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Hannah Marie Fonstad

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The Thesis Committee for Hannah Marie Fonstad Certifies that this is the approved version of the following thesis:

Becoming Sustainable: Creating Urban

Affordable Housing in Phoenix, AZ

APPROVED BY SUPERVISING COMMITTEE:

Supervisor:	
	Elizabeth Mueller
Co-Supervisor:	
	Steven A. Moore

Becoming Sustainable: Creating Urban Affordable Housing in Phoenix, AZ

by

Hannah Marie Fonstad, B.S.

Thesis

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Dedication

To my parents; who never	r stop believing in 1	ne. I wouldn't be who	o I am today without you.

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I would like to thank my committee members, Dr. Elizabeth Mueller and Dr. Steven Moore, whose patience and understanding proved to mean the most to me in my journey to completing my degree. I would not have been able to transform my project into the paper that it is without their insight and knowledge.

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Abstract

Becoming Sustainable: Creating Urban Affordable Housing in Phoenix, AZ

Hannah Marie Fonstad, MSSD

The University of Texas at Austin, 2013

Supervisors: Elizabeth Mueller, Steven A. Moore

The population of Arizona has increased rapidly in the past two decades and faces an extreme shortage of urban affordable housing to accommodate for this population growth. There are several challenges facing the implementation of affordable housing in Downtown Phoenix including low-density development, high land costs, transportation issues, the current property tax structure, and infrastructure and environmental concerns. The City of Phoenix lacks the necessary policies and programs to encourage sustainable high-density development within the urban area. There are a large number of vacant parcels in the City which have either been passed over by previous development projects, or land which remains to be used from the demolition of older buildings. With the growing need for affordable housing, it is necessary to explore the opportunity to use the vacant land within the City of Phoenix for high-density infill development to include affordable housing. How can affordable housing contribute to making Phoenix a more sustainable city? High-density development creates affordability by increasing the number of housing units available in a

given area. High-density is a necessary element in the transformation towards a more sustainable city not only by increasing affordability but also in connection with access to transportation and employment and efficient use of existing infrastructure. The opportunity for an increase in affordable housing within the larger sustainable development goals of urban Phoenix creates the need for an exploration of the relationship between high-density infill housing development and sustainability.

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Chapter 1: Introduction: Becoming Sustainable

In recent years, Phoenix, Arizona has been referred to as the "world's least sustainable city," as it has channeled unrestrained growth for the last several decades; growth for growth's sake. The City develops a comprehensive General Plan every ten years meant to serve as a direction for growth, conservation and redevelopment of the city and more recently in 2009, unveiled a 17-point green plan to make Phoenix a carbon-neutral city. However, despite the ambitious goals set forth in these plans, the city still struggles to move towards a more sustainable future. The city is home to several organizations, both profit and non-profit, that all have different goals and ideas of what a sustainable Phoenix might look like. The problem lies in the integration of these ideas; Phoenix cannot be sustainable by only one measure. It is also important to understand that sustainability is not an end product. It is an open-ended process – there will always be something that can be changed or improved, as conditions are continually changing. What is important is that the city and its people are experiencing that change and benefiting from the improvement.

There are many purposes to this research – to dig deep into what the issues are.

Why is Phoenix the "least sustainable city?" How did it get to be that way? What are the barriers to moving forward? How *does* the city move forward to becoming more sustainable? Within these questions, it is important to study the elements of sustainability and their relation to one another. The issue of affordable housing is not independent; it must be

¹Ross, Andrew. "Bird on Fire: Lessons from the World's Least Sustainable City." New York: Oxford. 2011.

approached as a larger issue. Housing is one element of the urban planning process; other elements include local services, such as health facilities, banks, supermarkets, libraries, sports facilities, and schools and educational centers. Affordability encompasses access to quality housing in a healthy, and economic and socially prosperous environment.

Throughout this paper, the term "affordable housing" will be defined as housing which costs less than 30% of the homeowner or renter's income. This definition is derived from the U.S. Department of Housing and Urban development. In relation, the term "very low-income" refers to residents who make less than 50% of the Area Median Family Income (AMFI), "low-income" refers to residents who make between 50-80% of the AMFI and "medium-income" refers to residents who are making 80-100% of the AMFI.

Phoenix must work towards a brighter future; a vibrant downtown life with healthy employment opportunities and lifestyle amenities, public transportation adequate for a variety of riders, and safe, quality, affordable housing. Every aspect of each of these elements can work together to create a better Phoenix – one that serves as a solid platform for continuous improvement and innovation.

The focus of this research is to explore ways of creating more affordable housing – perhaps through increased density, economic development zones, alternative tax structures or other policies found in various cities throughout the country. However, each solution must be considered from many different aspects; land use, transportation, environmental, education, economics and human equity. The city cannot successfully move towards sustainability while neglecting any of these issues.

The second chapter of this thesis will give insight into the background on the local economic structure; why the rapid growth of the city is creating a greater need for affordable housing and why there is a shortage. This introductory section will also provide context of the city's planning history including leapfrog and low-density development patterns. Also included in this chapter is environmental inequity and economic geography including employment, industry, property values, and public services which will lead into a discussion about the 2002 Phoenix General Plan.

Chapter Three lays out all of my questions and assumptions from the beginning of the project. I will introduce the stakeholders that became a large part of my research and why I felt they would be an asset to the information. It is also important to acknowledge in this section what my limitations were in regards to having access to certain stakeholder groups. This chapter outlines each interview conducted and concludes by identifying themes throughout the interviews to serve as a basis for the following chapter.

Chapter Four identifies the main barriers to the development of affordable housing in downtown Phoenix. These barriers include existing low-density development, lack of cohesion and public participation, transportation issues, and the current property tax structure. This section will explore each of these challenges as a basis for overcoming them.

The final and fifth chapter of this paper will offer four recommendations which address each of the challenges identified. Specific proposals will be provided for the City of Phoenix to explore to move towards their goal of becoming a Sustainable City. This chapter will also outline three items for further discussion and research to more fully understand issues that were not addressed completely in this paper.

The next chapter serves as an introduction to the history of planning in Phoenix.

The rapid population growth and lack of growth management tools lead to suburban sprawl development which continues to provide more affordable housing further from the central city. Because of the current tax structure, inner-city households are taxed more heavily than comparable suburban houses which creates inequality in public services and limits affordable housing in the city to undesirable areas. In order to address these issues, the Phoenix General plan is meant to propose solutions to create a more affordable and healthy living environment in the central city. Chapter Two will provide a background of this history which helps to explain how the City of Phoenix became what it is today.

Chapter 2: Phoenix: Early Development of the Sunbelt City

This chapter provides an in depth look at the early development of Phoenix and how it became the city that it is today. It is important to understand the patterns of development from early on, that have resulted in a city with scattered vacant lots and low density housing. The City has explored several programs and policies to manage growth; each one of them relying on too-little incentives or unable to be enforced. Information will be provided on the background of the economics of the Metropolitan area including businesses, employment and industry. The correlation between property values and public services will be examined, as this relationship contributes to the high cost of land in central Phoenix and is vital to understand. Environmental inequality in the city based on pollution and air quality data for Maricopa County will also be explored. The chapter will conclude with a summary of the Phoenix General Plan from 2002.

GROWTH MANAGEMENT

As Phoenix has expanded in both population and city limits, development has been progressing in a continuous, low-density pattern. The city's aggressive annexation policy increased the size of the city from just 17 square miles in 1950 to over 330 square miles in 1980.2 The city now has over 500 square miles within its limits. Not only has the size of the city expanded tremendously, but the lower land prices subsidized by government programs and local tax policies have encouraged development on the outside fringes.

² Heim, Carol E. "Urban Sprawl and Growth Management: Phoenix, 1950-2000." American Journal of Economics and Sociology. Vol. 60, No. 1. Special Issue: City and Country: An Interdisciplinary Collection (2001): 246.

Starting in the 1950s, studies on the City of Phoenix made note that the area contained an unusual amount of undeveloped land; parcels that had been passed over for a variety of reasons. Throughout the 1970s and 1980s, there were many newly planned developments on the periphery of the city which sparked a response from citizens who were concerned about the leapfrog development patterns.³

Phoenix adopted a General Plan in 1985 which was based on the concept of having several "urban villages" each with a core of housing, jobs, stores and educational facilities to be identifiable communities within the city. The plan was meant to convey structure for the patterns of growth and infrastructure development. It called specifically for the development of already existing zoned and vacant land before granting additional rezoning. However, this proposed policy of urban zoning was controversial and was expanded to include any developments that had an approved Master Plan. It was edited further to state that "New urban zoning shall be in close proximity to existing urban development," watering down the strong growth management policy as it had begun.

In 1994, Phoenix determined a set of growth concepts to implement through the Strategic View of Growth. This included an infrastructure limit line which would be reviewed after either ten years or the development of 65 percent of the area.⁵ Although the plan was meant to address the problems of urban sprawl, its specific policies were difficult to implement and the city officials were unsuccessful in offering incentives for building on

3 Ibid, 252.

⁴ Maricopa County Department of Planning and Development. "Large Scale Group." Report to the Planning and Zoning Commission and Board of Supervisors for Planning and Zoning Commission Meeting Date: June 3, 1993. Maricopa County Department of Planning and Development. Phoenix.

⁵ Heim, 257.

vacant land. Despite efforts such as the infrastructure limit and the "urban village" General Plan, which were created to combat leapfrog development, the City of Phoenix was unable to make any significant progress in preventing sprawl. The incentives offered were not valuable enough to encourage infill development and the proposed zoning policies were not upheld.

Over the last two decades, there were two other attempts through programs developed by the City to revitalize the central core. In 1995, the Infill Housing Program was established for single-family housing to be developed on vacant land in the city.⁶ This program included funds to offer fee waivers including building plan review and permit fees, as well as an expedited development process. The program was meant to encourage the development of owner-occupied housing with a variety of housing types and price ranges.

The city developed a High-rise Incentive District and Residential Infill District with density incentives and fee waivers; however these efforts were essentially unsuccessful. The district programs did not produce any mixed-use projects and the available incentives were not enough to attract large developers. The program resulted in many projects by small-scale builders which were poorly constructed and quickly fell into disrepair.

After many failed attempts at encouraging urban infill, the City created a committee devoted to housing development within the city's core. The Infill Housing Task Force created a list of concepts and incentives which included fee reductions, expedited review process, and code waivers, determining that the program would be quite expensive and would need several funding sources. However, despite these recommendations, the City

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⁶ Ibid, 263.

Council was apprehensive about the potential revenue losses and unwilling to penalize land owners who held land for speculation through higher taxes.⁷ Clearly aware of the development issues at hand, the City of Phoenix Planning Department reported that "the large number of vacant parcels in Phoenix that have either been skipped over by earlier development or have been cleared of older structures but not yet reused is both a problem and an opportunity."8

Many of the incentives from the Infill Housing Program went to smaller nonprofits or individuals instead of large builders. The program had its limits and could only be a partial solution to efforts combating urban sprawl. The program did not have a strong mixed-use or large scale component and did not attempt to encourage high-density development because of its focus on owner-occupied housing. The area's commitment to individual property rights means that land-use controls are difficult to implement. Once again, the City of Phoenix was unsuccessful at implementing infill housing development on a large scale.

⁷ Ibid 265

⁸ City of Phoenix Planning Department. "Urban Infill Strategies, Phase I: Opportunities, Barriers, Process." (1995): 2.

⁹ Heim, 269.

ECONOMIC AND SOCIAL GEOGRAPHY

The Metropolitan area of Phoenix-Mesa-Glendale is currently one of the fastest growing metro areas in the country with a current population of 4.2 million. Since 1990, the population of Maricopa County has grown 91.6% which is significantly higher than the U.S. average population growth of 24.2%. The post-war era in Phoenix saw the population of the city quadruple in the 1950s due to its manufacturing industry and military stations along with increasing mobility which allowed people to recognize the benefits of the climate of the Southwestern state. The population continues to grow rapidly into the 21st century; a majority of this population coming from other states to take advantage of the weather and quality of life offered by the city.

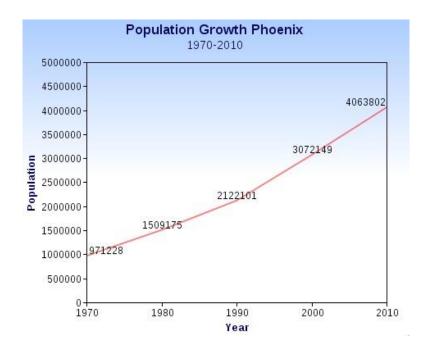


Figure 2.0: Population Growth of Phoenix from 1970-2010 (statsamerica.org)

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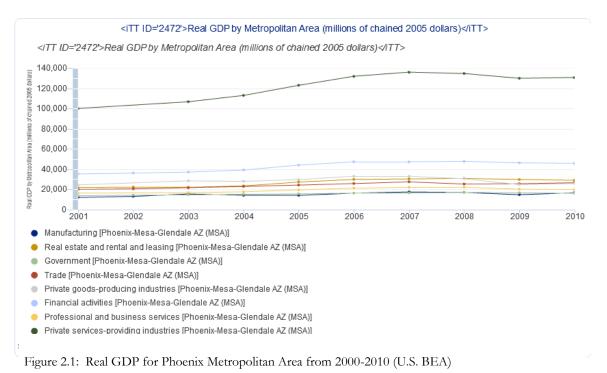
¹⁰ Konig, 38.

The economy of the Phoenix Metropolitan area is growing due to increasing employment in its top industries. The top three industries include Trade, Transportation and Utilities, Education and Health Services and the Financial Activities sector. Across these industries, employment has grown by over 80,000 jobs over the last decade. This shows that the area is competitive for securing additional employment in the future through these sectors.

Sector	National Growth Component, Percent	National Growth Component, Jobs	Industrial Mix Component, Percent	Industrial Mix Component, Jobs	Competitive Share Component, Percent	Competitive Share Component, Jobs
Education and Health Services	-1.6	-3,278	23.6	47,860	36.9	74,869
Trade, Transportation, and Utilities	-1.6	-5,352	-4.1	-13,535	11.1	36,678
Financial Activities	-1.6	-2,018	-0.6	-772	8.7	10,826
Leisure and Hospitality	-1.6	-2,472	12.8	19,556	5.1	7,849
Manufacturing	-1.6	-2,557	-32.0	-50,556	1.2	1,873
Other Services	-1.6	-706	6.5	2,846	0.3	129
Professional and Business Services	-1.6	-4,270	2.0	5,396	-1.1	-3,020
Natural Resources and Mining	-1.6	-161	7.0	694	-31.1	-3,088
Information	-1.6	-690	-22.6	-9,634	-10.1	-4,315
Public Administration	-1.6	-1,267	10.0	7,829	-17.1	-13,377
Construction	-1.6	-1,971	-15.6	-18,966	-16.8	-20,450
		-24,742		-9,282		87,974

Table 2.0 Shift Share Analysis for Phoenix Metropolitan Area from 2000-2010 (georgiastats.uga.edu)

The real GDP of the top industries in Phoenix shows that there is growth in certain sectors. This includes Trade, Financial Activities and Private Services. Although there is growth in these industries in terms of real GDP, that does not necessarily mean there is employment growth in all of the same sectors. A majority of the region has high-speed internet access which does contribute to the metro area's ability to attract and retain a skilled work-force. However, many financial service companies have located their large offices and data centers in Phoenix because of the low risk of severe weather. This has also allowed the metro area to develop a strong manufacturing base in aerospace and electronics. Healthcare services are also contributing to the area's growth. There are several major hospitals in the region including the Phoenix Biomedical Campus and the Mayo Clinic which have increased industry jobs at three times the U.S. average.



Although many of these top industries are growing and creating jobs, there is also an increasing unemployment rate in this region. The rate of job creation cannot keep up with the rapid population growth. The unemployment rate spiked to almost 10 percent after the recession began in 2008. Although it has been slowly declining, the unemployment rate has yet to recover to the rates that the area saw before the recession and was 9.1 percent as of January 2011.11

unemployment rate

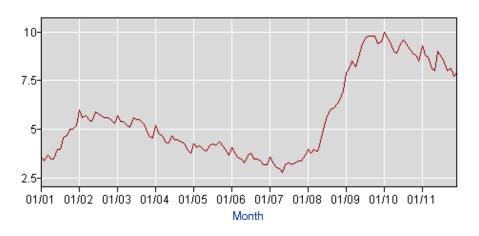


Figure 2.2: Unemployment rate of the Phoenix Metropolitan Area from 2000-2010 (bls.gov)

The per capita income for the region has been rising fairly comparatively with the U.S. average per capita income. However, hit especially hard with the recession in 2008, the per capita income in the Phoenix area has dropped off significantly more than the U.S. average.

¹¹ Stats America. Side by Side Profiles. http://www.statsamerica.org/profiles/sbs_profile_frame.html (accessed March 2012).

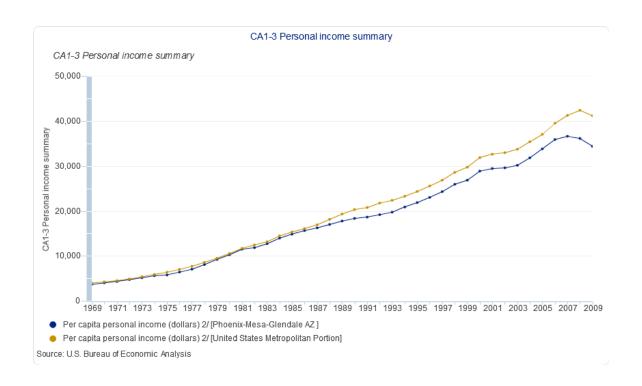


Figure 2.3: Per capita personal income for the PHX Metro area and U.S. Metro average (U.S. BEA).

The living wage for the region, which is the wage considered necessary for a normal standard of living, is \$9.30 for one adult, compared to \$7.80 as the minimum wage and \$5.04 for the poverty wage. This equates to \$19,343 of annual income for one adult. The industries that are most likely to pay a living wage to workers include Management, Architecture and Engineering, Computer and Mathematical, Legal, and Healthcare Practitioner.

While the living wage is considered to be \$9.30 per adult according to the U.S. Bureau of Economic Analysis, the hourly wage that a household must earn to afford a two-bedroom rental unit in Arizona in 2013 is \$17.19 per hour. This is calculated based on the average Fair Market Rent for a two bedroom rental unit working 40 hours per week, 52



Figure 2.4: Monthly rent for a Fair Market Rent two bedroom unit compared to income levels. (NLIHC 2013)

weeks per year without paying more than 30% of their income on rent. For someone earning the minimum wage, they would need to work 88 hours per week to afford a two bedroom rental unit without paying more than 30% of their income, rather than the standard 40 hour work week. Renter households account for approximately 33% of Arizona households with an average wage of \$14.20. An average renter would have to work 48 hours per week to make a two bedroom unit affordable.¹²

Hourly Wages	One Adult	One Adult, One Child	Two Adults	Two Adults, One Child	Two Adults, Two Children
Living Wage	\$9.30	\$17.79	\$14.12	\$22.62	\$29.33
Poverty Wage	\$5.04	\$6.68	\$6.49	\$7.81	\$9.83
Minimum Wage	\$7.25	\$7.25	\$7.25	\$7.25	\$7.25

Table 2.1: Living wages for Phoenix Metropolitan Area (livingwage.geog.psu.edu).

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¹² "Out of Reach 2013." National Income Housing Coalition. http://www.nlih.org/oor/2013.

It is imperative that the city of Phoenix capitalize on the strongest industries in order to encourage job creation and growth which is beneficial to residents. Fortunately, the area has a variety of industries which have a strong presence which creates a solid economic base. Within the comprehensive plan, the economic goals must address the need to encourage the financial, aerospace, electronic and healthcare industries to ensure quality job growth for the growing population.

Phoenix was hit particularly hard by the recession in 2008, as evident in the devastating effects of the housing market crash. The population has been growing at an average rate of 4% per year for the last 40 years.¹³ To accommodate for this growth, there has been a significant amount of infrastructure and construction planned for the next decade. There have been a number of innovative community projects such as the development of the downtown campus for ASU, and Phoenix is home to professional teams in almost every sport as well as other entertainment attractions. The city is also home to the largest community college system in the United States as well as several Universities. Despite the hard hit from the recession, Phoenix is faring well in its future to attract and retain a skilled work force. In order to accommodate for the extreme population growth, the Phoenix-Mesa-Glendale metropolitan area must identify its variety of key industries and develop them each to their full potential.

¹³ Shelton, Michael. "Why Phoenix?" Arizona International Growth Group (2012).

PROPERTY VALUES AND PUBLIC SERVICES

As the development pattern in Phoenix shows an expansion towards the suburbs, it is increasingly important to examine the cause of this pattern. The concentration of new development on the edge of the city shows that developers prefer to purchase large tracts of land outside of the urban core. Developers can purchase land at a lower cost outside of the city and can pass the savings on to the resident through lower rent or purchase price. High land costs in the central city have discouraged urban development.

Among several other factors contributing to the high land costs in the city of Phoenix, there is a disparity between property taxation in the inner and suburban part of the city. Inner-city households are subject to unequal home appraisals and inferior public services, causing a decline in the interest in urban living. New development has been concentrated on the outer edges of the city, utilizing the opportunity to purchase land for a lower price. The savings in development costs is passed on to the resident through less expensive housing options and lower tax rates.

The most common tax assessment model includes three general characteristics; structural features including built area, lot size, number of rooms; neighborhood characteristics which includes demographics, education and income levels; and locational attributes, or where within the city the property is located. It is estimated that the assessed value for a home in the city of Phoenix is higher by approximately 8 percent when compared

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¹⁴ Guhathakurta, Subhrajit and Michele L. Wichert. "Who pays for growth in the city of Phoenix: an equity-based perspective on suburbanization." Urban Affairs Review. Volume 33, No. 6 (1998): 813.

to a similar house in the suburbs, which means that the inner-city housing units are taxed more heavily than similar homes in the suburbs.¹⁵

It is important to distinguish that the amount of expenditure on public services is used as a representation of the level of services in a community. It is not inequitable if a community is paying higher taxes when compared to another if they are receiving a proportionate amount of expanded public services. Public expenditures include parks and recreation, storm sewers, water services, streets, bridges, and much more. A study comparing households in the suburbs to similar homes in the inner city found that suburban areas receive 40 percent to 100 percent more per household in capital improvement expenditures than the average household in the city. The higher taxes on inner city homes contribute to the tax base that is used disproportionately to fund services to suburban areas. This shows that essentially, inner-city tax dollars are used to subsidize services to suburban households.

ENVIRONMENTAL INEQUITY

The transition out of the City for new residential and economic development often leaves a low-income population within the urban core that is likely without access to private transportation. These populations are subject to a disproportionate share of pollution and other environmental inequities. With a large portion of the population moving out of the City, resources and funding are focused on expanding infrastructure to new developments

16 Ibid.

¹⁵ Ibid.

on the fringe of the city rather than addressing environmental issues that already exist in older areas.

The environmental issues that plague Maricopa County including air and water pollution are among the worst compared to other counties in the United States. Based on chemical releases, waste generation and recognized health effects, the county ranks between the 10th and 20th percentile when compared to similar counties within the U.S. as shown in the chart below.¹⁷ Exposure is significantly higher in areas within close proximity to factories, refineries and hazardous waste facilities. Because of this exposure, low-income residents often reside near these facilities as housing costs are much more affordable and provide a more central living environment than alternatives in the suburbs at similar costs. This results in a considerately greater exposure to environmental hazards of toxic chemicals and air pollutants among minorities and those below the poverty level.

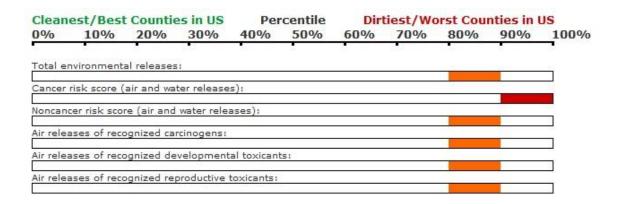


Table 2.2: Major Chemical Releases or Waste Generation in Maricopa County in 2002 (econdata.net).

¹⁷ EconData Quality of Life. Major Chemical Releases or Waste Generation in Maricopa County in 2002. http://www.econdata.net

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Vulnerable communities such as South Central Phoenix have historically been characterized by drug addition, violence, and severe poverty and are exposed to high levels of pollution and low quality of life due to environmental inequity. These communities often have more health and safety risks as a result of uneven economic

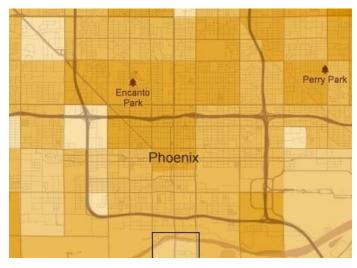


Figure 2.5: Selected area on map shows South-Central Phoenix which has historically been considered a vulnerable community. (Mapping America, New York Times).

development.¹⁹ Low income populations who live in distressed areas are often subject to pollutants from nearby factories and hazardous waste facilities, as well as crime and violence boosted by abandoned and unregulated buildings.²⁰

The site selection for hazardous waste facilities and factories are often steered towards communities which have less social and economic power; low-income communities which are also without resources to recover from health and environmental damage. In 1999, the eight commercial hazardous waste facilities in Phoenix were located in just six Census tracts. The city-wide median household income was an average of \$41,207, however in those six Census tracts, the median income averaged just \$33,804.21 These tracts, located

¹⁸ Sicotte, Diane. "Dealing in Toxins on the Wrong Side of the Tracks: Lessons from a Hazardous Waste Controversy in Phoenix." *Social Science Quarterly*. Volume 89, No. 5 (2008): 1138.

¹⁹ Ibid, 1141.

²⁰ Ibid, 1141.

²¹ Ibid, 1143.

in South Central Phoenix also have very low air quality with high levels of particular matter – between 60-90 percent above the set health standard in 1997.

Not only is the quality of life affected by the pollutants from these facilities, but high crime rates are prevalent in these areas as well. With less than 2 percent of the city's population in 1999, South Central Phoenix had 7 percent of all robberies, 11 percent of all homicides, and 13 percent of all drug crimes reported during that year.²² The environmental conditions suffered by these communities are considered to be unjust; the uneven distribution of environmental risks poses hazards to these communities that higher-income communities are not exposed to.

As with many cities, as Phoenix has developed outward from the city center, urban areas are viewed as risky areas by health researchers. Uneven economic development results in an unequal distribution of health and safety risks such as pollutants, noise and violence. Low-income city dwellers are exposed to these conditions as development and resources expand outward towards the edge of the city. The communities which are left to deal with these conditions do not have access to resources to recover from health and environmental damage; with less social and economic power, they have little choice of the environment they are exposed to. The pattern in which a city develops and grows has very serious externalities on social, environmental and economic sustainability.

PHOENIX GENERAL PLAN 2002

The City's General Plan provides a comprehensive vision, divided into 16 elements including growth, conservation and redevelopment. The plan is updated every 10 years, with

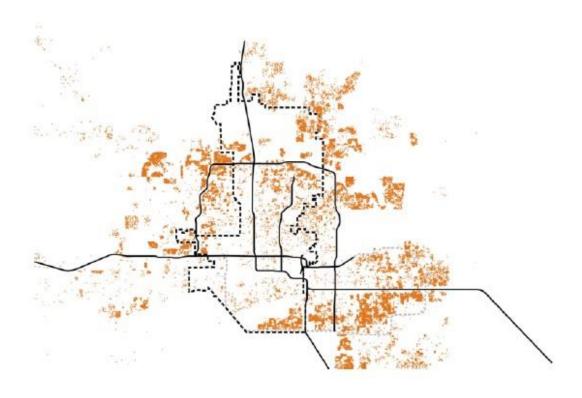
²² Ibid, 1144.

the City's most current plan released in 2002. At the time of the publication of this paper, the 2012 General Plan had not yet been released. The plan includes goals, policies, and recommendations for elected officials to prioritize and to take action. It is the intended outcome of this comprehensive plan for the City departments to implement the recommendations through operating budgets, plans and ordinances, incentive programs, and fees, taxes and bond programs.

The Growth Strategy put forth in the plan calls for maintaining "a high quality of life and an economically healthy community."23 The general plan encourages new employment growth in targeted growth areas in Northern and West Phoenix, to provide jobs close to new residential growth. In recognition of new residential development further from employment centers, there is a goal to establish new employment opportunities on the fringe of the City to accommodate this growth and reduce commute times.

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²³ Phoenix General Plan, "Growth"



RESIDENTIAL DEVELOPMENT 1990 to 2000

NEW RESIDENTIAL
1990 - 1999

EXISTING FREEWAY
PROPOSED FREEWAY
CITY LIMIT/
PLANNING AREA

Figure 2.6: Residential Development from 1990 to 2000 shows high concentrations of development near the edge of the city (City of Phoenix General Plan: Growth).

In order to support this guided growth, it is also necessary to explore financing programs for new infrastructure. The city implemented an impact fee program in the late 1980s which requires developers to pay for a portion of the costs of new infrastructure. The current program includes fire, libraries, parks, police, roadway facilities, storm drainage,

wastewater, and water development fees. The fees for each of these facilities are calculated based on land use and location listed in the table below, as an example.²⁴

	Land Use	EDU Factor	Unit	
Equivalent Demand Units (EDUs)	Single-Family	1.00 per	Dwelling Unit	
	Multi-Family	0.76 per	Dwelling Unit	
	Mobile Home/RV Park	0.85 per	Space	
	Commercial/Retail	0.55 per	1,000 sq. ft.	
	Office	0.63 per	1,000 sq. ft.	
	Institutional	0.61 per	1,000 sq. ft.	
	Industrial	0.49 per	1,000 sq. ft.	
	Impact Fee Service Area	Gross Fee	Unit	
	Northern Service Area (North Gateway/Deer	_		
Gross Impact Fees	Valley I-V/Desert View)	\$414 per	EDU	
	Estrella/Laveen	\$379 per	EDU	
	Ahwatukee	\$680 per	EDU	
Offsets	Offset Type	Offset Amount	Unit	
	Secondary Property Tax	\$86 per	EDU	
	Impact Fee Service Area	Adjustment Factor		
Percentage Adjustment	Northern Service Area (North Gateway/Deer Valley I-V/Desert View)	100.00%		
	Estrella/Laveen	100.00%		
	Ahwatukee	62.63%		

Table 2.3: Fire Development Impact Fees (Development Impact Fee Ordinance, City of Phoenix).

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²⁴ City of Phoenix. "Chapter 29: Development Impact Fee Ordinance." City Code. Accessible www.codepublishing.com/az/phoenix/?Phoenix29/Phoenix29.html.

For example, the fees for developing a 100-unit multi-family project would be calculated as shown:

- 1. In the table above, find the Land Use type which applies to the development.
- 2. Calculate the number of total Equivalent Demand Units (EDUs) for the project by using the associated EDU Factor.

$$.76 \text{ EDU Factor x } 100 \text{ Units} = 76 \text{ EDU}$$

3. Multiply the number of EDUs by the associated Gross Impact Fee in the table.

76 EDU x \$414 Gross Impact Fee = \$31,464 Total Gross Impact Fee

4. Multiply the number of EDUs by the associated Offset stated in the table.

5. Subtract the Total Offset from the Total Gross Impact Fee, and then multiply by the appropriate percentage stated in the table.

The net total Fire Development Impact Fee would be \$24,928 for the Fire facilities. This calculation would be completed for each of the other facilities listed above for the total Development Impact Fee incurred by this project.

Another option mentioned in the Growth Element of the plan discusses infill development. The city has initiated an infill housing program to offer incentives to developers for building single-family homes. The plan discusses what would be required to designate an infill incentive area but concludes that it would take more than incentives to make this possible.

The Housing element within the General Plan contains goals and recommendations for improving housing quality and affordability. Although it is noted as an important aspect of housing development, the plan does not offer specifics on improving or developing affordable housing. Recommendations include encouraging a balance between rental and owner-occupied housing, and continuing to utilize federal programs for funding affordable housing. Potential policy changes include allowing a density bonus for provision of affordable single-family units and considering waiving the impact development fees if there are alternatives to reimbursing the fees.

This is a very brief but accurate summary of a few of the elements included in the City of Phoenix General Plan. Although much has undoubtedly changed in the last decade, these issues remain the same. The City of Phoenix must find a way to manage the rapid population growth and the externalities it has on the health and vitality of the city. The General Plan lays out a variety of possible recommendations for each issue discussed, but does not offer detailed steps or plans of action.

A look into the early development and planning of the City of Phoenix provides a good basis for moving towards affordability and sustainability. There have been several attempts to manage the population growth and housing development through tax and growth management policies with little success. By exploring the relationship between tax incentives, property tax structure and the economic and social aspects of housing development, the city can establish a more firm plan of action to encourage urban affordable housing development.

PLANNING FOR AFFORDABLE HOUSING & SUSTAINABILITY

Phoenix has a multitude of organizations working as advocates for affordable housing, both for-profit and non-profit. The city has also developed a Green Phoenix Plan in an attempt to become the most sustainable city in America. However, there fails to be

any recognition of the connection between affordable housing and sustainability from any party; there is no comprehensive research on these two subjects. I argue that creating more affordable housing in Central Phoenix will contribute to the sustainability of the city.

Sustainability measures as described above are often only applicable at the individual building scale. The topic of sustainable affordable housing highlights green building with a focus on sustainable technologies and site-level planning. It should be recognized that there are social, environmental, cultural and economic aspects to affordable housing that are interdependent and should be addressed as such. Urban affordable housing development must be approached comprehensively with transportation and growth management.

Affordable Housing in Phoenix

The need for Affordable housing has become an extremely critical issue in the United States, as there is an increasing gap between income and housing costs, as reported by the U.S. Department of Housing and Urban Development.²⁵ In the past three decades, income distribution has shifted from a majority of citizens earning medium levels of income, to the greater numbers of the poor and the rich. Data from W-2 records illustrate that a person in the top 1 percent of the income distribution made 46 times the country's median wage in 1990, and 81 times as much in 2005, just fifteen years later. As of 2006, Federal Reserve data showed that the richest 10 percent of Americans earned 43 percent of income; such statistics illustrate the alarming increase of income inequality.²⁶ As the numbers of the poor grow, it has become increasingly pertinent to address the issue of affordable housing.

²⁵ Chatfield, Donald L. Et al. "The Challenges of Affordable Housing." APA National Planning Conference. (2000): 2.

²⁶ Clemmit, Marcia. "Income Inequality: Is the gap between rich and poor getting wider?" *CQ Researcher*. Volume 20, Issue 42 (2010).

Currently one of the fastest growing metro-areas, Phoenix, Arizona is facing a particularly challenging shortfall of low-income housing availability. Despite the great number of housing assistance programs and advocacy organizations in the state of Arizona, the availability of low-income housing within the city has not been able to accommodate the rapid population growth. Both the rate of home-ownership and rental affordability for Arizona is below the national average, and is worsening due to the population growth and low income levels.²⁷ The chart below shows that there is a significant amount of the population that uses more than 30% of their annual income on housing costs. As shown below, the percentage of low-income renters that make below 80% of the Area Median Family Income who are paying greater than 30% of their income on rent increased from 35.1% to 37.5% between 1980 and 2000.²⁸

Lower Income Renters Paying Greater than 30%	1980	1990	2000
Up to 50% of Median Income	21,560	42,000	36,802
Between 50% and 80% of Median Income	13,670	13,900	31,149
Total Lower Income Renters	35,230	55,900	67,951
% of total renters	35.1%	37%	37.5%
Total Renter Households (all incomes)	100,360	151,073	181,120

Table 2.4: Renter Households paying greater than 30% of their gross income for housing (City of Phoenix General Plan: Housing).

Much of the information on affordable housing in Phoenix, AZ is distributed directly by non-profit organizations or published by the City of Phoenix. There is a

²⁸ Phoenix General Plan, "Growth"

²⁷ McDonough-Hughes, Anne, Community Development Department, "Community Development Assessment for the State of Arizona," Federal Reserve Bank of San Francisco, (2004): 6.

significant amount of information on subsidized housing programs and public funding, as well as homelessness, but very little information on private investment in affordable housing development in Phoenix. Most of the statistics on affordability used in this paper were derived from economic data and government census information. This shows that there is a concern and emphasis placed on the homeless population in Phoenix but very little research and concentration on the low-income population. This may be a result of a combination of a few things including the visibility of the homeless population, and political and public awareness and education.

Gentrification is an important concern resulting from the development patterns in Phoenix. The low income population living in the inner city is being forced out to the suburbs as high-end development is driving up housing costs in the city. One of the main authors on the subject of gentrification and affordable housing development that was used throughout this research is Loretta Lees, Professor of Human Geography at King's College London, UK. Lees is the author of several published articles as well as editor of the book, "Gentrification" along with Tom Slater and Elvin Wyly. She argues against the concept of "positive gentrification" with the belief that there is a lack of evidence that gentrification can lead to more social integration and sustainability. Gentrification is complicated and Lees believes that it can do more harm than good.²⁹ It is important to recognize the value in social integration and mixed-income communities which cannot be achieved without the availability of affordable housing in the city.

The City of Phoenix has several non-profit organizations as well as policy programs in place in an attempt to manage growth and development. Public policy is one of the main

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²⁹ Smith, Neil, and Peter Williams. *Gentrification of the City*. (Boston: Allen & Unwin).

focuses of this research and its relationship to housing development is crucial in moving forward. An important author that contributed to this research on housing policy is Alex Schwartz, author of "Housing Policy in the United States." Schwartz's other published materials focus on housing and community development including affordable housing programs. Also on housing policy, Rachel G. Bratt author of "A Right to Housing: Foundation for a New Social Agenda" provided information for this research. Currently a professor in the Department of Urban and Environmental Policy and Planning at Tufts University, Bratt's research is focused on housing development for low-income households and non-profit organizations. She is critical of the diminishing support and commitment by the federal government to low-income housing development. The lack of support by the federal government results in budget cuts and limited funding for non-profits and significantly impacts the support of public housing policy in favor of affordable housing development.

Sustainability

The built environment has a significant impact on the health and well-being of humans, animals and the natural world. It contributes to environmental issues caused by an increase in greenhouse gas emissions from transportation systems, building construction and land-use planning. The U.S. Green Building Council has established standards for sustainable building through Leadership in Energy and Environmental Design (LEED), as well as other state and city green rating programs. However, most of these programs do not address how these standards could or should be used in the production of affordable housing—how they might reinforce the goals of sustainability in a more holistic sense.³⁰

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³⁰ Bradshaw, William, et al. "The Costs and Benefits of Green Affordable Housing." New Ecology. (2005): 15.

There are several reasons for this including the initial costs of sustainable technologies, regulatory barriers and a finance system that does not recognize the long-term value of sustainable investments.

There is often a perceived risk from developers and investors that believe sustainable features will take more time and increase costs. Funding for affordable housing comes from several different sources which make it difficult to get all the agents involved in a project to agree to innovative ideas. Public financing also often has much more rigid design requirements that limit the ability to incorporate sustainable features.³¹ Along with these financial issues, many people involved in development and investing fail to view housing affordability, suburban sprawl, resource and material waste, and loss of neighborhood character among other things as an interdependent system.³² These issues require a comprehensive plan to adequately address the concerns mentioned above and to assign value to the benefits of sustainable building systems and features.

Andrew Ross, author of "Bird on Fire: Lessons from the World's Least Sustainable City," argues that if Phoenix can't become a sustainable city, then the whole movement is flawed. Considering Phoenix to be the least sustainable city in the world, it also has the most potential for becoming sustainable; the most room for improvement. If Phoenix is unable to make the necessary changes to become sustainable, other cities will lack motivation and a sense of importance of becoming more sustainable. He believes that change must occur through political and social change more than technological solutions. The book is

³¹ Ibid, 22-24. ³² Ibid, 15.

based on interviews with 200 stakeholders and focuses on the opportunities and obstacles facing sustainability in Phoenix.

Chapter Three discusses the objectives of this research including my position within it and methods used. The key stakeholders are introduced; each of them representing a different perspective on the issue of affordable housing development. The interviews with these stakeholders played a vital role in this research by identifying themes which served as a foundation for exploring potential opportunities for creating more urban affordable housing.

Chapter 3: Methods

The following chapter outlines the objectives of this research including the framework used to determine which methods of research would be most appropriate. Key stakeholders are introduced that played an important part in my research and how they were selected. The chapter will conclude by identifying themes from the data obtained from the stakeholder interviews.

OBJECTIVES

The purpose of this research is to identify barriers to creating affordable housing in Phoenix and to identify how the city can overcome those barriers, the relationship between affordable housing and sustainability. It is my position that the stakeholders have a great understanding of the issues preventing the development of affordable housing in Phoenix and the related externalities. Interviews with stakeholders reveal major barriers to the development of affordable housing which are supported by extensive research. To explore the potential opportunities for overcoming these barriers, I believe that it is best to consider successful precedents; the history of the City has proven unsuccessful and that can only change by doing something different. Each opportunity presented can have a significant impact on the development of urban affordable housing; however, I believe the success or failure of the actions taken are dependent on using participatory process. Developers, residents of the existing neighborhoods, residents of future developments, policy makers, advocates and all stakeholders involved in the housing development process, are an integral part of moving the city towards a more sustainable future.

METHODOLOGY

The methods used for this research are dialogic; an approach which creates conversation and encourages reflection. This includes a literature review, stakeholder interviews, historical and current research, and case studies. Interviews were conducted with non-profit and for-profit housing and real-estate developers to gain insight on their perceptions of the property tax system, its exemptions, and urban development programs and how they affect affordable housing. In addition, I reviewed information on local affordable housing programs, urban development programs and tax structures for land and development. I consulted city archives for information on the city's property tax structure, and exemptions. I also studied the city's development programs as well as alternative systems in use elsewhere.

The City of Phoenix serves as the case study for this research. Additionally, two alternative case studies were established to determine the relationship between the development of low-income housing and high-density infill programs. The city of Portland Oregon is used as a case study for its urban infill program through economic development zones and its growth management tool of the Urban Growth Boundary. This is one of the most well-known examples of growth management tools in the United States and can serve as a basis of exploring the benefits and consequences resulting from the UGB. New York City serves as the second case study to evaluate the relationship between tax abatements and incentives and the development of low-income housing. NYC has a significant number of housing programs that have been considered successful and the large size and population of the city attests to the ability for the programs to provide affordability. What opportunities

are there for high-density infill development in Phoenix, AZ and how could it effect the integration of low-income housing into sustainable urban redevelopment plans? How does the increase in affordable housing contribute to the sustainability of the city? These questions are answered through the mixed method approach described here.

STAKEHOLDERS

There are numerous initiatives to provide affordable housing in the US through public, private and non-profit programs. However, many of these programs fail to address the needs of the residents they are made to serve. Without a participatory planning process involving each of the stakeholders, conventional affordable housing development initiatives can result in displacement and increasing concentrations of poverty, essentially relocating the distressed housing rather than revitalizing. A successful approach to sustainable and affordable housing development is one that addresses a complex dynamic and social system of policy, people, culture, environment and the economy.

The purpose of the stakeholder interviews was to identify the challenges and opportunities of urban affordable housing initiatives through the perspective of different stakeholder groups. These groups include; housing advocacy groups, developers, planners, city employees, city residents (all income levels), housing providers and local businesses. This thesis concentrates on the perspective of housing advocacy and non-profit organizations. The interviews with these participants and resulting report reveal the barriers and opportunities they perceive to urban affordable housing development and sustainability in Phoenix, AZ. The goal of the interviews and reporting was to establish areas of opportunity for increasing urban affordable housing and becoming a more sustainable city.

Interviews were mainly focused on the issue of urban affordable housing but also interdependent topics such as planning, sustainability and transportation. Stakeholders interviewed included residents, developers, non-profit organizations, and affordable housing advocates. The interviews revealed the barriers that downtown development projects are facing, established points for growth or opportunity, and explored ideas for improvements to the housing development and sustainability in urban Phoenix.

It was one of the main objectives of the interviews to determine what the stakeholders view as the main challenges to housing development in Phoenix. Those who were participating in the stakeholder interviews were asked to name the biggest challenges to their idea of a successful housing and development system. One of the main problems discussed is the lack of activity and energy outside of work hours in Downtown. It is extremely difficult for small businesses to succeed because of strict requirements and expenses such as high land and construction costs.

The questions pertaining to opportunities asked the stakeholders to imagine what could be improved or how the housing system could work better. Many of the stakeholders agreed that there needed to be more housing in Downtown Phoenix to create active neighborhoods. It is possible that the zoning code and development requirements could be structured to foster small local businesses that are unique to Phoenix and incentivize adaptive reuse of historic buildings. An expedited review process could encourage small infill development and coordinate across city departments. By creating disincentives for vacant lots, developers could be encouraged to look to small infill projects rather than waiting for large-scale projects to take shape. Many of the ideas put forward were used

successfully in other cities, but most of them were based on frustrations that the stakeholders had with the issues that they had experienced. Possible opportunities for interview participants include; creating partnerships to support housing and infill projects, establishing and becoming active in a "Downtown committee," and encouraging the city to restructure the zoning code and development requirements currently in place.

A concern brought to the discussion was the amount of vacant land Downtown which creates the perception that it is unsafe. Many stakeholders expressed frustration with the development review process which can take up to two years for a new project. Contributing to this problem is the lack of coordination among city departments and unclear guidelines for development projects. Also related, the zoning code does not encourage a cohesive and collaborative planning effort but instead is restrictive and preventative of mixed-use and infill projects. Although there are several themes that are highlighted in the stakeholder interviews, it is important to note that there are many viewpoints on the same topics. Each stakeholder has their opinion on the state of the housing development in Phoenix and what, if anything, should be done to improve it.

INTERVIEWS

Highlighted below are three key individuals who were willing to participate in interviews to contribute to this research. They represent different stakeholder groups that are deeply affected by housing development in Phoenix. Each person that was interviewed comes from various backgrounds with different experiences, knowledge and each with a strong passion for the work that they do. This section concludes by identifying common

themes throughout the interviews and establishing barriers to affordable housing development which are explored in Chapter Five.

Dr. Louisa Stark, Community Housing Partnership

As the Executive Director of the non-profit organization, Community Housing Partnership, Louisa Stark is a vital asset to the low-income housing community in Phoenix. She is a graduate of Barnard College, Columbia University and received her Ph.D. in Linguistics and Anthropology from New York University. Dr. Stark spent nine years in Latin America developing housing projects and educational and health programs in rural areas and fourteen years as a professor of anthropology at the University of Wisconsin.

After moving to Phoenix in 1981, she opened the city's first homeless shelter after finding that the city demolished thousands of low-income housing units for an urban renewal project. Elected chair of the National Coalition for the Homeless in 1984, Dr. Stark worked with other local advocates to persuade the St. Vincent de Paul Society and the Salvation Army to open temporary shelters. After about a year, Phoenix officials worked with state and county agencies to establish Central Arizona Shelter Services (CASS) which provides shelter and services to nearly 1000 individuals each night.³³

Now, as Executive Director of the city's first non-profit housing organization, she continues to work as an advocate for low-income residents of Phoenix. Community Housing Partnership (CHP) works to acquire small housing complexes in Central Phoenix; they currently house approximately 6,000 tenants. The organization utilized federal and state funding for many of their first projects, but as those financing options have seen drastic cuts

³³ Central Arizona Shelter Services. "History & Mission." http://www.cassaz.org/about-cass/history-mission/.

in the last 25 years, CHP has developed a for-profit model that has allowed them to continue their work. Rental rates for the housing units are based on expenses; it's essential to generate enough income without outside funding in order to keep the organization from going under.

One of the most important issues that Dr. Stark discussed was the notion of community support. The residents that CHP works with are considered very low-income; which means that they earn less than 50% of the Area Median Family Income. The availability of stable housing for this demographic is essential for several reasons. Residents who are considered very low-income are limited in housing choice based on affordability and location. Access to transportation, education and employment are vital for this population; constant housing mobility severely impacts the ability to keep steady employment and education for children.

While the CHP complexes are on a lower-density scale than other comparative urban housing, this allows the organization to develop and foster the community support that is important for the success of the residents. The notion of community allows for the tenants to support each other and for the organization to provide what is needed based on this relationship. CHP has an understanding of what their residents need to be successful which allows them to be successful as well.

Dr. Stark has a very keen understanding of the multitude of issues faced by the low-income population in Phoenix. Using her knowledge and experience, from working with squatter communities in Latin America to the homeless population in Arizona, she has made a difference to countless individuals over the years. As she continues her work with CHP,

Dr. Stark is an essential advocate for the low-income population in Phoenix and has made a significant impact on the affordable housing development in the city.

Sean Sweat, Community Advocate

As head of the Thunderdome Neighborhood Association for Non-Auto Mobility (TNA), Sean Sweat considers himself an "Urbanist"; a community advocate for better urban transportation in Phoenix. The downtown advocacy community is small; Sweat knows both Dr. Stark and Reid Butler, whose interview is outlined below. Holding a master's degree in transportation from Massachusetts Institute of Technology, his passion for transportation and downtown livability is apparent throughout his interview.

The TNA is a community organization devoted to improving accessibility and mobility of urban neighborhoods for cyclists, pedestrians, and transit users through planning decisions, zoning variances, city policies and transportation projects. Much of the discussion with Sweat revolved around the urban landscape; walking along two of the main streets downtown, Roosevelt Street and Central Avenue, the excess parking in Central Phoenix was apparent.

Passing by several surface parking lots and oversized street spots, two things became abundantly clear. The first was the lack of activity; mid-day on a beautiful day in the middle of downtown Phoenix, we were the only people walking down one of the main roads. There are no retail shops for people to spend the afternoon browsing, no restaurants to grab an afternoon bite to eat. Sweat agrees – you have to drive to Mill Street in Tempe, a nearby suburb, if you want to walk.

While it is almost impossible to find parking in other large cities in the U.S., the second issue that stands out is the excessive amount of empty parking spots downtown. This is due to zoning regulations; policies have not been reformed to reflect a more urban lifestyle. Parking requirements result in an overabundance of spots, which feeds the dependence on automobiles for transportation. Instead, zoning policies should be encouraging a more pedestrian, transit and cyclist friendly environment.

Touching briefly on several topics throughout the interview, Sweat feels strongly that Phoenix is passing up some great opportunities for innovation. There are many key players with fresh ideas on re-inventing Phoenix and making it a more livable city, however there are still obstacles within the city and policy making. With his experience, Sweat has seen resistance to transforming Central Phoenix; some people are open to better transportation, while others are more open to higher-density development. There is a resistance and attitude that the city will survive if it continues as is which may be the most difficult obstacle to overcome.

Reid Butler, Butler Housing Company, Inc.

Owner of the for-profit Butler Housing Company, Reid Butler practiced law before he went into apartment development 30 years ago. From infill development to historical renovations, he has seen his share of complicated projects. The company develops between 12-15 projects each year; over the last ten years, 12 of those projects have been affordable housing.

Butler's extensive development experience brought a very important aspect to this research. As a for-profit developer, he brings a significantly different point of view than a

non-profit organization. Butler identified several barriers preventing private investment in affordable housing. The first issue is one of quality of life. Downtown Phoenix is not somewhere people want to live; it is not easy to access employment, education, health facilities or shopping. There are more established areas of Phoenix that do have these lifestyle amenities that provide competition for downtown. To attract people to living downtown, the city must have recreational, employment, arts and cultural amenities. The city can achieve this by encouraging projects such as the Phoenix Biomedical Campus which creates high-quality jobs.

The other main barrier discussed was financing for affordable housing. One thing that the city has done well is offering extra points towards tax credits for affordable housing built near the light rail. There is an important relationship between affordable housing availability and access to public transportation which seems to be recognized by the city. However, many private investors cannot raise enough money for infill development of affordable housing and often rely on public funding. One solution Butler suggested was that policy makers have the opportunity to encourage this development by pushing more funding to urban infill. It is also an option to offer extra tax credits for infill development and sustainable building.

Coming from the viewpoint of a developer, it was interesting to hear that Butler thought the City's Impact Development Fees were low; this may be another opportunity for increasing community funding. Also of concern is that there are several large-scale projects which have taken advantage of property tax exemptions, resulting in underfunding of local schools. If downtown was vibrant and full of life with active business, housing and

recreational facilities which were all paying their share of property taxes, it could result in exceptional schools which would be another attractor to living downtown.

Butler made several very compelling arguments and valid suggestions to improving affordable housing development in Phoenix. As a housing developer in competition with others, he believes in order to be successful you must create a better product. There is no exception to this for affordable housing. To meet the increasing demand for more affordable housing in Central Phoenix, there either has to be a continuous source of funding, or create a product which is affordable without subsidies.

Another important issue that Butler made note of is one of quality of life.

Downtown Phoenix is not somewhere people want to live; it is not easy to access employment, education, health facilities or shopping. There are more established areas of Phoenix that do have these lifestyle amenities that provide competition for downtown. To attract people to living downtown, the city must have recreational, employment, arts and cultural amenities. The city can achieve this by encouraging projects such as the Phoenix Biomedical Campus which creates high-quality jobs. This interview was held in an area of the city called the Roosevelt Row Arts District, which is perhaps the most walkable area in Central Phoenix and offers some of the lifestyle amenities that are attractive for the urban lifestyle.

Roosevelt Row

The Roosevelt Row Arts District is a cultural, creative district in downtown Phoenix, known for its restaurants, coffee shops, galleries and boutiques. This section below is meant

to give brief insight into one of the current housing development projects under construction in the city in early 2013.

The Roosevelt Row District is fostered by the Roosevelt Row Community

Development Corporation (CDC) which is a non-profit established to advocate for the continued presence of arts and small business revitalization. Their goal is to encourage a dense, walkable urban community.³⁴ Roosevelt Row is part of the Evans Churchill neighborhood, a mixed-use area which includes part of the downtown campuses for the University of Arizona and Arizona State University, the Downtown Phoenix Public Market and one of the busiest light rail stations.



Figure 4.0. Exterior rendering of Roosevelt Point. (www.downtownphoenixjournal.com).

One of the current development projects in this neighborhood is Roosevelt Point, a residential housing project to be completed in July 2013. The project consists of two buildings, one which is seven-stories and the second which is eight-stories. It includes a total of 326 apartments ranging from a 500 square foot studio to a 1250 square foot 4-bedroom unit. Rates range from \$709 to \$979 per person and includes all utilities, internet and cable. The project also includes a 400-plus space parking garage and retail space for shopping and

³⁴ Roosevelt Row. "Roosevelt Row CDC." http://www.rooseveltrow.org/about/the-community-development-corporation-cdc/.

dining.³⁵ While the Evans Churchill Neighborhood Association may be happy to see investment in Phoenix's urban core, some members feel that the project isn't the right fit for the neighborhood. The Roosevelt District is home to small businesses and cultural attractions; things that may not be important for the student population meant to reside at Roosevelt Point. However, some believe the project will bring a significant population of young residents downtown which will create more demand for shopping and restaurants and allow the younger population to become involved in community events held in their neighborhood.

The differing perspectives on the Roosevelt Point housing development both within the Neighborhood Association and among the stakeholders interviewed show the lack of cohesion and common goal among housing advocates. As described earlier in this chapter, one of the themes identified as a barrier to the development of affordable housing is community support and participation. If the stakeholders involved in these issues are unable to integrate their goals and find a comprehensive approach to housing development, it will be difficult for them to change the city's approach to affordable housing development.

Identifying Barriers

The data interpreted from the stakeholder interviews described above revealed four main themes. The first is the concept of community support and participation which was identified as a vital element of affordable housing development by Dr. Stark. Low-income residents depend on the support and relationships they build with their neighbors and within

³⁵ Roosevelt Row. "Roosevelt's Tipping Point?" *Downtown Phoenix Journal*. http://www.downtownphoenixjournal.com/tag/roosevelt-row/

the community. The relationship between the tenants and the organization is also essential; this feedback and participation is one of the only ways that they can ensure that the residents are receiving what they need from their housing and community.

As discussed above with Butler, there is little in the way of lifestyle amenities to attract people to live downtown. The rapid population growth in Phoenix, resulting in low-density sprawl, has been fed by infrastructure investment further outside of the city. With other areas of the city becoming more attractive by offering recreation, education and employment opportunities, there are no growth management tools utilized to draw development downtown.

The third theme is the issue of transportation, as emphasized by the interview with Sweat. Access to employment, recreation, education, health facilities and other amenities is a fundamental part of affordable housing development. A public transit system as well as cyclist and pedestrian friendly environments make that access viable for low-income residents.

The last theme identified from the interviews is the issue of funding for affordable housing development. To encourage private investment in affordable housing, policies can be restructured to encourage infill development, higher-densities and access to transportation. The relationship of the property tax system to other lifestyle amenities has an important impact on housing availability and investment downtown. The following chapter will explore the history of each of these barriers and explain why they are preventing the development of affordable housing in downtown Phoenix.

Chapter 4: Barriers

Based on the issues presented in the previous three chapters and themes identified through the stakeholder interviews, this chapter explores four of the main barriers to the implementation of affordable housing in central Phoenix. The first barrier is the lack of community support & participation; there are several for-profit and non-profit housing organizations working to develop affordable housing, however, they are missing both a public participation element as well as a common goal. Each organization has a different mission and doesn't recognize the interdependence of the various issues. The second barrier is Growth Management. The City of Phoenix has tried a variety of policies and programs to control the development of the city, but they have been unable to accommodate the rapid population growth in an efficient and effective manner. Transportation is the third barrier; the history of transportation development in Phoenix shows that dependence on freeways and automobiles has contributed to suburban sprawl and resulted in environmental and social inequalities. The fourth barrier identified is the existing Property Tax Structure in Phoenix. The system in place is a single-rate structure which benefits property owners sitting on large plots of land, while penalizing improvements with high tax rates.

DEVELOPMENT OF HOUSING PROGRAMS

The United States has several programs for building affordable housing from federally funded programs all the way down to state and local programs. Programs include Low-Income Housing Tax Credits (LIHTC), Homeownership for People Everywhere (HOPE VI), Housing Vouchers and other alternative financing options for building and supplementing low-income housing. These finance options create opportunities for both

for-profit and non-profit organizations by making projects more feasible; requiring less of the organization's own capital while allowing them to acquire assets and cash flow in order to provide a public service by providing low-income housing.

Low-income Housing Tax Credits are awarded to developers to finance affordable housing construction. The developer can use the tax credits to reduce their tax liability on other assets, or use them as equity and sell the tax credits to a financial institution. The market conditions determine the price of the tax credits, and then the financial institution will use the tax credits to reduce their tax liability.³⁶

The HOPE VI Program was created by the Department of Housing and Urban Development (HUD) to permit public housing authorities to use private financing, LIHTC, private mortgages and other local funding to develop public housing units. The mixed-finance development is meant to maximize both public and private funding to create mixed-income communities. HOPE VI funds can only be used to construct or rehabilitate developments that include public housing.

The City of Phoenix Housing Department owns and manages approximately 9,000 housing units and vouchers. They also provide financing to for-profit and non-profit organizations to support further development of affordable housing. The Arizona Housing Alliance is an entity which collaborates with many organizations to promote quality and affordable housing. One of these organizations is the ASU Stardust Center, which provides educational opportunities to empower families and achieve economic and social

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³⁶ Thornton, Wintford. "Public Financing for Creating Affordable Housing Options in the United States: Does it Work?" Real Estate Issues (Winter 2005-2006): 29.

sustainability.³⁷ Others include the Capitol Mall Association, and the Desert Mission

Neighborhood Renewal which offer programs such as housing counseling, home rehabilitation, infill housing and commercial redevelopment.³⁸ In order to help fund some of the work that these organizations are doing, the City of Phoenix Housing Department provides awards in the form of



Figure 5.0: Distressed homes in Central Phoenix advertise "Cash Buyers". Photo by author.

low-interest loans to be used as gap financing. Another opportunity through the city is the federally-funded Neighborhood Stabilization Program (NSP) which is funding used to purchase and redevelop foreclosed and abandoned homes. ³⁹

These programs have target areas focused on distressed neighborhoods throughout Phoenix, but not limited to urban areas. A distressed neighborhood can often be defined as having low property values, a lack of property maintenance, high crime rates, and vacant lots and buildings. In order to focus redevelopment activities in these areas, it is vital to involve current and future residents in the planning stages, both from within the community as well as adjacent neighborhoods. With a large focus area and high amount of organizations with different goals, it may be difficult to create a significant impact with these programs.

^{37 &}quot;About Us." ASU Stardust Center. www.stardust.asu.edu, (April 2012).

^{38 &}quot;About Us." Arizona Housing Alliance. www.azhousingalliance.org/about us, (March 2012).

³⁹ "Building Affordable Housing." City of Phoenix. www.phoenix.gov/housing/building/index.html, (February 2012).

As described above, there are countless public programs and private organizations involved in affordable housing development and advocacy. These initiatives, while related, all have slightly different goals and means for achieving them. While it is necessary to have a variety of organizations working in the community, there is a missed opportunity for them to work together towards one common goal. If several groups came together with the public to work on a solution for a city-wide problem such as the affordable housing shortage, the result may be a successfully integrated resolution.

GROWTH MANAGEMENT

According to data from the U.S. Department of Housing and Urban Development (HUD), the 2000 Census found that over 47 percent of Arizona renters and 27 percent of homeowners are paying more than 30 percent of their income for housing.⁴⁰ The state has experienced extremely rapid population growth from very early in its development, which has increased demand and caused housing prices to rise much faster than income. There has been a significant shift in income distribution in the last few decades; the numbers of the very poor and very rich continue to grow. The population growth coupled with the expansion of the city boundaries, Phoenix has become one of the largest Sunbelt cities with low-density, sprawling development. The effect of this expansion is illustrated by reports that the Sonoran Desert is being converted into developed land at an alarming rate of one acre per hour.⁴¹ A large majority of the new development is occurring along the edge of the city simultaneous to the abandonment of the inner city.

40 "Arizona Incentives for Affordable Housing Task Force." Final Report (2006): 3.

⁴¹ Adler, Jerry. "Bye-Bye, Suburban Dream." Newsweek. (May 2005): 41.

One of the biggest challenges of developing affordable housing in central Phoenix is finding land at a reasonable cost. The affordability of a home largely depends on the cost of land. The mere term "affordable housing" or any mention of public housing or association with HUD can be considered detrimental.42



Figure 5.1:. Vacant lot in Central Phoenix with the Downtown Skyline in the background. Photo by author.

Opposition often comes from neighbors for fear that they will suffer from lowered property values if adjacent to affordable housing.

It is often difficult to get builders and developers interested in revitalizing existing neighborhoods for several reasons. Infill housing lacks the scale a developer would have in a subdivision; with sites scattered throughout a neighborhood, builders don't have the volume they are looking for. Existing lots often need to be combined or split to appropriately build a new home. There was most likely a home on the existing lot previously, which means there is existing infrastructure including gas lines, sewer and water lines which can be in various conditions and can create unforeseen problems. Builders are apprehensive to develop older neighborhoods because of the high rates of crime and vandalism in distressed

⁴² Chatfield, 3.

areas. They will often wait to install fixtures, cabinets, and appliances until the home is ready to be turned over to the buyer to avoid having to replace them because of theft.⁴³

One of the most difficult challenges for developers is obtaining financing for new construction in distressed areas. The appraisals of existing properties are often low which means that financing based on property values makes it difficult to redevelop the area to the extent it is needed.

TRANSPORTATION

As I argued in Chapter 1, the relationship between transportation and housing development is an important issue to address in terms of sustainability. As the City of Phoenix expands and people continue to move to the edge of the city towards the new development, commute times become increasingly longer. Suburban residents are commuting to work, school, shopping and other activities that are available in the City. The longer commute from the outer edge of town also creates the inability for some residents to access opportunities within the central city if they do not have access to transportation, either private or public. Because of the new development, the city of Phoenix has focused its transportation development on providing freeways to allow the commute in and out of the city.

Early history of transportation in the city viewed freeways as a means of improving accessibility; providing people with the choice of where to live and work, while bringing mobility for shopping, socializing and other economic activities. The initial planning and implementation of the major freeway system in Phoenix included efforts to minimize

⁴³ Ibid, 6.

negative impacts on surrounding neighborhoods, including the development of extensive landscaping to appear like parkways and mitigate noise. However, these superficial steps failed to acknowledge the substantial negative externalities an inner-city freeway would have on local neighborhoods.

Freeways often lead to the decline and decay of the inner city, promoting sprawl by destroying low-cost urban housing and historically significant buildings. The location of urban freeways can bisect core areas, rupturing the characteristic and vibrancy of some of the city's oldest neighborhoods. The concentration on developing freeways for individual automobile use can also result in the neglect of public transportation and worsening air quality.⁴⁴ Living within 250 meters of a freeway can result in up to a 41% increase in traffic-related air pollution in an urban area.⁴⁵ Although not as direct of an effect, there can also be significant changes in land and property values within freeway corridors.

In 1999, several cities within Maricopa County created a proposal for the Central Phoenix/East Valley Light Rail project. Supporters of the project believed that it would revitalize downtown Phoenix and the surrounding neighborhoods. The review and planning process took 6 years to complete with construction beginning in 2005.⁴⁶ The Light Rail opened for service at the end of 2008 with 20.3 miles of track and twenty eight stations through central Phoenix to Tempe and Mesa. Ridership is high; surpassing expectations by about 50 percent. The line has stops at the Arizona State University Tempe Campus and

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⁴⁴ Blair, John M, and K. David Ijawka. "Evaluating Success in Urban Freeway Planning." *Journal of Planning Education and Research*. Volume 21, No. 40 (2001): 42.

⁴⁵ Franklin, Meredith. "Predictors of intra-community variation in air quality." *Journal of Exposure Science and Environmental Epidemiology*. Volume 22 (2012): 135.

⁴⁶ Golub, Aaron, Subhajit Guhathakurta and Bharath Sollapuram. "Spatial and Temporal Capitalization Effects of Light Rail in Phoenix: From Conception, Planning, and Construction to Operation." Journal of Planning Education and Research. Volume 32, No. 4 (2012): 417-418.

Phoenix Sky Harbor International Airport, before entering downtown, passing by the new sports stadiums, convention center and ASU's downtown campus.

More recently, transportation planning has redirected focus to sustainability and equity; concentration of mass-transit strategies such as Transit-Oriented Development could provide a valuable alternative which reduces congestion, air pollution and negative lasting effects while increasing accessibility.⁴⁷ By developing a comprehensive plan which integrates transportation with development, the city of Phoenix can address several problems in relation to environmental inequity and accessibility.



Figure 5.2:. Shaded Light Rail Station in Central Phoenix. Photo by author.

⁴⁷ Shore, William B. "Land-use, transportation and sustainability." *Technology in Society*. Volume 28 (2006): 30.

PROPERTY TAX STRUCTURE

The Property Tax System in Arizona will see some changes starting in 2015 with the passing of Proposition 117 by voters in the fall of 2012. The proposition changes the process by which responsibility is allocated for collecting taxes. Each year, the amount of money to be raised through property taxes is determined by the taxing jurisdictions, which is capped by statutory formula. The assessed value of all the properties in the jurisdiction is used to allocate to each property their percentage towards the total tax to be collected.

There are two assessed values in Arizona. The first is the Full Cash Value (FCV) which is a reflection of the market value and will increase or decrease based on market conditions. The second assessment is the Limited Property Value (LPV) which is based on a formula and can never exceed the FCV. Both the FCV and LPV are currently utilized to calculate the tax bill, however after the implementation of Proposition117 in 2015, only the LPV will be used.

The property tax bill is based on three primary sources. The first is the levy amount, which is the amount of money the taxing jurisdiction wants to collect. This amount is limited to how much it can increase each year. The next source that can change the property tax bill is the property assessment which is tied to the market value. The property is valued in relationship to other properties in the jurisdiction which can change the percentage that the property is responsible for paying. Different properties in the jurisdiction will be assessed differently each year, depending on the market conditions. The third source of

change can come from bonds or overrides added, which are voted on by citizens in the jurisdiction.⁴⁸

Proposition 117 also places a cap on property values which cannot increase more than 5 percent each year under the new measure. However, limiting the amount of taxes could affect the City's ability to raise funds for bonds to build infrastructure and schools. Although passed by a majority vote and believed to simplify the tax system in Phoenix,⁴⁹ the proposition may cause school districts and other jurisdictions to look elsewhere for resources if the limited increase in property value severely impacts their ability to raise necessary funds.

In the next chapter, there are four opportunities discussed in response to each of these barriers. To address the lack of community and support and participation, I have recommended an extensive public participation element to be included in the process of developing affordable housing. To combat suburban sprawl and low-density development, growth management tools such as an Urban Growth Boundary can be used to focus redevelopment to the central city. With a long history of dependence on automobiles, a shift towards Transit-Oriented Development is necessary to transform the city to a more sustainable future. Lastly, an alternative property tax structure can be explored in response to the conventional property tax structure which does not favor new urban development.

⁴⁸ Russell, Keith E. "Overview of Changes to Property Tax System in Arizona from Passage of Proposition 117." Maricopa County. http://www.mcassessor.maricopa.gov/assessor/pdf/prop117info.pdf. 49 Ibid.

Chapter 5: Moving Forward: Sustainable City

As the gap between income and housing costs continues to increase in the United States, affordable housing has become an extremely important issue. More specifically, Phoenix, Arizona is experiencing tremendous population growth, which is coupled with stagnant income levels to create a serious lack of availability of affordable housing. 50 Exploring the relationship between the opportunity for high-density infill development in Phoenix and the development of affordable housing within a larger sustainable development plan will reveal barriers and steps for improving that relationship. Looking to alternative tax abatement and infill programs may provide a more favorable environment for the implementation of affordable housing within the city of Phoenix.

This final chapter will offer four recommendations to mitigate the barriers presented in Chapter Five. I will begin this chapter by discussing sustainability; what does it mean to be sustainable? What does it mean to be socially sustainable? What is the importance of affordable housing to sustainability? The answers to these questions are vital for understanding the significance of this research.

Next, I suggest that a thorough public participation element be integrated into the development process of affordable housing. This is to ensure an integrative approach to affordable housing despite the numerous organizations involved. Urban planning that emphasizes the involvement of the community,⁵¹ also known as participatory planning, can result in a more successful approach to sustainability and affordable housing.

⁵⁰ McDonough-Hughes, 29.

⁵¹ Scharmer, C. Otto. "Theory U: Leading from the Future as It Emerges." 2009 (Berrett-Koehler Publishers, Inc: San Francisco): 347.

As a recommendation for a Growth Management tool, I will explore the possibility of an Urban Growth Boundary or limit on development. In response to the transportation issues explained in Chapter Five, I will look to Transit-Oriented Development as a solution and step towards sustainability. The fourth barrier is the current Property Tax Structure; below I have described a resolution which includes an alternative two-rate tax system. I will conclude this chapter by identifying three issues which require further research and discussion that were not fully addressed in this paper.

SOCIAL SUSTAINABILITY

The concept of sustainable development has had an increasing influence on planning, housing and urban policy as a means of addressing the tremendous impact the building industry has on the environment. As I argued in Chapter One, environmental sustainability cannot be achieved without both economic viability and social equity. It must be recognized that the environment, economy and society are an interconnected system in which they all are dependent on each other. Urban development provides an opportunity to explore social sustainability in its relationship to the environment and economy.

There have been several attempts to create sustainable communities in which the goal has been social cohesion within the community. The most common approach by local and national governments and policy makers is gentrification, although this is often referred to instead as urban revitalization, urban regeneration or urban sustainability. The interest in this strategy is often based on the assumption that it will lead to less segregated and more sustainable communities, but there is little evidence to support this. Instead, it often causes negative consequences such as displacement and increasing segregation. Social sustainability

cannot be reached only by mixing and diversification, but also requires social and economic regeneration efforts.

There have been several new developments in sustainability to address the environmental crisis of climate change. However, most of these developments are technological and fail to incorporate policy, economic or social changes. Because of this, they will have a much lower impact than they are intended to. Sustainability, especially in the built environment, cannot be accomplished "unless an ecology-conscious architecture is rooted in social practices...[because] technology alone is never the cause of social change." Successfully addressing social sustainability through urban development will also positively affect the environment. Less affluent populations will be much more concerned with meeting their basic needs such as shelter and food and securing opportunities for employment than with long-term environmental issues. Sustainable development needs to address both the notion of social justice, which is the equal opportunity or access to resources, as well as the viability and functioning of a community.

Planning often focuses on creating accessible jobs and affordable housing, however there are many other aspects of social sustainability that must be considered. Some of these elements include access to local services, such as health facilities, banks, supermarkets, libraries, sports facilities, and schools and educational centers. The concept of social sustainability through social cohesion is dependent on community participation, interaction within the community, establishing a sense of place, community stability and security.

⁵² Dutton, Thomas A, and Lian Hurst Mann, Editors. "Reconstructing Architecture: Critical Discourses and Social Practices." 1996. (University of Minnesota Press: Minnesota) 132.

Sustainable development too often relies only on diversification to establish social sustainability through a social mix agenda.

In an effort to enhance social equity, local and national governments and urban policy makers have introduced the concept of urban revitalization or regeneration. The idea is that a mix of housing types will create a social mix of different socioeconomic households which will create better opportunities for individuals. It is assumed that housing mix will lead to less segregation and increase the social cohesion of inner-city communities. Urban revitalization is often achieved by moving middle income people into low income inner-city neighborhoods. This is done by demolishing low cost working-class houses in order to build more expensive dwellings for the middle-class. It is believed that middle-class people are stronger advocates for resources, which will allow socially mixed neighborhoods better access. Mixed communities are said to be able to support a stronger local economy, and by increasing the percentage of middle-class homeowners in the city, there is an increase in property tax revenue. Unfortunately, this strategy results in gentrification, which is defined as "the process of renewal and rebuilding accompanying the influx of middle-class or affluent people into deteriorating areas that often displaces poorer residents."53 There is little evidence that shows that people from different social classes or income levels living near each other will actually mix or integrate.

Despite their desire for diversity, the middle-class population tends to self-segregate and associate only with the other middle-class people in their neighborhood. Social ties rarely cross class and racial lines and the artificially imposed housing mix often causes

^{53&}quot; gentrification." *Merriam-Webster.com*. 2012. http://www.merriam-webster.com (April 2012).

residents to withdraw, which increases segregation.⁵⁴ Gentrification also leads to displacement of low income groups. The introduction of middle-income housing to innercity areas often causes rent and property tax increases which drives out the low-income population. The strategy of urban revitalization through the process of mixed housing relies only on diversification. Instead, sustainable development must integrate social justice, the environment and economic viability in order to successfully achieve social sustainability.

Several initiatives have been organized by the UN organizations UNESCO (United Nations Educational, Scientific and Cultural Organization) and UN-HABITAT to reform public policy and legislation that combine urban development with social equity. Based on cultural, economic, political and social human rights, these initiatives develop an integrated approach to social sustainability. They promote freedom and the benefit of the city for all, equity in city administrations, participation in local democracy, recognition of diversity and reduction of poverty, social exclusion and violence. This approach seeks to enable the concept of 'right to the city' in which all inhabitants have access to the benefits of the city. Local democracy leads to citizen empowerment through participation and helps to identify the needs and distribution of resources. It is important to embrace diversity and to support the development of knowledge. Reducing poverty and securing livelihoods for urban populations is essential for promoting safety, justice and security. This integrated approach has not been widely implemented as many programs have relied on the false assumptions that mixed housing would result in social cohesion.

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⁵⁴ Lees, Loretta. "Gentrification and Social Mixing: Towards an Inclusive Urban Renaissance?" *Urban Studies*. Volume 45, No. 12. (2008): 2459.

⁵⁵ Brown, Alison and Annali Kristiansen. "Urban Policies and the Right to the City: Rights, responsibilities and citizenship." *Management of Social Transformations.* (2009): 3.

Social equity is essential for achieving sustainability. Urban development must address the interdependent system of the environment, economy and society. In an effort to face the environmental crisis of climate change, planning, housing and urban policy has been heavily influenced by sustainable development. There are numerous projects of urban revitalization that rely on housing mix to establish social equity. It is often assumed that housing mix will lead to social mixing which will benefit the individual and the community. However, there are often negative consequences instead as diversification leads to displacement and increased segregation. Rather than relying on spatial proximity, social sustainability requires an integration of social and economic regeneration efforts. Alternatives to gentrification have not been as thoroughly explored, but UNESCO and UN-HABITAT have made a significant contribution to research and exploration of community based revitalization. The main goal of these initiatives is to establish human rights of access and opportunity by encouraging continuous discussion among key stakeholders, exploring best practices and providing a framework for action. Sustainable development must consider policy, people, culture, environment and the economy as a complex system. Only then can sustainable revitalization projects be successful in enhancing local economy, reducing poverty and environmental degradation and benefiting the lives of individuals as well as the community.

The barriers to the development of urban affordable housing identified in Chapter 5 provide a foundation for establishing opportunities to overcome them, resulting in a more sustainable and affordable future for the City of Phoenix. In recognition of the complexity

of sustainable development, each barrier is sensitive to the interdependence of issues including development, transportation, employment and many others. The following four opportunities provided are not meant to serve as a single solution; however, each opportunity could contribute to creating an environment conducive to the development of affordable housing in central Phoenix.

OPPORTUNITY #1: DEVELOPMENT OF HOUSING PROGRAMS

Without a participatory planning process involving each of the stakeholders, conventional affordable housing development initiatives will continue to be a major detriment to the health of urban society. It is unacceptable that housing programs often make worse the lives of those who they intend to help?? A successful approach to sustainable and affordable housing development is one that addresses a complex system of policy, people, culture, environment and the economy.

Public participation has increasingly become an expectation in the process of policy making, although its definition is loosely interpreted. Participation takes many forms ranging from community meetings, community action teams, advisory committees and many others. Unfortunately, public involvement requirements in policy making often results in what is referred to as "tokenism".56 This means that government entities are simply fulfilling the participation requirement through a low level participatory meeting without really drawing out meaningful participation. There are several different degrees of citizen participation and the influence it can have on decision making. Referred to in the book *Participation and*

⁵⁶ Bishop, Patrick and Glynn Davis. "Mapping Public Participation in Policy Choices." *Australian Journal of Public Administration*. National Council of the Institute of Public Administration (2002): 14.

Democratic Theory, author Carole Pateman defines these levels as pseudo, partial and full participation.⁵⁷ This describes listening or talking without substance and ranges to intensive participation which results in the influence of an outcome. The form of participation most often used in policy making is referred to as consultation. The government gathers data from the community through surveys, interest groups, public meetings and community leaders. Despite the integration of participation into policy making processes, the outcomes of public involvement are often ineffective.

A successful approach to participatory housing development is one that addresses a socially and dynamically complex system. Although most public housing projects require public participation as part of the planning process, there are varying levels and forms of participation. Efforts to revitalize or regenerate an urban area often cause negative consequences such as displacement and increasing concentrations of poverty, rather than leading to less segregated and sustainable communities. By creating these obstacles for the population that the project is meant to serve, the process by which housing developments come to fruition needs to be thoroughly evaluated. The housing development process must integrate a participatory planning process involving each of the stakeholders in order to fully address the underlying issues which create inequitable and unhealthy environments.

Below is a case study that illustrates the benefits of public participation in the affordable housing development process. Public housing projects often have a requirement of a public participation element, however there are no standards to ensure the quality or extent of participation. The Matthew Henson Project in Phoenix, a federal HOPE VI

57 Ibid, 17.

development, serves as a successful example of the integration of public participation during its revitalization in 2001.

Participatory Planning

Originally constructed in Phoenix between 1940 and 1960, the Matthew Henson Public Housing Project included 372 units housed in brick, one story building developments. As happened with many other public housing developments built during this time, the neighborhood suffered from crime, violence and other debilitating issues. Nearly 60 years after the first development had been constructed, the buildings were severely distressed.

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^{58 &}quot;HOPE VI Matthew Henson Historic Documentation Executive Summary." City of Phoenix, Housing.

The City of Phoenix
obtained a Hope VI grant in 2001
to revitalize the community. The
revitalization process included a
phased demolition of old units as
well as the construction of new
units. The process was planned to
take place over a five-year period



Figure 6.0: Matthew Henson Development sign marking the entrance to the community. Photo by author.

and to add 240 units to the development.⁵⁹ The master developer for the project, McCormack, Baron, Salazar, Inc, encouraged stakeholder participation throughout the planning process of the project.⁶⁰



Figure 6.1:. Homes in the Matthew Henson Development. Photo by author.

^{59 &}quot;HOPE VI Matthew Henson Historic Documentation Executive Summary." City of Phoenix, Housing.60 Shin, Somin. "Participatory Design in the Development of Public Housing." PhD, Arizona State University.

The three main techniques that were used in the development process was a community action team, focus groups and an advisory committee. There were also informational newsletters and move-in workshops to facilitate communication among residents. The Community Action Team held meetings every month in order to advise the master developer. 61 The meetings continued after the project completion in which the members created partnerships with local housing advocacy and nonprofit organizations to address other concerns in the community; both from existing residents in the area and potential future residents of the development. Focus groups were used to seek input in a smaller and more informal setting. This included disability, senior and youth focus groups. 62 This was meant to gather information regarding opportunities and services available through the public housing system. The advisory committee was comprised of stakeholders who have various interests or fields of expertise to then advise on proposed development plans. The objectives of the committee included giving input on the proposed plan for redevelopment, to represent those in the community who could not participate and to help the city make decisions. 63

61 Ibid.

⁶² Ibid.

⁶³ Shin.

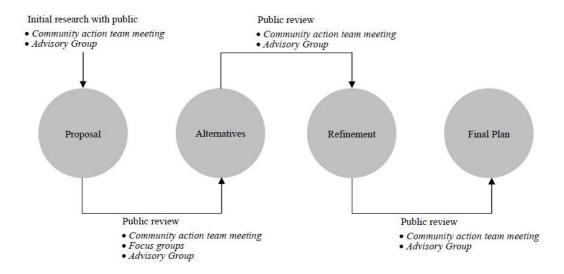


Figure 6.2: Participation in the Development of Matthew Henson Hope VI Project. (Shin).

The integration of public participation in the development process of the Matthew Henson Hope VI revitalization project is evident in the resident satisfaction. The stakeholders were involved throughout the entire process and still take ownership of their community, meeting to discuss the maintenance or improvement of their development. The project was successful in its provision of housing as well; by demolishing a low density housing project and replacing it with higher density housing the developers were able to provide more units than there had been previously.⁶⁴

Public-private partnerships can provide a decent amount of new affordable housing stock for the community by integrating private developers funded by government programs. Application and funding request documents can be lengthy and burdensome, but can be beneficial to the right projects by providing financial gains and value with innovative

⁶⁴ Bostic, Raphael W. "The Mixed-Income Conundrum: Problems and Possibilities for Mixed-Income As a Strategy for Producing Affordable Housing." *Affordable Housing Policy Forum*, (2009): 25-26.

financing. However, this additional housing stock cannot accommodate the need for housing which is much greater. The availability of funds is inconsistent and dependent on many variables. The supply of government assistance is limited and is essentially subsidizing housing which is not sustainable long-term.

OPPORTUNITY #2: GROWTH MANAGEMENT

The suburban sprawl development pattern occurring across the country in the 1960s sparked an interest in growth management within the planning community. Early definitions of growth management related to policy making; it was considered an effective means to regulate a growing population. Throughout the 1990s, the addition of incentives, tax exemptions and changes in land use altered the way local government affected a community's development.⁶⁵ Perhaps the city receiving the most praise for innovations in urban growth management measures is Portland, Oregon. Between the establishment of a growth boundary and the development of a local government devoted to growth management, the city has taken strides towards smart growth not seen in many other places. Adopted in the 1970s, Portland's Urban Growth Boundary became their most effective urban growth management tool.⁶⁶ The Urban Growth Boundary is a legal boundary which separates the urban land from rural land, preventing any development from infringing on farm, forest and resource land. The growth management tools include phased development inside the boundary and limited development outside of the boundary. In combination with

⁶⁵ Pallagst, Karina M. "Growth Management." Encyclopedia of Urban Studies. Volume 1 (2010): 333.

⁶⁶ Jun, Myung-Jin. "The Effects of Portland's Urban Growth Boundary on Urban Development Patterns and Commuting." *Urban Studies.* Vol. 41, No. 7 (2004): 1333-1348.

the city's established Economic Development Zones, the UGB has become a beneficial growth management tool to combat suburban sprawl.

As the largest city and metropolitan area in Oregon, the city of Portland is known for innovative policies on urban planning, growth management and community development. The city has experienced rapid population growth dating back to the turn of the century and continuing through both World Wars.67 The city earned a reputation for livability throughout the 1970s, as residents took action towards revitalization. Older neighborhoods were preserved and renewed and a new light rail transit system sparked reinvestment in the downtown area.

In the late 1960s, a federal urban aid program, Model Cities, trained and empowered community leaders as political activists were changing the political scene. Focusing their energy on local politics, many community leaders sought to defend older urban neighborhoods from intense redevelopment. Activists worked with city officials, local businesses, property owners, and neighborhood organizations to address the urban crisis in a comprehensive approach through the Downtown Plan of 1972.68 The plan was framed with a coherent strategy based on an alliance between business interests and local residents at risk of being pushed out of their central city neighborhoods. The 1972 plan, followed by a Central City Plan in 198869 recognized the mutual benefits of making improvements to access, transportation systems and increasing job concentration in the city.

Community leaders made key decisions to alter transportation plans in order to increase the accessibility to the city. Throughout the 1970s, a six-lane freeway bordering

⁶⁷ Gibson, K. and C. Abbott. "City Profile: Portland, Oregon." Cities. Vol. 19, No. 6 (2002): 425.

⁶⁸ Ibid, 426.

⁶⁹ Ibid.

downtown was eliminated in favor of a waterfront park along the river. Rather than developing a planned radial freeway, highway funds were used to implement a 15-mile light rail line.⁷⁰ The focus on mass transit and accessibility to public amenities resulted in a well planned and inclusive central business district. A three-mile radius surrounding downtown contains all major institutions; theaters, museums, Universities, sports stadiums and business headquarters are a few of many.⁷¹

In an effort to control urban growth and slow down suburbanization, the city of Portland established what is termed as an Urban Growth Boundary in 1973. Development which is discontinuous in urban areas suggests sprawl as opposed to a more compact contiguous urban development.⁷² An Urban Growth Boundary (UBG) is defined as "a legal boundary separating urbanizable land from rural land"⁷³. Portland created a regional government entity, Metro, to plan and implement the UGB, functioning as a land use and transportation agency.⁷⁴

As a growth management policy, the UGB is aimed at preventing what has been termed "leapfrog"⁷⁵ development, in which urban land is skipped over in development in favor of less costly land outside of the central city; leading to low density suburban sprawl. The growth measure put into place includes phasing development inside the UGB, limiting

⁷⁰ Ibid.

⁷¹ Ibid, 428.

⁷² Weitz, Jerry and Terry Moore. "Development inside Urban Growth Boundaries: Oregon's Empirical Evidence of Contiguous Urban Form." *Journal of the American Planning Association*. Vol. 64, No. 4 (1998): 424-440.

⁷³ Jun, Myung-Jin, 1334.

⁷⁴ Gibson, 430.

⁷⁵ Weitz, 430.

development outside of the boundary, and allowing the boundary to be flexible. The boundary is determined based on providing a 20-year supply of developable land.⁷⁶

The UGB encompasses approximately 400 square miles as of 2010, and has increased the density of development inside the boundary and reduced the amount of land used for development by limiting the available land. Infill and redevelopment within the urban core is the most desired development pattern. Critics believe that the UGB has a potential for impacting housing affordability; a limited amount of land for development combined with rapid population growth could lead to price increases, as it did in Portland in the 1990's.77

However, this increase was small compared to cities without the boundary and cannot completely be blamed on the UGB. In response to the intense redevelopment, the city was pressured to pass an ordinance that requires one-for-one replacement of low-income housing in an effort to preserve existing affordable housing. The Housing Authority of Portland has been entrepreneurial in housing and asset management, using bonds to purchase buildings and the federally funded Community Development Block Grant to rehabilitate older neighborhoods and infrastructure.

It has been found that growth management programs result in lower operating and maintenance costs by restricting new development to areas with existing services,⁷⁸ eliminating the need for higher capital to extend services to suburban areas. In an effort to preserve existing housing at an affordable rate, the UGB favors the development of small lot sizes and infill of secondary units. However, as household income increased at half the rate

76 Ibid.

⁷⁷ Gibson, 432.

⁷⁸ Weitz, 431.

of home prices during the 1980s and 1990s, housing affordability continues to be a problem.⁷⁹ The housing shortage is greatest for those with very-low income ranging from 0-30% of the median income.

Within the first two decades of the implementation of the UGB, despite a rapidly growing population, the area of the boundary has expanded by only 5 square miles. This is quite an improvement when compared to the city of Denver which has had a similar rate of population growth, and has increased by 180 square miles over the same period of time, 80 It is not the intention of the boundary to stop or limit growth; instead, the Metro uses it as a tool to control the timing and location of land available for development. Higher densities are encouraged within the boundary and as the limited available land causes higher land prices, houses are often built on smaller lots. Portland has had a large percentage of new households located within the boundary with high rates of infill development.81 The increased density has helped mitigate the effect of rising land costs on housing prices.

Although the UGB is not a single solution to housing affordability and urban development, Metro continues to include affordable housing in its comprehensive plan. Strategies to address the housing needs include cost reduction, land use, and regional funding. There remains a need for more methods to measure urban development patterns to accurately evaluate the success of the UGB in Oregon, however, it is apparent that there has not been a significant amount of sprawl since it has been in place.82

⁷⁹ Gibson, 433.

⁸⁰ Phillips, Justin and Eban Goodstein. "Growth Management and Housing Prices: The Case of Portland, Oregon." *Contemporary Economic Policy*. Vol. 18, No.3 (2000): 335.

⁸¹ Ibid, 336.

⁸² Weitz, 436.

OPPORTUNITY #3: TRANSIT-ORIENTED DEVELOPMENT

With the implementation of the Light Rail Transit, the city of Phoenix developed special zoning and land-use tools to encourage compact and dense development near stations. They enacted a station-area overlay zoning to support investments along the rail corridor and near its stations. While single-family residents often benefited in value from being in close proximity to the light rail, vacant parcels also increased in price making development near the rail line more costly.⁸³ A study meant to analyze the spatial effects the Light Rail has on real estate values showed that there was a decrease in value of single-family homes within 200 ft of the rail due to the noise or "nuisance". However, after the 200 ft, there was an increase in value resulting from the ease of accessibility to the stations. Both multifamily homes and commercial properties also saw a benefit from close proximity to the



Figure 6.3: Map shows the Light-Rail Transit line and stops in Central Phoenix. (ULI Advisory Services Panel Report).

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⁸³ Golub, 424-425.

stations but did not experience a decrease due to the noise being within 200 ft. of a station.⁸⁴ Vacant parcels also see an increase in value close to the stations. However, despite the zoning overlay for station-areas, this increase in value also makes it more costly to buy vacant land near the rail line and increases development costs.

In order for the light rail system to be successful, it must be implemented in the right way for Phoenix; with the right planning, infrastructure and zoning. The integration of multifamily residences, retail and employment centers near the rail line is also critical for the success of the rail line. Although the ridership has been high in Phoenix, the surrounding development hasn't benefited as it should. The streets of downtown Phoenix are not pedestrian-friendly; visitors often drive to surrounding cities of Scottsdale or Tempe to be able to walk.

The overlay zoning districts for zoning areas are meant to prohibit automobile-oriented land uses and prevent parking along light-rail corridors. One of the main issues with the light-rail includes parking; there is a necessity for adequate parking to promote ridership and protect nearby neighborhoods from spillover parking. However, there has to be a balance of both providing parking and also discouraging excessive parking in the downtown area by using existing park-and-ride lots and maintaining market-rate parking so as not to subsidize automobile use only to promote ridership.

⁸⁴ Ibid, 424.

⁸⁵ Urban Land Institute, Advisory Services Panel Report (2001): 18-19.

OPPORTUNITY #4: ALTERNATIVE PROPERTY TAX STRUCTURE

The existing tax structure in Phoenix and many other U.S. cities contribute to urban decline by penalizing investment through a high tax burden on improvements. To address the problem of urban sprawl due to high inner-city taxes, it is necessary to consider a revised incentive-based property tax system. This includes a heavy tax on land value and a lighter tax on improvements which encourages infill development. Raising taxes on land encourages people to conserve it; a higher tax on land holdings encourages owners of vacant lots to either make improvements to the land or to sell it at a reasonable price, bringing that land into production.86

A two-rate property tax structure taxes the assessed land value at a higher rate than that on the assessed building value. Using a conventional property tax system, a land owner has no tax-based incentive to invest in improvements to the land because it will result in higher taxes, which is essentially a disincentive. The two-rate structure would make it more costly to hold on to vacant, centrally located lots, encouraging infill development and revitalization of urban areas. Expected outcomes of the two-rate tax system include discouraging urban sprawl and land speculation, intensifying land development and restraining the rising land prices.⁸⁷

The conventional, equal-rate tax system calculates property tax by multiplying the assessed value (TV) by the levy rate which is a per-thousand-dollar figure. For each county, the tax assessor determines the levy rate by dividing the total projected revenue by the total

 ⁸⁶ Gihring, Thomas A.. "Incentive Property Taxation: A Potential Tool for Urban Growth Management."
 Journal of the American Planning Association. Volume 65, No. 1 (1999): 63.
 87 Ibid, 64.

assessed value of property in the county. Using a two-rate property tax structure, the levy rate is split and applied differently to the land value and improvement value, where the land value is multiplied by a higher levy rate. The proportionate rates for land and buildings are derived from a land value tax level that is chosen by the taxing authority.

Examples using a \$13 levy rate applied to a \$100,000 property:

Equal-rate tax system:

Land Value: \$40,000

Improvement Value: \$60,000

Total Value: \$100,000

 $100,000/1000 \times 13 = 1300$

Two-rate tax system:

Land Value: $$40,000 ($28.85 \times .75 = $21.65)$

Improvement Value: 60,000 ($28.85 \times .25 = 7.25$)

Total Value: \$90,000

 $40,000/1,000 \times 21.65 = 866$

 $$60,000/1,000 \times 7.25 = 434

\$866 + \$434 = \$1,300

The two-rate property tax structure can be effective acting both as a disincentive for land speculation and also by providing financial incentives for infill development and improvement to land in the central city. It can encourage more efficient land use by focusing revitalization and improvement efforts on vacant lots and underutilized buildings. Used as a growth management tool, when combined with complimentary economic development policies, the alternative two-rate system can be most effective.

There are other opportunities within the tax system to assist in funding affordable housing projects including tax incentives such as abatements or exemptions. Incentives can be offered to encourage and fund both affordable housing and housing development within the city. Below is a case study of tax incentive programs utilized in New York City to help finance private investment in affordable housing development.

Tax Incentive Programs

New York City is home to the largest housing stock of any other city in the nation. With that, the city also has a large amount of government subsidized and regulated housing in an effort to keep housing affordable within the city. Various policy approaches have been attempted including publicly owned housing, rent vouchers, shelter allowances, rent regulation and tax incentives. The State's housing finance system recognized the importance of securing private investment in affordable housing and moved aggressively on incentive-based programs.⁸⁸

Determined to counterbalance the more affordable homes in the suburbs, New York has two major incentive-based programs to encourage private investment in affordable housing and keep city-dwellers from moving to the suburbs and depleting the city's tax-base. J-51 is the oldest tax subsidy program in the City, adopted in 1955.89 It was designed to encourage owners to rehabilitate their properties by offering an exemption on the improved

88 Botein, Hilary. "New York State Housing Policy in Postwar New York City: The Enduring Rockefeller Legacy." *Journal of Urban History*. Volume 35, No. 6 (2009): 834.

⁸⁹ Parker, R. Andrew. "The Use and Abuse of Local Tax Incentives for Development: Housing and Economic Development in New York City." *Public Administration Quarterly*. Volume 8, No. 1 (1984): 45.

value for up to 14 years. The program also offers a tax abatement that is worth 90 percent of a certified reasonable cost (CRC) for upgrading major systems.⁹⁰ This program is still very widely used in New York.

The other major incentive-based program is the 421a program which was created in 1971. This program was meant to facilitate new housing construction in the city. It offers tax exemptions for developers during construction and tax abatements on the increased value for up to 25 years. The length of the abatements and exemptions is determined by location and the percentage of affordable units included in the project. The buildings are also subject to rent stabilization while they are receiving exemptions.⁹¹

These incentive-based programs have succeeded in some ways in preserving the city's tax base, in an area that is predominantly renters. As federal funding is increasingly cut, public-private partnerships are the main strategy for the development of affordable housing. The public funding that is accessible is used to leverage private funds using substantial incentives to encourage developers to move forward in financing affordable housing programs. Without the private investment harnessed through these incentive programs, the need for housing in the city would be much greater.

CONCLUSION: A SUSTAINABLE CITY

The City of Phoenix must address urban affordable housing to become a sustainable city. Up until this point, the City of Phoenix has made small efforts in the direction of affordable housing development, growth management and sustainability but fails to

⁹⁰ Van Ryzin, Gregg G. and Thomas Kamber. "Subtenures and Housing Outcomes for Low-Income Renters in New York City." *Journal of Urban Affairs*. Volume 24, No. 2 (2002): 204.
91 Ibid.

recognize the relationship between them. Following the four opportunities outlined above, the next step for the city is to create a plan that addresses the connection between each element with detailed action steps. A comprehensive and integrative approach to community support, growth management, transportation and the property tax structure is the only solution to moving forward as a sustainable city. The table below summarizes each barrier identified in Chapter 5, the source or background it was derived from and possible actions to overcome the barriers.

Barrier	Source	Action
Housing Programs There are several public programs and private organizations involved in affordable housing development and advocacy; however they lack cohesion and integration.	Dr. Stark, Director of Community Housing Partnership identified the concept of community support and participation as a vital element of affordable housing development. The City's history of affordable housing development favors integration and participation.	The integration of participatory planning into the development of public and private housing programs can create a dynamic and responsive approach which addresses the complex issue of affordable housing.
Growth Management Phoenix is without the necessary policies or programs to encourage urban infill housing development to accommodate the rapid population growth experienced in the area.	Owner of Butler Housing Co., Reid Butler's experience as a housing developer and formerly as a lawyer, gave insight into the role of growth management policies in the housing development process. With several attempts at infill development policies, the City has failed to restrict suburban sprawl development.	Growth Management tools such as the Urban Growth Boundary can play an instrumental role in encouraging infill development while restricting suburban growth which can also result in more affordability in the central city through higher availability.
Transportation With a focus on private transportation rather than public, the city has failed to address the negative externalities of inner-city freeways, dependence on automobiles and inequality of access.	A downtown advocate and head of the Thunderdome Neighborhood Association, Sean Sweat affirms transportation is the key to reinventing Phoenix and making it a more livable city. The dependence on automobiles and inner-city freeways has resulted in the neglect of public transportation.	An emphasis on public transportation and transit oriented development increases accessibility through integrative planning in recognition of the interdependence of housing, education, employment, healthcare and other services.
Tax Structure The conventional property tax structure currently used in Phoenix favors suburban development instead of encouraging urban infill; essentially taxing inner city households disproportionally.	Identified as a theme in all three stakeholder interviews, as well as research on public and private housing development is the issue of funding affordable housing. The current property tax structure makes urban development difficult and the restructuring of it could potentially increase funding for affordable housing.	An alternative property tax structure, such as a two-rate structure, taxes vacant land in the central city while lowering taxes on improvements to provide an environment which fosters growth and improvement in designated areas of the city instead of rewarding suburban sprawl development.

This topic leaves room for further research and discussion on the following three points. Given the limitations of conducting research remotely from out of state, I was unable to conduct a large number of stakeholder interviews. For a more comprehensive set of interviews, each stakeholder group identified should have 3-4 individuals contributing. The individuals who were interviewed for this paper were all advocates of affordable housing.

Secondly, the relationship between education and businesses and affordable housing should be researched further. The Phoenix Biomedical Campus and the Downtown Campus of ASU are both examples of recent investment in Central Phoenix. These investments contribute to the vitality of downtown; they provide employment and increased activity for other businesses. The effects of the major business investments downtown on the quality of life and the relationship to affordable housing is an interesting addition to this discussion.

The last issue that I suggest for additional research is public transportation. Although there is a brief section in Chapter Five on transportation development and in Chapter Six on Transit-Oriented Development, I believe there is more research to be done in relation to public transportation. Aside from the Light Rail, Phoenix is lacking a successful public transportation system which can have a significant impact on housing location and affordability.

Glossary

Affordable Housing: Housing which does not exceed 30% of a family's income.

Annexation: A process through which a city expands its territorial boundaries.

Appraisal: Estimate of the current value of a property as of a given date.

Assessed Value: Estimated value of real estate property as determined by the county tax collector for the purpose of determining property taxes.

Area Median Family Income: The median household income in a given area in the current year.

Best Practices: Constantly evolving approaches and techniques that are proven to produce superior results and are used as benchmarks.

Community Development: Process designed to create conditions of economic and social prosperity for the whole community based on the community's initiative and active participation.

Community Infrastructure: A system made up of services, social and cultural networks, programs and facilities that form the basis of a strong and stable community.

Density: The average number of dwelling units or persons per gross acre of land. Density is context dependent.

Environmental Inequity: unequal environmental conditions

Gentrification: The process of renewal and rebuilding accompanying the influx of middleclass or affluent people into deteriorating areas that often displaces poorer residents.

Growth Management: Techniques used to ensure that there are services to accommodate population growth.

Infill Development: New development sited on vacant or undeveloped land within an established area.

Infrastructure: The basic facilities and services needed for the functioning of a community; transportation, communications, water and power lines, and public institutions.

Leapfrog Development: The development of land in a pattern which requires the extension of infrastructure.

Low-income Housing Tax Credit (LIHTC): A tax incentive provided to owners of newly constructed or rehabilitated low-income rental housing projects.

Low-income: Residents making 50-80% of the Area Median Family Income.

Medium-income (moderate-income): Residents making 80-100% of the Area Median Family Income.

Non-profit Housing Organization: Any private organization that has no part of its net earnings benefitting any member, founder or individual and has a record of service in providing or financing quality affordable housing for low-income families.

Quality of Life: A level of wellbeing, lifestyle, and environment.

Redevelopment: Physical and economic revitalization of a neighborhood. Also called regeneration or renewal.

Rent Regulation (also termed Rent Stabilization): Governmental regulation of the amounts charged for rental housing.

Rent Vouchers: Tenant-based housing assistance; vouchers are given to tenants to use at their choice of housing unit.

Section 8: Rental payments as housing subsidies through programs under HUD.

Sprawl: The outward spread of a city and its suburbs that encourages auto dependency and puts constraints on natural resources, taxpayer dollars and people's time.

Stakeholder: Any person, group, organization or system that affects or is affected by a certain policy, action or development.

Subsidized Housing: Residential housing constructed with government or charitable financial assistance or where part of the rent is paid by someone other than the tenant. **Subsidy:** Monetary assistance granted by a government to a person or enterprise. Housing subsidies include but aren't limited to tax incentives and rental vouchers.

Sustainable Development: The process of meeting present and future human needs while also protecting the planet's natural resources for the long-term.

Tax Abatement: Reduction in property taxes for a specific property over a certain period of time.

Tax Base: Assessed valuation of all real estate located within a tax authority's jurisdiction.

Tax Credit: Each dollar of available tax credit applied reduces a taxpayer's tax liability by an equal amount of dollars.

Tax Exempt Bond: Interest paid to bondholders is not subject to income tax. This allows government to secure credit at interest rates lower than the market would allow and provides bondholders with tax-free investments.

Tax Incentive: Exemptions, abatements or tax credits given to stimulate a specific type of new growth for certain types of properties, such as affordable housing.

Transit-Oriented Development (TOD): Development of commercial, housing or employment opportunities close to public transportation. TODs are designed to reduce dependence on automobiles and include a mix of land uses within walking distance of transit stops.

Urban Growth Boundary (UGB): Policy that establishes a clear boundary which limits continuous urban sprawl.

Urban Renewal (Revitalization): Process through which deteriorated neighborhoods are upgraded through redevelopment or rehabilitation.

Unemployment Rate: The percentage of the economically active population who are not working but want to work and are actively looking for employment.

Urban Area: Developed area with a density greater than 1,000 persons per square mile (USDOT).

U.S. Department of Housing and Urban Development (HUD): HUD's mission is to increase homeownership, support community development and increase access to affordable housing.

Very Low-income: Residents making less than 50% of the Area Median Family Income. Zoning: The classification of private property for the benefit of the entire community. Partitioning of land parcels into zones, and the establishment of regulations to govern the land use, location, height and coverage of buildings within each zone.

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