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Zoning Reform for the State of Massachusetts

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Zoning Reform for the State of Massachusetts

Interactive Qualifying Project

Submitted by Jennifer Burnham, Tyler Faszewski, Thomas Gammel, and Ryan Kolb

Sponsor: The Office of Senator Harriette Chandler

Advisors: Corey Dehner and Dominic Golding

Abstract

State legislators have begun utilizing zoning reform to improve quality of life by increasing walkability, public transportation, mixed-use areas and smart growth. The goal of this project was to assist Senator Chandler in assessing effective ways to utilize zoning reform to promote a higher quality of life for Massachusetts residents. We conducted interviews and extensive research in order to characterize the nature of zoning reforms across the United States. We've recommend that zoning reform in Massachusetts should streamline the current rezoning process and address key elements such as walkability, public transportation, and affordable housing. Our team also created a zoning model to be implemented in Worcester to highlight the positive effects that zoning can have on the public.

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- Our advisors Professors Corey Dehner and Dominic Golding for all their guidance and support throughout the project

Executive Summary

Throughout the country, legislators, researchers, land-use planners and not-for-profit organizations have begun to emphasize the connection between the built environment and issues such as obesity, diabetes, and high blood pressure (Johnson and Marko 2008). Many municipalities and states have proposed various zoning reform measures to address these and related public health issues. Zoning laws have the capacity to improve public health and the overall quality of life in urban areas by improving public transit, walkability, access to healthy foods, health clinics and public parks. Massachusetts legislators recognize the gravity of these issues and have in recent years proposed a variety of zoning reform legislation. Some of the proposed bills individually address smart growth, walkability and access to public transportation while others are comprehensive, proposing a fundamental reworking of much of the zoning code. Unfortunately, gaining support for even minor reforms is difficult because there are so many stakeholders with vested interest in the status quo and the 351 municipalities in Massachusetts are skeptical of reforms that could require substantial costs and extensive changes in the way they operate presently.

The goal of this project was to assist Senator Chandler and her office in developing ideas for zoning reform legislation to promote quality of life for Massachusetts residents. We conducted interviews and an extensive review of the literature in order to characterize the nature of the zoning reforms across the United States. In particular we researched Rhode Island, Utah, and California for their progressive statewide zoning reform laws and the city of Houston, Texas for their lack of any zoning laws. Stakeholders that were interviewed included legislators, planners and developers, and organizations with a large interest in statewide zoning reform laws.

While examining other states around the country, we found that Houston, Texas, the only city in the United States with no zoning laws, has problems such as excess parking requirements, urban sprawl, excess of empty space, and increased waiting time in traffic. California, Utah and Rhode Island have taken a more progressive approach to zoning and already have statewide zoning reform laws passed. The flexibility in Rhode Island and Utah provide a more feasible approach for Massachusetts due to the varied population density throughout the state. The information gathered from these previous zoning reforms provided us with examples that may be worthwhile to implement in Massachusetts.

After conducting research on previous zoning reforms across the United States, we began to focus our research to Massachusetts. The team reviewed previous and pending zoning reform bills, and conducted interviews with state legislators, the Massachusetts Municipal Association, Massachusetts Smart Growth Alliance, Metropolitan Area Planning Council, and other key stakeholders in order to

characterize the current status and prospects for quality of life zoning reforms in the Commonwealth. Throughout these interviews we were able to ascertain the obstacles to passage of zoning reform legislation and the key elements of zoning reform legislation in Massachusetts.

Through our project we developed five recommendations.

First, we believe that key elements that should be highlighted in the bills are walkability, public transportation, and affordable housing. These elements would gain the most support from stakeholders and could have a beneficial impact on the quality of life of Massachusetts' residents.

Second, in order to assure greater support from Massachusetts municipalities, any zoning reform law must permit municipalities some flexibility of interpretation to accommodate the interests of the town residents.

Additionally, we found that municipalities were supportive of a more streamlined rezoning process.

Fourth, we recommend that effort be placed on educating the public about the importance of zoning and the potential impact of zoning reform on communities. If more information was widely available to the public detailing the potential advantages of zoning such as improved public health, better transportation, and environmental conservation we believe that more residents would support zoning reform and voice their support to their legislative representatives.

Lastly, we provided Senator Chandler's office with a recommendation for developing a Worcester based model to show some of the advantages that zoning could have on public health. After identifying the needs of the city of Worcester (healthy food options, after school programing, and affordable housing are only a few of the city's needs) the team acquired a list of approximately 100 vacant properties that could be used to improve some aspect of the quality of life of the residents, whether that be walkability, healthy food options, or affordable housing. After narrowing the list of properties down to 10 we assessed the location of the properties and what they could be used for. We recommend the Worcester Public Health Committee, look more in depth at three properties that we deduced could be used for affordable housing (128 Chandler St), a food market (418 Chandler St) and a vacant lot of land (326 Chandler) that could be used for anything you can think of in terms of improving quality of life.

Authorship

Section	Major Author	Major Editor
Abstract	TF	JB
Executive Summary	TF	JB
Introduction	TG	TG
Background	All	RK
Methodology	JB, TF, TG	All
Findings	All	TF, TG
Conclusions & Recommendations	TG	JB, TG, RK

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1.0 Introduction

There is an increased recognition in the United States of declining public health, increased sprawl and greenhouse gas (GHG) emissions and decreased quality of life in urban America. For example, currently in Massachusetts 23% of adults are considered obese having a body mass index greater than 30, this number has more than doubled since 1990 where the percentage of obese adults was only 10% (CDC 2010). There are however, new efforts to utilize zoning reform to help reverse these trends.. Legislators, researchers, land-use planners and not for profit organizations are recognizing the connection between the built environment and public health (Johnson and Marko 2008). Zoning laws have the capacity to improve walkability, and quality of life when such reforms are implemented and enforced. Zoning is essentially formalized land-use planning. However, the capacity of zoning to address public health and quality of life issues is tremendous. Zoning can require residential units to be located in close proximity to healthcare, grocery stores and other amenities. Zoning can also be used to restrict big business and factories from developing in a residential area

Zoning laws in Massachusetts having not been updated for more than 50 years. However, numerous Massachusetts legislators recognize the gravity of this fact and have in recent years proposed a variety of zoning reform legislation. Some of the proposed bills individually address smart growth, walkability and access to public transportation. Others are more comprehensive, proposing a reworking of much of the zoning code. Unfortunately none of these bills has gained traction.

Massachusetts' Senator Harriette Chandler has been an avid proponent of improved public health and the quality of life of her constituents throughout her time in politics. She believes that zoning reform could facilitate improved public health and has asked us to research components of a passable statewide zoning reform bill.

1.1 Project Goals and Objectives

We aimed to help Senator Chandler promote and eventually pass a zoning reform bill that would improve the quality of life for Massachusetts' residents. In doing so, we worked to achieve four main objectives. Our first objective was to familiarize ourselves with zoning in

Massachusetts, including analysis of the current zoning law, proposed zoning reforms and the opinions of relevant stakeholders. Our second objective was to identify and analyze a sample of successful zoning reforms that have been passed in states across the country. As part of our research we interviewed relevant stakeholders on the methods they took to pass them and how they have improved the lives of their residents. With both of these objectives we were analyzing the components of the bills so we could suggest aspects that would work in a Massachusetts zoning reform law. Our third objective was to synthesize our findings from the first and second objectives and identify passable, meaningful zoning reform components for Senator Chandler to use in drafting future zoning reform legislation. Our fourth and final objective was to develop a model illustrating how zoning reforms might improve the quality of life for residents of the city of Worcester.

In chapter 2 we discuss the history of zoning, how zoning can be and has been used, and the benefits of using zoning to improve quality of life. In this chapter we also discuss zoning in Massachusetts and how new zoning laws could address the problems of sprawl, GHG emissions, and poor public health. In chapter 3 we describe our methodology and how we accomplished our objectives. In chapter 4 we discuss our project findings and outcomes, and then finally in chapter 5 we offer our conclusions and recommendations.

2.0 Background

The statewide Massachusetts zoning code has not been substantially reformed several decades. Failure to update the zoning laws have contributed to urban sprawl and negatively impacted walkability, the provision of public housing, and general quality of life in Massachusetts' municipalities (LandWorks 2013). However, state legislators are working to change this outdated zoning framework. About three hundred zoning bills have been filed or re-filed in the state legislature over the past three years, nine of which have been sponsored by Senator Harriette Chandler. Senator Chandler has also co-sponsored and supported countless other zoning bills for the state (The Commonwealth 2013).

In section I of this chapter we examine the origins of zoning as a planning tool. In the following section, we discuss what can be accomplished by zoning and some specific examples. In section III we discuss zoning in Massachusetts while paying particular attention to current zoning reform efforts and problems that have arisen from the outdated zoning laws in the state. In section III we also explain Senator Chandler's current efforts to reform state zoning laws to improve the quality of life in Massachusetts. Lastly, in section IV we offer conclusions of our background research.

2.1 History of Zoning

In the following sections of chapter II we provide a brief explanation on what zoning is and some of its history. We explain how it can be used and what some of the accomplishments are. Also included in this section is a description of the 'Police powers'. The police powers give the states and municipalities the ability to pass zoning laws.

2.1.1 Introduction to Zoning

Zoning is generally understood to be the laws and regulations regarding land use, buildings and structures to protect the health, safety, and general welfare of the public (LandWorks 2003). Zoning, a land use planning tool, is used by municipalities to divide land into separate-use zones. These zones have designated characteristics including specific uses, building height restrictions, and parking requirements (LandWorks 2003). For example, one section of land in a nearby town may limit buildings to four stories. In this case, any building that is built on this land has to satisfy the requirements of the zoning laws and cannot be built any

taller than four stories. Another example of a zoning restriction is when a law creates a zone that is limited to 'residential' or 'mixed use' development (LandWorks 2003). Development in residential zones is limited to the construction of housing units. Residential zones may have additional restrictions imposed on them, such as permitting only single family homes to be built in an area. A mixed use zone is one that incorporates many types of land uses such as residential, commercial, or agricultural (LandWorks 2003). Figure 2, depicts a zoning map of Acton, Massachusetts. The map color codes each section of the city as being either residential, commercial, central business, or industrial. The legend on the right of the map explains how each district is then subdivided into smaller zoning sections, such as rural residences, mixed use districts, or highway businesses.

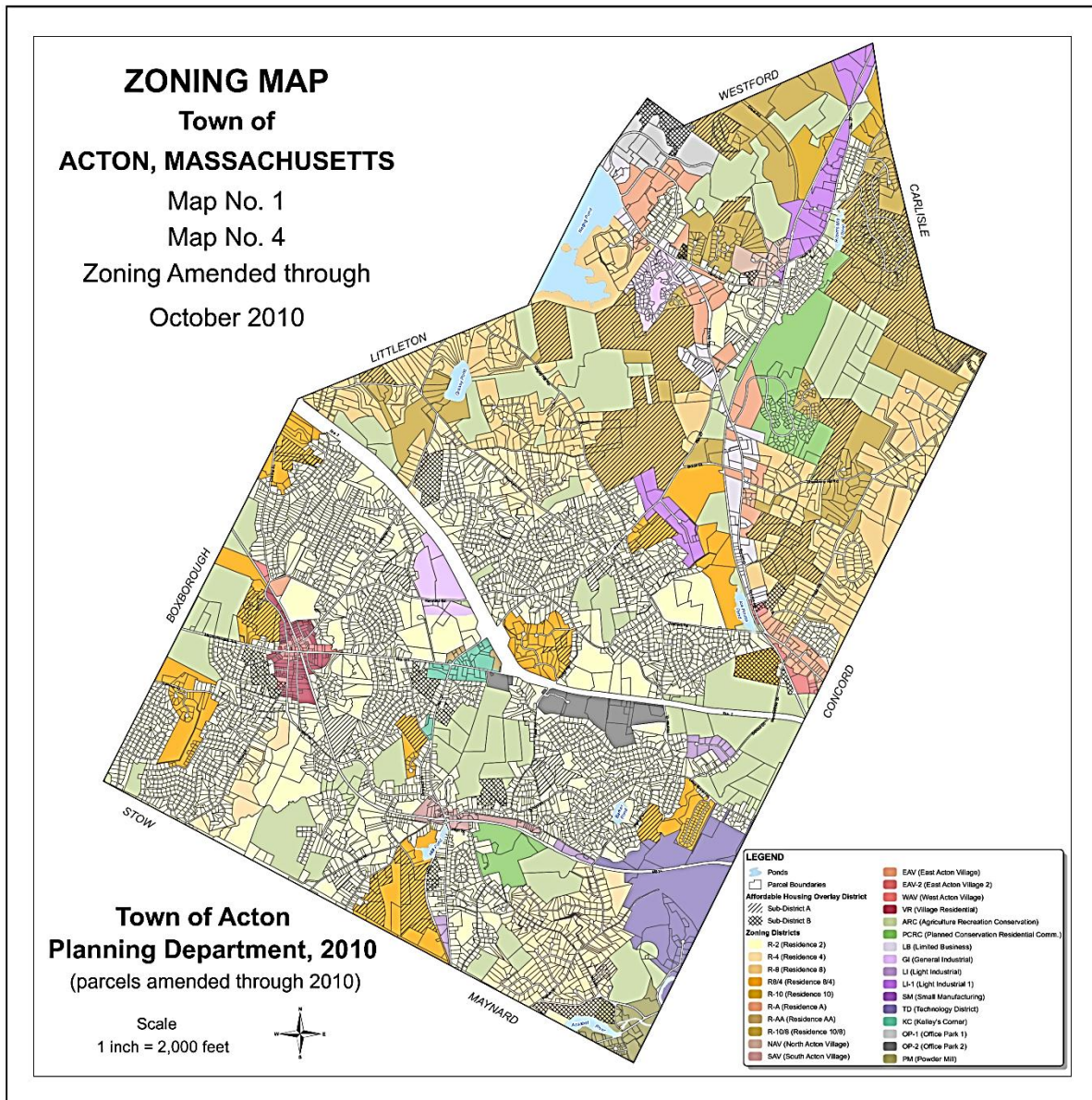


Figure 1 Zoning Map of Acton, Massachusetts
http://t0.gstatic.com/images?q=tbn:ANd9GcS68C73b2kLFF9zACAQhTA5cl8IK9_kLaHrYd1ChnOwAHeylZB

However, zoning as a land use planning tool did not always exist. Zoning was originally a German concept and was not introduced into the United States until 1907. Zoning was first used in 1916 in Los Angeles as a land use planning tool (Spacht 391). The utility of zoning was expanded in 1926 when the United States Supreme Court affirmed the right of the village of

Euclid, Ohio to pass zoning restrictions for the protection of health, safety, morals and general welfare of the public (Village of Euclid, Ohio v. Ambler Realty Co., 272 U.S. 365 (1926)).

2.1.2 Zoning Reforms

To some, certain land use restrictions may seem unconstitutional and violate the Takings Clause of the Fifth and Fourteenth Amendments (Spacht 391). However, that is often not the case. In 1926, the village of Euclid, Ohio passed a zoning ordinance restricting use of its land so that the village would not be consumed by its rapidly growing neighbor, Cleveland. The zoning ordinance detailed height and use requirements for the land. Ambler Realty filed a lawsuit challenging the constitutionality of the ordinance. In 1926, the United States Supreme Court held the land-use restrictions a constitutional use of their ‘police powers.’ Police powers are the rights reserved for the states under the 10th amendment of the United States Constitution and include the right to restrict private behavior in the interest of protecting the public’s health, safety, general welfare and morals (Ketcham 2009). Consequently, since Euclid, the police powers have been used to pass zoning reforms regulating land use. While statewide zoning reforms to improve general quality of life are not widespread, numerous municipalities have begun to use their police powers to improve the quality of life of their residents. We detail a number of ways that zoning can create ‘healthy and livable cities’ below.

2.2 Potential Utility of Zoning Reform

Zoning has addressed and resolved multiple problems in various municipalities and states we researched. Numerous municipalities, including Baltimore, Maryland and Somerville, Massachusetts have used zoning laws to improve public health, prevent sprawl and promote smart growth. In the following subsections we discuss examples of how zoning has and could be used to address a number of public health and quality of life issues including walkability, access to public transportation, and smart growth.

2.2.1 Public Health

When used properly zoning reform has the potential to improve public health of an area’s residents. Zoning could establish sidewalk requirements, walkable downtowns and/or allow for above ground public transportation. If you improve walkability and resident access to public

transportation it has a twofold benefit: improved public health and decreased pollution emissions.

2.2.2 Walkability

Zoning laws are one of the diverse land use policies currently being used in states across the country. While all states take different approaches to zoning due to geographic differences, many states choose to include walkability as a part of their zoning reforms such as Somerville, Massachusetts. In 2007 Somerville took action to improve the town's walkability by installing stripes on sidewalks to improve visibility, distributing "Safe Routes to School" maps, along with other methods (Boyle and Lehman 13). Walkability is one way for cities to combat automobile dependency. Walkable cities tend to have high residential densities combined with mixed-use areas, public space additions, organized streets and trails, and many more (Walkable Communities).

In 2013, the mayor of Annapolis, Maryland began to push for increased walkability for the city by promoting its "Walk Annapolis" campaign ("Serving the Business" 2013). The goal of the campaign is to educate the public about the ease of walking to and from Annapolis' five major business districts. In Figure 2 below, pathways are marked to show the general public the best ways to get around the city. The figures main goal is to educate the public on the ease of walking in hopes that less people use automobiles as a means of transportation ("Serving the Business" 2013). With an increase in walkability and decrease in the use of automobiles, the city can lower carbon emissions and noise pollution, and increase the public health of city residents. These diverse business districts have many different stores and allows for residents to take care of all their shopping needs without returning to their car. This represents how a mixed-use area can contribute to high walkability ("Serving the Business" 2013).

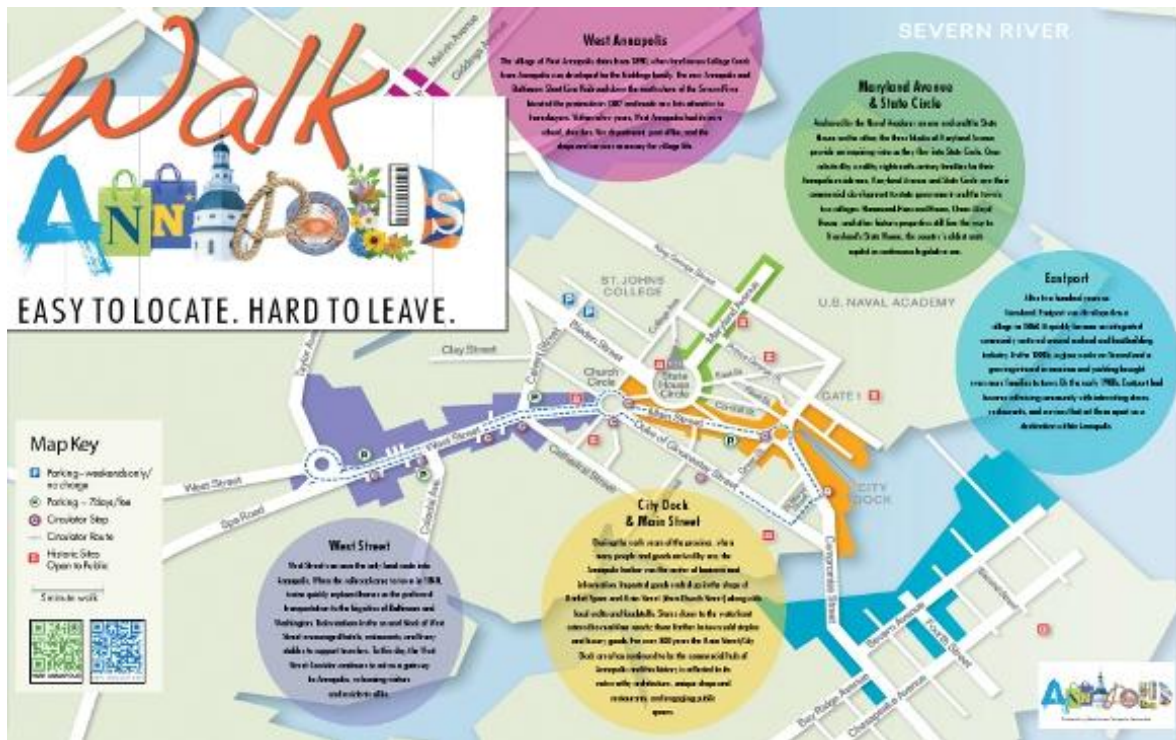


Figure 2 Map of walking routes in Annapolis, MD
<http://mainstreetsannapolis.org/>

Public space plays a large role in the overall walkability of a city. According to Walkable Communities Inc., the most walkable neighborhoods have a usable public space within 1/8 of a mile of housing clusters (Walkable Communities 2013). The city of Savannah, Georgia is a prime example of deliberate land use planning that positioned public space within walking distance of residential neighborhoods. Not only is Savannah’s public spaces something to be sought after, their street organization is claimed to be one of the best in the nation. According to the Philadelphia planner, Edmund Bacon, the Savannah streets are “so exalted that it remains as one of the finest diagrams for city organization and growth in existence” (Erwin 2013). In the figure below Savannah’s public spaces are marked by red circles.



Figure 3 Savannah's Public Space
<http://en.wikipedia.org/wiki/File:SquaresOfSavannah.jpg>

These public spaces are essential to the city's walkability. With an ample amount of public space it allows for residents to become less auto-dependent and promotes walking. It gives residents a place to rest during shopping or allows for residents to rest while on walks.

Walkability is an important factor to take into account when trying to reform zoning laws. High walkability scores have been linked to low obesity rates and a healthy general public (Brown, et. al, 2009). When cities go through a new zoning reform it is important that they look at including increased walkability into the law as it has important advantages to the city and its residents. Walkability is a worthwhile component of a zoning reform bill as it need not be achieved in one particular way. A walkability structure in one town may not necessarily work in a neighboring town. Municipal planners could, therefore, gear the walkability plans of their town to the particular needs of the area and its residents.

2.2.3 Public Transportation

Accessibility and usability of public transportation can also be bolstered through zoning reform. Zoning can be used to encourage citizens to utilize public transit instead of driving their own automobile across the city. This not only has a tremendous effect on the carbon footprint in a community, but also increases an individual's physical activity which in turn promotes public health. In order for public transit to be fully effective, certain concerns need to be addressed by zoning. These concerns include but are not limited to safety, distance traveled, and number of locations, all of these concerns can be taken into account when drafting new zoning laws (Active Transportation Alliance).

Safety is a large concern with public transportation. According to experts that we have contacted, if an individual does not feel safe while riding or walking to public transportation, they will refrain from using it. Funds will need to be used for the upkeep of transportation to assure safety, but zoning is an important tool that can assist in addressing safety as well. Zoning can be used to determine where to place public transit locations. By inserting these locations in safe, friendly areas this will increase safety of citizens who are waiting for the public transportation.

Decreasing the amount of distance an individual needs to travel to get from their house to a transportation facility will encourage walking or biking to get there and will decrease the use of their automobile. Decreasing the distance from the transit to an individual's destination will also encourage the use of public transportation (Active Transportation Alliance). A citizen would be more likely to use public transit if was located in close proximity to their home and if the drop-off locations are close to their destination.

Another way to decrease distance a traveler would need to walk is to address the second concern, adequate number of pickup and drop-off locations. By increasing the number of locations, more people may be more willing to use public transit since that would decrease the distance to travel time to their destination (Active Transportation Alliance). More public transit locations will increase residents' accessibility to public transit while subsequently encouraging its use. The more people that utilize public transit will decrease their personal automobile use, decreasing traffic. Plantation, Florida, a city located near Fort Lauderdale, Florida, created a bus service known as the Plantation Tram that connects to the Broward County Transit. This bus

service is free of charge and has 29 stops that include Plantation City Hall, malls, and community centers. This service attracted more residents to utilize public transportation since more stops were offered around the city making access to public transportation easier (City of Plantation, Florida 2009).

Benefits of increased public transit use include reduced carbon footprint and gasoline consumption while increasing job opportunities for citizens. According to the American Public Transportation Association, communities that have public transportation ultimately are able to reduce carbon emissions by up to 37 million metric tons per year (American Public Transportation Association 2013). Also, gasoline consumption is vastly reduced through the use of public transportation. Nationally, the United States saves over 4.2 billion gallons of gasoline per year as a result of public transportation. Another incentive for communities to invest in public transportation is that for every one billion dollars spent on public transportation approximately 36,000 jobs are generated (American Public Transportation Association 2013).

Walkability and public transportation are only two aspects of zoning that can be used to help improve the quality of life for residents. Another aspect often included in zoning reforms is smart growth. There is not a set definition for smart growth and the number of ways it can be used are endless. In the following section, smart growth and its benefits are explained.

2.2.4 Smart Growth

“Smart growth is a better way to build and maintain our towns and cities. Smart growth means building urban, suburban and rural communities with housing and transportation near jobs, shops and schools”(Smart Growth Alliance 2010). Zoning reform can facilitate smart growth, also known as, creating livable cities. By planning development with attention paid to the location of schools, shopping, and employment opportunities, municipalities can reduce pollution, increase public health, and promote a sense of community since everyone will be in one area. A healthier community is a happier community.

2.2.5 Mixed Use Areas

Smart Growth promotes healthy and diverse communities, protects critical environmental resources and working landscapes, advocates for housing and transportation choices, and

supports equitable community development and urban reinvestment. Mixed use areas improve Smart Growth and the term ‘mixed-use’ is consistently mentioned when dealing with zoning reform. Mixed use development allows for various positive uses by citizens and can improve urban landscapes (Massachusetts Smart Growth Alliance).

Mixed-use zoning blends a variety of land uses together in one area. Single-family detached homes of various sizes, townhouses, apartments, and condos; retail stores, restaurants, and services; and civic and cultural amenities might all be located within walking distance of each other (MAPC). The extent to which land uses can or cannot be mixed within a given area is determined by the municipal zoning code. Mixed-use areas can solve problems of: traffic, public transportation issues, vacant storefronts, and better ability to walk about busy streets. In addition, mixed use areas can also contribute to land restoration, land preservation, and greener, less polluted areas.

Mixed-use developments are constructed across the United States. Baltimore, Maryland, Worcester, Massachusetts and the state of California have all made use of this land-use tool

Baltimore County has undergone a positive transformation in a movement labeled Transform Baltimore. Transform Baltimore is a city-wide effort to develop a state-of-the-art zoning code that features new and more effective zoning tools that support and guide City investment, enhances and protects neighborhood character, and guides private development (John Hopkins University). To revamp the downtown area, mixed-use developments are being implemented in the downtown section to change the urban landscape and improve transit orientation. Mixed land use (i.e. residential and commercial) is associated with increased walking and decreased obesity, but more so for higher income than lower income populations. Baltimore also implements a ‘rowhouse’ mixed-use overlay district, which allows for small-scale businesses to operate on the first floors, while above floors provide affordable housing (Kilar 2012).



Figure 4 Washington Square Worcester
<http://www.worcestermass.org/city-initiatives/washington-square-redevelopment>

On a more local note, downtown Worcester, Massachusetts, also known as Washington square, is currently remodeling part of their downtown area. The conversion of the former Washington Square rotary into a smaller roundabout has dramatically transformed the area around Union Station by creating four parcels that are significant transit-oriented development opportunities. Washington Square is one of the most important transit nodes in the Commonwealth of Massachusetts, home to Union Station—the western terminus of the Massachusetts Bay Transportation Authority’s commuter rail line—as well as a hub for both inter-and intra-city bus service (City of Worcester). This mixed-use renovation will allow for: more airy space around the downtown city green, better walk-ability amongst those who take public transportation or walk/bike to and from work, and the development of clean, small-scale business such as coffee shops, professional offices, healthy food markets etc. The overall connection between Washington Square and residential neighborhoods also improved (City of Worcester).

Smart growth has been implemented across the United States. For example, in 2008, California passed the California Sustainable Communities and Climate Protection Act. This law put California in a leadership position by creating a policy framework to advance "smart growth" principles at the regional level (Pepperdine). It was the first law to link public transportation and land planning use with climate change. This law included the development of mixed-use areas where suburban/and urban sprawl are dense, these mixed-use areas will condense commercial land use, while adding recreational land use. This reduces sprawl, decreases waste pollution, and can improve the living quality of citizens in the area (State of California).

Each municipality has a very different population, geography, and other various demographics. Mixed-use areas can be implemented in all kinds of areas to reduce sprawl and improve walkability.

3.0 Methodology

The overall goal of this project was to assist Senator Chandler's office in the passing of a statewide zoning reform bill. In our efforts to achieve this goal, we identified four main objectives:

- 1) Characterization of Proposed Zoning Reform Legislation in Massachusetts
- 2) Identify a Sample of Zoning Reforms
- 3) Identify Components of a Passable Massachusetts Zoning Reform Bill
- 4) Create a Model for Worcester, Massachusetts

In this chapter we discuss what methods we took to achieve our goal, in the first section we talk about our research into zoning and its uses in other states, in section 3.1 we will discuss how to format a piece of legislation in Massachusetts. In section 3.2 we will explain how we chose what states we researched other zoning reforms. In section 3.3 we will discuss the components that we feel should be included in Massachusetts zoning reform legislation. In the final section, 3.4 we discuss how we created a proposal for a model zoning reform for an area in Worcester.

3.1 Objective 1: Characterization of Proposed Zoning Reform Legislation in Massachusetts

Since our project was to assist the passage of a statewide zoning reform for the state of Massachusetts, our first objective was to characterize the purpose, structure, and content of previous and current zoning reform bills proposed in Massachusetts. In order to achieve this objective, we conducted research on proposed Massachusetts zoning reform legislation and interviewed relevant stakeholders. We researched previous bills and why they were unsuccessful. We created a matrix to compare all the bills currently proposed in the Massachusetts Legislature that deal with zoning reforms. In the matrix we detailed factors that would help us compare the bills and help us find similar bills in older sessions or in other states, the factors were the bill number, who filed it, where it was filed, a quick summary, key terms, and the current status of the bill. We provide a detailed version of the matrix in the Findings chapter.

Our next task was to interview stakeholders who work with zoning or planning on a daily basis. These interviews gave us insight into what these organizations are thinking and their opinions on zoning reform in Massachusetts. Throughout the term we interviewed a number of stakeholders including Eric Hove with the Metropolitan Area Planning Council (MAPC), André

Leroux who works for the Smart Growth Alliance, Tim McGourthy who is the Worcester's Chief Development Officer, John Robertson who is the director of the legislative division at the Massachusetts Municipal Association, Dr. Michael Hirsh who is the Public Health Commissioner of Worcester. We will discuss, in more detail, the content and findings of the interviews in the next chapter. For all of our interviews we chose to conduct them in the semi-structured style, we did this because it has a more relaxed atmosphere during the interview and allows the interviewee to explain their ideas more in depth to give us a better understanding of their opinions towards zoning in Massachusetts.

3.2 Objective 2: Identify a Sample of Zoning Reforms

In an effort to identify what components of a zoning reform bill would be most impactful in improving quality of life in Massachusetts, we identified a number of states to learn about the impacts of zoning reform or the impacts of an absence of zoning. With guidance from Tim Daley, Senator Chandler's Chief of Staff, we chose three states and one municipality to conduct case studies on. Tim Daley asked us to research California due to its large size and to research how zoning reforms affected a newer and developed state. Rhode Island was chosen because of the similarities to Massachusetts with regards to population density and because it is a smaller state that recently underwent zoning reform. Utah was chosen since it was a rural Midwest state that had very innovative zoning reform policies. Lastly, the city of Houston, Texas was chosen due to the fact that this is the only city in the United States with no zoning laws. When doing the research on these states we focused our attention on statewide zoning reforms that would improve the quality of life for its residents. We interviewed parties within the state who were involved in the statewide zoning reform efforts. We conducted telephone interviews with Neil Lindberg, a legal counsel in Salt Lake City, Utah and Jarod Rhodes, Rhode Island's State Planner, to discern how their zoning reforms received enough support to be passed and the impact of the reforms in the state. Our interview questions can be found in the Appendix A.

3.3 Objective 3: Identify Components of a Passable Massachusetts Zoning Reform Bill

Our third objective was to identify components of a zoning reform bill that would be most likely to pass. To do this we asked stakeholders, most of whom will be the same from

objective one, what they wanted to see happen in Massachusetts. After all these interviews were completed we pulled out commonalities from the interviews to find the components that most people want to see changed and why, from this we were able to summarize their concerns into three main topics for legislators to focus on when drafting a new zoning bill. These topics will be discussed in our findings chapter.

3.4 Objective 4: Creating a Model for Worcester, Massachusetts

Our fourth objective was to develop a model illustrating how zoning reforms might improve the quality of life in a community in Worcester. The Public Health and Prevention Trust allots approximately sixty million dollars to the state of Massachusetts to be spent on improving the public health in Massachusetts communities. As a resident and representative of Worcester, Massachusetts, Senator Harriette Chandler is interested to see a portion of this public health and prevention trust fund affect the public health in the communities of Worcester. While working with Senator Chandler, our team discussed various ways in which this money could be spent to better the public health in Worcester. We decided to create a model in a small section of Worcester that would include benefits to improve the public health of the community.

3.4.1 Model Idea

In order to develop an appropriate model for reform we first needed to identify a need for the city of Worcester, fortunately for us an assessment of the city's needs by Tim McGourthy and the Office of Economic Development and we utilized that study to decide what type of model would be best for the city. The second step we took was to find possible locations for the reform, as a group we decided that vacant buildings or lots would be the easiest to turn into a model for reasons like money and there is no need to relocate families or other residents. We got a list of vacant building from Paul Vigneau, the Assistant Commissioner of the Office of Inspectional Services, which we went through and narrowed the list down right away based on brownfields, hazardous chemical site, locations and whether the build was structurally sound and firefighters would willingly go into the building in the case of a fire. Finally with our shortened list of buildings we looked into each location more in depth to decide what type of model would be best for said location. The results of our research in Worcester will be discussed in depth in the findings chapter.

4.0 Findings

In this chapter we discuss our research findings, specifically our assessment and characterization of the current zoning reform efforts across the country. In section 4.1 we present our findings on the purpose, structure, and content of zoning reforms in Massachusetts including the key aspects of the proposed zoning reform bills that were not passed. In section 4.2 we discuss zoning reforms, or lack thereof, and their impacts throughout the country. In this section we focus specifically on the city of Houston, Texas and the states of Utah, Rhode Island, and California. Finally, in section 4.3 we discuss our findings for developing a zoning reform model to facilitate the improvement of public health in the city of Worcester, Massachusetts.

4.1 Zoning Reform in Massachusetts

A number of Massachusetts Senators and Representatives have proposed zoning reform bills in the 188th session of the Massachusetts Legislature. These zoning reform bills cover all parts of the spectrum from solar farms and sustainable communities to medical marijuana dispensaries and protecting historic buildings. Then there are smaller ones that deal with specific communities or areas of the state, there are currently 63 bills in the 188th session that have to deal with zoning. Table 1 below breaks down the various based on enumerated criteria, these criteria are the bill number, title, whether the bill was filed in the house or the senate, the bill's primary sponsor(s), when the bill was filed, a quick summary of the bill, key terms, and its current status in the legislature. These factors helped to streamline the research process in other states; breaking the bills down into many factors helped to give us a starting point to understand the types of bills that have been introduced and what has become of them. The first six columns provide us with basic information, while the last two columns give us more detailed information concerning the bill and offers insight as to why the bill may have died. Figure 5 is one example from the entire table used for this research, another photo of the figure can be found in the appendices with more examples from the entire table used.

Bill	Title	House/ Senate	Primary Sponsor	Date Filed	Summary	Key Terms	Bill Status
Bill S. 1793	An Act relative to fairness and equity in regional transportation planning	Senate	Karen E. Spilka (D)	1/24/2011	To better coordinate public transportation, the Secretary of Housing and Economic Development and the Secretary of Transportation will develop mechanisms for sub-regional and joint transportation planning by metropolitan planning organizations to expand and improve public transportation.	Public Transport ation, Metropolit an planning organizati ons, municipali tes, economic growth	Sent to Study

Figure 5 Massachusetts Bill Matrix

From this matrix we found that a lot of these bills were introduced in a previous session or had similar components like both S.68/H.3901 “Active Streets” and S.1646/HD.3119 “Transportation Investment Act” both deal with transportation and have sections that look to improve walkability and bicycling. S.1646 “The secretary of transportation shall be mandated with all powers, authority and resources to ensure that the share of travel in the commonwealth by bicycling, transit, and walking is tripled across the state by January 1, 2030 with programs implemented in every region.” (masenate.gov) and S.68 looks to “set a municipal goal for an increased mode share for walking, cycling, and public transportation where applicable to be met within five years and develop a program to reach that goal” (masenate.gov). So whether it’s 5 years or 15 both bills have language that requires the state/municipalities to improve the public transportation and make it easier to bike and walk places.

We also found that some of these proposed bills get bounced around from committee to committee and do not move from there and essentially die there until someone re-files the bill. For example S.1043 (2011-12) was referred to the committee on Municipalities and Regional Government then to the committee on Housing before a hearing was finally scheduled and then sent to a “study” which is where it will stay until forgotten.

4.1.1 Stakeholder Opinion

The team conducted multiple interviews with land-use planning experts. We used these interviews to try and gauge what stakeholders believe are the problems with current Massachusetts zoning laws, what are some problems that restrict current bills from passing, and what zoning reforms these stakeholders would be willing to support. Through our research we interviewed people from the Massachusetts Municipal Association, the Massachusetts Smart Growth Alliance, the Metropolitan Area Planning Council, and many officials from the city of Worcester. Despite the large amounts of information we were able to find connections and similarities among the interview responses. From the interview we deduced three common themes: (1) a lack of knowledge among legislators and the public, (2) agreement that zoning laws in Massachusetts are outdated and (3) a need for more efficient way to conduct zoning on the local level.

Lack of Knowledge of the Importance of Zoning

From our findings, many experts in the field believe that a new statewide zoning reform may not have much support right now because many people do not understand what exactly it is or what it can accomplish. Many city and town planners do not have the necessary time to review the zoning bills that would have an effect on their community, causing a possible lack of support for the bills in legislature. However, a city planner's lack of knowledge is not the only problem; a resident's lack of knowledge is also a problem. Zoning would affect all the residents of Massachusetts and it is important that they know what it is. If they understand its purpose then there may be added support for the bill. It is also the lack of knowledge and communication between the legislators, western Massachusetts is completely different from eastern Massachusetts in every aspect so legislators from western Massachusetts might be hesitant to vote yes on a bill if they don't know the benefits or how it would benefit their district.

Agreement on the Need to Reform Massachusetts Zoning Laws

The second commonality we found among interview responses was the need for updating the outdated statewide zoning laws. The current zoning laws are causing more harm than good for the state and experts have begun to realize the issues that these laws are causing. John Robertson of the MMA said to us "[I]n different parts of the state particularly the central and western parts of the state, there are a lot of nonconforming lots where they don't meet the current

zoning requirements that are protected from those changes. They could be developed on [a] substandard road which creates public safety problems.” He explains that this is happening due to the excessive amounts of grandfathering that is part of the outdated zoning laws. It is important that experts and legislators are connecting on the fact that the current laws are outdated and that these laws are having negative effects on the public safety, health, and overall wellbeing.

Efficiency in Local Zoning

The third shared trait among many experts in the field is the need for better efficiency or streamlining the local processes in terms of rezoning or new development in a new zoning bill. Currently the process to rezone a property can be very lengthy and often the hassle is not worth the reward. A new streamlined process that is outlined in a statewide zoning reform bill could cut down on some of the problems that arise due to the long process, such as a stall in development that may inhibit things such as smart growth. A new efficient process could also encourage more zoning that would help towns and cities develop into a better place of living for its residents. In terms of the business community things need to move at a faster pace in order to meet deadlines and when businesses come in and are successful it creates an economic environment that not only provides jobs but if zoned properly could reduce sprawl and increase walking or biking.

All of our interviewees shared insight concerning zoning in the state of Massachusetts and offered suggestions that proved helpful in ascertaining what components should be included in a statewide zoning reform bill. In this section we detailed three commonalities we found among all or most of our interviews. Although these interviews gave us much information it was not our only source of information; Massachusetts is only one of fifty states in the country so we did research on zoning reforms across the country as well.

4.2 Zoning Reforms across the Country

In the following sections we discuss actions taken to reform zoning in Houston, Texas and the states of California, Rhode Island, and Utah. We analyzed the impact of a lack of zoning in the city of Houston and the impact of various zoning reforms in California, Rhode Island, and Utah. Finally at the end of the section we provide our comparative findings when looking at the differences between the four case studies.

4.2.1 Houston, Texas

Houston is the last major city in the United States that does not have any zoning laws in place (Steffy 2008). The city consists of a little over two million residents that are spread out over an area of just under 600 square miles.). Many problems have arisen due to the fact the Houston lacks any real zoning laws. Houston has suffered from extreme sprawl, an excess of empty space, and time wasted in traffic, all due to the cities lack of zoning laws (Lewyn 2003).

The city of Houston has excessive parking requirements when compared to other cities such as Portland Oregon, a leader in land use planning. These prodigal parking requirements are just one of the reasons the city faces unmitigated sprawl. For example, Houston's minimum parking requirements for a high school is nine and a half parking spaces for every classroom, whereas in Portland, Oregon its only seven required spaces per classroom. Bars in Houston are required 10 parking spaces for every 1000 feet of gross floor area, about one parking space for every 100 square feet (City of Houston). In Portland, the minimum requirement for bars is one parking space for every 250 square feet (Portland). Figure 1, provided below, maps out all the parking in a section of Houston. This area is about 1.33 miles by 1.5 miles. Red indicates surface parking, yellow marks above ground parking garages, and green represents open space. The exorbitant amount of parking in Houston promotes drivability in the city and decreases walkability. As mention in our background section walkability is an important factor that needs to be considered in city design for the greatest quality of life and an increase in the general public health. This is just one of the problems the city faces with its lack of land use and zoning laws.



Figure 6 Houston Parking Map
<http://forum.skyscraperpage.com/showthread.php?t=191539>

The second major problem in the city that has arisen from lack of zoning is voids in the city. According to Susan Rogers, a faculty member at the University of Houston College of Architecture, 25% of the city is vacant (Oliver 2011). Houston is about 600 square miles in area, 25% of the city or about 150 square miles, is unused land. The voids found within the city are, in part, caused by a lack of strategic land-use planning, a problem that comes about with no zoning laws. These vacant plots of land could be used to improve the quality of life of Houston's residents. With a set of zoning laws in place these barren plots of land could be avoided. These vacant plots have been shown to lower property values in areas and cause cities to lose out on millions of dollars (Texas 2010). These buildings could be put to use if zoning laws were enacted. These parcels could be used to address the needs of an area, improving the quality of life for the city, and also a new use for these plots of land could improve the overall value of the surrounding area.

The third major problem plaguing Houston due to no zoning laws is transportation. One of the keys to a successful city is a superior means of transit (Kurtzleben 2011); whether that be improving walkability, public transportation, or making the roadways less congested for commuters. Houston's poor scores concerning walkability may be contributed to their wide roads, large intersections and lack of sidewalks that prove dangerous for pedestrians (Walk

2013). Another reason for the poor transportation are the multiple downtowns created because there are no zoning laws in place. These multiple downtowns create a nightmare for public transportation, instead of bringing people to one centralized location they must now travel to five different centers across the city (Gattis 2013).

Houstonians must now live with many problems that could be addressed by zoning. As a group we believe that walkability and public transportation have an impact on the quality of life of a city. According to studies, Houston has a relatively high quality of life (Wooten 2011). We, as a group, believe a zoning reform for the city could improve certain aspects that we believe affect a city's quality of life. In the following sections we introduce three states that have made statewide zoning changes and the impact of those efforts. Problems have arisen in Houston and many states have used zoning to take a proactive approach so that they do not suffer from the same problems. Utah, Rhode Island, and California are all examples discussed in the next section.

4.2.2 Utah, Rhode Island, and California

Utah, Rhode Island, and California may not seem like they have much in common, they are scattered across the country, vary in population size and land area, but there is a common connection, zoning. All three of these states have enacted state wide zoning laws or are in the process of trying to pass a statewide zoning reform. In this section we discuss components of the states' zoning laws, below is a table to help better organize the zoning reforms.

Municipalities→ Zoning Reforms ↓	Houston, Texas	Utah	Rhode Island	California
State Wide Zoning		X	X	X
Public Transportation				X
Walkability				
Mixed-Use				X
Smart Growth		X	X	X
Affordable Housing		X		X

* **X** indicates that measures have been taken to include the corresponding components in zoning reform laws

Table 1 Comparing Zoning across the Country

The first notable point is that Utah, Rhode Island and California have all passed statewide zoning laws, which is Massachusetts’ overarching goal. From speaking to land-use planners and relevant stakeholders for zoning reforms within the state of Massachusetts having everyone on the same page is an important part of successful zoning. Utah and Rhode Island’s state wide zoning laws consist of setting guidelines for every municipality in the state. Each city or town can abide by these parameters on their own terms, which is convenient because zoning can be addressed through so many strategies, there are no set guidelines as to how to zone. California’s state wide zoning plan does not give each municipality the power to set up their own zoning laws, they must abide by the laws set up by the state. As a project team we believe that this is also related as to how each state defines ‘Zoning’. Utah and Rhode Island have very loose definitions of zoning, this allows for municipalities to interpret the laws and make zoning changes that work best there town’s specific needs. After speaking with city planners from both states, it appears that municipalities have taken responsibility in creating new zoning laws and have also gone above and beyond the requirements set by the state. City planners from Utah and Rhode Island both believe their respective zoning reforms to be successes for their states. For example, the town of Middletown, Rhode Island has decided to completely renovate their downtown area to abide by the new zoning laws. They plan on making use of mixed use areas and increasing the town’s walkability.

- A** Create a municipal zone with a town common
- B** Expanded "town common" with additional landscaping and parking
- C** Orient buildings towards West Main Road
- D** Lining the "internal street" with buildings
- E** Place parking at the rear of buildings
- F** Multi-story buildings with retail at ground floor
- G** Enhanced landscaping along Coddington
- H** Future roundabout (alternatives)
- I** Multifamily residential

Potential Program*		
Civic	50,000 S.F.	
Retail	80,000 S.F.	
Office	45,000 S.F.	
Residential	175 Units	

Note: Uses shown are approximate
 *Does not include "Long Term" uses shown on the East Side of West Main Road



Source: Town of Middletown, CT



Figure 7 Middletown's proposed plan for downtown area

Utah and Rhode Island's definitions of zoning allow for many strategies to be taken. This may lead to many different approaches regarding zoning between municipalities but it also keeps many city and town planners content.

The next common link tying these states together is their use of smart growth in zoning reforms. Smart growth can be used to accomplish many different things, it can be used to create affordable housing, increase walkability, and promote mixed-use land planning. It is important to note that the Rhode Island and Utah law does not require smart growth, it is merely encouraged. Unlike Rhode Island and Utah, California mandates smart growth. All three of the states we researched make sure to implement smart growth in some way. The great thing about smart growth is how much it can accomplish, possibly why it is so popular in Utah and Rhode Island. Municipalities may be more inclined to use smart growth due to its versatility and making it easier for towns and cities to abide by the parameters set by the state. For example, in Rhode Island and Utah smart growth is often used to help foster future development of towns and cities

and to promote mixed use areas. In Utah and California smart growth is used to help promote public transportation and cut down on carbon emissions.

As stated earlier in the section it is clear Houston must now live with problems that may have been solved through zoning laws. Sprawl, voids throughout the city, and traffic are problems that have the potential to be solved purely through smart growth and mixed-use land planning. A smart growth plan could create building plans for the vacant plots of land in the city and then turn them into mixed-use areas. In the one space you could combine living, shops, and food, increasing the city's walkability. Residents wouldn't need to take a car or public transportation to obtain any essentials. It would combine all the necessary essentials in one area cutting down on sprawl and the new use for the vacant parcel now rids the city of its voids.

Zoning has great potential and can solve many states' problems. The two greatest setbacks or negatives to zoning are that there is no cookie-cutter style to zoning it's different for each state, city, and town. While some look at this as a possible negative many also look at it as to why zoning is great. It often allows for interpretation and has the possibility to solve many problems because of the various ways it can be used for varying geographies, populations, and problems. The second is that it may be costly to states and their municipalities. While there may not be a guide for zoning reform, there are many examples of successful reforms that states can use to take pieces from different reforms to fit their own need. While some may argue that zoning is not worth the cost to put it into action, they may be surprised. Zoning can often make use of currently unused parcels of land or abandoned buildings that will cost little extra money and over the long run, it can generate more money than it will have cost to put it into action. After looking at the problems caused from lack of zoning and some of the advantages that have come from having zoning reform laws in place, we believe that Massachusetts needs to pass a state wide zoning reform law.

In the following chapter we will detail our recommendations on components of a passable zoning reform. Those favorable components include, a more streamlined rezoning process throughout the state, a law that allows towns and municipalities room for interpretation for different ways of using zoning, a focus on walkability, public transportation, affordable housing, and others components that will be described in the recommendations chapter.

4.3 Zoning Reform Model for the City of Worcester, Massachusetts

Through Senator Chandler, our project group was made aware of a Prevention and Public Health fund that contained sixty million dollars that could be used on projects throughout the state that had the state's public health in mind. We decided to develop a model that uses components of possible zoning reform to help improve the public's health and well-being. Using the city of Worcester as a laboratory, we have created a zoning reform model that, if instituted, could address walkability, healthy food options, affordable housing, and mixed use. We aim for this model to be something that is repeatable no matter the state, city or town.

4.3.1 Community Need

First, our team came up with several different ideas for the model, narrowing our widespread ideas down to three: creating a mixed use development using a group of abandoned buildings; transforming an abandoned parking lot into a green space; and opening an after school center for underprivileged youth. The Executive Office of Economic Development in Worcester created a community needs survey which was completed by 456 residents of Worcester in the fall of 2012. According to the survey, 30.3% of participants believe the top service needed for children was more after-school programs or activities (City of Worcester, MA). By creating another after-school program in Worcester, many of the residents would be satisfied according to the survey. Another issue in Worcester, Massachusetts, is a current health crisis where hunger is 6 times the state average of 2% (Worcester Advisory Food Policy Council). By opening a grocery store in an area where there is a lack of healthy food will increase the availability to access of healthy food for those who are currently unable to. The last option of creating a green space would help to not only increase walkability by creating a place residents would prefer to walk by and visit, but it also would be a small step towards the decline of carbon emissions in Massachusetts. Currently Massachusetts is ranked 25th in the country for carbon emissions with over 87 million tons of Carbon Dioxide emitted per year (eRedux Renewable Energy).

Each option for the model in Worcester contained various benefits and advantages to the Worcester communities. To get a better understanding of the city of Worcester's most pressing community's needs we interviewed Dr. Michael Hirsch, Acting Commission of the Worcester Public Health Division. During the interview with Dr. Hirsh, we learned about communities with the poorest health, which correlated with lowest income neighborhoods in the city. The

Massachusetts Department of Public Health established the Community Health Network Area (CHNA) in 1992 which is a group of municipalities in Massachusetts that work together to improve the public health in that designated area. The CHNA that was established which includes Worcester is known as Common Pathways. Common Pathways sent out a questionnaire to high school students as part of an assessment to examine the health choices made by current high school students and to determine how at risk these students were for preventable diseases. Shockingly, over 25% of the graduating seniors in 2012 were obese. In addition, the survey also revealed over 5% of the seniors have tried heroin at least once before graduating. Digging deeper into the problems, Dr. Hirsh and the Public Health Committee of Worcester held many public forums so that they could talk with residents of Worcester regarding these staggering statistics. These findings show the poor choices children are making currently, which will most likely lead to bad subsequent choices later in life. Dr. Hirsh believes that zoning could serve as an important catalyst to improve the health of Worcester residents. Many Worcester residents view the city as dangerous, and consequently, many parents are reluctant to send their children out to play unless they are being supervised. Additionally, parts of Worcester do not have adequate safety such as wide and safe sidewalks or bike lanes; therefore, it is hard for children to get out and exercise to stay healthy. In addition, a lot of the infrastructure of Worcester is timeworn and unsafe.

During the interview with Dr. Hirsh, he told us of his latest project in Vernon Hill, a neighborhood in Worcester, where an urban renewal project is being accomplished. Small food establishments are encouraged to move in to this area, but unfortunately there are a lot of vacant lots and abandoned buildings that are currently standing in the way. Many of these buildings and lots are on what are called brownfields, or land with hazardous material in it. These lots are extremely expensive to clean up and according to Tim McGourthy, many businesses do not want to pay for the clean-up themselves since it is millions of dollars which most start-up businesses do not have. Brownfields have been a huge obstacle for us in determining a building to use for our model. We would like to cut down on the costs for creating a model in Worcester to help keep the incentive high. While many would like to see improvements made to the city, high costs would lessen the interest.

During interviews with Tim McGourthy and Dr. Hirsh, both experts agreed that the best model that we had brought to them was the healthy food store. Many low-income neighborhoods are unable to access these healthy options putting them at a large disadvantage. By establishing a

local healthy foods store in these low-income neighborhoods, the residents will have easier access to healthy food and many will be able to walk to the store without the need to drive.

To bolster our findings on the needs of the city, we consulted another study conducted by the city. According to a study done by the Executive Office of Economic Development, some of the most important issues concerning Worcester are lack of affordable housing and afterschool programs for the youth, inadequate public transportation, and an excess of abandoned buildings (Community Needs 2013). In the model we created, we tried to incorporate as many needs as possible. For example, making sure to use abandoned or vacant commercial buildings to try and address other needs of the city. This will ensure the model addresses at least two needs of the Worcester community.

4.3.2 Model Location

To choose the building or lot to implement our model, we first needed to focus on which community to look at. To do this we decided to locate five of the lowest income communities in Worcester. We chose to make these five neighborhoods our focal communities in order to target the areas that have a lack of grocery stores, green areas and after-school programs.

We found the neighborhoods by referencing a previous Worcester Polytechnic Institute Interactive Qualifying Project written by Michael Bowen, Kathlyn Hodge, David Ilacqua, and Margaret McDonough. They determined which communities were considered low income by gathering the 5 communities with the greatest percentage of residents earning less than \$30,000 per year. As seen in table 1, the five poorest neighborhoods in Worcester, Massachusetts are Piedmont, Main South, Belmont Hill, Oak Hill, and Quinsigamond Village.

Table 2: Percentage Values for the Five Local Neighborhoods	
Neighborhood	% with Annual Household Income < \$30,000/year
Piedmont	71%
Main South	61%
Belmont Hill	53%
Oak Hill	37%
Quinsigamond Village	36%

Table 2 The financial percentage values for the five focal neighborhoods (Bowen, Hodge, Ilacqua, McDonough, 2012)

Once the communities were identified, we then focused on finding the abandoned buildings and lots in Worcester and then determined which ones were located in these low-income communities. We contacted a city inspector in Worcester to gather a list of abandoned buildings in order to determine what buildings are available, and with his assistance we were able to locate a few possible buildings that would be possibilities to use for our model. We narrowed our choices down to three possible locations, two of which are vacant commercial buildings and one vacant parcel of land. When choosing a location we disregarded brownfield sites and also unstable buildings. We disregarded brownfields due to the added cost that would be involved in the required cleanup of the area, although it is important to note that grants can be allotted to the cleaning up of a brownfield. In the end all three of our locations are on Chandler Street, most of which is located within a food desert.

4.3.3 Final Locations for Worcester Model

As stated in section 4.3.2 we were able to finalize our locations for the model to three final locations. Each of which can be used to address the needs of the Worcester community. The first location is 128 Chandler St. it is an imposing four story brick building as illustrated in the pictures below.



Figure 8: 128 Chandler Street

Due to its large size we believe the building's optimal use would be for a mixed use area. The first floor could be used for a healthy foods market while the top three floors could be renovated into affordable housing. This would cut down on the need for residents in the top three floors to drive to have access to food options. This would ultimately cut down on carbon emissions.

The second location we believe would best suit the needs of the community is 418 Chandler Street. This building's prior use was as a laundromat. We believe this building would be well suited as a healthy food market. The address is right on the edge of a food desert and with previous power requirements that were needed for the laundromat we believe there would be little needed re-wiring for cooling and refrigeration units. We see both of these reasons as qualifiers as to why this address would make a successful location for a healthy foods market. In the picture located below you can also see there is space above the ground floor. We believe this space could be turned into housing for the owner of the market if one was to be placed on the ground floor. It should be noted that if there were hazardous air pollutants due to previous dry cleaning services, actions to should be taken to ensure all pollutants are removed before the building is put back into use.



Figure 9 418 Chandler Street

The third and final location we identified is unlike the first two, it is an unused parcel of land. This allows for it to address any issues with the surrounding area. A possible suggestion that we believe could be successful in the area is a possible afterschool program could be constructed on the plot of land. Two plots over is the Worcester Youth Center (WYC), we believe in collaboration with the WYC it would be a great success for children in the area. With the plot of land completely vacant, it allows for a building to be constructed to address the specific needs of the area. The figure located below is the vacant plot, it is about 1600 square feet and located at 326 Chandler St.



Figure 10 326 Chandler Street

4.3.4 Model Proposal

Once our team had finalized the decision regarding the model idea, we then set up a blueprint of the area in preparation for the proposal. In preparation for our proposal to Senator

Chandler and the Public Health Caucus, we organized what information we would present and how. We used a two sided poster, one side showing Massachusetts and the problems that have arose in the past few decades regarding obesity, and the other side explaining our model and how it would benefit Worcester. Lastly, before we presented we had researched in depth anything that could go wrong with our model in advance so that we would be well prepared for any and all questions that would be asked during the presentation.

4.3.5 Possible Problems

As a group we understand that there may be problems that arise with creating a new model like this in some towns and cities. The main problem that could arise is cost. For example, building an entirely new building for the plot of land at 326 Chandler St. could lead to an expensive proposed model. However, there are solutions; we suggest for all towns and cities that after identifying a location, time is taken to look into available funding. For example, projects like these that could have an effect on the public's health, then there is the possibility that it will qualify for funding from the sixty million dollars in the state's Prevention and Public Health Fund. Also in Worcester, there are grants that can be given for cleaning up brownfields. We disregarded brownfields in our search but if a site chosen did happen to fall upon a brownfield site, then there is possible funding that can help cut down on the overall cost. We believe that while some costs to renovate buildings may be immense, there are many opportunities throughout communities to help cut down on the overall cost of a model like this.

5.0 Conclusions

The state of Massachusetts would greatly benefit from new zoning laws. Since Massachusetts zoning laws are so out of date, it is important for Massachusetts as a whole to fully grasp the benefits zoning can bring to the table. Planning Associations such as the Massachusetts Municipal Association (MMA), Metropolitan Area Planning Council (MAPC), Massachusetts Smart Growth Alliance, among others, and economic developers agree that zoning laws in Massachusetts are incredibly obsolete. In addition to obsolete zoning laws, members from these associations also agree that there is a lack of education on zoning, from citizens to law makers. This lack of knowledge has contributed to the roadblocks in passing zoning reform legislation. The only people with significant knowledge on zoning matters are people that deal with land-use issues every day. While these people have endless knowledge, the majority of people living in Massachusetts do not even understand that zoning can be used as a tool to improve public health, quality of life, improve public transportation services, and also save the environment from harmful pollution and waste. It is our belief if the public, law makers, and stakeholders involved in zoning reform were better educated, zoning reform could be more easily achieved. If stakeholders and developers want zoning reform, they will reach out to representatives in support of reform of Massachusetts obsolete zoning laws.

Massachusetts is not the first state to try and unify zoning under a statewide umbrella; states such as Rhode Island and California have attempted statewide zoning reforms. Rhode Island succeeded in this and the municipalities in Rhode Island each have to create their own comprehensive plans and submit them to the state so the state can review them and make sure they comply with the state's zoning requirements and overall goal. California also had success with the passage of the Sustainable Communities and Climate Protection Act of 2008, it's the first state-wide bill to entail land use, public transportation, all while concentrating on lowering vehicle emissions. The size of states and the different demographics all states have, present unique obstacles for each state. We reviewed bills from Rhode Island, California, Utah, and Texas and saw that some, but not all, bills could be beneficial for Massachusetts. Lawmakers for zoning reform should study bills in other states and follow their lead by taking actions that would improve Massachusetts. After attending a public health caucus at the statehouse in Boston, it is clear that public transportation in the western part of the state is abysmal and transit authorities must be extended to all parts of the state. This is an example of an issue that statewide zoning

reform could help solve, more transportation leads to easier access to healthy foods, healthcare, schools, jobs, etc.

The most helpful way Massachusetts could start to go about zoning reform is to follow what other states have done and see how zoning has helped and ask the questions, what areas were improved by zoning, how and why? That being said, achieving a Worcester Model that other cities, or even other areas in Worcester, can use as a springboard could prove beneficial to communities and developers. The change we hope our model brings can influence surrounding areas and towns and create a snowball effect.

5.1 Recommendations

We offer Senator Chandler and her team the following recommendations on crucial elements of a passable zoning reform bill and methods for developing a mixed use model that addresses a community's needs.

After interviews and research our group narrowed down the essential components of a zoning reform bill to three parts. These include public transportation, walkability, and affordable housing. If the bill includes these three elements, we believe the stakeholders will show the greatest support. The term 'smart growth' should be specifically defined in the bill. Smart growth is a loosely defined term that may be open to a wide variety of interpretation. Defining certain elements of smart growth in a state-wide bill will prove more beneficial in implementation of the bill.

We recommend that the bill not be loosely defined, but allow for some variability in municipalities' interpretation of the bill. This is beneficial to the municipalities to be able to use the bill in the way that would be most effective in their communities since Massachusetts municipalities differ vastly, especially when comparing the western and eastern parts of the state. Overall the zoning process needs to be made more efficient. Implementing a system for getting zoning bills compiled and sent to legislature would be ideal. Also preventing various bills from dying in legislature, like most zoning bills have done in the past, would require for legislation to formally agree on aspects of the bill. We feel that if the aspects in the bill are agreed upon, the efficiency of bills to process would vastly improve. The process conformity would make it easier for developers to understand the process in each unique municipality and make necessary and

useful changes. Currently the process of zoning and rezoning is a long, drawn-out process that has many overlapping steps to be approved. By making this process more efficient, results would be seen in the municipalities sooner and reduce the ‘red tape’ that is currently set. We have found these elements in Massachusetts bills as well as other states. Although the MMA is a strong lobbying force in Massachusetts, they are not the overriding force when it comes to zoning reform passage. However, we feel it is important to keep their needs in mind and allow them a voice at the negotiation table seeing as they do represent all 351 municipalities in Massachusetts.

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Appendix A – Sample Questions for Other States

These questions provided a baseline to start at, they were edited and tailored dependent on the state.

1. Does your state currently have statewide zoning reform laws? (If no start at question 10)
2. If yes, what year were these laws passed?
3. What were the major benefits of the passage of these laws?
4. We have defined improving the quality of life as improving public transportation, increasing walkability, increasing the amount of affordable housing, and improving public health. Do you feel as though these laws have improved the quality of life of the citizens?
5. Were there any negative effects from the passage of these laws?
6. Was there great support for these laws to be passed by legislators or organizations?
7. Was there great opposition from various organizations or legislators?
8. If any organizations were extremely for or against zoning reforms, what were these organizations?
9. Of the organizations that were opposed to zoning reform laws, what actions convinced these organizations to support the zoning reform laws, if any?
10. Were there any attempts to pass statewide zoning laws in your state? If so when?
11. Were there any organizations that helped or hindered this progress, if so, what were they?
12. We have defined improving the quality of life as improving public transportation, increasing walkability, increasing the amount of affordable housing, and improving public health. Do you feel as though zoning could affect the quality of life of the citizens? If yes, how so?
13. Do you feel as though statewide zoning laws would be beneficial or detrimental to your state and why?

Appendix B - Interview Transcripts and Minutes

Tim McGourthy

Personal information

- Has been the CDO for just over 2 years but has been working with the city of Worcester for about 7 years
- Responsibilities in Boston were basically the same as his responsibilities in Worcester, he just over sees more parts in Worcester

Worcester Development

- Believes Worcester is on the right track towards healthy development, it is going to be a long process though
- Biggest obstacle to development is balancing the cost to develop and the return
 - One problem is that Worcester competes with Boston and other government centers for labor
 - Income values aren't high enough to renovate some of the older buildings in the city
- Worcester has unique characteristics that help
 - Location, center of Massachusetts
 - Commuter rail, and freight (CSX)
 - Colleges and Universities
 - Old factory buildings, can be positive and negative
 - Brownfields
- Brownfields
 - Major problem
 - Cost millions of dollars to clean up
- Boston is excluded from 40A the state wide zoning process
 - It has its own pressures and needs
 - Believes that Worcester should be excluded from 40A aswell
 - In Boston only the BRA can propose a zoning change, whereas in Worcester anyone that owns property can
- Believes there needs to be state wide zoning changes
 - Focus should be on creating high density areas that focus on public transit and eliminate parking requirement
 - States should set more strict rules for cities and towns
- Worcester is making progress approved a bill in the last month that focuses on improving the pedestrian environment
 - Walk city square
- Downtown is now connected to the train station
 - Make downtown more walkable
- Re-doing main street & franklin street
 - Believes many roads are too wide such as pleasant street
 - Creates dangers for pedestrians
- Parking requirements in the city are a problem
 - The promote driving and demote walking

Worcester Model

- Demand for Healthy Foods

- People have asked for Whole Foods
 - Not enough profit for Whole Foods to come to Worcester
- The city's goal is to get people to work and live in Worcester
- Good location for the model would be the corner of park and chandler street
 - Vacant plot

Additional Information

- The problem doesn't lie in zoning it's the knowledge of smart growth
 - Parking requirements are a problem

André Leroux

WPI: Seeing how you are working for Massachusetts Smart Growth Alliance, what do you believe are the most important factors that contribute to smart growth and livable communities?

Andre Leroux (AL): **The things that we work on here at the alliance. Land use and transportation are very important. Local zoning is often problematic in Massachusetts. Each city or town has a different land use policy and makes it difficult to coordinate on large scale.**

WPI: Given your expertise in land use planning (Director of Planning and Policy at Lawrence CommunityWorks), how do you see zoning as a tool to improve residents' qualities of life?

AL: **Zoning ordinance is a road map to build a town. It can help make things predictable. In Lawrence we marked areas that were ripe for development. We changed zoning in a few districts to get things rolling.**

WPI: How has Massachusetts Smart Growth Alliance dealt with opposition in the past when it comes to smart growth?

AL: **We tend to work with leadership at the state house and there tends to be a better understanding of smart growth but at the local level we try to talk with more understandable terms, we try not to use lingo like smart growth and things like that. There isn't necessarily opposition rather than a lack of knowledge.**

WPI: According to the "Key Issues" page on the Environmental League of Massachusetts' webpage, "These high transportation and housing costs choke economic competitiveness and impact our quality of life." The CDC claims that housing, neighborhoods, and jobs, all qualities that can be affected by zoning and smart growth, have an impact on quality of life. How would you define the "quality of life" and how has smart growth impacted the quality of life?

AL: **The demographics of the country are changing. Consumer preferences are changing and people want to live in places where they don't need a car, where they can walk everywhere. People want physical places where they can interact. Cities and towns need to play catch up and make sure they meet the wants of the residents.**

WPI: As an expert in smart growth in Massachusetts, do you have suggestions for us as to where to focus our efforts when researching potential obstacles to the passage of a state wide zoning reform bill that encompasses smart growth?

AL: **Talk to city developers and find out what kinds of zoning reforms would be helpful to them, that would be interesting. There is also research that could be done on individual cities and towns and look at how difficult it would to change their zoning laws now.**

WPI: Have any problems arose in Massachusetts because of the lack of state wide zoning reform?

AL: **Yes, We see cities and towns over the last 20 – 30 years adopting minimum lot sizes. Huge amount of land has minimum lot size and they do this because they think it is conserving their community when in fact it has the exactly opposite effect. You are not reducing demand for housing, you're creating sprawl instead of clusters.**

WPI: We understand that you were a major part of establishing Transportation for Massachusetts... Did you face any support/opposition while setting this up? If so, by whom?

AL: the governor came out with a proposal to increase revenues to increase transportation infrastructure. The House is putting together their version for changing the transportation infrastructure. The house has more say than the governor in this matter to so there bill is very important.

WPI: The Great Neighborhoods program that you established helps local residents transform their own communities through smart growth projects... could you give us a few examples of what these projects would consist of?

AL: I'm very excited about this, I really like to see work at the local level. Projects were isolated so everyone was reinventing the wheel from town to town. We started in five communities around Boston. We didn't tell them what to do, we just try and help them. In Winchester, they have a commuter rail stop in the middle of town. You want smart growth here but there hasn't been any development because their zoning is all messed up and their permit process is a mess. A lot of the projects deal with public transportation.

WPI: We read that you led an "award-winning community revitalization effort" in Lawrence, MA... could you go into more detail and explain more about this effort and what catalysts led to the revitalization?

AL: Well there was a very large contaminated mill area that needed to be cleaned up. On the other hand there a community development organization that started in a very low income areas. And we somewhat married these two initiatives to create a downtown revitalization effort.

WPI: Do you have any suggestions of other individuals who may have experience in these zoning reforms that would be beneficial for us to speak with?

AL: It will be interesting to maybe talk to realtors in the state or developers.

WPI: Do you have any advice for us or advice that we should pass along to the Massachusetts Senators?

AL: Anything that underscores the importance of zoning reform. I think our best shot is right now in session so the more they hear about from more people in sources will be very beneficial.

WPI: Thank you very much for taking time out of your busy schedule to talk to us. If we have further questions, would you mind if we contacted you again, if so would you prefer we contact you by e-mail or phone?

AL: Either one is fine, if I don't respond quickly by email feel free to call me.

Eric Hove

WPI: We understand the MAPC is involved in smart growth and sustainability here in Mass. What do you believe are the most important factors that contribute to smart growth and sustainability?

Eric Hove (EH): I think that zoning is a critical piece of this. It tells communities, builders, and planners what can happen there. With outdated zoning laws, you get sprawl auto dependency and environment damaging growth. Transit activity and walkability are also important for smart growth. I think the last important thing is housing production, I think it has held our competitiveness back as a state. It has been historically difficult to build and we need to keep the younger generation in the state and we can accomplish it with different types of housing, such as price, location, and types of housing.

WPI: According to the Smart Growth Alliance Fact Sheet it seems you worked closely with Senator Wolf and Representative Kulik's in drafting House Bill 3216, "An Act promoting the planning and development of sustainable communities." Has the MAPC faced much opposition and if so from who?

EH: There has not been any opposition yet. There have been similar stakeholders to similar bills. But House Bill 3216 lacks support more so than it faces opposition. Stakeholders have been trying to streamline bills and pick out the most important parts. Three main interests to create a balance:

- 1) Development process needs to be more predictable, streamline, and efficient. All towns should be on the same page.
- 2) Give cities and towns the tools they need to grow in a more smart growth manner, current zoning laws hamstring towns and cities, the best practices across the country aren't allowed here. (ANR)
- 3) Producing more sustainable land use smart growth outcomes, make sure that smart growth is encouraged.

WPI: How has the MAPC dealt with the opposition in the past when it comes to smart growth?

EH: It depends on the issue in general terms its organization and education, which has been a problem for zoning. Many people don't understand what zoning is. I think you need to get your message out there to people. You won't be able to change everyone's mind though.

WPI: Have there been any organizations or government officials that have reached out to you or the MAPC in support of the bill?

EH: This bill is pretty new, everyone's focus in the state house is transportation at the moment. There is interest, but they haven't come out to endorse the bill as the "answer".

WPI: To your knowledge, was Senator Wolf and Representative Kulik's bill HD3216 modeled after any other previous reforms from other states?

EH: They have looked at a lot of other states acts, but it wasn't modeled after one state's, they took pieces from multiple states. There has been a lot of research done, but we need to specially tailor it to MA.

WPI: The Mass. Smart Growth Alliance claims that the current lack of zoning has had a negative impact on the quality of life for citizens of Massachusetts, “These high transportation and housing costs choke economic competitiveness and impact our quality of life.” The CDC claims that housing, neighborhoods, and jobs, all qualities that can be affected by zoning and smart growth, have an impact on quality of life. How would you define the “quality of life” and how has smart growth impacted the quality of life?

EH: **Quality of Life is a lot of things. One part is transportation, I walk with my daughter to school and then I take the train to work. I think you have to look at your daily life, is everything within a close range to you, can I get dinner across the street can I walk to the Laundromat? Can I do everything within walking distance? Also jobs and housing, is there safe housing and good jobs nearby? I think all of those things play a major part in Quality of Life.**

WPI: As an expert in smart growth in Massachusetts, do you have suggestions for us as to where to focus our efforts when researching potential obstacles to the passage of a state wide zoning reform bill that encompasses smart growth?

EH: **I think it would be interesting to look at the trade organizations, we have tried to find a balance between various interests. For example a municipal official will probably only be focused on the tools available for their town rather than what happens with the state. The developing communities will probably not like some of this bill such as getting rid of the ANR, but there are sections that help them out.**

WPI: Is there anyone you can think of that would be good for us to contact that would be beneficial to our research?

EH: **Kurt Gaertner, and also Jeff Lacy, he is very active in the zoning reform working group and was involved in drafting. John Robertson the MMA’s legislative director, Ben Fierro. Also Secretary Bialecky**

John Robertson

WPI: How long have you been at the MMA?

John Robertson (JR): 23 Years

WPI: As Legislative Director at the MMA, what are some of your responsibilities?

JR: I oversee the 5 member legislative division here, we are the 5 lobbyists that represent the MMA which cities and towns in the commonwealth we are membership based organization and we represent the 351 cities and towns. In the cities and towns we rep generally the municipal executives that includes mayors, selectmen, city and town managers but we also rep finance committees and city and town councilors as well.

WPI: Our sponsor has informed us that the MMA plays influential part when it comes to bills regarding zoning in the state, do you believe this is true? If so, why do you think that?

JR: yes because we do rep cities and towns and zoning is fundamental municipal responsibility our position on a bill or any part of a bill are very important to whether it passes or not

WPI: Are there other organizations or people that you believe to have a large pull on whether or not a zoning bill is passed or not?

JR: Yes, home builders association is very influential, NIOP?(commercial real estate developers) those 2 groups are very influential. I think the Mass Association of Planning Directors, there's a lot of group that are involved with this that are influential on different levels. We are up there though

WPI: Do you think the state is in need of new zoning laws? If so what do you see as the most important aspects of a Massachusetts zoning reform?

JR: Yes Massachusetts needs to overhaul their zoning and planning statutes, I think some of the things that need to be addressed are;

- 1. There are a lot of obsolete provisions that have very extensive grandfathering provisions that protect lots, lot size, and uses of lots that allow them to escape changes in zoning, that's something to be changed.**

WPI: Have you experienced or know of any problems or pitfalls that have arisen due to zoning reforms or a lack of zoning reforms in the state?

JR: Yes, there are a number of, in different parts of the state particularly the central and western parts of the state, there are a lot of nonconforming lots where they don't meet the current zoning requirements that are protected from those changes. They could be developed on substandard on substandard road which creates public safety problems.

WPI: Are they protected due to grandfathering?

JR: Yes

WPI: After interviewing Eric Hove from the MAPC and Andre Leroux from the MA Smart Growth Alliance, we have learned that some experts in the field believe a lack of knowledge about zoning is the reason no new state-wide zoning laws have been passed. Do you believe this a contributing factor? Are there any other reasons you believe a new zoning law has not been passed?

JR: I do believe that that is a contributing factor but I don't think it's a controlling factor, I think there are some provisions in there that if municipal official knew what they were they would have opposed the bill as well

WPI: Are there any bills currently trying to be passed that you would support, and if so which ones and why?

JR: Yes there is a bill filed by Rep. Stephen Kulik and Sen Dan Wolf that we participated in the development of and we viewed it as a work in progress so we are not at the point where we can fully support it yet but we are hopeful that we will be able to support some of the provisions in it, perhaps all of them if not a majority of them. We are going through the process right now of reviewing each of the provisions in detail to make sure local officials understand them so we are doing sort of an education process for our members. We are hopeful but we do view it as a work in progress and we will most likely take it into the fall before we have gone through all of the provisions

WPI: What would be your ideal zoning reform? What needs to be in the language for the MMA to support it?

JR: I'm going to speak in somewhat broad terms rather than specifics of a bill

1. It's very important to us that cities and towns have control over their local zoning, that there is not any state preemption. Now state government has all sorts of goals and objectives that it would like to see its cities and towns do relative to housing, commercial/industrial development, smart growth. It has lots of great ideas for things it would like to do and in some cases they would like to do is impose those policies that they have on the state level on local government by limiting what they can do. Retain power they already have without any state preemption.
2. Zoning decisions are critical at a local level for what they want their community to look like and how they want it to grow and judgments they make about their local economies and we want to make sure that cities and towns retain that authority and those powers aren't given away to someone else.
3. Zoning reform act – there are a lot of provisions that, because they are old or the results of bad court cases, are incredible obsolete. We need to clean up that stuff.
4. Efficiency – we need to have a more efficient way of decision making, we do understand from the perspective of the business community that they do like things to move quickly. A system that encourages a more streamline decision making process.

WPI: Is there any other information you would like to share that you believe would be helpful to us in regards to zoning reform in the state?

JR: nope we've covered a fair amount in the questions you've asked today.

WPI: If we have any further questions is it alright if we contact you? If so, which would you prefer email or phone?

JR: email is easier jrobertson@mma.org

Jared Rhodes

- What was the original aim of the zoning reform? (if he doesn't offer you much specifics, ask more targeted questions...such as)
 - Take advantage of 20 years of experience
 - It was a pretty good law before and using what they had learned in the 20 years of it being implemented that's how they overhauled the bill
 - Were you (bill supporters/sponsors) hoping the reform would improve RI residents quality of life? (If he answers yes, ask... "how?")
 - Yes/No it wasn't the main focus of the reform but they knew that it would eventually help the improve the residents quality of life
 - Were you hoping the reform would increase walkability? Access and available public transportation? Safety and coverage of bike paths?
 - That wasn't the focus
 - Were you hoping the bill would promote smart/sustainable growth? (If he answers yes, ask what he/the bill incentivizes smart growth design)
 -
- What are the most important components of the law?
 - New requirements in the state guideline that municipalities must follow
 - Climate change – when making their plans they are required to submit some sort of climate action plan on how their city/town is helping the climate change problem
 - Focus on energy use and consumption – each town is required to know what their energy use/consumption
- What would you say the primary, enforceable provisions of the law are?
 - Depends on who is doing the enforcing the municipalities do the plans so they do the majority of the enforcing within their towns/cities
- Was the aim of this law to put a majority of responsibility on the localities? If so, why? And what do you hope the municipalities will do with the requirements?
 - Yes
 - Zoning regulations reflection of the direction laid out by communities in their comprehensive plans
- After reading the RI law in depth it seems to have limited requirements.
- Why is that?
 - Were there any avid supporters or strong opposition to the original bill that caused some particular language to be deleted and new language to be added?
 - Not that he can recall
 - If you get an answer to this question, you'll want to ask who and what components they supported/were opposed to.
- Is there something in this law that you would have liked to see or something you would change?
 - It's quite clear on what's required and what
- Since its implementation have municipalities been adhering to the schedules in the "implementation program"? Have municipalities made any strides toward preservation of open space, smart growth, etc.?
 - Most definitely – 1st round of submittals for review, they are looking good they are really focusing on the energy reduction

Michael Hirsch

WPI: As the public health commissioner in Worcester, how do you think the health of Worcester residents has changed in the last few years?

Michael Hirsh (MH): In 2008, the dept. underwent budget cuts so the dept. of public health took a hit. DPH was a ‘mile wide but an inch deep’, 2009 task force chaired by the two CEOs of the two major hospitals: St. Vincent’s and UMass Memorial. They decided to regionalize, data driven, CHA (community health assessment), develop a CHIP (community health improvement plan), and to change the mindset of the general public.

WPI: What do you see as the most pressing health issues in the city?

MH: We are still in a mindset that it’s our body and we can do whatever we want with it. Unfortunately, we don’t have the money, the monetary muscle to accommodate everybody. For example, if you were to choose to be a smoker, past thought was that it wouldn’t affect me... In reality we now know, that it does affect me. You would be taking money out of the Healthcare pot that could be used for non-preventable diseases. What we need to do now is to get the public to see that your choices do in fact affect everybody else. My decisions no longer only affect me. We need people to realize that health decisions need to be made for the greatest good for the greatest number.

We have also established the CHNA (Community Health Needs Assessment) from Common Pathways. There was three parts to this assessment: Morbidity (Why citizens were admitted to the emergency room), Mortality (Cause of death of citizens), and a questionnaire focused on high school students to see how at risk these kids were for preventable diseases. From this questionnaire, we were shocked to see that 5% of the region’s graduating seniors had tried heroin by graduation. 25% of the graduating seniors were obese. These are children who have already poor health choices that will most likely only get worse as they age.

WPI: Have there been any particular strides made in the city to improve public health that you could point to?

MH: By 2020 Worcester’s goal is to be healthiest city in New England. 2012 Hirsh and team funded Health Resources and Action which is a think-tank in Cambridge. Through surveys on Facebook and Survey Monkey and town meetings, 2300 respondents yielded qualitative and quantitative data. We wanted the general public to give their input instead of us going top-down with recommendations. With this data we reorganized the Dept. of Public Health using the CHIP (Community Health) method and have focused on 5 main areas: healthy eating and active living (food and active living policy council); behavioral health(mental health substance abuse); access to primary care (oral health and teen sexual health); injury and violence prevention; and health and equities. We also have created the ‘veggie-mobile’, a vehicle that brings healthy food into low-income communities, in the past year which has been beneficial for these communities.

WPI: In your opinion, do you think zoning can be used to facilitate improved public health? If so, in what ways has zoning been used in Worcester to influence public health, if any?

MH: Zoning is a big part in improving public health. Issues include aging infrastructure, and a perception of violence in Worcester. Vernon Hill area finds they want to do an urban renewal project around Worcester Academy. Encourage small food establishment, get rid of abandoned buildings. Falls and motor vehicle crashes are top two causes of injury in Worcester.

WPI: In Worcester public health meetings, has zoning ever been proposed as a method for facilitating improved public health? If so, when, for what purpose in particular and who were the people to bring it up (citizens or organizations... if organizations, which ones)?

MH: Zoning has never been, but rather regionalization has been brought up. Since 2009, we have entered into collaborate agreements with 5 neighboring towns around Worcester: Shrewsbury, Leicester, Holden, West Boylston, and Millbury. They are all part of the Worcester Health District. We are currently negotiating with two other towns to see if they will join as well.

WPI: As part of our project, we are creating a mini-model using Worcester as laboratory to hopefully demonstrate how zoning reform could benefit public health. We have narrowed our ideas down to three: opening a healthy grocery store in a vacant building; starting an after-school program for kids in a vacant building; transforming a vacant lot into a green space or public park; Of these ideas, do you have any feedback as to which you feel is most needed in the city?

MH: Mixed use with combo of basketball court, playground, center for enough space for local seminars, a kitchen that shows how to cook healthy foods. Get data on injury prone areas and make an area diverting citizens/children from getting injured.

WPI: During our research, we have seen a correlation between low-income households and poor public health. Part of our model design process includes creating a formula for determining placement of these zoning reform ideas. We are planning on inserting our model into a low-income community since the access to grocery stores are less convenient in these areas. The communities that we are currently looking into are Quinsigamond Village, Piedmont, Main South, Belmont Hill, and Oak Hill. Which areas do you feel this model would be most beneficial?

MH: Any one of the areas would be fine. They are all ‘needy’ in terms of access to healthy foods and the perception of violence is detrimental to citizens. A lot of families are concerned with the amount of violence in their communities.

WPI: Would you be supportive of zoning reform legislation? Why or why not?

MH: My experience with zoning on a state and federal level has proved that districts and municipalities create problems for statewide reforms. If zoning were used in more indigent areas to make them more of a mixed use where the tax base was better which would then improve schools and make some of the projects happen that would be great. I am a bit suspicious of rezoning if it is just a matter of like buildings staying with like buildings.

WPI: Which components would you be willing to support (smart growth, walkability, public transportation, affordable housing, etc.)?

MH: I would be willing to support all of these, with an emphasis on walkability to improve public health.

WPI: Can you recommend other individuals whom you think would be useful for us to speak with about zoning reform for improved quality of life or using zoning to facilitate improved public health?

MH: Dean Kristen Wobbe, Jerroan Allison (UMass Medical Center), Tim McGourthy, Karen Johnson

WPI: Do you have any advice for us or advice that we should pass along to the Massachusetts Senators regarding zoning and/or public health?

MH: Focus on the 5 areas, spring time is ‘budget season’. We are trying to get more project managers for each task force. Lack of money and unfunded mandates are issues when trying to improve public health. We are trying our best to help promote citizens using parks or becoming a part of the neighborhood watch, but it is hard to get participation without any incentives. Many people say the bus system is awful and unreliable which increases the use of cars in the city. Also there are many beautiful parks in the area in which people can’t get to easily due to the lack of walkability in Worcester.

WPI: Thank you very much for taking time out of your busy schedule to talk to us. If we have further questions, would you mind if we contacted you again? If so would you prefer we contact you by e-mail or phone?

MH: Yes, feel free to contact me by either phone or e-mail.

Neil Lindberg

Jennifer Burnham (JB): Given your expertise in land use planning, how do you see zoning as a tool to improve residents' qualities of life in Utah and other states?

Neil Lindberg (NL): Well, I would say that I see it in the traditional way, I see planning and zoning as having a system so people can harmonize if possible about different views about how the land ought to be used and it provides a system for providing people the opportunity to make decisions about growth management and land uses put forth in a rational way.

JB: We have found articles detailing some municipal innovations, but few detailing statewide efforts for zoning reform. Do you have any suggestions for articles or analytic assessments of the successes and failures of zoning reform for improving sustainable/livable cities or smart growth?

NL: The Utah use statute is known as the Land Use Development and Management Act, which we refer to as LUDMA. It was revised substantially revised in the early 90's and then again substantially revised in 2005, Senate Bill 60 and that really made a number of changes in our local statute and the state law regulating planning.

JB: What were the major reasons why the Land Use Development and Management Act was passed in Utah? What were the legislators hoping to accomplish?

NL: I don't think there was any particular planning philosophy that was driving it; it was a desire to make sure the statute was not legally misleading and included all of the case law precedence over planning and it procedurally made things easier than what they previously were. For instance, similar legal topics in the statute were grouped together according to their topic. The format and organization of the statute was harmonized and made more direct rather than having similar provisions throughout the code, they are consolidated in one place. The objective was basically to make things easier, useful, and more user friendly.

JB: Which organizations and/or legislators strongly supported or were opposed zoning legislation? Why?

NL: There were mostly professional developers and citizens that weighed in their opinions at the open forum. Most people were on board to revise LUDMA, it was just how to harmonize all of the opinions.

JB: In 1991, the state legislature created modifications to the current state zoning laws in order to update the language to reflect more modern terms and to resemble the zoning language in the counties and municipalities acts. The 2005 Land Use Development and Management Act also added more definitions to that bill. Was there strong support for the changes in language and definitions to be passed? If so by whom: cities, towns, counties, other organizations?

NL: One of things that many people observed was that the planners and planning commissioners would look at the statute to determine what they could do with regard to an issue. If they found something in the statute they would follow it. The problem was the statute didn't have the recent case law precedence in there. We had a number of impacting cases for instance. Many court cases came through which led to the revision of the statute to make it more like a handbook so people could look at it and not need to approach a lawyer.

JB: The 2005 Land Use Development and Management Act was passed to give greater flexibility in the treatment of appeals and variances. Why was this thought necessary, were there issues with appeals or the appeal process? Who typically sought such variances? And what is the impact?

NL: In 2005, the planners and others of the state were having conflicts with the community due to the hot economy and building houses. The developers do not like to be delayed, to them time is money so we had a lot of concerns and lawsuits on various issues. The Utah League of Cities and Towns then organized a group known as the Land Use Task Force that was composed of representatives from cities: mainly lawyers and planners; some city managers; and property owners and developers. The purpose of this group was to provide a forum where people could get together and talk about problems to propose a solution that would then be proposed to legislation, which was pretty successful in getting a number of things passed. The Land Use Task Force is still in use today and is a very effective way for these laws to be passed since the group takes into account the professional developers, homeowners, and planners perspectives.

JB: Since these laws have been in effect for years, what is your opinion regarding the zoning laws in Utah and the effects that have resulted? What has worked well, or not so well?

NL: Well when we needed to revise the statute since its laws were out of date, we took it through the land use process stated above and worked in it for about a year. We then held an open forum, anyone who wanted to could attend, where a number people came to comment. A bill was then drafted and it was adopted.

JB: What remaining problems still need to be addressed (i.e. walkability, access to public transit, access to healthy food, affordable housing, etc.)?

NL: We did not address any policy changes, we focused on organizing the state statute to make it easier for cities and towns to make these changes by going through the process organized in the statute.

JB: Were there any specific states or laws the Utah legislation was modeled after, if any?

NL: One of the major things we looked at was the American Planning Association Smart Growth Guide Book, it does a nice job analyzing state law and statutes pointing out particular problems, and of course we relied on our own expertise and past experience with prior issues based on the cases.

JB: Do you have any suggestions of other individuals who may have experience in these zoning reforms that would be beneficial for us to speak with?

NL: I can certainly give you names and phone numbers if you want to e-mail me a more precise topic and then I can direct you on whom to talk to.

JB: Do you have any advice for us or advice that we should pass along to the Massachusetts Senators?

NL: I would suggest creating a Land Use Task Force, or a similar group, that is focused primarily on revisions of the statute. I would also suggest holding a few open forums to gather other opinions of homebuilders, professional developers and planners, and organizations.

JB: Thank you very much for taking time out of your busy schedule to talk to us. If we have further questions, would you mind if we contacted you again, if so would you prefer we contact you by e-mail or phone?

NL: Either way is fine.

Appendix C Massachusetts Bill Matrix

Bill	Title	House/ Senate	Primary Sponsor	Date Filed	Summary	Key Terms	Bill Status
Bill S. 1793	An Act relative to fairness and equity in regional transportation planning	Senate	Karen E. Spilka (D)	1/24/2011	To better coordinate public transportation, the Secretary of Housing and Economic Development and the Secretary of Transportation will develop mechanisms for sub-regional and joint transportation planning by metropolitan planning organizations to expand and improve public transportation.	Public Transportation, Metropolitan planning organizations, municipalities, economic growth	Sent to Study
Bill S.97(09), S. 74	An Act to promote livable communities and zoning reform act	Senate	Marc Pacheco (D)	1/14/09, 1/22/2013	Create planning board to create a sustainability plan that will protect resources, expand smart growth, increase affordable housing, expansion of economic development, protection of recreational spaces, maintain and improve transportation	sustainability, walkability, public transport, affordable housing, resource protection, economic growth	House concurred ; Referred to the committee on Community Development and Small Businesses in the Senate
Bill H.3575 amends H.1239 (07)	An act to encourage smart growth and housing development	House	Kevin Honan (D)	1/17/2009	Encourages development where the infrastructure already exists and not be less than 4 units per acre regardless of housing type	smart growth	senate concurred 1/2009