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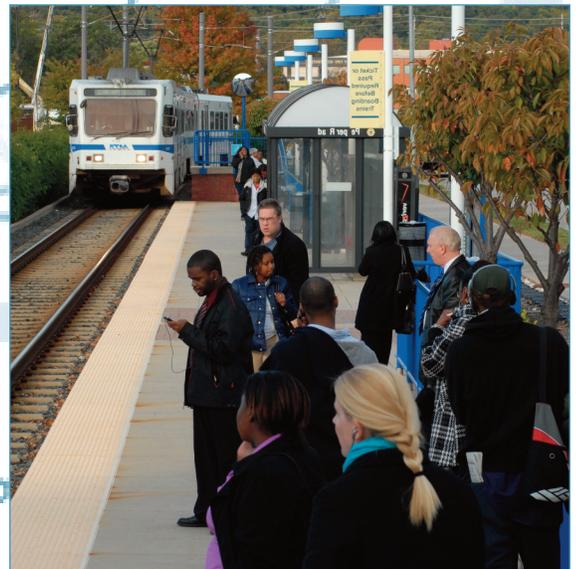
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Equitable Transit Oriented Development:

Examining the progress and continued challenges
of developing affordable housing in opportunity
and transit-rich neighborhoods



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Introduction

Transit-oriented developments (TODs) have been shown to have a diversity of economic, environmental, and health benefits^{1,2}. Increasingly, researchers and advocates alike argue that ensuring that TODs are equitable and accessible to all income groups will not only benefit low income residents, but transit ridership and ultimately the environment as well³.

A number of innovative funding streams and programs have emerged at the local⁴, regional⁵, and state⁶ levels to promote and incentivize the development and preservation of affordable housing in TODs⁷. In addition, federal funding streams for affordable housing and transit have begun to prioritize the co-location of transit and affordable housing.

Despite recent funding and policy progress, the relationship between TOD investments, affordable housing and neighborhood opportunity patterns has yet to be evaluated. This research fills this void by analyzing the proximity of LIHTC-funded affordable housing developments to rapid transit stations^a. Since neighborhood quality, which includes many dimensions in addition to accessibility, is an important factor in determining residents' quality of life⁸, this report considers the opportunity levels of neighborhoods where affordable housing and transit are located.

From our national scan of LIHTC developments, we find that limited progress has been made over the past two decades in delivering new affordable housing options near transit stations in high-opportunity neighborhoods. Only 15% of LIHTC-funded affordable housing developments are located within ½ mile of a transit station and 4% are located within ¼ of a mile of transit stations. These rates have improved only modestly over time.

In contrast over half of new transit stations have been built within half a mile of existing LIHTC developments. New transit neighborhoods have not been as successful at attracting new affordable developments, however; only 1 in 5 new transit neighborhoods saw new LIHTC developments added. Furthermore, neighborhoods with both LIHTC developments and transit stations were more likely to experience gentrification pressures between 2000 and 2010 than neighborhoods with only LIHTC developments. Together these findings call into question the long-term stability of the few equitable TODs that have been successfully established.

There also exists room for improvement as it relates to co-locating transit stations and LIHTC developments in high opportunity neighborhoods. By analyzing neighborhood poverty and school district proficiency rates, we find that transit neighborhoods with LIHTC developments had significantly lower opportunity levels than both transit neighborhoods without LIHTC developments and neighborhoods with LIHTC developments that did not have transit stations. These findings point to significant barriers in developing affordable housing in high opportunity, transit-rich neighborhoods.

Through three case studies, this report uncovers the key strategies developers and agencies use to overcome these barriers when creating affordable housing in transit and opportunity-rich neighborhoods. We find, perhaps unsurprisingly, the cost of land to be one of the greatest barriers to developing LIHTC-funded TODs in opportunity-rich neighborhoods. Cities and affordable housing developers overcome land premiums in creative ways, including a) foresight to purchase land well before stations open, b) supportive local and state governments that provide gap financing or subsidize the cost of development, and c) local planning that reduces development costs (e.g., lower parking ratios, streamlined permitting, etc.).

^a For the purposes of this report we use the term rapid transit to refer to fixed-guideway rail and bus rapid transit systems

What remains unclear, however, is the extent to which funding programs and policy progress can counteract the enormous cost and NIMBY (“not in my back yard”) barriers to developing affordable housing near transit. It will therefore be important to replicate this study in the future to determine if recent policymaking, new funding programs and other efforts aimed at fostering equitable growth in transit-rich and opportunity-rich neighborhoods are successfully moving the needle.

Federal Funding for Transit and Affordable Housing

Given the important role of the federal government in the financing of both rapid transit and subsidized housing, here we provide a brief background on the two main federal programs supporting these developments: the Federal Transit Agency’s New Start’s program and the Low Income Housing Tax Credit program.

New Starts

The Federal Transit Agency’s New Starts program has funded nearly every major fixed-guideway transit project built in the United States since the program’s inception in the 1970’s. The modern formulation of the New Starts program funds both new transit facilities and extensions to existing fixed-guideway transit facilities. Such facilities can be rail transit or corridor-based bus rapid transit guideways for use by public transit vehicles⁹.

The hundreds of transit projects that have been funded by the program have varied in cost from \$25 million to several billion dollars. Proposed transit projects receive New Starts funding after proceeding through a multi-criteria evaluation process that allows for comparison to peer proposals. Due to the finite congressional funding authorization for the program, approximately \$2.0 billion annually, very few projects receive funding each year. Projects generally proceed through the New Starts funding process in five to ten

years, though some have been processed more quickly.

Today’s New Starts funding evaluation process is the result of decades of refinement. It was not until the passage of the Moving Ahead for Progress in the 21st Century Act (known as MAP-21) in 2012 that FTA explicitly considered affordable housing as part of their transit funding process. The qualitative evaluation measures of transit and land use coordination represent 1/12th of a transit proposal’s overall score. In 2013, the Federal Transportation Administration published a new policy guidance that incorporated affordable housing into its evaluation criteria. In the guidance, the FTA incorporated metrics that consider tools to increase and preserve the amount of affordable housing in project corridors (see Appendix). These include the presence of local policies such as inclusionary zoning, density bonuses, rent control and condo conversion ordinances, as well as the number of existing deed-restricted units and local financing tools and strategies such as targeted property acquisition, local and state tax abatements, trust funds, and others.

Due to the long duration of the transit project development process, projects subject to the new affordable housing criterion are likely to be constructed in the next decade. The direct impact of New Starts rules on project planning may be modest. Extrapolating from findings of an earlier study¹⁰, one might expect that the inclusion of affordable housing in transit funding evaluations will expand an existing dialogue and increase awareness regarding the cost synergies between transit and housing. However, one may not see a stark difference in the transit and land use outcomes. In a recent analysis of 2016 New Starts applications, for instance, it was found that while the new affordable housing criteria affected the ratings for land use and economic development, they did not have an impact on the overall rating deciding federal funding¹¹.

Low Income Housing Tax Credits

The Low Income Housing Tax Credit (LIHTC), created in 1986 under the Tax Reform Act, accounts for the majority of affordable housing units created in the United States. The program, which gives states budget authority to issue tax credits for the acquisition, rehabilitation, or new construction of rental housing targeted to low-income households, has contributed to the production of over two million units since its inception. In 2014, nearly a billion dollars in tax credits were allocated to States through the program^b.

The credits are administered by each State's housing finance agency, which publish guidelines of their funding priorities each year in their Qualified Allocation Plans (QAPs). As of 2014^c, over half of all states (n=27) provided additional points in their scoring criteria for projects located near transit (See the Appendix for full list). The distance to and types of transit, however, are variously defined, as are the amount of extra points allocated to developments. In addition to proximity to transit, approximately 50% of State QAPs (n=24) provided points for access to neighborhood amenities and resources such as schools, grocery stores, banks, recreational facilities and other services. Finally, approximately a third of states (n=15) provide points for developments located in areas of high opportunity, defined differently by each state (see Appendix). Recent research on the impact of LIHTC scoring incentives for TODs found that States awarding extra points to developments near transit had more success at attracting affordable housing near rail transit in comparison to states that didn't award extra points¹² confirming the conventional wisdom that QAP criteria communicate funding priorities to affordable housing developers¹³.

^bhttp://www.novoco.com/low_income_housing/lihtc/federal_lihtc.php

^c 11 states only had QAPs available online for 2013 and 3 states had QAPs for 2015

In 2008 as part of the Housing and Economic Recovery Act, Congress enabled State Housing Finance Agencies to designate any development to be eligible for a 30% basis boost, which some states applied to developments in transit station areas. As of 2011, four states had included basis boosts in their QAPs for locating near mass transit, however the degree to which they actually awarded credits to transit-proximate developments was not evaluated¹⁴.

Methods

This research involved multiple methods of quantitative and qualitative analysis to assess the degree to which transit and affordable housing have been co-located and to determine the opportunities and barriers to aligning them in the future. Below we present the data and methods used for the national scan of the location of LIHTC developments as well as the case study methodology used to explore the challenges to co-locating the two.

Data analysis

Using geographic information system software (ArcGIS), we overlaid four categories of data: 1) transit station location data, 2) LIHTC development data, 3) census tract level data on the poverty and race of residents, and 4) test score data for school districts. We created ¼ and ½ mile buffers around the transit stations and calculated the total number of affordable housing units within that buffer. The census tract and school district in which the transit station is located was also assigned to each station with associated neighborhood opportunity indicators.

In addition, we created ¼ and ½ mile buffers around the LIHTC developments and calculated the neighborhood opportunity characteristics and access to transit in each of the buffers. The closest transit station was assigned to the LIHTC development and its distance calculated. The census tract and school district in which the LIHTC development is located was assigned to each development. Overlapping

buffers were not merged. We rather treated each buffer as a separate neighborhood.

For both buffers of LIHTC developments and transit stations, we used Euclidian distance rather than the street network. Since one cannot often walk or drive in a straight line (or as the crow flies) to the transit station, these buffers are in fact more inclusive than a more robust road network-based analysis would suggest. For instance, a LIHTC development that is within a ½ mile buffer of a transit station may actually be ¾ mile from the station using the shortest route using the street network. Therefore, the results presented below (and in tables 1-4) are likely an over-estimate of the number of low income housing developments that are within a ½ mile or ¼ mile trip to transit stations.

Case studies

Three case studies were chosen from the national analysis of LIHTC developments and their proximity to transit stations. After calculating the proximity of each of the 34,791 developments in the LIHTC database to existing and planned transit stations, we used the following criteria to identify case study candidates:

1. Neighborhoods within a half mile of transit stations that have opened since 2000,
2. LIHTC developments that were placed in service *after* the opening of the transit station,
3. High opportunity neighborhoods as defined by:
 - a. poverty rates below 30% (in 2010)
 - b. school districts where on average over 70% of students are graded proficient on reading and math test scores in elementary, secondary and high school (in 2011),
4. LIHTC developments containing family-serving units of 2+ bedrooms.

Only 5 of the 34,791 developments in the LIHTC database met these strict criteria, three of which were chosen for analysis. The three developments analyzed for this report are summarized in Table 1.

Upon selection, background information was gathered on the developments, including any information available online, through the LIHTC database and from Census data to familiarize ourselves with the developments and neighborhoods. The primary contact on the LIHTC database was called and a telephone interview was conducted with someone involved in the planning and execution of the development. Each interview was recorded and later analyzed for the purposes of this report. Additional data was gathered from planning documents and internal reports provided by interviewees.

Table 1 Case Study Developments

Case	Metro Area	Distance to transit	# units	Income mix
M Station	Austin TX	1/5 mile to MLK station on the MetroRail Red Line	150 mixed-income units; 32 1-br, 60 2-br, and 58 3br	15 at 30% MFI, 70 at 50% MFI*,45 at 60% MFI, and 15 market rate
South Oak Crossing	Charlotte NC	3/5 mile from Arrowood station on the Lynx Blue Line	192 mixed-income units; 96 2-br and 96 3-br	29 at 30% MFI, 80 at 60% MFI, and 92 market rate
Patton Park	Portland, OR	1/10 from N Killingsworth St station on the Interstate Max Yellow line	54 units; 2 0-br, 36 1-br, 4 2-br, and 12 3-br	42 at 50% MFI, and 12 at 30% MFI

*Median Family Income

Data

Transit Stations

The national TOD database by the Center for Transit-Oriented Development was used for this analysis¹⁵. This database contains information for existing (4,417), planned (665) and proposed (917) transit stations including heavy rail, light rail, streetcars, ferries, cable cars, and bus rapid transit. Each station contains data on its physical location (latitude/longitude) and the year the station came into operation if it was constructed after 2000. Stations that came into operation before 2000 are labeled “pre-

2000.” The dataset was last updated in 2011. Therefore, stations that have opened since 2011 would be labeled as “planned” and were not analyzed for this research.

LIHTC Developments

The Department of Housing and Urban Development’s LIHTC database was used for this analysis¹⁶. The database contains information on nearly 40,000 developments and over 2,000,000 low-income housing units placed in service between 1987 and 2013. The database contains information on the size, unit mix, and location^d of individual developments.

School Quality Data

The National Center for Education Statistics (NCES) publishes data on student proficiency in math and reading test scores for 4th grade, 8th grade, and high school students using state-defined proficiency standards as required under the No Child Left Behind (NCLB) Act. We used the dataset published by the New America Foundation for school district-level student proficiency rates. To create a single indicator for each district, we averaged the proficiency scores for 4th, 8th, and high school math and reading tests for 2010.

Census data

2010 Census and 2006-2010 American Community Survey data was pulled for a variety of indicators including poverty, median income, race, education level, and unemployment. Data for the 2000 Census was derived from the Neighborhood Change Database that standardizes historic census data to 2010 tract boundaries.

^d Approximately 10% of projects do not contain address information.

Results

Are LIHTC developments being built near transit?

Of the 32,560 developments^e with location information and data on the year the development was placed in service in the LIHTC database, 4,752 (14.6%) are located within ½ mile of a transit station and 1,269 (3.9%) were located within ¼ mile of a station (Table 2).

When comparing LIHTC developments built before and after 2000, we found a slight improvement over time. For LIHTC developments placed in service prior to 2000, 13.2% were located within half mile of a transit station and 3.5% were located within a quarter mile of a station. For LIHTC developments placed in service after 2000, 16% were located within half mile of a station and 4.3% were located within a quarter mile of a station. These improvements were both found to be statistically significant.

Table 2 LIHTC Developments within ¼ and ½ miles of Existing and Planned Transit Stations

	Within half mile of transit station	Within quarter mile of transit station	More than half mile from transit station
All LIHTC developments (units)	4,752 (298,029)	1,269 (79,597)	27,808 (1,670,825)
LIHTC developments placed in service before 2000	2,180 (108,338)	571 (29,035)	14,293 (648,466)
LIHTC developments placed in service after 2000	2,572 (189,691)	698 (50,562)	13,515 (1,022,359)

^e There are 39,094 total developments in the LIHTC database, however only 32,560 (893%) contain information on the location and year the projects were placed in service.

When looking at subsidized units rather than developments, we find that 14.3% of units placed in service before 2000 were located within half mile of a transit station and 3.8% were located within a quarter mile of a station. For units placed in service after 2000, 15.6% were located within half mile of a transit station and 4.2% were located within a quarter mile of a station. These differences were also found to be statistically significant.

Are new transit stations being built near LIHTC developments?

Of the 882 transit stations opened between 2000 and 2011, 252 (28.6%) were within a quarter mile of a LIHTC development. Of those, 222 already had low income units prior to the opening of the station. In total, 90 new stations areas saw new LIHTC developments placed in service once the station opened, 62 of which were in areas that already had LIHTC developments prior to the opening of the transit station.

When we analyzed LIHTC developments within a half mile of a transit station, we find that 469 of the 882 transit stations opened between 2000 and 2011 (53.2%) were in neighborhoods where LIHTC developments were located. Of those, 396 already had LIHTC developments located within a half mile of the station prior to its opening. In total, 181 new stations areas saw new LIHTC developments placed in service once the station opened, 134 of which already had LIHTC developments prior to the opening of the transit station.

What are the opportunity levels of neighborhoods where LIHTC and transit stations are located?

We found significant differences in the opportunity levels between transit neighborhoods without LIHTC developments, LIHTC neighborhoods without transit, and LIHTC neighborhoods with transit (within ½ mile buffer). In general, and based only on the analysis of poverty, school proficiency and race, we find transit

neighborhoods without LIHTC developments to have the highest opportunity levels, followed by urban LIHTC neighborhoods without transit. Urban neighborhoods with LIHTC developments and transit had significantly lower opportunity levels than both non-transit oriented LIHTC neighborhoods and transit neighborhoods without LIHTC developments (Table 3).

When comparing opportunity rates for transit stations and LIHTC developments that opened before and after 2000, there does not appear to be a significant difference.

Table 3 Opportunity Measures (2010) in LIHTC and Transit Neighborhoods

	LIHTC developments < half mile of station	LIHTC developments > half mile of station (urban areas only)	Transit areas without LIHTC	Entire U.S.
% Poverty (median)	29%	20%	10%	12%
School District Proficiency (median)	57%	69%	69%	74%
% Nonwhite (median)	87%	44%	37%	26%

Are LIHTC neighborhoods with transit stations more likely to gentrify than LIHTC neighborhoods without transit stations?

As found by previous researchers, neighborhoods that are proximate to transit stations are susceptible to gentrification pressures¹⁷. We looked at several common gentrification measures to assess the degree to which LIHTC neighborhoods with and without transit experienced gentrification between 2000 and 2010.

Across the board, LIHTC neighborhoods that were within a half mile of a transit station were more likely to experience gentrification pressures as measured by

changes in poverty, median household income, non-white population, median rent, educational attainment and housing values (Table 4), all of which were found to be statistically significant.

Therefore, while it appears that transit has been more successful at locating stations near LIHTC developments than vice versa, these neighborhoods may be subsequently experiencing gentrification and overall loss of affordability. When coupled with previous research finding a high proportion of federally subsidized units near transit at risk of being lost in the near future¹⁸ and our results above showing that few LIHTC developments were located in transit neighborhoods following the opening of a new station, these results indicate a significant hurdle to achieving the long-term sustainability of equitable TODs.

Table 4 Gentrification Indicators for LIHTC Neighborhoods by Proximity to Transit Stations

Gentrification indicators (average change 2000 - 2010)	LIHTC neighborhoods < ½ mile of transit station	LIHTC neighborhoods > ½ mile of transit station
Change in % poverty	- 1.3%	+ 3.4%
Change in % nonwhite	- 1.5%	+ 5.2%
Change in % of adults 25+ with bachelors	+ 7.6%	+ 2.3%
Change in median household income	+ 8.3%	- 7.3%
Change in median rent	+ 21.1%	+ 7.3%
Change in median home value	+ 84.2%	+31.6%

Case Study Results

Three recent LIHTC developments that are proximate to rail transit stations were investigated to better understand the challenges and strategies to developing affordable TODs in high opportunity neighborhoods. Below we present the key findings for M Station apartments in Austin, Texas, South Oak Crossing in Charlotte, North Carolina and Patton Park in Portland, Oregon.

Green living in Austin, Texas: M Station Apartments

One of Austin’s first affordable TODs, M Station apartments opened its doors to 150 families in 2011 after the opening of Capital MetroRail’s MLK station less than two blocks away. Developed by the non-profit affordable housing provider, Foundation Communities, the mixed income development serves families in 1, 2, and 3 bedroom units at various affordability levels^f and 10% of units are supportive transitional housing for families at risk of homelessness. M Station is also the site of an early childhood education center that offers preschool and afterschool learning opportunities as well as a community center. One of the key aspects of M Station since its inception is its environmental design, earning it LEED platinum designation. Water and electricity conservation measures included low flow toilets, o solar water heaters and more.



Figure 1 Austin’s M Station apartments

The concept for M Station began in 2007 when Foundation Communities looked to build a new development rather than rehabbing existing units, which they had been doing for the previous decade. With the intent of building in a TOD, the organization looked at land in five different transit districts adjacent to stations of Austin’s first commuter rail – the Capital MetroRail Red line. Ultimately they chose an 8.5 acre site near the future MLK station. The site had been vacant for years after serving as the home of

^f 15 units affordable at 30% MFI (for homeless families), 70 units at 50% MFI, 45 units at 60% MFI and 15 market rate units; 32 one bedroom, 60 two bedroom and 58 three bedroom units.

the Featherlite concrete manufacturing company.

Centrally located at less than a mile and half from both the University of Texas and downtown Austin, M Station apartments are nestled between five East Austin neighborhoods including the historically African American Chestnut neighborhood. Partly because of its accessible location, the neighborhood has been experiencing rapid change.

In 2010, the neighborhood surrounding the station maintained a higher proportion of African American residents when compared to the Metro Area (23% versus 7%), but lower proportion of Hispanic residents (21% versus 31%). Roughly half of the residents were non-Hispanic white in 2010. The demographics of the area had changed significantly since the last Census in 2000, when nearly 37% of the residents self-identified as non-Hispanic African American and only 33% of the residents considered themselves to be non-Hispanic white. The rate of college attainment increased by 14% in those ten years, far surpassing the 3% gain for the overall metropolitan area. Similarly, the poverty rate decreased significantly over the decade. Although the poverty rate of the neighborhood was nearly twice the metro average in 2000, the difference narrowed to 3% with a poverty rate of 17% versus the metro average of 14% in 2010.

M Station apartments are also located within the high performing Austin Independent school district^g and located only half a mile from the “blue-ribbon” Campbell elementary school. Across from M Station are also the Sustainable Food Center, a park, a CDFI, and a multi-use trail.

In the 2007 opportunity map of Austin, the Kirwan Institute highlighted the city’s clear East-West divide, with higher opportunity neighborhoods being located west of Interstate 35. Despite being located east of

I35, however, the Census tract in which M station was located was categorized as high opportunity when combining education, economic mobility, health and neighborhood quality indicators^h. However, in 2011 when Kirwan Institute updated the mapping and used the smaller block group geography of analysis, it classified the area as low opportunity, bordering two high opportunity adjacent block groups. The update also concluded, however, that “development in a few neighborhoods just east of Interstate 35 poses a threat to the African American and Hispanic populations currently living there. As wealthier inhabitants move in and home prices rise, the original residents may be forced to move to find more affordable housing”¹⁹.

Developing Austin’s First Commuter rail

The opening of the Capital MetroRail Red line in March, 2010 came after over a decade of planning and false starts. In 1986 Capital Metro, the regional transit agency, partnered with the City of Austin to purchase the 162-mile of existing rail right of way from the Southern Pacific Transportation Company for future passenger rail use. The purchase price was \$9.3 million, of which \$6 million came from a grant from the Federal Transit Administration.

After years of inaction, in 1997 Capital Metro drew up an ambitious plan for a \$1.9 billion, 52-mile system that included a north-south Red Line and an east-west Green Line. The proposal won initial engineering support from FTA’s New Starts program in 1999. Under Texas law, however, Capital Metro is required to submit any proposals for rail development to a public vote independent of whether or not the proposed project is funded. The proposal was narrowly rejected in November 2000. In 2004, a more limited proposal consisting of only the 32-mile hybrid commuter rail/light rail Red line connecting the northern suburb of Leander and downtown Austin won voter approval. The system, which consists of

^g In 2011, 91% of 4th graders scored proficient in math and 86% in reading; 83% of 8th graders scored proficient in math and 91% in reading; 76% of high school students scored proficient in math and 88% in reading.

^h The tract scored low on educational opportunity, high on economic opportunity, very high on mobility, very high on public health, and low on neighborhood quality/housing.

nine stations, has half-hour headways during the morning and evening commute times and serves nearly 2,000 commuters a day. Outside of these time windows (and additional limited service on Friday evenings and Saturdays) the line continues to be used for freight trafficⁱ.

The Red Line was developed as a starter line, or proof of concept, for a regional light rail system proposed for the Austin region. Thus, it was a relatively small and low-cost endeavor that was intended to demonstrate the high return on investment that could be expected from a larger regional system. However, the low cost of the investment fell below the minimum threshold that was required to seek FTA New Starts funding.

Even so, project planners utilized state of the art planning practices and were well aware of the Federal funding criteria. In fact, prior research found that many independently-funded projects still follow federal protocols so that the local expenditures can be counted toward the region's financial contribution to transit projects on future New Starts funded projects²⁰.

Planning for Affordable TOD

In anticipation of the future Red Line, in 2005, the City of Austin passed its TOD ordinance, which designated the boundaries of several future station areas as TOD zones and established an interim overlay zone to ensure that developments would be supportive of transit and pedestrian environments. The ordinance prohibited certain uses in the overlay zone (e.g., industrial, drive-ins) and reduced setback and parking requirements (60% of existing parking ratios), among other features²¹. The ordinance also set the guidelines for the preparation of station area plans (SAP) that would include a housing affordability analysis and description of strategies to provide at least 25 percent of new rental housing to be affordable to households at or below 60 percent of median family

ⁱ S Bogren, "Capital MetroRail's Red Line: Austin's Initial Foray into Rail," *Rail Magazine*, no. 23 (2009): 36–41.

income^j.

The affordable housing delineated in the SAPs, however, were goals rather than requirements and no resources were dedicated to developing the affordable housing²². Instead, the City offered a suite of incentives to encourage affordable developments. In the MLK station SAP, approved in 2009, density bonuses were offered to developers that met affordable housing goals. The site of the M Station apartments was considered part of the TOD-mixed use zone, with a minimum density of 2 stories and max of 45 units per acre – densities which could be waived in exchange for provision of affordable housing.

The City of Austin also created the S.M.A.R.T. program to spur TOD. Passed in 2000, the S.M.A.R.T. program provides fee waivers and expedited project review for developments meeting program criteria of being safe, mixed-income, accessible, reasonably-priced, transit-oriented, and meeting green building standards²³.

Forward Financing

Like many new affordable housing developments, the M Station apartments relied on 9% Low Income Housing Tax credits (LIHTC) to finance the development. Under Texas' Qualified Allocation Plan (both present and in 2008), applicants can score extra points for being located in high opportunity neighborhoods that have either lower poverty rates, higher median income, or are in an exemplary school zone as well as being in proximity to amenities such as grocery stores and public schools. Additional points were also achieved with green building design. No extra points were awarded for being transit accessible, however.

When Foundation Communities applied for the tax

^j 10 percent of the units to households with an income of not more than 40 to 60 percent of median family income, 10 percent of the units to households with an income of not more than 30 to 40 percent of median family income, and five percent of the units to households with an income of not more than 30 percent of median family income

credits in 2008, it didn't score high enough to be awarded credits for that year. Nevertheless, the Texas Department of Housing and Community Affairs awarded them a forward commitment for 2009 credits based on the development's green design and proximity to transit.

In addition to the tax credits, M Station apartments were also funded in part by a loan from the Austin Housing Finance Corporation as part of their Rental Housing Development Assistance program to partially fund the acquisition of the 8.5 acre lot. The Rental Housing Development Assistance program uses proceeds from the Affordable Housing General Obligation bonds. The 55 million dollar bonds, passed by voters in 2006, were established to provide housing at deeper levels of affordability (30% MFI), longer terms (99 years) and dispersed geographically (west of I35).

Finally, in order to deepen their target to reach homeless families, Foundation Communities also set aside 10% of the units at market rate rents. These higher rents were intended to offset the deep discount on rents for 15 homeless families as part of their Children's HOME Initiative, which provides subsidized supportive housing to homeless families.

M Stations: Key Opportunities and Challenges

According to Walter Moreau, the executive director of Foundation Communities, the greatest challenge to M Station, much like any affordable housing development, was its cost and aligning sufficient resources to bring the development to fruition. Foundation Communities was able to cobble together a variety of funding sources to finance the development, but the land and development costs were particularly challenging, even during the depressed housing market of 2007.

Finding a site they could afford near transit was a significant challenge. At \$3 million (or \$8.1/ft²), Moreau recounted that they were criticized at the time for spending too much on the land. Yet, after the

station was opened property values in the area have increased tremendously and Moreau noted that it would now be very difficult to find a site in the area at that price. Although the station was already under construction at the time they went under contract on the site, the housing bubble had just burst and land was unexpectedly cheaper than before. The previous owners had considered developing high-end condos on the site, however with the drying up of the financial markets, they realized it would be more profitable to sell the land. The site was however more costly to develop than previously anticipated. Nearly half of the site was located in a floodplain and locally designated Critical Water Quality Zone. Developing out of the flood plain was nearly half a million dollars more expensive than originally anticipated.

Although located within the TOD boundaries of the SAP and TOD ordinance, the proximity of the station did not have a significant impact on the design of the site. Moreau noted that although the TOD ordinance allowed them to develop less parking than normal, the reduced ratio (essentially 1:1) is proving to be inadequate for the needs of residents, who now have to park on neighborhood streets. Although the site is very close to the MLK station, tenants' use of the train does not appear to be very high since the commuter line runs on a limited schedule and connects few destinations. "So it works for residents that just need to get downtown for work, or perhaps out to the suburbs, but otherwise is limited. Most people still have cars, though we have some residents without cars, and some use the Car2Go [car share program] so they might have one car instead of two," Moreau noted.

The role of Federal and local transit agencies has been very limited in the M Street development. Although the FTA financed part of the right of way acquisition and original engineering, it did not fund the capital costs of the train system. When asked about the role of Capital Metro, Foundation Communities noted that the transit agency was only involved in reviewing site design for its impact on circulation and in the construction of a fencing to physically separate the

development from the tracks. Beyond that, there was no other financial or planning contribution of the agency to M Station apartments.

Ultimately, Foundation Communities believes it was the combination of being transit oriented, providing a state of the art childcare facility and the green design that won over the support of the state housing agency, local planners and the banks, who chose to buy their credits even during the dried up market, allowing them to build 135 affordable units in a desirable neighborhood.

Mixed-Income Living near Transit: Charlotte's South Oak Crossing

When Charlotte opened its first light rail system in 2007, the Lynx Blue Line, it was greeted with the nearly simultaneous opening of the mixed-income South Oak Crossing apartments, located just over ½ mile from the Arrowood station. The 192 unit complex, developed by Charlotte Mecklenburg Housing Partnership (CMHP), consists of 100 affordable and 92 market-rate, two- and three-bedroom rental units.

Looking to build its first TOD, CMHP specifically targeted the South Charlotte neighborhood since it knew that a station would be developed nearby. CMHP capitalized on a window of opportunity of low land costs, buying the 10 acre wooded site for \$480,000 nearly five years before the station opened from an out-of-state landowner. In the years following their purchase, property values in the area nearly tripled.

In 2010, the South Charlotte neighborhood surrounding the Arrowood station had a larger population of African American (40%) and Hispanic (44%) households than the rest of Charlotte Metro Area (24% and 11%, respectively). The demographics of the area had changed significantly since the last Census in 2000, when nearly 65% of tract population self-identified as non-Hispanic white. Although the rate of college attainment was also lower (10% versus 33% for the metro area) and it also had higher

unemployment rates (16% for the neighborhood versus 10% for the metro), the neighborhood was considered a stable place where lower income families could find affordable housing, with median rents of \$550, in comparison to \$824 for the region.

Over half of existing residents in the Census tract where South Oak Crossing is located were renters in 2000. In an interview with the developer, CMHP noted that they typically do not develop multi-family units in high renter neighborhoods, in part because the city prohibits it with its Housing Locational Policy, but in this case they specifically sought to develop in the area because of the proximity to the soon to open light rail station. Because of the demographics of the neighborhood, CMHP chose to develop larger, family oriented units to cater to the Hispanic and African American families in the area. The site was also located in the high performing Charlotte-Mecklenburg School district^k.

Charlotte's Lynx Blue Line

The South Corridor, now called the LYNX Blue Line, is a 9.6-mile, 15-station light rail project extending south from Uptown Charlotte (the city's central business district) to Interstate-485 in southern Mecklenburg County near the South Carolina state border. The facility, completed in 2007, generally parallels north-south Interstate-77 and serves considerable commuter traffic accessing the 80,000 jobs located in Charlotte's central business district. The South Corridor is an exemplar of transportation and land use coordination, though affordable real estate development was not a major consideration for transit project stakeholders.

Rail transit planning was initiated in Charlotte in the 1980's and culminated in the *Transit Corridor System Planning Study* of 1989. By 1994, the *Charlotte Transitional Analysis* had identified rail transit

^k In 2011, 85% of 4th graders scored proficient in math and 71% in reading; 85% of 8th graders scored proficient in math and 70% in reading; 79% of high school students scored proficient in math and 81% in reading.

corridors that would support the region's overall land use vision and the *Centers and Corridors Concept Plan* was adopted by the Charlotte-Mecklenburg Planning Commission. A model of Smart Growth regional planning, the integrated land use, economic development, and transportation plan identified five radial corridors of dense urban development along parallel roadways and rapid transit lines with wedges of low density single-family housing in between.

Among the five radial corridors, the Charlotte City Council selected the South Corridor to be Charlotte's first rail investment because it was considered the most likely corridor to successfully realize the vision of a radial city. For one, the corridor was parallel to heavily congested Interstate-77 in the fastest growing corridor in the region. Second, the corridor coincided with available Norfolk Southern right of way where a light rail project could be implemented. Most importantly, particularly for achieving the regional land use objectives, both availability of land and strong market conditions presented tremendous potential for redevelopment along the corridor.

Planning for the line proceeded steadily through the late 1990's and early 2000's. On May 6, 2005, the FTA entered into a Full Funding Grant Agreement (FFGA) providing a Federal commitment of \$192.94 million in New Starts funds. The total project cost under the FFGA was \$426.85 million, with the majority of funds coming from state and local sources²⁴. At the time, affordable housing was not a consideration of the Federal funding program and no mention of affordable housing was found in the official documents we reviewed.

Yet, real estate development writ large was one of many factors considered by Federal funders in their grant making process and was a primary consideration of Charlotte's transit planners¹. When considering the location and design of each station, real estate

development was a very influential factor, sometimes more so than economic efficiency or transit operations. In fact, planners made tradeoffs demonstrating their commitment to spurring development along the line. To meet Federal standards for cost effectiveness, cost cutting measures with profound operational impacts were incorporated into the project, including shortening station lengths so that only two-car trains could be used on the line. At the same time, planners refused to implement other cost savings measures that would have impacted real estate development-related features of the project, such as a costly route deviation off of the main right of way and into a roadway median so that more land could be made available for development.

Further, in addition to and separate from the transit project's budget, the City of Charlotte provided \$72 million in complementary infrastructure improvements as part of the South Corridor Infrastructure Program²⁵. The infrastructure subsidy program was created specifically to spur development surrounding the stations. The infrastructure complemented new zoning policies that the City established to foster denser development along the corridor.

Planning Constraints to Affordable Housing

In an effort to avoid the concentration of poverty, in 2002 the Charlotte City Council passed the Housing Locational Policy, which established areas where new affordable multi-family rental housing could be located. New subsidized units were prohibited from developing within ½ miles of existing subsidized housing and in lower income (<60% AMI), majority rental neighborhoods, or where assisted units comprised over 10% of all housing units in the neighborhood. In addition, the policy limited the maximum number of affordable units on a site to 100. The Assisted Multi-Family Housing Development Policy at Transit Stations, which is part of the Housing Locational Policy, placed additional restrictions on transit neighborhoods, where a minimum of 5% and a maximum of 25% of a multi-

¹ Ian Carlton, "Transit Planning Practice in the Age of Transit-Oriented Development" University of California at Berkeley, 2013.

family development could be subsidized affordable, resulting in a total mix of less than 20% of the housing stock within ¼ mile of a station area. Furthermore, the policy required that affordable units be of similar appearance to the market rate housing and to be scattered throughout the development. This policy was later updated in 2011, modifying some of the restrictions, while maintaining a similar tenor.

Although South Oak Crossing apartments were just outside of the ½ mile station area, and were therefore not limited by the 25% maximum, it was located within a prohibited area because of the lower income and high renter population. CMHP therefore sought and was granted an exemption to the policy in 2005 on the basis of its close proximity to transit.

Financing Affordable TOD

CHMP applied to North Carolina's Housing Finance agency and in 2006 was awarded both tax credits and tax exempt bonds. When first issued, there was great demand for tax credits, but then the housing crisis hit and the original purchasers backed out. CMHP had to secure another purchaser, at which point the price for credits had plummeted, resulting in the need to seek gap financing. The City had already issued CMHP funding in part because of their desire to develop affordable units near transit, but because of the hiccup, the City committed additional resources from the Housing Trust Fund, which was established in 2001 with an initial \$10 million to provide financing for affordable housing. The program is funded periodically through voter approved bonds, which provides financing for affordable units using a competitive bidding process. Since its inception, over 4,000 units have been produced or rehabilitated using funding from the Housing Trust Fund.

South oak crossing: Key Opportunities and Challenges

Timing played a significant role in the development of South Oak Crossing, according to Fred Dodson, COO of CMHP. With considerable foresight and some luck,

CMHP was able to secure a site at an affordable price. A short two years later, CMHP noted that the land had tripled in value since its purchase²⁶. Despite its low cost, attaining a large developable site in an urban area continued to be a significant challenge. The 10 acre site for South Oak Crossing contained a wetland, around which they had to build, significantly increasing the development costs. Although CMHP is currently developing more affordable housing near transit at the Scaleybark station, they have noted that there is limited potential for future affordable TOD due to the escalation in land prices.

Timing, however, was not always on the side of the developers. With the financial crisis, funding the development became a significant challenge when the original tax credit purchasers backed out and the market for credits had tanked. However, the support of the City in providing gap financing played a critical role, allowing the development to succeed. Local government played both supportive and impeding roles in other ways as well. Although the local transit agency supported the development in their design review and by investing in road realignment to provide better access to the transit stop, they were otherwise not heavily involved in the process. Furthermore, the site design did not take the proximity to the Arrowood station much into account. Using the same parking ratios they've used in other developments (~1.5^m), most people drive even if they're going to the station. At 3/5 of a mile from the station, most residents believe the distance too far to walk according to Dodson.

While South Oak Crossing was ultimately granted an exemption from Charlotte's Housing Locational Policy, it demonstrates the significant barriers that planning can create. Affordable housing development is notoriously difficult to finance, and the requirement to disperse units throughout a mixed-use development can make it harder for developers to win federal tax credits, Dodson argued, as it's more difficult to

^m The SAP has a maximum of 1.3, but South Oak Crossing is located just outside its boundaries

document that the credits are only going to affordable units.

Although the goal of minimizing the concentration of poverty is notable, prohibiting development in high renter-occupied neighborhoods could create additional obstacles in an already challenging industry. In the case of South Oak Crossing, the high percentage of renters and especially Hispanic residents made it easier for the developer to gain neighborhood approval, which can prove to be a significant hurdle for affordable developments.

Finally, Dodson noted the importance of including high quality amenities to make a mixed-income development successful and to win the favor of funders. South Oak Crossing has a swimming pool, grilling area, playground, fitness center, business center and more on its premises which are useful in attracting future residents and in scoring high enough to win LIHTC credits in 2006.

Combating Gentrification with Inclusive TOD: Portland's Patton Park

Patton Park apartments in Northeast Portland represent a unique case of coordinated planning, investment and political will to stabilize a gentrifying neighborhood. The 54 affordable unit buildingⁿ is only a block from the MAX Yellow Line's North Killingsworth Street station which opened in 2004. During the planning of the Max Yellow line, which was to serve lower income and minority neighborhoods, residents expressed fear of the gentrification potential of the line, challenging the local government to develop policies and programs to prevent displacement. When the Yellow Line was completed under budget, TriMet, the local transportation agency, used surplus FTA money to acquire properties to stabilize the neighborhood.

ⁿ The building has 54 affordable units of which 2 are studios, 36 are 1 bedroom, 4 are 2 bedroom and 12 are 3 bedroom. All units are affordable at 50% of the area median income, and the 3-Br apartments have project-based Section 8 and are targeted to families under 30% median income.

TriMet subsequently released a request for qualifications in 2005 for a nonprofit to develop affordable housing on one of the acquired sites where the future Patton Park apartments were opened in 2009 to house families that had been displaced and stem tide of gentrification and displacement.



Figure 2 Patton Park in Portland, OR

Residents of the Overlook neighborhood, in which the N Killingsworth station is located, were right to worry about gentrification and displacement. The historically African American neighborhood was home to many lower income renters who lived in older, low rent bungalows. In fact, part of the rationale for locating a station there was to help revitalize the neighborhood and create an economic impetus. But, as Michelle Haynes, Director of Housing Development at REACH, Inc., the CDC that developed Patton Park, explained, "What happened was beyond anybody's wildest dreams and it happened to correspond to a time of in-migration of young over-educated hipsters. They came looking for housing and they found these undervalued old bungalows close to city center. All this housing that was reliable affordable rental stock for African American families, were being sold as starter homes for yuppies and there was a huge displacement of African American and low income population."

In 2010, approximately 11% of the population surrounding the station self-identified as African American, which was substantially greater than the average for Portland Metro Area (3%). However, this proportion had declined significantly since 2000, when nearly 20% of the population was African American, and only 58% considered themselves to be

non-Hispanic White, which increased to 70% by 2010. Other indicators of gentrification could be observed in the educational attainment of the residents; in 2000 only 19% were college educated, which was lower than the 28% average for Portland Metro and by 2010 over 46% of the residents had college degrees which was higher than the Metro Average of 36%.

In addition to its cheaper housing stock, proximity to downtown and the light rail station, the Overlook neighborhood was also benefitting from private and public investment including a new grocery store, as well as new and renovated buildings and restaurants. The neighborhood is within the high performing Portland School District 1J^o and the City was soon to be investing \$700,000 to upgrade Patton Square Park across the street from the site.

Interstate MAX Yellow Line

Portland has been expanding its MAX light rail system (currently 50-miles) steadily since the first line opened in 1986. The Interstate MAX project, a 5.8-mile, 10-station extension of Portland's system, was completed in 2004. The line generally parallels Interstate-5, connecting downtown Portland to its northern suburbs in the state of Oregon. It was designed with the intent of eventually extending the line further north, across the Columbia River, to Vancouver, WA. The Yellow Line was developed from an old, decaying arterial street called Interstate Ave.

The primary agencies involved in the planning the Interstate MAX project were Metro, Portland's unique elected regional government; TriMet, the regional transit agency; and the City of Portland. One of the most influential factors in the development of the transit project was a City of Portland neighborhood planning process that preceded the transit project's planning process.

^o In 2011, 69% of 4th graders scored proficient in math and 85% in reading; 67% of 8th graders scored proficient in math and 74% in reading; 67% of high school students scored proficient in math and 79% in reading.

In the late 1980's and early 1990's, The City of Portland's Planning Bureau worked with communities in the Portland neighborhoods that once constituted the historic city of Albina to produce a revitalization plan, the Albina Community Plan. The overarching objective of the plan was to rejuvenate a low-income, minority community that was perceived to have suffered from years of suboptimal public investment. During the planning process, the community sought out ways to bring new jobs and services to the area.

The planning process's economic development discussions often focused on rail transit as a lever for community investment. A light rail alignment passing through the Albina neighborhoods had been identified in the region's long-range transportation plans. At the time, transit investments held great promise as economic development tools. While no detailed transit planning for the corridor had occurred up to that point, the potential transit investment became the lynchpin of the community's redevelopment agenda. Ultimately, the plan recommended that the City of Portland should "concentrate new residential developments and commercial investment near transit corridors"^p.

Following the completion of the Albina plan, transit planning for the corridor was initiated. The design of the Interstate MAX light rail project was thoroughly influenced by the City's and the neighborhood's transit-oriented real estate development and economic development expectations. In particular, City of Portland land use planners and staff of the Portland Development Commission (PDC) played significant roles in planning the transit project. Not only did they strongly advocate for the final alignment and station locations, they worked with TriMet to identify, and in some instances procure, potential development sites along the corridor. The City of Portland and PDC staff also worked directly with community members to reassure them and address their fears of overbuilding (e.g., high-rise apartment blocks) and gentrification.

^p City of Portland Bureau of Planning 1993, 31

The FTA and TriMet signed a full-funding agreement (FFGA) in September of 2000. TriMet reports the total project cost as \$350 million, of which nearly 74% (\$257.5 million) was federally funded. The remainder of the project was paid for by the Metro, TriMet and the City of Portland, which created an urban renewal district to generate tax increment financing to fund the local match. Construction started in November 2000, and lasted almost four years.

As part of the project's construction, TriMet's real estate team procured properties for the project, which included right of way for stations and railways as well as several properties for construction staging areas that would have no permanent transit use. Many of the properties, particularly construction staging sites, were strategically identified so that TriMet could acquire vacant, underutilized, or blighted properties where future development of the sites could aid local economic development. Such development-related practices are generally associated with joint development, the process of leasing a transit agencies land to developers for transit-oriented development that helps the agency financially (through lease payments and higher fare revenues generated by more dense development) and operationally (by requiring design elements that optimize transit service provision)²⁷.

The Interstate MAX project benefited from the Portland region's longstanding leadership in the area of transit-oriented development, including TriMet's experience fostering affordable housing through joint development²⁸. Planners at TriMet were not only able to procure property for development along the Interstate MAX route, a widespread practice employed throughout the United States, but were also able to dispose of property that had been procured with Federal funds without repaying the federal share, a very important precedent for affordable transit-oriented development that has not been widely duplicated to date and is discussed in further detail below.

Planning to Stabilize the Overlook Neighborhood

As recounted by Michelle Haynes, who led REACH's development team, the old arterial on which the MAX Yellow line was built was notorious for "roach motels," which emerged as a major concern of residents that engaged in the planning process for the *Interstate Station Area Revitalization Strategy* in the early 2000s. The Crown Motel, which occupied the parcel where the Patton Park apartments are now located, was one such hotel that TriMet acquired after it finished the Yellow line under budget in 2004. TriMet received authorization from the FTA to use the surplus funds for property acquisition.

As described in the TriMet's RFQ to redevelop the site, the acquisition of the Crown Motel was supported by TriMet's property management and development policy, which focuses on enhancing ridership and increasing housing availability and services for low to moderate income households. Furthermore, TriMet's supplementary TOD policy requires that developments on TriMet property maximize density, reduce auto dependency, activate public spaces, and support community aspirations²⁹.

The Interstate Corridor Urban Renewal area, created in part to fund the light rail, was established with a goal that renewal would benefit the existing community. The Housing Strategy developed for the renewal area sought to preserve the housing stock, ensure adequate supply of affordable housing for different household sizes and needs, and, as described in the TriMet's RFQ, "increase the housing stability of existing residents and protect them from involuntary displacement caused by gentrification, increased housing costs and loss of housing choices"³⁰

Thus, in 2006 TriMet released a Request for Qualifications for affordable housing developers to create permanently affordable housing on the site that would allow displaced residents to return to the neighborhood, offering a discounted price for the land, support for community involvement, and guarantees

from PDC and Metro for additional funding. The RFQ required at least 13 units of the development be targeted to displaced families, and TOD features such as low parking ratios, and ground floor retail, among others.

Funding Joint Development

After REACH was selected by TriMet in the competitive process, it received an additional \$4.5 million dollars in Tax Increment Financing from the City, due to its location in the Urban Renewal area.

In addition to the financial support from the City, REACH received a reduced price for the land from TriMet. FTA approved discounting the sales price of the land because ridership from the project would generate fares over time that would exceed the value of the write-down. This allowed TriMet to discount from its value the future revenue from transit ridership, reducing the sale price to REACH by over \$600,000^{9, 31}. Based on TriMet's analysis of the impacts of future development, FTA granted a documented categorical exclusion from NEPA to allow the purchase and later approved the sales agreement with REACH. In addition, REACH secured 12 project-based Section 8 vouchers to serve very-low income large families, a group that is at high risk of displacement.

Finally, Portland and the State of Oregon support affordable housing development through tax abatement and exemption programs. Oregon's high property taxes make developing affordable housing in rapidly gentrifying neighborhoods prohibitive. Therefore, in 1985 the City sought and was granted property tax exemptions for low income housing held by nonprofit organizations, which REACH took advantage of for the Patton Park apartments.

⁹ "Fair Return to Transit": 54 units x 6.66 trips/day x 18% capture rate x 347 days occupied x 1.03 average fare = \$23,137/ year = \$430,919 + \$176,634 (retail)

Finding the right tenants

As one of the main goals of the Patton Park development established by TriMet in the RFQ was to stabilize the neighborhood and house displaced residents, REACH launched a targeted outreach strategy to find the right tenants. According to Haynes, they hosted community meetings and regularly met with the Overlook Neighborhood Association during the development phase. Before opening the waiting list, they reached out to a number of local social service agencies, they hand-delivered marketing flyers to community-based businesses, schools, and community gathering spots along the Corridor and placed ads and feature stories in media serving the local and minority community.

As a result of these efforts, prior to opening, Haynes noted that there was a waiting list of more than 400 households for the building. More than two-thirds of the first occupants of Patton Park Apartments were minorities and more than half moved to the building from another location in North/Northeast Portland, the part of town where the Overlook neighborhood is located. In a status update to TriMet, Michelle Haynes also noted that "from anecdotal evidence, we know that a significant number of the residents who came from elsewhere in the city, grew up in the area or lived there at an earlier stage, and they view Patton Park as giving them a chance to come back to the neighborhood"³².

Patton Park: Key Opportunities and Challenges

The case of Patton Park in Portland, OR provides many lessons in coordinated planning, community involvement, leadership and political will. Without these elements, the multiple planning processes and the financial support of local agencies, the development could not have succeeded. Portland also demonstrates the important and positive role a transit agency can play, when actively involved in local land use and community development issues. The proactive joint development strategies, further supported by

FTA funding, allowed the agency to contribute to the stabilization of the neighborhood. In many ways, developments like Patton Park may be supported by FTA's new incorporation of affordable housing in its evaluation criteria, which looks at existing plans, policies and financing mechanisms to preserve and increase affordable housing in proximity to transit.

Although TriMet sought primarily 2 and 3 bedroom apartments on the site to serve displaced families, REACH was constrained by the size of the lot (only 24,000 ft²), zoning restrictions, the desire to have ground-floor commercial uses and enough parking to satisfy lenders. With only 2 and 3 bedroom units, Haynes noted that they would have developed fewer units and it would not have been cost effective. REACH therefore focused the 3 bedroom apartments for very low income tenants, making use of the Section 8 subsidy, and made up the rest with smaller units.

Finally, in the strong real estate market, parking requirements can be cost prohibitive. Portland's TOD policy allowed REACH to build only 38 parking spaces for the 54 residential and 3 commercial unit property. This low parking ratio was supported by local leadership belief in TOD principles, something that is notably missing in other jurisdictions.

Conclusions

Despite growing interest, policymaking, and funding for the inclusion of affordable housing in TODs, this study finds that limited progress has been made over the past two decades in delivering new affordable housing options near transit stations in high-opportunity neighborhoods. Perhaps because of the need for dense neighborhoods to support ridership combined with the nature of urban poverty and housing policy in the United States, over half of new transit stations have been located in neighborhoods where affordable housing is already located. New transit neighborhoods have not been as successful at attracting new affordable developments, however; we found that in neighborhoods where transit stations

opened since 2000 only one in five saw new affordable units added. Combined with our findings that transit-rich neighborhoods were more likely to experience demographic shifts signaling gentrification pressures, and with previous findings that transit neighborhoods were at risk of losing federally subsidized units, these findings create cause for concern of the future for equitable TODs.

When we explored the neighborhood opportunity levels of transit and LIHTC neighborhoods, we found that when transit stations were located near LIHTC developments they were more likely to be in lower opportunity neighborhoods than transit stations located far from LIHTC or even LIHTC developments without transit stations. These findings point to significant barriers in developing affordable housing in high opportunity, transit-rich neighborhoods.

Our three case studies of LIHTC developments in transit and opportunity-rich neighborhoods uncovered many of these obstacles and the strategies developers and agencies used to overcome them. We found, perhaps unsurprisingly, the cost of land to be one of the greatest barriers to developing affordable TODs. To overcome these challenges, the developers we interviewed were fortunate to a) have the foresight to purchase land well before the transit station opened, b) have support from local governments that provide gap financing or subsidize the cost of development, and c) be located in metropolitan areas with highly coordinated transportation and land use planning that support TODs (e.g., by reducing parking requirements, providing new infrastructure and expedited reviews), among others.

Some of the other main obstacles identified in the cases were the heightened development costs required on the sub-optimal available parcels at infill sites, city planning constraints related to limiting the affordability mix and density of developments, and community opposition to multi-family affordable housing in opportunity-rich neighborhoods.

While new policies and programs have been implemented to promote affordable housing near transit, it remains unclear how well they can counteract the enormous cost and NIMBY barriers to developing affordable housing near transit.

It's important to note that identifying our case studies of LIHTC-funded developments located near transit stations in high-opportunity neighborhoods was like finding needles in a haystack. Our national scan identified only a handful of the 34,791 LIHTC developments that were family friendly and built in neighborhoods served by transit and exhibiting characteristics of high-opportunity locations. Therefore, these cases truly represent the rare occasion when the stars have aligned to allow the developers to find sites, attain tax credits and local gap financing, receive permits, and make developments work under the challenging conditions that exist for all affordable housing developments and all TOD projects.

Despite the successful implementation of the three LIHTC developments we studied, there is limited evidence from these cases that suggests residents of these affordable TODs may not be using transit as much as expected. Therefore, the theoretical benefits of affordable developments near transit may not be fully captured. It will be important for future research to assess the gap between the theoretical and actual benefits of TODs.

Affordable TOD appears to be a laudable goal that this study finds is not yet fully understood and certainly has not been widely implemented. It will be important to replicate this study in the future to determine if recent policymaking, new funding programs and other efforts aimed at fostering equitable growth in transit-rich and opportunity-rich neighborhoods are successfully moving the needle.

Appendix

FTA's New Starts Affordable Housing Policy Guidance (2013, p.11)

- Tools to maintain or increase the share of affordable housing in the project corridor:
 - Evaluation of Corridor-Specific Affordable Housing Needs and Supply
 - Plans and Policies to Preserve and Increase Affordable Housing such as:
 - Inclusionary zoning and/or density bonuses for affordable housing
 - Employer assisted housing policies
 - Voluntary or mandatory inclusionary housing policies
 - Rent controls or condominium conversion controls
 - Zoning to promote housing diversity
 - Affordability covenants
 - Adopted Financing Tools and Strategies to Preserve and Increase Affordable Housing such as:
 - Target property acquisition, rehabilitation, and development funding for low-income housing within the corridor, including:
 - Low Income Housing Tax Credits
 - Ongoing affordable housing operating subsidies
 - Weatherization and utilities support program
 - Local tax abatements for low-income or senior housing
 - Local or State programs that provide mortgage or other home ownership assistance for lower income and senior households
 - Established land banking programs or transfer tax programs
 - Local or regional affordable housing trust funds
 - Targeted tax increment financing or other value-capture strategies for low-income housing
 - Developer Activity to Preserve and Increase Affordable Housing

State LIHTC QAPs that Award Points for Proximity to Transit

State	QAP year	Points	Criteria
Arizona	2014	35	Transit Oriented Development - located within 1/4 mile (bus) or 1/2 mile (train) to high capacity, frequent transit
California	2014	15	1/4 mile of transit station with service every 30 minutes during rush hour and when the project has density above 25 units/acre. Includes planned stations.
Colorado	2014	5	Located at an existing or planned TOD site - 1/2 mile from existing fixed rail station or under construction
Connecticut	2013	4	Transit oriented development - 1/2 mile from train station or 1/4 mile from other public transit facilities
Delaware	2014	5	Transit accessible (1/4-1/2 mile) or transit ready
Georgia	2014	4	Based on distance to transit stop and frequency of transit service
Idaho	2014	1	1.5-3 miles of a bus or transit stop (park and ride)
Illinois	2014	3	1/2 mile from fixed route transit stop
Indiana	2014	2	Transit oriented development - 10 minute walk-shed of fixed transit infrastructure
Louisiana	2014	1	1 mile from public transportation
Maine	2014	4	Within "safe walking distance of not more than 1500 ft" from fixed route public transportation
Maryland	2013	8	Within designated TOD
Massachusetts	2014	6	1/2 mile of major public transit (rail and key bus routes)
Michigan	2015	5	1/10 mile from transit stop
Minnesota	2015	7	Within 1/4-1/2 mile of transit (5 pts). In TOD with high density, low parking ratios, access points, car sharing, etc. (2 pts).
Montana	2014	1	1.5 mile from bus or transportation stop
Nevada	2014	1	1/4 mile from local transit route
New Jersey	2013	2	1/2 mile from public transportation
New Mexico	2013	1	1/4 mile from bus or commuter rail
New York	2013	1	"close proximity" to public transportation
South Dakota	2013	20	Bus stop within a block that provides free rides to tenants
Utah	2014	30% basis boost	1/3 mile of walking distance along public access to an existing or currently under construction Trax or FrontRunner stop/station but not bus lines."
Virginia	2014	20	1/2 mile from commuter rail, light rail, subway, or 1/4 mile from bus stop
Washington DC	2014	10	1/2 mi from train or 1/4 mile from bus stop
Wisconsin	2014	5	1/5 mile from bus stop or other transit station
Wyoming	2014	3	1.5 mi from public transit

State LIHTC QAPs that Award Points for Proximity to Resources

State	QAP year	Points	Criteria
Alabama	2014	10	2 miles from grocery, convenience, doctor, drug store, bank, etc.
Arizona	2014	20	1 mile from grocery, school, hospital, rec, library, etc.
California	2014	10	1/4 miles from park, library, grocery, market, medical, etc.
Delaware	2014	7	1/4-1/2 mile from grocery, school, library, child care, park, bank, medical, post-office, community center, etc.
Georgia	2014	12	2 miles of grocery, big box, hospital, town square, school, park, library, retail, bank, pharmacy, day care, etc.
Idaho	2014	9	1.5-3 miles of grocery, pharmacy, park, school, library, etc.
Illinois	2014	5	1/2 miles from library/government office, school, health care, recreation and day care
Indiana	2014	3	1/2-1 mile from grocery, recreation, school, bank, retail, healthcare, etc.
Iowa	2014	15	1 mile from grocery, school, senior center, medical center, workforce training and library
Louisiana	2014	9	1 mile of hospital, bank, school, clinic, drug store, day care, library and post office
Maine	2014	6	“Safe walking distance” from a bank, pharmacy, library, hospital, grocery
Michigan	2015	20	Walkscore over 90, points decrease thereafter.
Minnesota	2015	2	Walkscore above 70, 1 point for walkscore of 50-69
Montana	2014	3	1.5 mile of grocery, school, pharmacy, medical office, bank, library, etc.
Nevada	2014	2	1/4 from grocery, school, day care, etc.
New Jersey	2013	6	1/2 mile of grocery, pharmacy, retail, bank, restaurant, school, post office, day care, etc.
New Mexico	2013	1	.5 mile from 3 services or 1 mile from 6
North Carolina	2014	27	Based on distance to grocery, pharmacies or other retail
Ohio	2014	10	1/4-1/2 miles from "positive land use" of retail, services, and community facilities
South Carolina	2013	18	1/2-3 miles from grocery, retail, doctor, school, bank, recreation, etc.
South Dakota	2013	20	1/2 mi from grocery, medical, school and other services
Texas	2014	10	1 mile of senior center, grocery, childcare, and health care
Utah	2014	3	1/3 mile of park, school, and senior center
Wyoming	2014	33	1.5 mi from schools, grocery, bank, library, etc.

State LIHTC QAPs that Award Points for Projects Located in High Opportunity Neighborhoods

State	QAP year	Points	Definition of Opportunity
Alabama	2014	2	High income tract
Alaska	2013	30	Low unemployment and vacancy rate
Connecticut	2013	11	High (>75%) home ownership and low (<10%) affordable housing
Delaware	2014	5	High home ownership and low concentration of minorities and low income groups
Georgia	2014	4	“Stable communities” lower % poverty than jurisdiction
Indiana	2014	3	High income, low poverty rate, and high quality schools
Maine	2014	2	Higher Area Median Income than jurisdiction
Maryland	2013	18	Combination of community health, economic opportunity and educational quality
Massachusetts	2014	14	Low concentration of poverty, access to jobs, health care, high performing schools, retail and public amenities
New Jersey	2013	4	In a district with proficient schools and a municipality with sufficient jobs
New York	2013	2	In a community with low incidence of crime, high performing schools and/or outside of a QCT
Pennsylvania	2013	20	“Areas of opportunity” - low poverty, limited affordable housing, proximity to employment, strong market, and high home ownership rate
Texas	2014	7	Low poverty tract (<15%), high income, and high performing schools
Virginia	2014	25	Less than 10% poverty
Wyoming	2014	15	If project won't contribute to concentration of poverty

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