

use neighborhoods, and short walking times to transit stations are in high demand by three demographic groups: the elderly; young, childless couples; and immigrants from countries with traditions of transit use (CTOD, 2004, p. 26) (Hanson & Giuliano, 2004, p. 225) (Poticha, 2007, slide 5). Location preferences are showing signs of Americans wanting to shift away from larger homes located on the fringe of suburbia to infill locations in close proximity to what are referred to as 24-hour markets (PWC, 2010, p. 4). The aging baby boomers are looking for greater convenience in downscaled lifestyles. The organization formerly known as the American Association of Retired Persons, (now represented by the characters AARP), reports that 71% of older households would like to live within walking distance of transit (CTOD, 2004, p. 12). Whereas their twenty-something echo-boom children, unimpressed by the suburban way of life and over stimulated by technology, desire a more vibrant, urban experience in which they can live and build careers (PWC, 2010, p. 12). Americans are tired of the cost of upkeep for a big house and of owning and operating an automobile, and the associated costs of commuting in traffic (PWC, 2010, p. 32). The immigrants opt to move to neighborhoods in the United States that bare semblance to those with which they are familiar; those where transit use and compact neighborhoods are common place (Hanson & Giuliano, 2004, p. 225) (Poticha, 2007, slide 5).

Lastly, there are significant issues with the nation's infrastructure. Newer Sunbelt cities, developed through road and highway grids, have become strangled with congestion. Older 24-hour metropolitan areas are in dire need of replacing crumbling bridges, overpasses and tunnels. Water and sewage treatment systems are aging into

inadequacy in many areas. And perhaps more significant than most realize, the nation's power grid dates back to the days of the New Deal (PWC, 2010, p. 32).

All of which is estimated to cost trillions of dollars over a 30 year time frame. Such daunting expenses will undoubtedly force the various levels of government to implement forms of user fees and infrastructure taxes to pay for the upgrades. These additional expenses for residents on the fringe may be significant enough to result in changes of preferences for groups other than the elderly, hip, and foreign-born, to move closer in to a city's activity centers (PWC, 2010, p. 32).

The demand for housing in TODs, or areas of similar form and use, will continue to rise. CTOD estimates that by around 2025, one quarter of all households, double the current rate, will be seeking housing in transit-rich neighborhoods, or transit zones (CTOD, 2004, p. 22) (Lubell & Salomon, 2010, p. 7). Such competition, for what will ultimately be a limited portion of the total housing stock, will have a significant impact on the associated rent levels.

As alluded to earlier, there is a significant connection between a household's expenditures on housing and transportation. The ratio of household income spent on transportation is essentially dependent on the choices made as to where to reside. Gathering from the information collected on TODs, one can put together that a number of the development's facets would cater greatly to lower-income households in need of lowering overall expenditure; making the development form a perfect medium through which to advocate.

Agent of Affordable Housing

Alert of the potential TOD has for the provision of affordable housing units, the federal government acted in a progressive manner. The Department of Housing and

Urban Development (HUD), the Department of Transportation (DOT) and its sub-agency the Federal Transit Administration (FTA), and the Environmental Protection Agency (EPA) formed the Partnership for Sustainable Communities. Some of the guiding principles of this partnership are; the need for a mix of housing types that that are affordable to an array of household incomes in proximity to transit (HUD & DOT, 2008, p. 1), and the promotion of equitable, affordable housing in general (McMillan & Poticah, 2010, slide 6). In fiscal year (FY) 2009 the House Committee of Appropriations' (Committee) Committee Report stated its belief that "transportation, housing and energy can no longer be viewed as completely separate spheres with little or no coordination throughout the different levels of government" (HUD & DOT, 2008, p. 1). The Committee Report then goes on to direct FTA and HUD to carry out better planning and coordination at all levels of government to ensure that affordable housing is located closer to public transit (HUD & DOT, 2008, p. 1). Further emphasizing the point, the Committee states the "preservation of affordable housing should become an integral part of TOD policies" (HUD & DOT, 2008, p. 1).

TOD presents unique opportunities to create housing in proximity to public transportation and to address zoning, land use and financing issues that affordable housing developers typically encounter when developing mixed-income housing projects (HUD & DOT, 2008, p. 3). TOD helps to fill the void that transportation alone cannot. And as a strategy to provide affordable housing, TOD helps maintain the core ridership population, so necessary for enhanced transit systems, which would otherwise likely be displaced (Calthorpe & Fulton, 2001, p. 73). The TCRP goes so far as to say

that affordable housing should provide part or all of the residential mix in a string of separate TODs (TCRP, 2007, p. 2).

Peter Calthorpe states that clustered job centers with a mix of nearby housing, that is appropriate to the salaries and wages of the employees, can reduce the need for long commutes, increase potential for transit ridership (Calthorpe & Fulton, 2001, p. 74), and in the end save residents time and money. Locating affordable housing in a TOD can help households decrease the two largest expenses they encounter, housing and transportation. On average, Americans spend 52 percent of incomes on housing and transportation (HUD & DOT, 2008, p. 3). This is the average! Working-class and lower-income households spend more, and often times have to make sacrifices with, what should be, other basic necessities, such as education and medical care. Poor and near poor households typically allot half of their annual incomes to housing alone (Quigley & Raphael, 2004, p. 191). These households often have to "drive to qualify" before they can find housing meeting their budget and needs. This shows just how essential transportation has become to life, and how it is now inseparable from so many other decisions and problems households must face (Hanson & Giuliano, 2004, p. 9).

The benefits of the transportation, TOD and affordable housing connection are not unknown to those who would reap the benefits, or merely have the ability to choose in such a convenient environment. The demand for housing around transit stations is anticipated to grow from 6 million to 16 million households by 2030 (Poticha, 2007, slide 4). Business owners, notably those in Silicon Valley, are taking notice of the linkage between housing choice and neighborhood livability; that without adequate housing and

a decent quality of life afforded to a household, the businesses will have a difficult time maintaining an affordable workforce (Calthorpe & Fulton, 2001, p. 80).

Inherent Expensiveness

Supply and demand economics shows that with a growing demand, and a limited supply relative to the rest of the housing stock available in this country, the cost to live in a TOD is high and going to increase in the short-term. Even if there was not a strong demand for such housing, fundamental characteristics of TODs make them and the surrounding properties expensive for considerable portions of the population. In a study conducted by the United States Government Accountability Office (GAO), the presence of retail development near transit, proximity to amenities such as schools and parks, proximity to job centers, pedestrian amenities and quality/frequent transit service all push up land and housing values (GAO, 2009, p. 13). GAO then goes on say that the value of land near transit and its tendency to rise quickly upon the announcement of a transit station's opening, the subsequent high cost of land acquisition, and infrastructure and economic conditions, have made it economically infeasible for developers to build affordable housing units proximal to transit (GAO, 2009, p. 32).

Because TODs are often built at higher densities than typical projects of recent decades, they must maximize all available land. Part of this maximization is taking into consideration the development policies that reflect the country's auto-dependence. Parking requirements are not adjusted at TODs for various reasons, but the presence of an expensive, undervalued and unnecessary site attribute takes away a potential 20 to 33 percent of additional development benefit that could have existed (Arrington & Cervero, 2008, p. 54). Compounding on the loss of potential benefit is the fact that structured parking can cost up to $25,000 per space in some instances (TCRP, 2004, p.

100). This oversupply of parking drives up the occupancy cost, because spots are typically bundled with leases (Wilson, 2005, p. 82). The parking ratios and policies that make the amenity so expensive strongly influence a developer's ability to provide social goods such as affordable housing (Wilson, 2005, p. 87).

In order to make the new fixed guide way projects that have blossomed across the country feasible, existing activity centers (housing, employment, entertainment, etc.) were identified and made station areas along the transit alignments. As a result, limited, if any, green fields are available for development and TODs must be located in infill sites, where there is a competition of uses wanting to locate within walking distance of a transit station (HUD & DOT, 2008, p. 4) (Poticha, 2007, slide 6). The associated higher land acquisition costs contribute to the costliness of TODs (GAO, 2009, p. 15). As the number of transit station projects funded through FTA's capital programs grows, so should the efforts to develop new approaches to finance projects within a walkable range (one-half mile) of said transit stations (HUD & DOT, 2008, p. 5).

The fundamental facets of TOD, when left exclusively to the free market, will prevent any rational development of affordable housing. Without strategies to provide affordable housing and protect the foundational identity of already functioning neighborhoods, there is great danger of displacement for lower-income households (Calthorpe & Fulton, 2001, p. 73). However, few local, state and federal programs exist to help develop affordable housing in TODs currently (GAO, 2009).

Best Practices

The United States Government Accountability Office (GAO) reports that few local, state and federal programs exist to help development of affordable housing in TODs. Those that are in practice are primarily from state and local sources, tending to focus on

financial incentives for the developers, and are applicable to any location, not just sites proximal to transit (GAO, 2009). GAO has found that the Sustainable Communities endeavor between HUD and the Department of Transportation (DOT) has had little impact on the development of affordable housing at TODs, despite their programs encouraging just that (GAO, 2009). The Sustainable Communities' programs rarely provide direct incentives to target affordable housing in TODs, the retrievable data is not structured to effectively monitor, evaluate and report results, and worse yet, the partnership may be losing relevance and could miss out on opportunities to use the agencies' unique strengths to achieve the outcomes shared by HUD and DOT (GAO, 2009). The lack of research, to date, linking TODs to affordable housing has negatively impacted policy makers' and private investors' abilities to make informed decisions or evaluate results (GAO, 2009, p. 18).

GAO divides the programs it observed into two categories: incentives and requirements. Incentive programs include:

- Density Bonus Permits
- Parking Reductions
- Tax Increment Financing
- Affordable Housing Trust Funds

The requirement programs include:

- Inclusionary Zoning
- Affordability Requirements on Publicly Financed Residential Development

One of the incentive based programs GAO identified was is in California. The state allocated over $285 million over three years to a TOD housing program. The money was given out on a competitive basis in the form of grants and loans to projects that developed affordable housing within a quarter mile of transit, and allocated at least

15% of built units to affordable housing (GAO, 2009, p. 21). Another program GAO identified is in Portland, Oregon. The city provides property tax abatements to affordable properties located on vacant or underutilized sites. The abatement aids in the reduction of operating expenses for affordable housing property owners and developers through a 10-year maximum property tax exemption (GAO, 2009, p. 22).

Another tool used by local affordable housing providers is land banking. Land is purchased at a low cost in anticipation of future increases in land values. The lower acquisition cost allows remaining funds to be used to make the development more affordable (GAO, 2009, p. 32).

Another technique to aid in the provision of affordable housing units is the low-income housing tax credit (LIHTC). This has traditionally buoyed the supply of affordable housing (Cohen et al., 2010, p. 4). But the economic slowdown, namely the housing industry itself, has rendered this technique almost valueless (GAO, 2009, p. 32). Since developers are building less, they have had lower profits, thus lower taxes. With lower taxes there has been little reason for the developers to feel inclined to build projects that offer tax credits (Cohen et al., 2010, p. 4). Not only that, but financial institutions have been purchasing fewer tax credits, and as a result, prices for tax credits have dropped, further reducing the available funds for affordable housing (GAO, 2009, p. 32). Further limiting the effectiveness of LIHTCs, is their design. The maximum credit allowed is based on the costs allocated only to affordable units. This encourages developers to have as many affordable units as possible; thus, limiting aspects of a mixed-income development (GAO, 2009, p. 33).

The Dukakis Center for Urban and Regional Policy (Dukakis) examined a topic very similar to the research found in this paper. Dukakis looked at transit-rich neighborhoods (TRNs) across the United States and examined whether or not the presence of a fixed guide way transit system leads to gentrification of the neighborhood and to understand the relationship, such that the center could propose "policy tools that could be used to shape equitable neighborhood change in both old and new TRNs" (Pollack, Bluestone,& Billingham, 2010, p. 1). In developing the toolkit, Dukakis found that there is a symbiotic relationship between neighborhoods and a successful transit system; the system benefits from and depends on the racially and economically diverse neighborhoods that it serves, and the low-income households and people of color depend on and benefit from living in neighborhoods served by transit (Pollack, et al. 2010, p. 2, 15,). Another finding was that new light-rail transit (LRT) systems, when compared to commuter or heavy-rail systems, magnify almost every aspect to neighborhood change. This is largely attributed to the locales served by these different scales of rail transportation. LRT serves neighborhoods that tend to be initially dominated by households that rent (Pollack et al., 2010, p. 32), and renter households are more at risk of gentrification and displacement than homeowner neighborhoods (Pollack et al., 2010, p. 15).

The Dukakis policy toolkit is divided into three categories; planning tools, housing market tools, and transportation management tools

Planning Tools

Planning tools should focus on the risks of gentrification and the goals of equitable neighborhood development and all those with a stake in the future of the area (Pollack et al., 2010, p. 35). Planning efforts should also begin early, be intentional, include all

stakeholders, coordinate across agencies and (actually) be implemented (Pollack et al., 2010, p. 36). The specific planning tools Dukakis mentions come from a variety of metropolitan regions across the United States (US) and include:

- Comprehensive TOD Strategy: cities and/or communities develop strategies of production and preservation of affordable housing units near existing or planned transit stations. San Leandro, California uses in-lieu fees gathered from developers within the downtown TOD zone under the cities inclusionary zoning ordinance to subsidize affordable housing units proximal to transit stations (Pollack, 2010, p. 37);

- Community Benefits Agreements (CBA): cities incorporate community benefit agreements, negotiated by community coalitions with developers, into the development approvals, thus making them legally binding. Minneapolis, Minnesota CBAs were developed by four neighborhoods and required four provisions of developers: that 30% of units be affordable with a mix of unit sizes; that developers provide free one-month transit passes to tenants and on-site fare purchases; that bike storage and parking and parking for car-sharing be required; and that parking for personal autos be limited and leased separately from residential units (Pollack, 2010, p. 38); and

- Transit Corridor Planning: through the use of Community Development Corporations (CDCs), a community can plan for equitable TODs around existing and planned transit stations along the transit corridors. Boston, Massachusetts has four CDCs that, with their two goals of bringing transit equity to residents in distressed neighborhoods along the corridor and spearheading smart-growth TOD, have developed a system of 1,500 new and preserved housing units (Pollack, 2010, p. 41).

Housing Market Tools

Housing market tools should be used to optimize the amount of affordable housing near transit; with a focus on rental units (Pollack, 2010, p. 35). Housing market efforts should look to find/create funding for land and property acquisitions; assist in the preservation of existing affordable rental housing; and aid in the production of affordable housing (Pollack, 2010, p. 42). Like the planning tools, Dukakis found examples of housing market tools from across the US, some of which are the following:

- Inclusionary Zoning: this helps a community to ensure that a portion (10% to 25%) of new housing units developed will be affordable. Montgomery County, Maryland requires projects with 20 or more residential units to make 12.5% to 15% of the units affordable for lower-income households in exchange for a 22% density bonus (Pollack, 2010, p. 47);

- Incentive Programs for Housing Production: this practice rewards localities that change their policies to allow for the development necessary for affordable housing near transit. The state of Massachusetts incentivizes communities that adopt overlay districts that support affordable housing zonings. The communities receive an incentive payment as well as a density bonus payment per unit once the units are built, when 20% of the units are affordable on an eight to 20 acre site (Pollack, 2010, p. 48); and

- Incorporating Affordable Housing in Joint Development: when a transit agency owns surplus land around its stations, it often engages in joint developments to increase the agencies revenues. These joint developments are a good opportunity to encourage the production of affordable housing near transit. At least nine transit agencies have joint development policies that encourage affordable housing production; while six others have policies that include affordable housing units in projects even when no written policy exists (Pollack, 2010, p. 49).

Transportation Management Tools

Transportation management tools should function to concentrate core transit riders in transit accessible neighborhoods in order to maximize ridership opportunities (Pollack, 2010, p. 35). In addition, this set of tools should help attract core and potential transit riders to transit-rich neighborhoods, support zero-vehicle households, and reduce the availability of parking. Again, the Dukakis Center found examples from across the US, some of which are below:

- Transit Incentives for Housing Developments: the sale of discounted transit passes to housing developers for distribution to tenants can increase ridership from TODs. The Santa Clara Valley Transportation Authority (VTA) offers deeply discounted transit passes to housing developers. Communities with 25 or more units that join the program must purchase a pass for all residents five years of age and older. The pass prices are based on the number of residents at the complex and the level of VTA service provided to the area (Pollack, 2010, p. 51);

- Reduced Parking Requirements for Residential Development: as discusses throughout my research, the limitation of parking spaces allows for cost savings and increased potential for affordable housing inclusion in a project. Portland, Oregon does not apply parking minimums to developments in the densest commercial neighborhoods. In addition, Portland does not apply parking minimums to any sites within 500 feet of a transit line that provides 20 minute peak service (Pollack, 2010, p. 52); and

- Unbundling Price of Parking: by separating the pricing of residential parking from a unit's cost, parking demand can be reduced and cost savings can be had by those unable to or choosing not to own an automobile (Pollack, 2010, p. 53).

Shelley Poticha, the onetime CEO of Reconnecting America (a nonprofit aimed at integrating transportation systems and the communities they serve), turned Senior Adviser for Sustainable Housing and Communities at the Department of Housing and Urban Development (HUD), laid out seven lessons for TODs in distressed communities. Poticha feels that plans and codes are often not sufficient to stimulate high quality TOD in distressed neighborhoods. She sees a need for strong partnerships between philanthropic groups, local/regional governments, market actors and the community. Poticha advises that plans should focus on the transit/development corridor or the neighborhood around a station, not simply the site to be developed, while keeping in mid that social seams/community hubs are key to successful long-term diversity of the neighborhood. To further support and stabilize that diversity, those in charge need to be proactive about capturing value that is being created around a station. Lastly, Poticha notes transit is a public investment, and thus should provide benefits to a full range of households (Poticha, 2007, slide 18).

HUD and the DOT have identified a list of challenges to developing mixed-income housing near transit.

- There is a higher cost of land because of competing uses desiring to locate within walking distance of transit stations;

- Zoning and other regulations are barriers to affordable housing;
- A complexity exists regarding joint developments, involving transit agencies, private sectors, and other public authorities; and
- Preservation of existing affordable housing in the face of upward pressure on housing prices (HUD & DOT, 2008, p. 4-5).

There are important ramifications to keep in mind regarding the types of policies a municipality chooses. Economists tend not to like the use of rent controls, rent controlled properties or price ceilings. They believe property owners see the limited incomes they agreed to accept as a disincentive to spend more of said limited income on the upkeep and renovation of the units. Furthermore, economists fear the controls can spread to new affordable units, decrease the rate of new construction and eventually lead to an exacerbated housing supply shortage (Levy, 2006, p. 191).

The subsidization of affordable units also has ramifications to keep in mind. A community's ability to subsidize units is limited by other budget demands and the willingness of community members to tax themselves for such a purpose (Levy, 2006, p. 191). However, when requiring affordable housing set asides, communities should place more of the subsidization burden on themselves. Otherwise, the costs of set asides fall onto the developer, and subsequently, onto the buyers and renters of the units that are not part of the set asides (Levy, 2006, p. 129).

Price-Waterhouse Coopers (PWC) points out that land is currently a quarter of peak value and construction costs are down 25% to 30% (PWC, 2010, p. 10). PWC encourages interested parties to buy land now as it will not get any cheaper, and to focus on infill sites because they hold greater promise (investment wise) than greenfield locations (PWC, 2010, p. 11). But, the firm still only emphasizes high quality apartments or industrial properties (PWC, 2010, p. 10).

Federal Funding

To leave out the programs provided by the federal government would be a grand mistake. Thusly, HUD and Federal Transit Administration (FTA) funding programs were sought out as they relate to affordable housing, transit systems and the areas around transit stations.

Three HUD programs are singled out in particular. The Section 202 program provides capital advances to finance the construction, rehabilitation or acquisition of structures to serve as housing for very low-income elderly households (HUD c, n.d.). The Section 108 program provides funding to assist in the housing stock for low- to moderate-income households. The guaranteed loan can be used for housing development, rehabilitation, or public facilities rehabilitation, construction or installation (HUD b, n.d.). The third is HUD's HOPE VI rehabilitation program. This provides grants to fund new construction, rehabilitation, demolition, site acquisition, and community services (HUD a, n.d.).

Though not directly related to TODs or affordable housing, the FTA funding programs identified are significant and can help with some of the costs associated with TODs prior to and after their construction. The Section 5307 program provides capital and operating assistance in urbanized areas and funds for transportation related planning (FTA, n.d.b). Section 5310 is an allotment of funds to each state based on its elderly population. These funds are then distributed to municipalities to assist in the transportation of the elderly (FTA, n.d.a).

There is a list of factors that limit the placement of affordable housing in any location, and the provision of such housing in locations desirable to people of any financial wherewithal is that much more difficult. The development of station areas is

also very financially intensive and can also hurt members of the community already residing in the area. And while some have attempted to identify mechanisms that support existing lower-income communities located around advanced transit systems and further development of affordable housing options proximal to transit, more needs to be identified and examined. The housing-transportation connection is too important, especially at a time like now, with so many people facing joblessness and/or homelessness, to continue to put little effort into researching.

Table 2-1. CTOD station typologies

TOD Type	Land Use Mix	Minimum Housing Density	Regional Connectivity	Frequencies
Urban Downtown	Office Center Urban Entertainment Multifamily Housing Retail	>60 units/acre	High Hub of Radial System	<10 minutes
Urban Neighborhood	Residential Retail Class B Commercial	>20 units/acre	Medium Access to Downtown Subregional Circulation	10 minutes 20 minutes off-peak
Suburban Center	Primary Office Center Urban Entertainment Multifamily Housing Retail	>50 units/acre	High Access to Downtown Subregional Hub	10 minutes peak 10-15 minutes off-peak
Suburban Neighborhood	Residential Neighborhood Retail Local Office	>12 units/acre	Medium Access to Suburban Center and Access to Downtown	20 minutes peak 30 minutes off-peak
Commuter Town Center	Retail Center Residential	>12 units/acre	Low Access to Downtown	Peak Service Demand Responsive

(CTOD, 2004, p. 32)

CHAPTER 3
METHODOLOGY

This is a review of existing practices to understand best practices, and how said best practices apply to a case study of Tampa, Florida. The United States Government Accountability Office (GAO) reports that, currently, there has been little research that specifically links transit-oriented developments (TODS) to affordable housing (GAO, 2009, p. 18). This research attempts to shrink that void by examining best practices in the provision and preservation of affordable housing and the development of TOD. The goal is to find policies and programs that work cohesively such that the development and preservation of affordable housing around transit stations, particularly light-rail transit (LRT), can be done in spite of the economic trends preventing their co-existence.

The best practices will be applied to the City of Tampa, its affordable housing policies and programs, its proposed LRT system, and the presumed TOD that would surround the LRT stations. Similarities between the best practices and Tampa's programs would indicate that Tampa is taking the necessary actions to support affordable housing in LRT station areas. Any best practices missing from Tampa's would be noted as an area in need of improvement. Any tools proposed by Tampa but not identified in the best practices will be highlighted as positive efforts in the development and preservation of affordable housing in, at and around transit stations.

Of the utmost importance, before any research can be conducted, is verification that Tampa is indeed in need of an increase in its affordable housing stock is necessary. This is done by examining the Department of Housing and Urban Development (HUD) *Consolidated Plan* for the City of Tampa, as this report identifies a city's housing needs.

Review of Best Practices

Literature

Through the review of the literature on TOD, best practices, in regards to cost savings techniques, are identified. These best practices will be one means of comparison to the policies and programs the City of Tampa has thus far outlined for use in the development of its LRT system. The GAO report on *Affordable Housing in Transit-Oriented Development* and the Dukakis Center for Urban and Regional Policy's report on *Maintaining Diversity in America's Transit-Rich Neighborhoods* are primary sources to identify ideal practices.

Special attention is paid to economic trends that may make some techniques less viable than others. In addition, remarks on potential difficulties or unintended consequences that arise from particular techniques will be taken in to account when examining Tampa's policies.

Peer Cities

Furthermore, three cities were identified by various elected officials and figureheads from the Tampa Bay area because they too were sprawling cities that grew up around the automobile, but decided to be proactive and implement LRT systems (Brassfield, 2008). These cities are Charlotte, North Carolina; Dallas, Texas; and Denver, Colorado. Each of these "peer" cities will be examined in three regards.

The first is to examine their TOD and transit system characteristics. Their definitions of TOD, their goals and purposes for TOD, and their station typologies will be identified, much like the information in the literature review. By looking at the definitions, goals and purposes of the three cities' TODs one can determine what the desired results of TOD are. If the goals and purposes make no mention of housing, or

neglect affordable housing, this would highlight a deficiency in the practice and would indicate an area in which Tampa would need to be creative. In addition, information regarding lessons learned from the TOD process will be noted. This is under the assumption that if followed, the lessons will lead to cost savings, and thus greater discretion with remaining funds to support housing affordability initiatives.

The second means of examination is to take a look at each of the three cities' policies regarding affordable housing. Goals and means of achievement will be used as comparison against those of the City of Tampa.

Lastly, I will examine one specific TOD with affordable housing located within from each of the three cities. I do this because theory and practice are often not the same in the planning realm. These examples of TODs show which types of programs can be expected to be applied realistically.

Summary

Using information gathered from policy document pertaining to affordable housing, TOD, and their coexistence, a comparison of the goals, objectives, policies and programs between the City of Tampa and its peer cities is conducted. The goal is to determine whether or not Tampa is in need of more affordable housing, and whether or not, the city is planning appropriately for its development in conjunction with the city's proposed LRT system; all while highlighting the importance of the connection between transportation and housing.

While this report provides a basic window into the difficulties encountered in the development of both affordable housing and TOD, and especially their co-development, further, advanced research would provide a more in depth product. The framework could, however, be easily adapted to fit any other metropolitan region that is in short

supply of affordable housing units and that is planning to implement a fixed guide way system, with TOD as the preferred development strategy around and the stations.

CHAPTER 4
FINDINGS

Population Growth and Transportation System

Tampa, Florida is located in central Florida, with Tampa Bay as a means of access to the Gulf of Mexico (Figure 4-1). The Tampa MSA population grew from 2,395,997 in 2000 to 2,747,272 in 2009 (US Census Bureau, 2009). This is an increase of 14.6% over that time frame. This, as of the 2000 census, made Tampa the third most populous city in the state. The Tampa metropolitan statistical area (MSA), however, was the most populated MSA in the entire state of Florida, at the time of the 2000 Census (State of Florida, n.d.)

Upon completion, the two segments of Tampa's light-rail system will cover over 25 miles and serve 24,000 riders per days, or 960 riders per mile. With constant population growth, but slowed housing construction and finite employment opportunities there is sure to be a need for affordable housing opportunities.

Need

The Department of Housing and Urban Development (HUD) *Consolidated Plan* for the City of Tampa states that a "majority of low-income households in Tampa need relief from cost burden" (HUD, 2007, p. 1). Of the 11,442 renter households that are extremely low-income households, those making less-than or equal to 30% of the Median Family Income (MFI), 72.4% are cost burdened (paying more than 30% of household income for housing costs) and 59.4% are severely cost burdened (paying more than 50% of household income for housing costs). Of the 8,184 identified low-income (making 30% to 50% of MFI) renter households, 82.8% are cost burdened and 35% are severely cost burdened (HUD, 2007, p. 33).

Much like the national trend discussed in the Literature Review in Chapter 2, Tampa is witnessing rents increase more quickly than average wages. So, while rental units were plentiful in 2005, because they were market rate rentals, extremely low-income and low-income households could not afford to reside in them (HUD, 2007, p. 39). Tampa's "level of need continues to outstrip the resources available to meet the housing and supportive service needs of the city's extremely low-, [and] low-…income households" (HUD, 2007, p. 40).

Tampa's affordable housing need seems in danger of growing ever yet. Nonprofit affordable housing developers in Florida have a difficult time obtaining the necessary capital to fund land costs and predevelopment expenses (AHSC, 2009, p. 4). Furthermore, in 2009, the Florida State Legislature announced that it would be pulling $190 million from the pot of funds assigned to providing apartments and moderately priced homes for working-class households (Wade, 2009). This change in policy requires a county to have occupancy rates at or above 95% for existing affordable housing in the past six months to qualify for housing tax credits. Hillsborough County's occupancy rate is estimated to be slightly above 90%, while Tampa's rate is estimated at 94.3%. As Mark Hendrickson, Hillsborough's financial adviser for affordable housing, says, "There's a misconception that foreclosures and falling house prices mitigate the need for new affordable rental housing. As if housing that once sold for $225,000 and now sells for $170,000 is somehow affordable to a family earning $30,000 a year" (Wade, 2009).

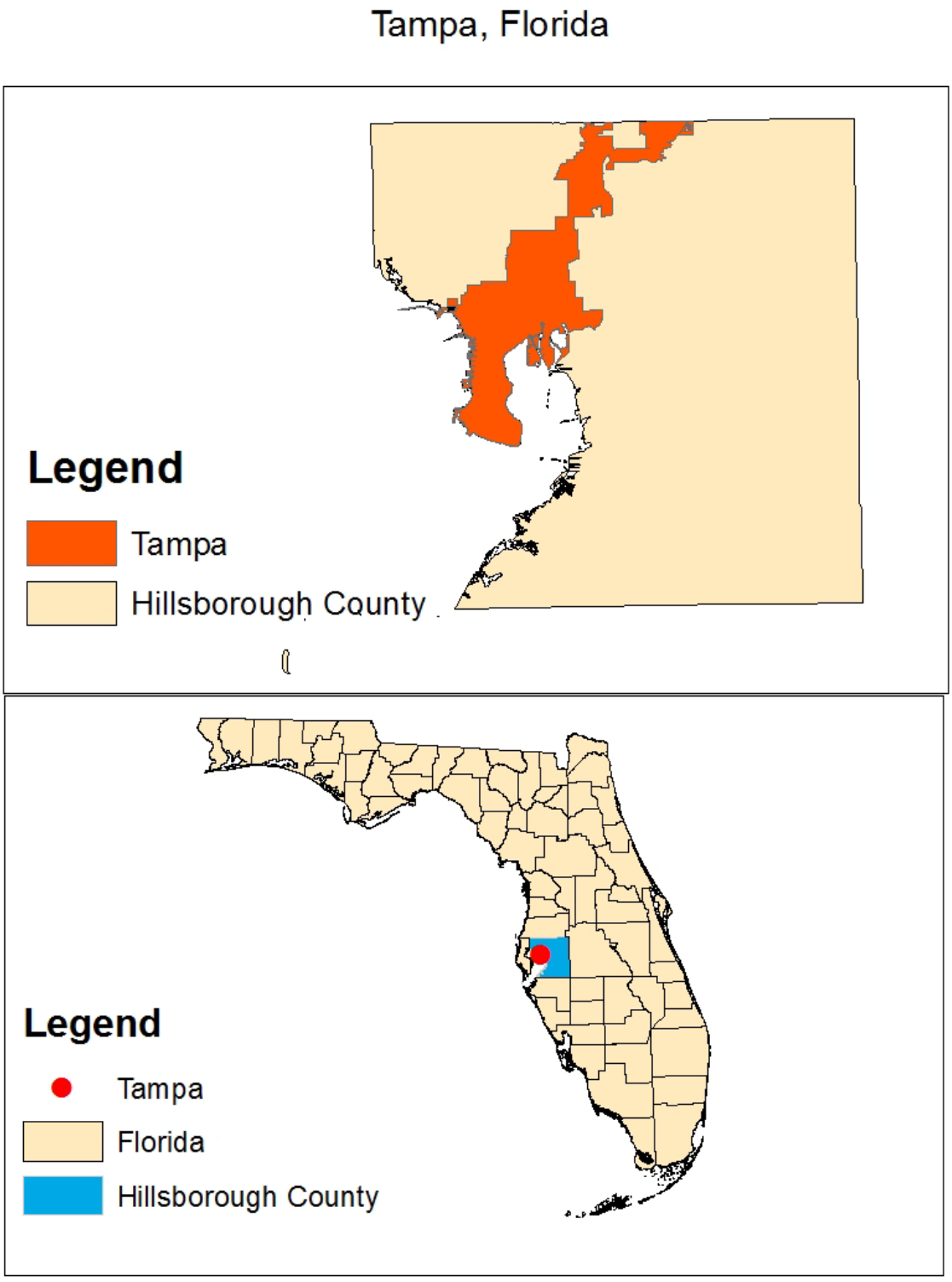

Figure 4-1. Tampa, Florida (FGDL, 2008)

Charlotte

Once Tampa made the public aware of its intentions to take a closer look at Charlotte, Charlotte's Mayor, Pat McCroy, wasted no time in offering assistance. At the 2009 Regional Transportation Forum in Brandon, Florida, McCroy cited Charlotte's LRT line, LYNX, as a model of the advantages such a system could bring to Tampa and Hillsborough County (Yaniz, 2009).

Transit System

Charlotte's LYNX system is currently classified as a small rail system, but by 2030, if funding and development keep pace, is expected to be a large system much like Tri-Met LRT seen in Portland today (Pollack et al., 2010, p. 9). The LYNX Blue Line alignment is 9.6 miles long, serving 15 stations, with 10-15 minute peak service, for seven days a week (CATS, 2010b). Once complete the system is expected to boast 25 miles of commuter rail, 21 miles of LRT, 16 miles of streetcar and 14 miles of BRT (CATS, 2010c) (Figure 4-2).

City and Regional Growth

Charlotte has been one of the fastest growing cities in the country over the past few decades. From 1980 to 2005, the metropolitan area saw its population grow from the 47th largest to the 20th largest in the United States (CMPC, 2008, p. 3). From 2000 to 2009, the Charlotte MSA saw its population increase from 1,330,448 to 1,745,524; an increase of 31% (US Census Bureau, 2009). From there, the population is expected to gain roughly another 350,000 residents by the year 2030 (CMPC, 2008, p. 3) (Harmon, 2005, slide 5) (Parker, 2008). The Charlotte metropolitan region anticipates growth from 1.8 million residents to 2.5 million by the same year (CATS, 2010a). This growth brought about the sprawling development seen all across the United States outside of

city downtowns and central business districts. The density went from about 7 people per acre in 1950, to 3.6 people per acre in 2000 (Parker, 2008).

Recognizing this rapid growth, the limitations of their current growth framework, and the need to provide choices to support the future growth, Charlotte officials, business leaders and citizens, set out to create a "centers and corridors" vision to help guide future land use in the region in 1994 (CATS, 2010a) (USCM, 2003). This vision was updated August 2010, and has become known as the *Centers, Corridors, Wedges: Growth Framewor*k (CMPC, 2010). Some of the aspects of this approach pertaining to TOD include making transit possible through increased development within corridors; and providing the framework for mixed-use development projects to emerge within the centers and corridors. Within the context of the growth corridors, Charlotte developed Transit Station Areas to help complement the investments in transit, while also accommodating portions of the city's future growth (CMPC, 2008, p. 3).

TOD

Definition, purpose, goals

The Charlotte Area Transit System, CATS, defines TOD as "high quality urban environments that are carefully planned and designed to attract and retain ridership… [providing] a pedestrian friendly environment" (CATS, 2010a) (TCRP, 2004, p. 6). TOD, along with integrated land use planning, is the cornerstone of the 2025 Integrated Transit/Land Use Plan that was developed in 1998, nine years before the LYNX system began operations (CATS, 2010a) (CMPC, 2008, p. 4). Since then, in 2002 and 2006, the Metropolitan Transit Commission has adopted the 2030 Transit Corridor System Plan to build upon the 2025 plan (CATS, 2010a).

Development process

Charlotte created a framework from which to work from when considering TOD. The process examines the following:

- Land Use Vision/ Land Use Plans
- General Development Policies
- Transit Plans
- Station Area Development Principles and Policies
- Station Area Plans
- Zoning
- Infrastructure, and
- Development Proposals (Parker, 2008)

TOD supporting programs

Believing that the pedestrian environment is the most important element in overall site design, the City of Charlotte chose to take a form based code approach to the design of station areas. The city did not want to create an imposing feeling on residents across the street from the development and wanted to keep the character and feel of the neighborhood consistent (CMPC, 2006, p. 4). The city proposed to offer density bonuses to achieve affordable housing goals (CMPC, 2006, p. 14). Its limitation of parking, through a variety of plans, also allows more land to be developed and fewer unnecessary costs (elevated parking structure expenses) to be passed on to would be residents (CMPC, 2006, p. 8). One such parking plan aims to determine parking demand by considering “a minimum ratio for residential development (perhaps 1 per unit/bedroom), but allow exceptions based on more nuanced factors: number of bedrooms, level of affordability, presence of age restrictions, distance from station, parking plan, TDM measures, parking mitigation measures, and other such factors that impact parking demand” (CMPC, 2006, p. 8).

Lessons learned

Charlotte provides a handful of lesson learned from its efforts to implement TOD.

They are:

- Cannot wait until building the transit system to think about TOD
- Planning for transit and TOD is a multi-disciplinary effort
- Include the development community as a partner
- Try to expedite transit planning to meet developer needs
- Plan to compromise (Harmon, 2005, slide 29)
- Haste kills good projects
- Plan ahead; avoid “now or never situations”
- Be willing to start over if required, and
- Non-market driven objectives are costly
- Affordable housing
- Open space
- Public facilities (CATS, 2008)

Station typology

Charlotte has also developed five station area types as part of its Transit Station

Area Plans, and they are:

- **Urban Stations:** are walk and bike up stations that serve the area within a 1/2 mile radius of the station. They do not include park-and-ride facilities. Urban stations are designed to fit within the existing community fabric.

- **Neighborhood Stations**: are primarily walk and bike up stations that serve a 1 mile radius with the support of bus connections. They may include small park-and-ride facilities. They are also designed to fit within the existing community fabric.

- **Community Stations**: serve multiple destinations within a 3 mile radius with heavy reliance on bus connections and park-and-ride facilities. They are often located in areas that are not initially transit oriented, but will transform into transit oriented areas over time.

- **Regional Stations**: are located at the end of the line or near regional roadways, serving an area of 5 miles or greater with the assistance of bus connections and park-and-ride facilities. Even though they are frequently located in greenfield environments, their access creates a relatively strong potential for transit oriented development.

- **Multi-Modal Stations**: are located at the confluence of multiple rapid transit lines, providing transfer between these modes. Multi-modal stations play a key civic role and include high-quality finishes and public space (CMPC, 2008, p. 7).

Affordable Housing

Charlotte uses two programs to assist in the provision of affordable housing units. The first is what GAO calls TOD acquisition funds. The Charlotte City Council allotted $5 million to the South Corridor Land Acquisition Fund to procure land near the region's planned transit stations along the LYNX South Corridor for TODs; particularly those aimed to provide affordable housing (Pollack, 2010, p. 43). The second program is an affordable Housing Trust Fund (HTF). This program started with $10 million in 2001 to assist in affordable housing financing. Using a competitive bidding process, Charlotte uses the funds to provide public financing to private developers in exchange for affordable units (Pollack, 2010, p. 44). These funds can be used for land acquisition or construction, and can be provided to developers in the form of a grant or a loan. Charlotte used $4.3 million from the HTF to support a development on a 10-acre site that includes 100 affordable and 92 market rate rental units within the LYNX South Corridor. This was the first mixed-income housing project in the South Corridor and opened in 2007 (Pollack, 2010, p. 44). The project also used LIHTCs, bonds and other funding.

Station Example

Along the LYNX South Corridor Charlotte utilizes TOD acquisition funds. One of the stations to benefit from this money source is Scaleybark Station (Figure 4-3). The city, using the acquisition funds and other monies collected, purchased 17 acres of land for $9.2 million and planned to include 80 affordable units as well as 820 market-rate housing units (Pollack, 2010, p. 43). The affordable units must remain as such for 30

years (Housing Partnership Network, 2007). Although the percentage of affordable units to total units is low (10%), this could be because this is the city's first attempt at such a project and wanted to ensure developer support.

To ensure the project was carried out as desired, the Charlotte City Council adopted the *Scaleybark Transit Station Area Plan.* In which are two provisions aimed at affordable housing. The first seeks to support moderate density residential use of duplexes, and should be redeveloped with low- and moderate-income housing in mind. The second seeks to maintain a separate apartment complexes' density of 17 dwelling units per acre (dua), and to consider a low- and moderate-income housing component if redeveloped. Both of these provisions would be achieved as development occurs through zoning changes (Charlotte City Council, 2008, pp. 10, 13, 34, 35).

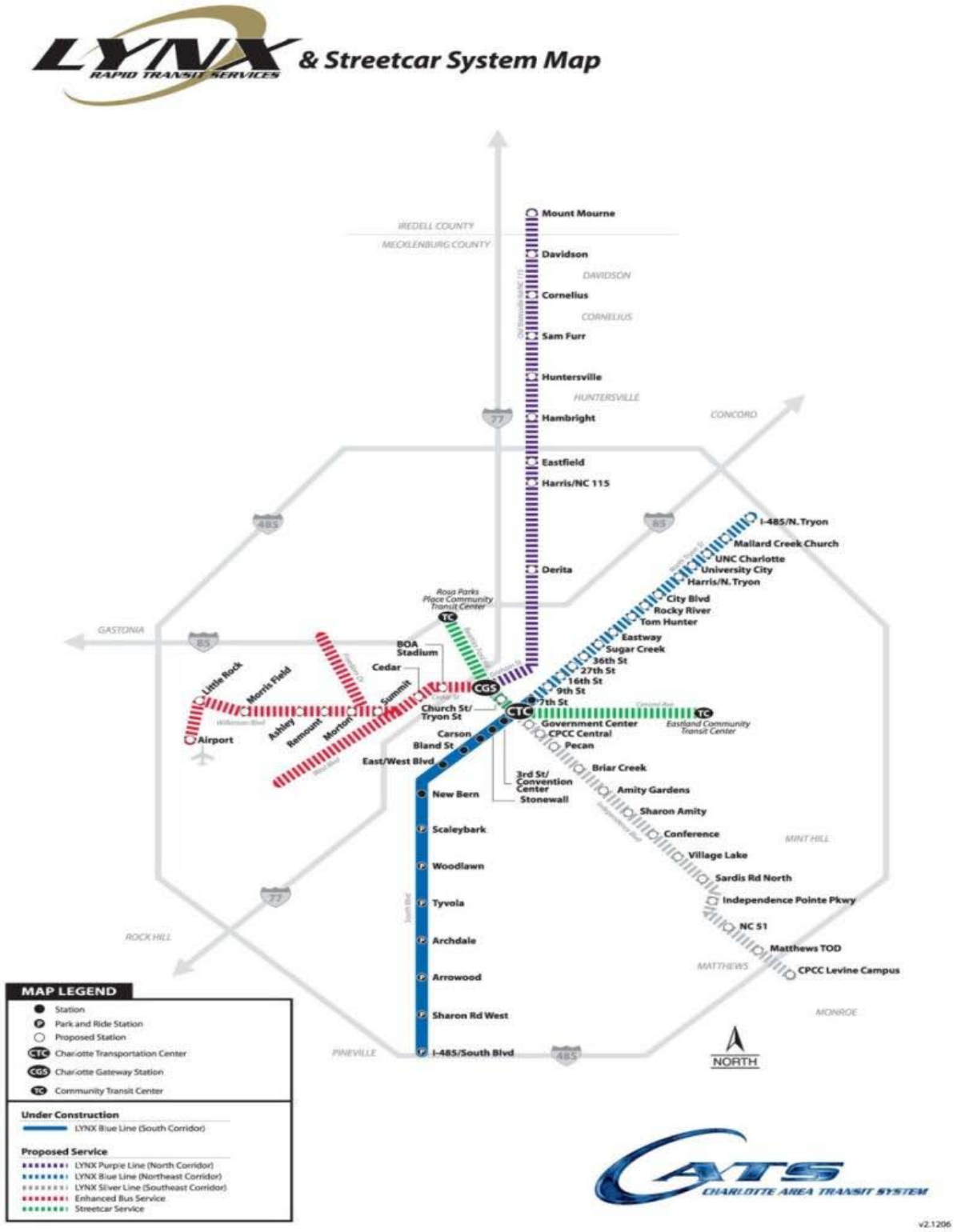

Figure 4-2. Charlotte Lynx system map (CATS, 2010c)

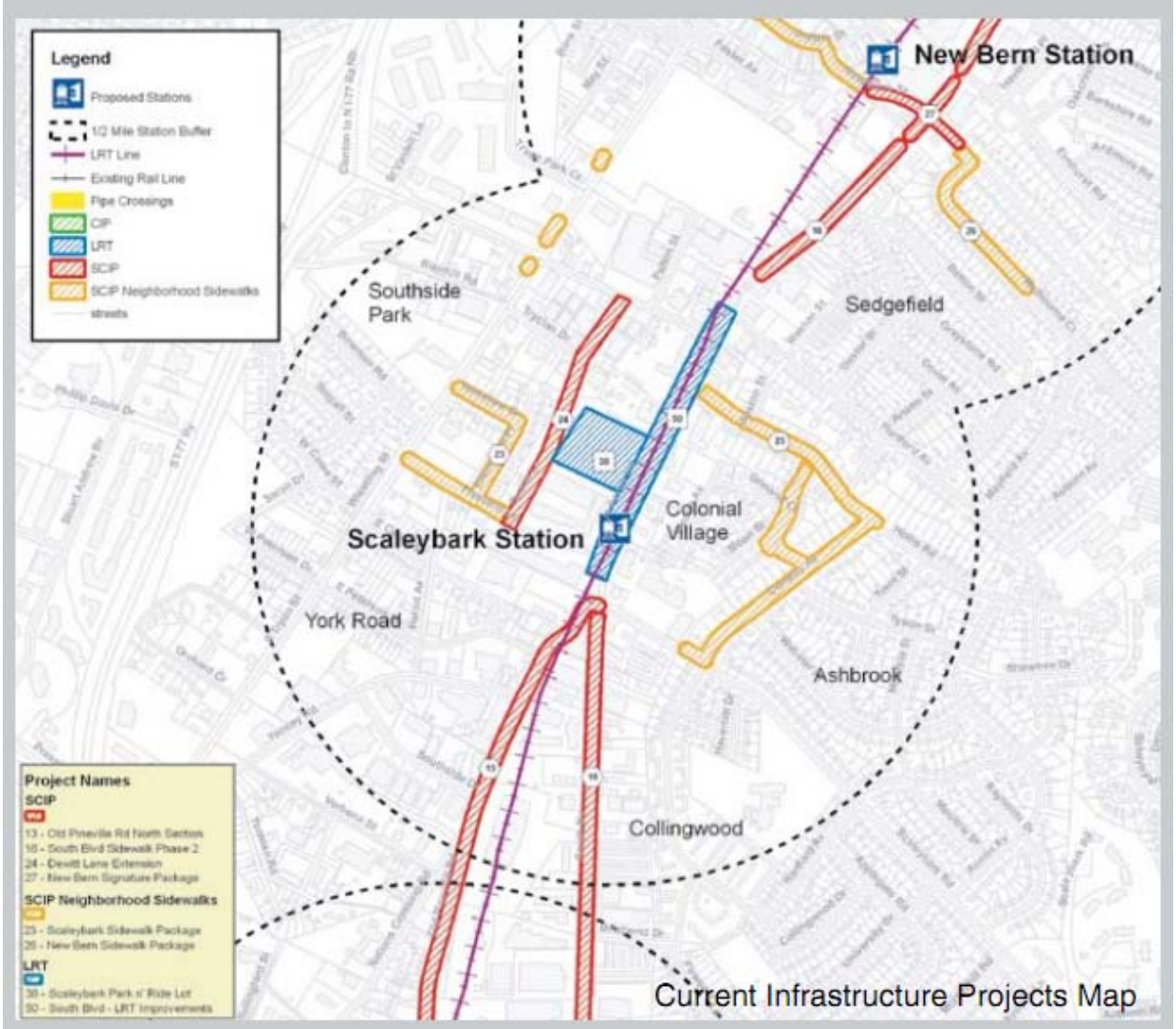

Figure 4-3. Charlotte Scaleybark Station area (CMPC, 2005, p. 4)

Dallas

Transit System

Dallas Area Rapid Transit (DART) serves the Dallas metro-plex. With its 48 miles of light-rail tracks, serving 39 stations, the system is considered medium-sized. However, by 2030, the network will have nearly doubled, up to 90 miles of light-rail tracks, and will be considered a large system (Pollack, et al., 2010, p. 9) (DART, 2009, p. 1) (Figure 4-4). Dallas created policies pertaining to the development around its stations back in 1989 (DART, 1989). More recently, DART uses its *Transit-Oriented Development Guidelines*, which still includes the original policies as part of the planning process (DART, 2008).

City and Regional Growth

The Dallas MSA, already brandishing the tagline metroplex, saw its population grow from 3,451,226 to 4,326,384 between 2000 and 2009 (US Census Bureau, 2009). This is a growth of about 25% over that time.

TOD

Definition, purpose, goals

Dallas has been building TODs since 1992 (City of Dallas, 2010, slide 3). To DART, TOD is "characterized by the integration of transit facilities or elements, either bus or rail, throughout the development of intensive, high quality uses oriented towards DART facilities by others and/or development which is located adjacent to a transit facility; [TOD] shares a functional or financial relationship to the transit system" (DART, 2008, p. 58). Others characterize Dallas' purpose for TOD as a means of place making and creating value (TCRP, 2004, p. 299).

DART sees great potential in TOD around its LRT stations. To ensure success the agency developed five goals:

- Increase transit ridership through the coordinated planning of land use and development of properties at and/or near DART stops, stations and transit centers;
- Enhance the value of DART real property and other assets by designing transit facility access, and circulation to accommodate future TOD while maintaining accessibility and visibility to transit;
- Encourage intensive, high quality development projects on and around DART station properties and along DART transit routes and corridors;
- Enhance the quality of life at and around DART stations through the coordinated development of accessible pedestrian and non-motorized environments at transit stops and stations; and
- Use the appropriate method of disposing of DART real property for Transit Oriented Development projects to achieve specific development objectives and demonstrate a fiscal benefit to DART (DART, 2008, p. 58).

TOD supporting programs

Dallas, like many cities hoping to support underserved areas by capitalizing on the growth of other regions of the municipality, decided in December 2008 to start utilizing a Tax Increment Financing (TIF) program (City of Dallas, 2010, slide 11). The city claims that an investment of $506 million in TIF expenditure will yield $6.2 billion in added or anticipated value (City of Dallas, 2010, slide 4). As of FY 2009, the city had 17 active TIF districts. In which, 15,244 residential units have been completed, 2,000 were under construction at the time, and 15,000 were planned (City of Dallas, 2010, slide 4).

Dallas officials are quick to point out that a TIF district alone will not solve a municipality's problems. TIF helps, but can be insufficient in large or struggling markets. The city recommends orienting a TIF district around what it calls a catalyst project. Without such a project, there will be no increases in property values, and thusly no revenue generated for the district (City of Dallas, 2010, slide 10).

The revenue generated from the TIF district is planned to be used on TOD projects that will diversify retail and commercial uses, add residential density and destination-related activities near DART LRT stations, and to provide affordable housing options in its northern sub-districts and mixed-income housing in the Lancaster corridor (City of Dallas, 2010, slide 12). From the district that includes the much observed Mockingbird station, 20% of generated funds are dedicated to the affordable housing line item of overall TIF budget, whereas the Cedars district contributes 10% of its generated revenue to the same cause (City of Dallas, 2010, slide 19).

Lessons learned

- Create Districts, not sites
- Master Plan
- Multimodal Accessibility
- Build on Existing Strengths of the Districts (City of Dallas, 2010, slide 10)

Station typology

Dallas takes a very basic approach to typifying TOD stations. The city uses only two types: Urban Infill Stations and Suburban Stations (DART, 2008, p. 11, 13).

Affordable Housing

As stated above, Dallas recognizes that TIF alone is insufficient. In a presentation to the City of Houston, the Dallas Department of Economic Development laid out numerous other funding programs to seek out and/or implement:

- Economic development department to oversee: New Market Tax Credits; Public Improvement Districts; Municipal Management Districts; EB-5 visa program, which assists immigrant investors
- Historic Tax Credits/Other Tax Credits
- DART Surplus Property Program
- HUD Financing: Low-Income Housing Tax Credits (LIHTC)

- Funding from other taxing entities; in this case Dallas County's Capital Improvements Plan (CIP)
- City of Dallas Housing Department: Community Development Block Grant (CDBG) Section-8 loan program; Housing Finance Corporation assistance, and
- City of Dallas general obligation bonds (City of Dallas, 2010, slide 23).

TOD Example

One of DART's TOD corridors is the Lancaster Corridor, which contains five station areas (Figure 4-5). This corridor is of particular importance because it is a focal point of the Dallas Mayor's Southern Dallas Task Force (ECODEV, 2010b, slide 5). The Lancaster Corridor is estimated to have a total budget allocation of $99,417,349 by the project's end, which at the latest would be December 2038 (Dallas ECODEV, 2010b, slide 7-8). The four TIF districts have a set of development goals covering a variety of topics. Those pertaining to residential development are as follows:

- To attract higher density new private development in the TOD TIF District totaling approximately 2,480,000 square feet of new or upgraded retail and office space and 13,900 residential units, including townhome, multi-family, and single-family projects;
- To focus on encouraging the redevelopment of properties in the TOD TIF District, increase density and provide enhanced urban design for the various station areas;
- Encourage development projects that will increase DART ridership at rail stations within the TOD TIF District;
- To maintain the stability of local schools as redevelopment occurs in housing market and promote improved training and job creation through partnerships with Southern Methodist University, Dallas Community College District, the VA Hospital, Urban League, and the future University of North Texas Law School; and
- Add residential density including but not limited to provisions of affordable housing, elderly and special needs housing, and a sustainable mix of product types and destination related activities near DART light rail stations within the District to promote overall system ridership and increase ridership levels at the specific stations in the District (ECODEV, 2010b, slides 8, 10-11).

In all, Dallas hopes to raise $43,601,599 for affordable housing in the four TOD TIF sub-districts (ECODEV, 2010b, slide 12).

Dallas' catalyst project for this site includes the expansion of the existing Urban League building (ECODEV, 2010b, slide 14). The Urban League provides training, education and social services to members of the community (City of Dallas, 2010, slide 27). This expansion would allow for additional training and education to better prepare individuals for the increased job availability once the VA Medical Center (VA) completes its own expansion. The VA made it clear that there is a need for increased housing and retail opportunities in the area for employees and visitors (ECODEV, 2010b, slide 15). The Lancaster Urban Village Project (the Project), is a mixed-use building that will contain approximately 193 residential units, 4,500 square feet of club/office space, and 14,100 square feet of retail/small office space. A 395 space structured parking garage will serve both the Project and the Urban League expansion. Most importantly, "all 193 units will meet affordable housing criteria based on projected rents, with a minimum of 20% required to be affordable (City of Dallas, 2010, slide 27) (ECODEV, 2010b, slide 16).

The total project cost is estimated to be $25,834,231, with TIF money covering $8,492,273, or 32.9% of that cost (ECODEV, 2010b, slide 24). In order to fund the Project, Dallas proposes to utilize four funding sources: HUD 221(d)(4) monies; HUD/City of Dallas Section 108 loans; public-private partnership funds; and New Markets Tax Credits (City of Dallas, 2010, slide 32) (ECODEV, 2010b, slide 20). The TIF money will be used as the repayment source for the Section 108 loans. Dallas claims that the TIF support will foster an affordable, higher-density mixed-use project,

allocating $4,276,600 to affordable housing in the Project (ECODEV, 2010b, slide 21). Because the Project was structured with non-profit ownership, it will not generate its own tax increment. Thusly, the stakeholders continue to seek alternative funding sources. In order to hasten the Section 108 loans, the Project receives first priority in future increment transfers from the other TOD TIF sub-districts (ECODEV, 2010b, slide 23).

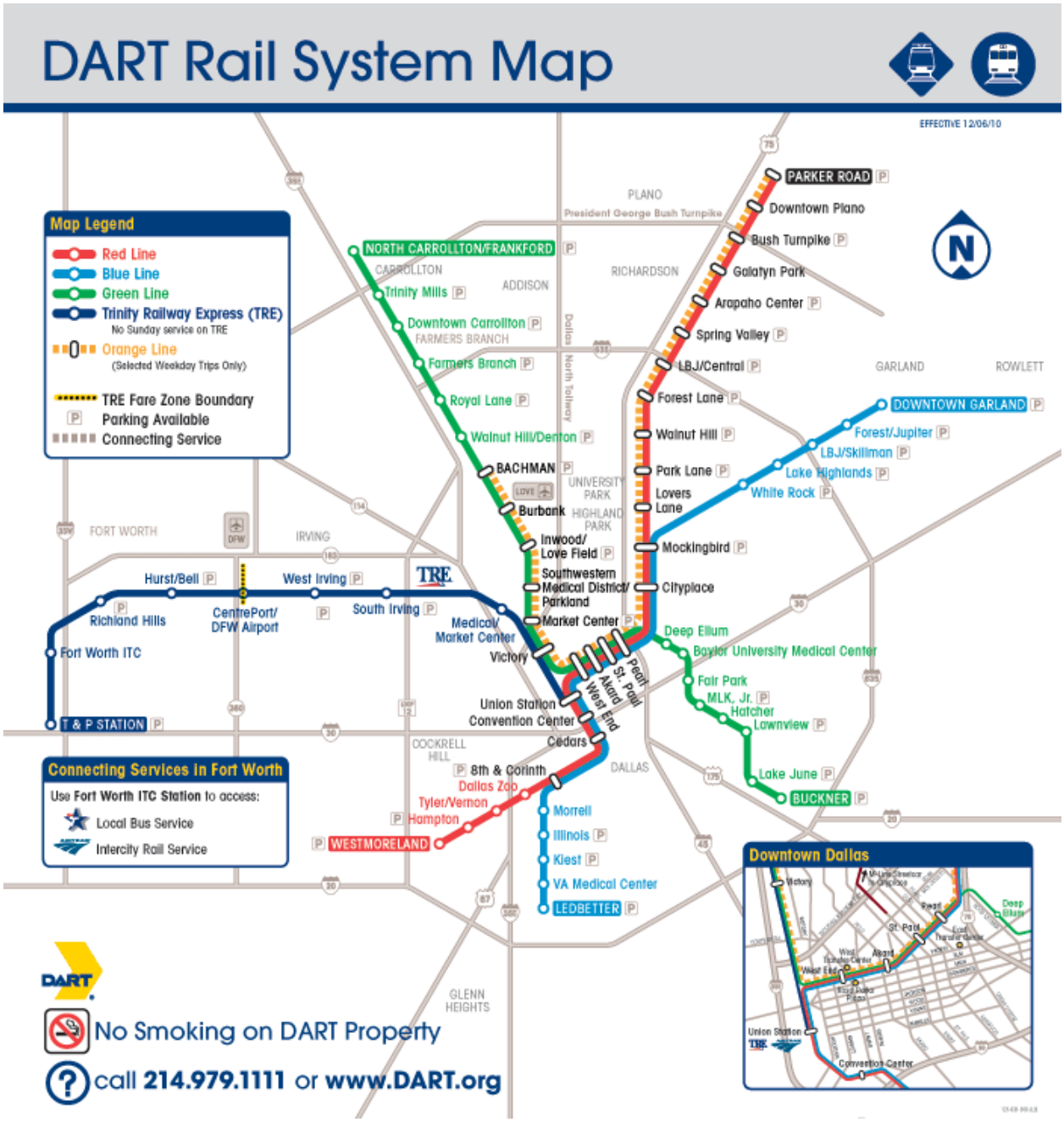

Figure 4-4. DART system map (DART, 2010)

Figure 4-5. Dallas Lancaster corridor (ECODEV, 2010a)

Denver

Transit System

Denver's transit agency, the Regional Transit District (RTD), began light rail service in 1994. Though the system is working hard through its FasTracks initiative to expand the breadth of the LRT network, it is still considered a small system with 35 miles of track, reaching 37 stations (Pollack, et al., 2010, p. 9) (RTD, 2010a). RTD's service area covers eight counties (2,348 square miles) and includes a population of 2.8 million people (RTD, 2010). Once complete, the FasTracks program will have brought 122 miles of commuter and LRT tracks to the RTD service area (RTD, 2010b) (Figure 4-6).

City and Regional Growth

The Denver MSA population grew from 2,179,240 in 2000 to 2,552,195 in 2009 (US Census Bureau, 2009). This is an increase of 17% over that time frame.

TOD

Definition, purpose, goals

The Denver Regional Council of Governments (DRCOG) defines TOD as "pedestrian-friendly, mixed-use developments, located within a half-mile of a transit stop… [that] are designed to allow residents and workers to drive their cars less and use alternative modes more" (DRCOG, 2010). RTD states "TOD's mission is to create and facilitate opportunities to preserve or expand RTD's transit and property investments" (RTD, 2010) and further defines TOD by its design principles:

- More compact and dense development within a 10-minute walk or ½ mile distance around transit facilities compared to existing development patterns in the same area;

- A mix of uses—either horizontal or vertical—usually including residential, retail, and office employment; and
- High-quality, pedestrian-oriented urban design and streetscapes (RTD, 2010c).

More than anything, TOD plans in Denver are tools for managing future growth (TCRP, p 322, 2004). While managing this growth, the City of Denver hopes to achieve five objectives, the first being location efficiency. This involves the conscious placement of uses. An example of such would be communities that contain affordable housing having an easily walkable route to transit; thus, enabling households without automobiles and with limited resources to participate more fully in the areas economic activities (City of Denver, 2006, p. 10). The second objective is creating a rich mix of choices which includes a mix of housing options for households with a spectrum of incomes (City of Denver, 2006, p. 11). The third objective aims to employ value capture techniques. This leads to higher tax revenues for the local government and joint development lease revenues for the transit agency; This allowing for a lower cost of providing access to those in need (City of Denver, 2006, p. 11). The fourth and fifth objectives are place-making and creating portals to the region, respectively (City of Denver, 2006, p. 10-11).

The City of Denver wisely points out that TOD cannot be defined by a prescribed set of densities or mix of uses. As for the purpose of TOD, the city feels it "ought to create specific areas that integrate transit into neighborhoods and help support lively and vital communities" (City of Denver, 2006, p. 10).

TOD supporting programs

Denver's *Transit-Oriented Development Strategic Plan* contains a chapter on city-wide policy and action recommendations. These are geared toward easing the

implementation of TOD. Some of the techniques ensure a smooth, comprehensive plan for a station area is devised. Other techniques aim to alleviate concerns from existing neighborhoods about what TOD would do to the current condition of their homes and workplaces. In the end, these programs would result in less expensive implementations of TOD. The cost savings means a greater potential to provide more-affordable housing within a project's bounds.

To prevent negative discourse between the city, developers and neighborhoods, Denver prefers a rezoning process that precedes specific development requests. More importantly, such a strategy would allow the city to implement atypical mixes of land uses, fostering more cohesive projects, and ideally encouraging development in higher priority areas (City of Denver, 2006, p. 29-30).

Another strategy to alleviate neighborhood concerns regarding new projects, such as intensified densities, is the use of form-based zoning codes in the city's transit districts. Form-based codes are clarification tools in that they regulate an area's built form as much as they guide the types of uses within the structures (City of Denver, 2006, p. 30).

As the literature by Robert Wilson points out, parking in and around TODs can add unnecessary extra costs to a project. In turn, this makes the provision of more social serving projects, such as affordable housing, more difficult, if not impossible. Denver has a provision to manage parking at TODs. Some of the strategies in the city's parking toolkit include: "calculating the number of parking spaces needed in a TOD; establishing and operating car-share programs and valet bike parking facilities; siting, designing and funding shared parking structures; creating the ability to establish parking districts under

Colorado law; and establishing permit parking programs in residential neighborhoods" (City of Denver, 2006, p. 30).

In March 2009, Denver was able to create a TOD Fund thanks in part to a $2.25 million grant from the MacArthur Foundation to preserve affordable rental housing (Denver Office of Strategic Partnerships, n.d.). The purpose of this Fund is to support the creation and preservation of over 1,000 affordable housing units along current and proposed transit corridors (Denver Office of Strategic Partnerships, n.d.). The pot of money has since grown to $15 million as other investors have joined the project (Pollack, 2010, p. 43). In early 2010, some of the funds were used to preserve 36 affordable homes in a 50-year-old neighborhood (Pollack, 2010, p. 43).

Denver employs other techniques to support TOD around its stations. Denver has been noted to lease air rights over its station areas (Cervero & Duncan, 2002, p. 6). Denver's RTD has used multiple funding sources to help in finance pre-development work for ancillary improvements around stations. Those sources include: pension funds; real estate investment trust (REIT) funds; individual investor funds; and nonprofit/foundation funds (TCRP, 2004, p. 78).

Lessons learned

Denver does not so much as lay out the lessons it has learned throughout its experimentations in TOD, but rather identifies the six biggest challenges to creating a high-performing TOD. These challenges not only have bearing on the TODs success, but on whether or not secondary objectives, such as the provision of affordable housing can be achieved. Denver encountered difficulty in finding a common definition or agreement on the goals and outcomes for TOD. In terms of the design of the area, there is a challenge in balancing the tension between the requirements of making a

project a successful place and making it a successful transportation node. With all that needs to be considered while planning, Denver notes how important it is to reduce complexity, time, uncertainty and costs in the planning and implementation phases. In addition, the city notes the importance of creating a supportive regulatory and policy environment. In terms of education and planning, those involved must be able to acknowledge that transit alone cannot drive real estate investments. And the last challenge is convincing investors, developers and community leaders that the complexity and time associated with TOD generates strong return (City of Denver, 2006, p. 14).

Station typology

Of the three cities investigated, Denver has the most detailed station typology. Similar to the typologies identified by the Center for Transit-Oriented Development (CTOD), Denver has multiple criterions laid out for each of its station types. The city details the desired land use mix, desired housing types, commercial and employment types, proposed scale of the development and the function of the station as it pertains to the overall transit system. The city then identifies seven types of TOD: Downtown, Major Urban Center, Urban Center, Urban Neighborhood, Commuter Town Center, Main Street, and Campus/Special Events Station (City of Denver, 2010). See Table 4-1 for a clear representation of Denver's TOD typologies.

Denver's *Transit Oriented Development Strategic Plan* also outlines the city's six major principles that each station area plan should address. The first states that an area plan's design guidelines are for establishing the expectations of the quality and character of the resulting built environment. The second shows that the land use mix and placement is to create harmony; arranged to foster success for each use while

allowing the sum of the areas uses to be greater than its parts. The next principle states that the circulation and connectivity of an area must take into account automobiles, but plan for a balance of mode choices. The fourth principle says a station's access should allow for a variety of methods to be used to access the area; ensuring a seamless functioning of the areas activities. The fifth principle considers the public realm aspect of an area plan and how it should ensure a comfortable and welcoming atmosphere, via parks, plazas, street and sidewalk designs. The final principle states that the area Parking ratios and placement should be planned to make a positive contribution to the area (City of Denver, 2006, p. 20).

Affordable Housing

Denver acknowledges that "there is significant potential for a majority of new developments near transit to be unaffordable to low-income households, for displacement to occur in some existing low-income neighborhoods and to upset the balance of what are presently diverse mixed-use neighborhoods" (City of Denver, 2006, p. 31).

While the city understands that the development of more TODs and increased densities near transit provides the opportunity for housing rents to decrease, a la increase supply, officials feel that alone will not solve affordability problems. The city has an extensive list of strategies to provide affordable housing for low- and very low-income households, such that they can benefit from lowered transportation expenditures by living close to and utilizing the FasTracks network (City of Denver, 2006, p. 32). Some of these strategies are of the planning nature and call for comprehensive plan policies that support mixed-income housing and the provision of affordable housing when determining public assistance to develop projects. Other

strategies address financial issues by directing renter-to-owner and first time homebuyer grants to transit-area housing; creating a revolving loan fund for multi-family residential building renovation in exchange for maintaining affordable rental housing for 20 years; prioritizing funding sources to TODs; and creating property acquisition and land banking funds. Additional strategies look at zoning requirements and suggest increasing the opportunity for secondary units in neighborhoods served by transit; mechanisms that require affordable rental units in conjunction with rezoning land; increased inclusionary zoning (IZ) requirements in transit station areas; and the reduction of parking requirements for affordable housing in TOD areas (City of Denver, 2006, p. 32).

Denver is also considering adopting a policy that would require an analysis as to whether or not surplus land should be used for affordable housing before the land is sold or subject to joint development (Pollack, 49, 2010).

TOD Example

At the 10th and Osage Station, the Denver Housing Authority (DHA) owns the South Lincoln Park Homes property (Figure 4-7). This property entails 15.1 acres and has 270 public housing units. DHA plans to redevelop the site to include a mix of housing products to support a range of income levels to reside in the community (City of Denver, 2010). For the project, the City created a master plan that lays out a set of strategies to include project phasing and implementation. The phasing plan was developed with a number of key goals in mind, to include: minimizing resident displacement; maximizing the early phases to rebrand the South Lincoln community in the most visible manner; replacing as many units as soon as possible; minimizing

construction affects upon remaining units; and minimizing up-front infrastructure costs (DHA, 2010, p. 8).

The 10th & Osage station area is designated as an emerging urban neighborhood with an immediate priority of city action (City of Denver, 2006, p. 41). Such sites have larger areas (15.1 acres in this case) that cater to projects with a greater mix of uses, and thus greater flexibility to provide a mix of market-rate and affordable housing options (City of Denver, 2006, p. 34). Knowing that developers will not typically build more affordable units than mandated by the Inclusionary Housing Ordinance, additional actions are needed to ensure low- and very low-income households can live in the development if they so choose (City of Denver, 2006, p. 35). The best course of action would be to execute as many of these activities possible, providing the greatest chance for short-term provision and long-term preservation of affordable housing at the site. On tool is to consider refining the inclusionary requirements for these TODs to increase the percentage of affordable ownership units and perhaps reduce the minimum requirements when it applies to below 30 units. In exchange for the inclusionary requirement adjustment, the City should provide assistance to developers in obtaining housing tax credits and access to other housing subsidies. Another action would be to monitor efforts to establish a statewide affordable housing trust fund. In the past, these efforts have been unsuccessful because of the difficult task of identifying an ongoing source of funding. If formed, the City should then direct these funds to fill financing gaps in mixed-income TOD projects or commission construction of affordable ownership and rental units. The creation of a City property acquisition/land banking fund to purchase lands in these TODs and write down the cost of land for affordable housing is yet

another mechanism. Denver officials also suggest targeting the low income housing tax credits administered by the Colorado Housing and Finance Authority (CHFA) and other housing subsidies to TOD sites; and maintaining the existing regional allocation of private activity bonds set aside for TOD (City of Denver, 2006, p. 35).

One final note on the 10th & Osage station area and its plans is the city's attempt to involve and educate members of the community on its plans for the area. To do so, Denver provided citizens the station plans in four different languages; English, Spanish, Vietnamese, and Somali.

Table 4-1. Denver station typology

TOD Typology	Desired Land Use Mix	Desired Housing Types	Commercial / Employment Types	Proposed Scale	Transit System Function
Downtown	Office, residential, retail, entertainment, and civic uses	Multi-family and loft	Prime office and shopping location	5 stories and above	Intermodal facility/transit hub. Major regional destination with high quality feeder bus/streetcar connections
Major Urban Center	Office, retail, residential and entertainment	Multi-family and town home	Employment emphasis, with more than 250, 000 sq. ft. office and 50 sq. ft. retail	5 stories and above	Sub-Regional destination. Some Park-n-ride. Linked with district circulator transit and express feeder bus
Urban Center	Residential, retail and office	Multi-family and town home	Limited office. Less than 250,000 sq. ft. office. More than 50,000 sq. ft retail	3 stories and above	Sub-Regional destination. Some Park-n-ride. Linked with district circulator transit and express feeder bus
Urban Neighborhood	Residential, neighborhood retail	Multi-family, town home, and small lot single family	Local-serving retail. No more than 50,000 sq. ft.	2-7 stories	Neighborhood walk-up station. Very small park-n-ride, if any. Local and express bus connections
Commuter Town Center	Office, retail, residential	Multi-family, town home, and small lot single family	Local and commuter-serving. No more than 25,000 sq. ft.	2-7 stories	Capture station for in-bound commuters. Large park-n-ride
Main Street	Residential, neighborhood retail	Multi-family	Main street retail infill	2-7 stories	Bus or streetcar corridors. District circulator or feeder transit service. Walk-up stops. No transit parking
Campus / Special Events Station	University Campus, Sports Facilities	Limited multi-family	Limited office / retail	Varies	Large commuter destination. Large park-n-ride.

(CITY OF DENVER, 2010)

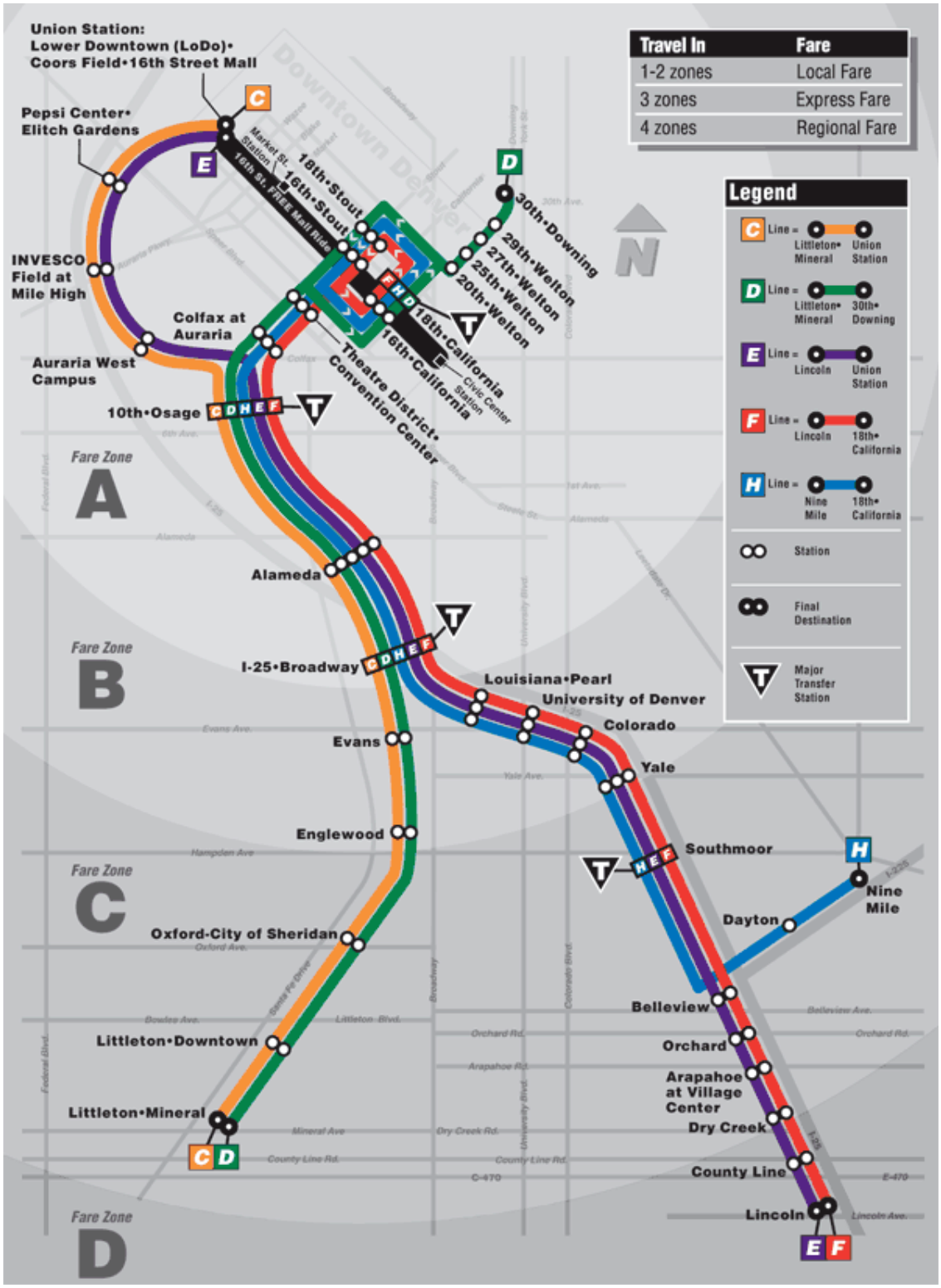

Figure 4-6. Denver light-rail system map (RTD, 2010)

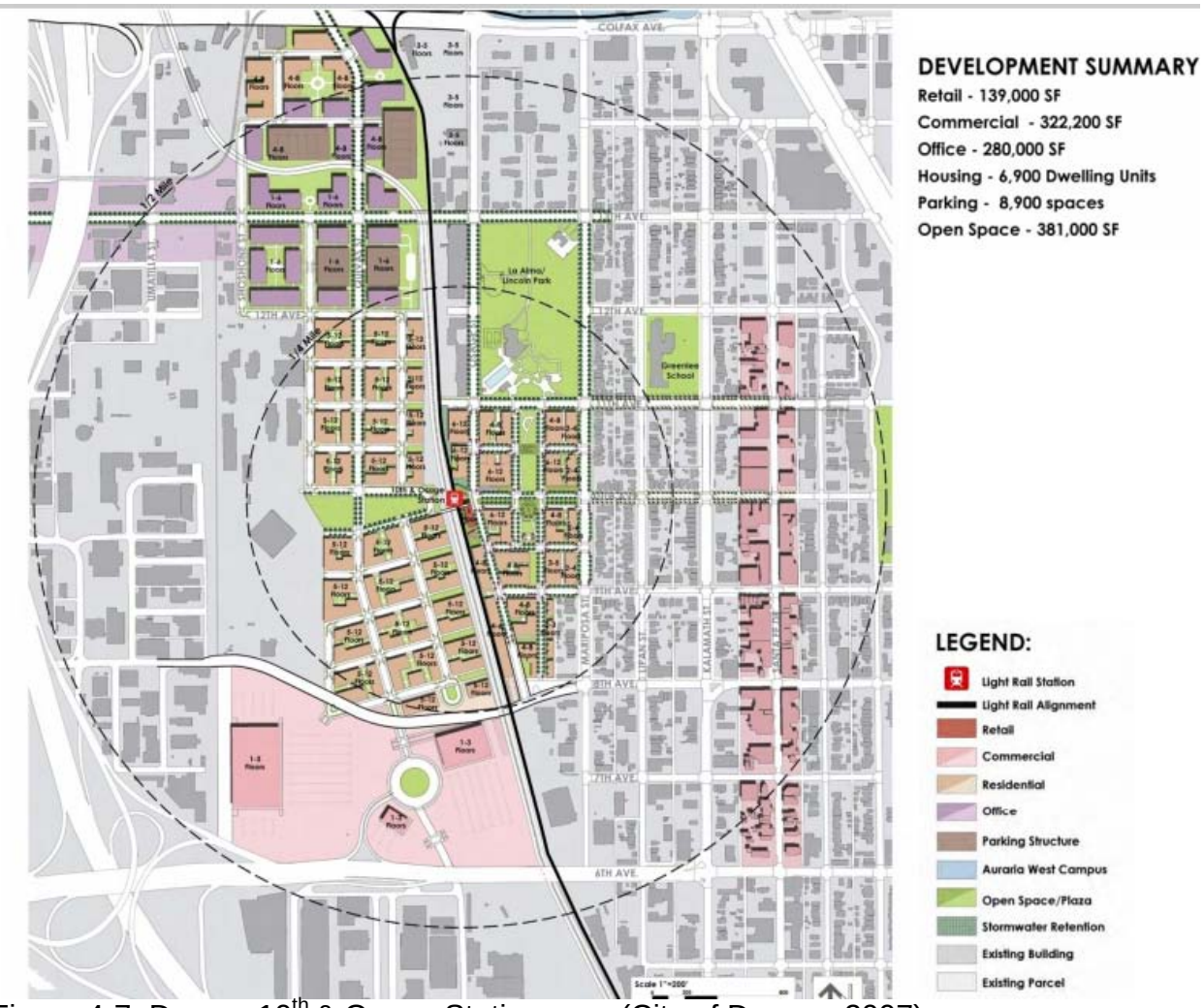

Figure 4-7. Denver 10th & Osage Station area (City of Denver, 2007)

CHAPTER 5
DISCUSSION

Best Practices in Literature

What was found to be even most important via the literature were the subtle and not-so-subtle clues as to which techniques would be ideal for use in the world today. The scarcity of funds being leant to developers, or those seeking to rehabilitate properties, will lead such entities to public funding sources. For that matter, the greatest assistance will come from state and local governments, as well as nonprofits, because the federal government has not been the preeminent figure in housing policy since the 1980s as Alex Schwartz points out (2010, p. 209). The molasses-like rate at which lenders are functioning, coupled with the high upfront equity costs, will require localities and developers to work together. Coordination and pooling funds from as many applicable sources as possible seems to be the only way from now in to the future to see a project through to completion. Furthermore, this will likely require more thorough planning to result in receiving funds from any source; resulting in long project life-spans, marking the end of the quick-buck era in the development sector.

Economics

Price-Waterhouse Coopers' statements on the relative inexpensiveness of land now, and the greater investment promise of infill sites points the way to programs based on tax increment financing (TIF), overlay districts, and value capture.

The fears of negative property value impacts due to affordable housing placement and the general sentiment of not-in-my-back-yard need basic public education. This can be accomplished through comprehensive TOD strategies or plans, and

area/station/corridor plans. To have a higher rate of success, more specific public education initiatives would be of service, regarding all aspects of affordable housing.

The glut of housing on the market, if in adequate locations, could be desirable to acquire through land banking or affordable housing trust funds. In fact, any form of acquisition or prospecting funds would be useful to the provision of affordable housing.

Since the affordable housing stock has seen little production and will see more units up-filter in the housing market once contracts with housing authorities expire, units need to be produced; rehabilitation and renovation is not enough. Programs that increase the stock, such as inclusionary zoning (IZ), affordable housing trust funds, and joint developments will be necessary in every municipality.

A further setback to heavy reliance on rehabilitation and renovation programs is that they often make rental properties less affordable, thus pushing out those in the most need of quality, affordable housing: very low-income, cost-burdened and severely cost-burdened households. Rehabilitation and renovation is an acceptable measure if properties are guaranteed to remain affordable for several years to come. Cities or other lenders could even require the properties to maintain a certain level of affordability before they provide the funds that would be used for rehabilitations and renovations.

The poor efficiencies of public housing and subsidized housing would lead one away from choosing such policies. Housing authorities, and similar entities, should choose to fund projects developed by private companies. The public serving entity, through a land banking program, could allow a private developer to build a project on the public entity's land. Through additionally provided funds, the public entity could fund

(purchase) some of the units, and become the de facto landlords for those units; while the private developer runs the rest of the property. This serves both parties interests.

Of course, the issue with new housing costing more than older housing must be addressed in a scenario such as that in the preceding paragraph. A long term inclusionary zoning (IZ) program may be of use in such a scenario. In order to provide the property owner the higher rents it would prefer, but to oblige the affordable housing needs of the community, the IZ could be set up that the tenants filling the affordable units make between 60% and 80% of the area median income (AMI). After a period of time, a decade for example, those same properties would become available to households making between 30% and 50% AMI. This ensures that properties stay in the affordable housing stock longer, meeting the needs of a larger portion of the community.

In order to address the issue of disappearing unsubsidized affordable units in the face of subsidized units, municipalities should make a point to not group too many subsidized units in a geographic area. Property owners that support affordable units should make subsidized units merely a portion of their portfolio, not the basis of their holdings. However, the up-cycling of unsubsidized units may be of benefit to the community; as long as the rate of up-cycling is controlled and there is a plan to replace the improved units with other affordable housing options.

Since vouchers provide the renting household a high utility, the use of such programs should be sought out by municipalities. The key is to ensure the units are located in close proximity to employment centers and/or a reliable transit system, while also being affordable to a large segment of the cost-burdened population.

Lastly, communities should not rely on low-income housing tax credits (LIHTCs). Their lack of popularity in a depressed housing market does not make them a sustainable choice for the provision of affordable units. This is not to say they should not be used at all. Rather, LIHTCs should be viewed as a bonus to a development when the economy is doing well.

Form and Zoning

The scale of projects will need to be developed while considering the existing demographics and character of the area. Since areas with high poverty rates or pre-existing low-income areas are bad for property values, more moderately scaled projects with a greater variety of units to foster a mixture of household incomes would be preferable. Single-family or townhome land uses with accessory dwellings would aid in providing the needed mix of incomes.

Larger projects, with greater densities and massing, would be desirable for larger areas in a much more derelict state. If coupled with community understanding and support, through community benefits agreements (CBAs), community development corporations (CDCs), and also in conjunction with station area plans and corridor/transit system plans, larger projects can preserve the existing neighborhood while improving the quality of life for new and old residents. These projects need to be tempered with remedies to protect the existing renter households such that the increased property values do not displace them.

Infill, renovation and rehabilitation techniques are ideal for improving areas with vacant lots or dilapidated structures. HOPE VI and similar programs would aid in this process.

As much as the mix of uses is stressed for a TOD, cities and developers should be wary of making an area too perfect. The presence of retail, parks, schools, job centers and quality transit all push up land values, and subsequently rents. The system should be planned with some of each use in every TOD, but with varying degrees of the use. For example, one TOD can be known for an abundance of retail and entertainment opportunities, while another is based around recreation opportunities.

Peer Cities' Best Practices

A list of the tools found throughout the literature and the examinations of Charlotte, Dallas, Denver and Tampa was put together and can be found in Table 5-1 at the end of this chapter. Table 5-1 provides a visual to examine which of the 45 tools are in place in which cities. Based on the literature, the identified tools can be organized into four different categories: planning tools; housing market tools; transportation management tools and government funding sources. Breaking down the 45 tools, 19 are planning oriented, nine are housing oriented, two are transportation management oriented, and 15 are government funding sources. Perhaps as an indication of the importance of planning-the act and planning-the practice, not only were planning tools the most numerous, but they were also the most mentioned by the peer cities, as well as Tampa; appearing 40 times in the documents from the four cities. Housing tools were mentioned 20 times, as were government funding sources. While parking management tools were only mentioned four times between the four cities.

What I found interesting, despite the claim earlier in this report that with a limited number of cities with advanced transit systems there would be repetition in techniques, is that Charlotte, Dallas and Denver all employed the same technique only seven times. However, those tools are not at all a surprise: area plans; be proactive; comprehensive

TOD strategy; low-income housing tax credits; coordination; city bonds; and reduce parking requirements. These all relate to good planning practice. With the amount of literature found on parking requirements I would have been more surprised by a city that does not include the provision. The use of city bonds however, is complex. If the community supports the development of affordable housing units, its members should be used to help fund the project. But, if the community supports the project, a temporary tax increase of some sort may be a more effective tool. In this instance a property tax would be ideal, so as not to disproportionately affect lower-income households as income or sales taxes would. However, if the income tax was only applied to households above a certain income level, or if basic goods were exclude from a sales tax, those methods could then be used to generate revenue for an affordable housing project. Bonds must eventually be repaid, and with no absolute certainty of what the economy's future holds, a stable, designated revenue source needs to be established to help pay for the bonds.

Of the remaining tools, only nine were found to be used by two of the peer cities. Interestingly, Denver was a part of all but one of these pairs. To what degree this speaks of Denver's choice in policies, be it the city is observant of others' policies or vice versa, I can make no judgment. I do see these shared practices as some of the more advantageous, especially in the current economic cycle. Furthermore, the city or community will have a strong influence in the quality and longevity of housing affordability endeavors. Land acquisition funds can help communities begin the process of the future affordable housing projects; once the land is purchased, plans become more practical and less hypothetical, and thus more pertinent to current discussions.

Even more deserving of attention are the tools that none of the peer cities appear to use. Five strategies were not mentioned explicitly in the policy documents of the peer cities. Surprisingly, especially with all the literature one parking issues with TODs, the unbundling of parking prices is one of the neglected tools. Affordability requirements are not mentioned specifically either, but to be fair, IZ functions as a form of a requirement. But, not all projects receiving public funds, regardless of their source, or the purpose or the project, have affordability requirements. Such a blanket clause may be undesirable anyway. Affordable units would be placed in areas of no financial benefit, perhaps even of financial detriment to households. Competitive loan programs would be appropriate in an area where there are numerous developments with plans to provide affordable housing. However, since, more often than not, the private market will not be seeking to provide a plethora of affordable units; funds should be saved and pooled such that they can be applied to a single project, ensuring long-term housing quality and affordability.

Tampa's Preparedness

Tampa is not quite yet entirely prepared to engage in the construction of a LRT system or any of its station areas. The city did not begin to plan for TOD until October 2010 when they received funds ($1.2 million) to create a master plan oriented around the high-speed rail (HSR) station in the city's downtown area (Hooper, 2010). The HSR is planned to be operational in 2015 and the city has not even begun to plan for the TOD around this system. The failure to pass the sales tax ballot initiative in November 2010 may be a blessing in disguise. Tampa and all of its partners need as much time possible to exercise proper prior preparation in order to prevent poor performance. In

an era of heated political debate, seemingly entirely about fiscal policy, vast investments that utilize tax payer dollars cannot afford to be unsuccessful.

While Tampa may not be ready in the sense that the city does not have plans in place for each station area, already adopted policies show that the city has the elements needed to foster the provision of affordable housing units a part of TODs.

Station Typology

Table 3 illustrates the details of Tampa's and Hillsborough County's TOD station area typologies. Like Denver, Tampa has seven major categories of TOD types, but what sets Tampa apart, is that three of those types, Mixed Use Regional Stations, Community Center Stations, and Neighborhood Stations, all have urban and suburban subdivisions. Tampa provides more detail for its station types than Denver or any typology observed in the literature, going so far as to outline the desired floor area ratio (FAR) and the locations along the planned LRT system in which the typologies could be found. This attention to detail shows that in at least the general station planning, Tampa and its officials are prepared to implement the project. The housing types identified range from high-rise apartments down to single lot detached housing, while encompassing everything in-between. This mix and breadth provides at least an opportunity, in the building forms noted, to provide affordable housing units in the station areas.

Compared to Best Practices

Tampa has a bevy of tools laid out for how the city can go about supporting TOD, and consequently affordable housing. Of the 45 tools identified in Table 5-1, Tampa has made mention of using 29; as compared to Charlotte's 16, Dallas' 17, and Denver's 22. However, eight of Tampa's 29 are solely mentioned by the city. Even after

removing those eight tools from the comparison, Tampa's policies identify 21 tools in Table 5-1, still more than Charlotte and Dallas, and only one fewer than Denver.

Even though Tampa may identify more tools than two of its peer cities, that does not mean the city is better prepared to implement affordable housing units as part of TODs. In fact, the most glaring absence in Tampa's arsenal is to be proactive. One may argue that because Tampa has already outlined its means of funding and supporting TOD and affordable housing this is proactive. My counter argument to this is that the planning is relative to when the city begins to develop projects, and to the extent there is follow through with the initial plans. Tampa's involved parties can claim coordination, but if there is no outreach and empowerment of the communities whom developments will impact, no significant coordination will have occurred. Tampa is also lacking any station area plans. Prior to the city's next attempt to convince the citizens that LRT is necessary, officials need to choose exact station locations and develop the area designs and plans.

As mentioned above, Tampa has eight tools found in Table 5-1 that none of the other cities have. Upon further examination though, only two are somewhat unique. Tampa, presumptively looking at the impact of operating costs on a household, highlights green building practices as a tool to employ in future affordable housing developments. Even this is questionable as unique, as more municipalities are looking to sustainable initiatives to bring cost savings, and as a means to create projects and money flow through a community. In reality, Charlotte, Dallas and Denver may very well have green building practices identified in some document regarding housing development, but as far as the breadth of this research is concerned, the cities

neglected the technique. What is significant is the mention of project accountability by Tampa. Any observant citizen has witnessed the delays and cost overruns associated with large projects, especially publicly funded projects. Accountability is such a simple concept, yet seemingly avoided by all. The irony, or perhaps a true statement of the how the world works, the Government Accountability Office (GAO) does not even make mention of holding projects accountable. Tampa will have to invest in additional manpower to ensure a project upholds to, or outperforms, its initial scope, but such oversight could very well result in overall savings. Tampa's use of HOME and Section 202/811 funds is merely smart use of available HUD funds. In addition, SHIP and SAIL funds are Florida programs that obviously would not be found in the other cities, or pervasive in the literature.

Recommendations for Tampa

Coordination

The biggest favor Tampa, or any city for that matter, can do for the welfare of affordable housing provision and preservation is to coordinate with as many federal, state and local programs and organizations possible. As the nation faces a seemingly insurmountable debt, programs will see their funds reduced, if not completely removed. The best ramification of cross-coordination, aside from universal understanding and cohesiveness, is the ability to creatively reallocate the limited funds that will remain.

I have developed some of my own recommendations for how Tampa could seek additional funding for TOD projects that incorporate affordable units based on personal experiences. The first is a provision of housing units for citizens prone to utilizing the available paratransit services. A relocation of some of these households, or perhaps the households that would like to use paratransit but presently reside too far outside of

the service boundary, would concentrate the households around activity centers. From there, if physically able, the residents could use the LRT system to travel, or use the services available in the mixed-use community they reside. This concentration would also help economize the paratransit services, as they would not have to spend nearly as much time and resources driving to and from individual households. The second program recommendation I have would place liability on businesses that employ high proportions of lower-income people. These businesses would be required to pay for a portion of housing units at a TOD that sits along a route from which the business is accessible. These units would then be rented out to the employees of that business. The business would have two options, to function as a land lord, and receive the rent from its employees; with the rent being set to support the lowest waged employees of that business. Or the business could turn the units over to the City of Tampa, who would then provide the employer with tax credits for an appropriate time frame. This ensures the necessary work force will be available, could reduce position turnover rates, and provides the ever coveted good public relations.

Tampa can plan to boost housing affordability all it wants, but in reality, if the lower-income households that the affordable units were constructed for cannot afford to relocate to said units, the initiatives will not have completed the task they were developed to do. The Tampa Housing Authority (THA) should engage in a contract with a locally owned moving company. Speaking from past employment experiences with a moving company, these businesses often do not provide service everyday of the week, affording their employees holidays and Sundays off of work. In addition, the employees

are low-income individuals themselves. A bonus work opportunity and the good press the company would receive helps THA support the community from multiple fronts.

Education

Once having successfully relocated households to transit-oriented affordable housing units, THA will have to make a point to educate the residents. Since many of the households are likely to have relied on the use of private automobile for some time, in order to reach employments opportunities, THA will have to inform them of the benefits of riding transit, and how transit trip chaining can be achieved much like automobile trip chaining. This would essentially be a retraining of sorts, as to how a household can operate throughout the neighborhood and community sans automobile. Without education, households may very well continue to use automobiles as before.

Once free of the auto dependency though, if the household so chooses, or is unable to sell their vehicle on their own, the household could be provided a rent discount in exchange for the vehicle. The vehicle could simply be sold for parts, or provided to a household unable to relocate, but in need a vehicle to improve its quality of life.

Best Practices

First and foremost, Tampa, and all cities, should apply for every single federal funding source available. While they may be varied in their scope, be it for the disabled, elderly, very low-income, minority, new construction, rehabilitation, or emergency repair, they will result in new and preserved affordable housing stock, as well as a community with a mix of people. Next, Tampa needs to apply to all available state pools of money that are not automatically apportioned. From here on are additional tools I believe Tampa should utilize with brief descriptions why they are more beneficial than the other

programs identified in the research. These tools are part of the list compiled in Table 5-1, but were not originally identified by Tampa policies. Density bonuses should be considered because developers in need of a larger bottom line would benefit from density bonuses in that they would be able to sell more units and a marginally greater construction cost. In turn, subsidizing, to an extent, the cost of the affordable units asked of the developer to provide. Affordable housing trust funds would ensure at least some pool of money for the support of affordable housing. Money can be acquired from the community in a variety of fashions, but the important part is the accumulation of said money. Such a program, when yielding results (properties), can bring priceless pride to the community. As real estate market is depressed, and Tampa has not officially designated LRT of any stations, values are at the cheapest they will ever be, land banking would ensure some new affordable housing development, via cost savings and negotiating power by owning the land. Tampa should employ LIHTCs as a bonus for once the economy turns around. Developers will be reluctant to provide affordable units unless there is a financial incentive. Community development groups (CDCs) would help to empower and educated the affected communities, and a group of CDCs could help to shape the extent of TODs as to how they would best serve the existing and new community members. Tampa officials should also look to unbundle parking prices from rents as this will allow lower-income households even greater cost savings once they are free of their automobiles. The embracement of existing community should be a priority and can be achieved through the above mentioned CDCs, or by extensive community outreach. A community with an identifiable character and charm should be allowed to maintain as much of that as the residents desire. This will garner support for

aspects of a project that may have otherwise been undoable. An expedited development process can yield time and money savings for developers. These savings, in conjunction with a happier developer, can yield positive results for Tampa's housing affordability goals. Above all else, Tampa needs to be consistently proactive in its planning, outreach, and coordination. This reassures investors and the community and increases the chance of having a successful project.

Table TOD-2: Tampa and Hillsborough Fixed Guideway • Transit Station Area Typologies

Station Type[1]			Maximum Density Range [2]	Maximum FAR Range [3]	Applicable City Planning Dist.&Form[4]/ Location[5]	Range of Building Height	Range of Desired Land Uses [4]	Range of Allowable Housing Forms	Transit System Function
High Intensity Urban Station			CBD: Guided by FAR	CBD: Any FAR is acceptable if market feasible	Business Center (CBD)[4]	FAA Height Limits	Office (general/medical/R&D), Residential, Entertainment, Public/ Semi-Public	High-rise and mid-rise apartments and condos	Intermodal facility/transit hub. Major regional/inter-regional destination with high quality local transit feeder connections
Mixed Use Regional Stations	Urban		75-200 du/ac	2.5-7.5	Westshore Planning District[4]	FAA Height Limits	Office (general/medical/R&D), Retail, Residential, Entertainment, Public/ Semi-Public	High-rise and mid-rise apartments and condos	Regional Destination. Linked with high quality local transit feeder connections.
	Suburban		40-60 du/ac	1.5-3.5	Business Center (USF)[4] / Brandon (I-75 area)[4]	3-12 stories	Office (general/medical/R&D), Retail, Entertainment, Educational, Institutional, Medical, Residential	Mid-rise apartments, condos, and apartment complexes	Regional Destination. Will be served by Park-n-Ride facilities and local high quality transit feeder connections.
Community Center Stations	Urban		40-60 du/ac	1.5-3.0	Urban Village, Mixed-Use Corridor Village[4]	2-8 stories	Office (general/medical), Retail, Residential, Entertainment, Public/ Semi-Public	Low to mid-rise- apartments, condos, and townhomes	Walk Up Station with potential for localized parking and will utilize local transit connections.
	Suburban		15-40 du/ac	1.0-2.5	Westchase area[4]	2-8 stories	Office (general/medical), Retail, Residential, Entertainment, Public/ Semi-Public	Low to mid-rise- apartments, condos, and townhomes	Walk Up Station with strong potential for Park-n-Ride and will require local transit connections.
Neighborhood Stations	Urban		20-30 du/ac	1.0-2.5	Mixed Use Corridor Village, Traditional Neighborhood[4]	2-5 stories	Office (general/medical), Retail, Residential. Public/Semi-Public	Low to mid-rise- apartments, condos, townhomes, and attached dwellings	Local transit feeder system with walk-up stops with limited or no parking.
	Suburban		10-20 du/ac	0.5-1.5	Brandon (area neighborhoods)[4]	2-3 stories	Office (general/medical), Retail, Residential. Public/Semi-Public	Low rise, townhomes, attached and small lot detached residential	Local transit feeder system. Walk-up stops with parking.
Employment Center Stations			N/A	0.6-3.0	University Planning District (Business Center - USF)[4]	3-12 Stories	Office (general/medical/R&D), flex space, support retail, restaurant, lodging, Public/ Semi-Public	N/A	Regional Destination. Linked with high quality local transit feeder connections.
Special Stations[7]			N/A	1.0-2.5	Tampa International Airport, Business Center - Westshore[4]	FAA Height Limits	Airport, airport related uses and support services	N/A	Regional Destination. Linked with high quality local transit feeder connections.
Park and Ride Stations			N/A	Average: 0.5	Mixed Use Corridor Village[4] / Community Plan Areas[5]	N/A	Office (general/medical/R&D)/ Retail	N/A	Capture station for in-bound commuters. Large Park-N-Ride with Local and Express bus connections.

Draft: July 2010

[1]Station Types are listed in a general hierarchy of intensity with associated, typical station characteristics. [2]Maximum Density refers to the number of dwelling units per developable acre. [3]Maximum FAR refers to the floor area ratio per developable acre. [4]City Form components are defined in Chapter 3 as part of the "Growth Management Solution" for Tampa, and are defined in a general hierarchy of intensity with associated, typical form characteristics. Station Types are permitted within the corresponding City Form component(s) listed, as well as within any higher (more intense) City Form component. Refer to Map 1: Vision Map in Chapter 2 for representation of Overlay and City Form locations. [5]Station types are listed by corresponding location within the respective jurisdictions of Hillsborough County. [6]Range of allowable uses shall be guided by Table 2 Future Land Use Summary Table in Chapter 3. Residential uses will not be permitted in areas where the underlying future land use is light industrial, heavy industrial, or M-AP (City of Tampa); increased development potential shall be prohibited in the Residential-1 category. [7]Airport-related location: Photo Reference (from top to bottom): Tampa, FL: CBD; Denver, CO: Tampa: University of South Florida; Portland, OR; Arlington, VA; Portland, OR; Hillsborough County: West Park Village; Tampa, FL: Mall West Development; Tampa, FL: Tampa International Airport; Tampa, FL: USF.

Figure 5-1. Tampa station typology (Planning Commission, 2010)

Table 5-1. Best practices

Tool	Charlotte	Dallas	Denver	Tampa
Planning				
Affordable Housing/TOD Trust Fund	√		√	
Affordability Requirements for Publicly Funded Projects			√	
Comprehensive TOD Strategy	√	√	√	√
CBAs				
Area Plans	√	√	√	√
CDCs				
Coordination	√	√	√	√
Embrace Existing Community			√	
Be Proactive	√	√	√	
Land Acquisition Funds/Trusts	√		√	√
Zoning/LU	√		√	√
Form Based Code	√		√	√
Expedite Development Process	√		√	
Address Existing and Needed Infrastructure	√			√
Catalyst Project		√		√
Public/Private Initiative		√		√
Accessory Dwelling Units			√	√
Green Building Practices				√
Project Accountability				√
Housing				
Competitive Bidding	√			
Tax Abatement/Credits		√	√	√
Density Bonus	√			
Overlay District	√	√		√
TIF		√		√
Joint Development		√	√	√
IZ		√	√	
Transit Incentives for/from Housing Developers			√	√
LIHTC	√	√	√	
Transportation Management				
Unbundled Parking Prices				
Reduce Parking Requirements	√	√	√	√

"√" Represents the presence of a technique in a municipality.

Table 5-1. Continued

Tool	Charlotte	Dallas	Denver	Tampa
Government Funding Sources				
Vouchers				
Subsidization				√
HUD Section 8 Loan		√		√
City Bonds	√	√	√	√
HUD 221(d)(4)		√		
Pension Funds			√	
REIT Funds			√	
HOPE VI			√	√
HOME Funds				√
CDBG Funds		√		√
SHIP Funds				√
HUD Section 202/811 Funds				√
SAIL Funds				√
Predevelopment Loans				√
EHCL				√

"√" Represents the presence of a technique in a municipality

CHATPER 6
CONCLUSION

Summary

Tampa is in an advantageous position by deciding to join the ranks of light-rail transit (LRT) providing cities relatively late. The lessons learned by the preceding communities provide Tampa with the framework for how to best implement such a system, and the associated development. With the economy faltering and staying suppressed from the inflated highs of the past decade, financing any public project will be difficult. Furthermore, the members of the communities will be faced by the constantly increasing prices of the goods they consume out of necessity and desire. Whether Tampa's leaders build their LRT system or not, the city will have to address the growing housing affordability problem. With more and more households each year faced by their housing and transportation costs amounting to more than 50% of their income, decisions on how to address the issues soon will need to be made. Tampa can begin to support the members of its community by setting up housing trust funds and land banking programs. If the LRT system never materializes, affordable housing can still be provided closer to the activity centers that employ large portions of lower-income households.

The research presented in this paper is not comprehensive; thusly programs operated by the examined cities may have been overlooked. Regardless, Tampa and its policies and programs match up favorably to, even exceeding, those of Charlotte, Dallas and Denver. As time passes and the existing experiments in the provision of affordable housing in TODs mature, and as more cities put in transit systems with designated guide ways, interested parties will have more information to gather and

provide a more adequate outline of the types of policies to implement and in what scenarios.

Limitations

Because this was a study of the planning process and the tools used, the suggestions of which tools are best to implement are simply that, suggestions. This research assumes that all the tools identified are of equal worth, when in fact, this cannot be possible. The next step in this line of research is to perform quantitative analyses of the identified tools as to how they perform currently in practice, and which are of the most benefit to the objectives they are designed to serve. Of course, more time will have to pass to see how they perform in a TOD context, or in conjunction with affordable housing. Furthermore, not every policy or guiding document for the examined cities was read. Such an endeavor is beyond a reasonable time frame, and thus beyond my financial prowess at this juncture in my life.

Future Research

LRT Systems

To expand further upon this research I would first seek out other metropolitan regions with light-rail transit systems. Portland, Phoenix, San Diego, and Boston all meet this criterion. Boston, Portland and San Diego are of particular interest because they have barriers impacting the growth of the city; Portland with its self-imposed urban growth boundary (UGB) and the Willamette River and Boston with the Boston Harbor and Sand Diego with the San Diego Bay. Tampa has the Tampa Bay limiting its horizontal growth. Phoenix is of interest because it is another relatively young system that grew up around the automobile, as did Tampa.

Commuter/Heavy Rail Systems

To develop a better understanding of what more regions with fixed guide way systems employ to encourage TOD and affordable housing I would increase the breadth to cities with commuter or heavy rail systems. Washington, D.C.'s Metro system and San Francisco's BART system appeared on numerous occasions throughout the literature. Though one BART reference was made in my research, volumes more exist, particularly from Robert Cervero, on TODs around BART stations. D.C. would be examined as the preeminent source of joint development/value capture systems, as well as corridor planning.

Surveys

Many housing programs would require households to relocate to different neighborhoods. Research into willingness and impacts of relocating low-income households needs to be conducted. To continue the focus on Tampa, surveys on residents in low-income neighborhoods, specifically renters, would need to be conducted to determine their willingness to move to a TOD and to identify reasons for or against such an action.

Closing

The relationship of housing and transportation, I believe, will only continue to grow in importance as time progresses. Making the proper coordination efforts is pivotal to the support and success of the communities in which we live. Ignoring certain demographics, for whatever reason, is irresponsible and will only end up in unrest and undesired socio-economic and political scenarios. Reducing the number of households burdened by housing and transportation expenses not only improves their quality of life, but support the vitality of the community which they call home.

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BIOGRAPHICAL SKETCH

Myles O'Keefe was born at Scott Air Force Base in Illinois. He has lived in numerous states due to his father's career in the United States Air Force. Myles completed his first two years of high school in Tampa, FL before moving to Colorado Springs, CO. There he completed his final two years and graduated from high school in 2005. Myles set out to Gainesville, FL to attend the University of Florida in August 2005. He spent his first year studying Food Science and Human Nutrition with hopes of becoming a dentist. Disinterested with the coursework, Myles changed his focus to business, focusing in economics. Myles graduated in December 2008 with a Bachelor of Science in Business Administration with a major in economics.

During his time as an undergraduate Myles became interested in how to improve the natural and built environments. Not finished learning and not yet ready mentally for life as an office worker, Myles decided to pursue a Master of Arts in Urban and Regional Planning at the University of Florida immediately following his completion of his undergraduate studies in the January 2009. Upon graduation from UF, Myles hopes to live and work in the Washington, D.C. area for the foreseeable future.