

# **Springfield Land Use Regulations**

## **A Public Health Perspective on the Springfield Land Use Regulations**



*A report by the Pioneer Valley Planning Commission  
November 2008*

## Executive Summary

This report presents the results of a review of the city of Springfield’s draft Zoning Ordinance and existing Subdivision regulations through the public health lens using 23 criteria incorporated in a model resolution by Massachusetts Municipal Association and the Massachusetts Association of Boards of Health to plan for a healthier future through the built environment and community design.

Zoning and Subdivision	Method
Adequately Addressed	7
Needs Improvements	4
Need Further Research	11
Not Applicable	1
<b>Total</b>	<b>23</b>

Of the 23 actions identified in the Resolution, the proposed Springfield Zoning Ordinance and existing Subdivision Rules and Regulations address seven (7) recommended actions adequately:

- Minimize land disturbance and removal of existing trees
- Maximize access from residential areas to commercial areas to increase walking, generate pedestrian activity, and reduce traffic congestion
- Minimize cul-de-sac and dead-end developments and promote grid layouts for streets.
- Decrease frontage, when the building code allows, for better emergency access and promote village living with easy walkability
- Promote residential building in areas with access to full-service grocery stores and other goods and services, especially elderly residents, who may not drive.
- Discourage construction of drive-though windows for retailers and fast food outlets near schools
- Preserve farmland, conservation land and open green space

Four (4) actions highlighted in the Resolution are addressed in the proposed Zoning Ordinance and existing Subdivision Regulations, but this analysis recommends additional work:

- Promote safe, inviting, and efficient routes and trails for walking and cycling
- Encourage Construction and maintenance of playing fields and playgrounds
- Encourage the use of pervious pavement to reduce rain puddles that are a source of mosquito breeding
- Design roads using the “Complete Streets” idea

Eleven (11) criteria were not addressed or need further research, and one (1) method did not apply. The method that did not apply required a review of Springfield’s Master Plan which is not covered within the scope of this project. The eleven criteria not addressed in the

analysis does not mean that the city is not taking action on these issues, just that they were not specifically identified in the city's zoning or subdivision regulations.

The results of the review show that Springfield is making progress in creating a healthy community through the built environment and community design, but also that there are some specific actions the city could take to make the community even healthier. The authors of this review recognize its limitations and recommend a more comprehensive assessment of all documents that regulate decisions about the built environment, combined with conversations including city staff, boards and volunteers, to gain a more thorough and comprehensive understanding of how local regulations and practices are building a healthy Springfield. Overall, the city is working in the right direction to adopt land use policies that encourage smart growth planning and as a result, create a healthy community.

## Introduction

A rising amount of research points to various connections between community design and health issues. Zoning can promote land uses that allow and encourage individuals to make healthy decisions. Zoning decisions affect the ability of seniors to age in place, the rate of injuries, the availability of healthy food, and alternative modes of transportation, among other aspects of people's daily lives. Decisions made about the built environment have implications for human health.

The purpose of this analysis was to review the proposed Springfield Zoning Ordinance, dated May 2008, using criteria outlined in a Resolution developed by the Massachusetts Municipal Association and the Massachusetts Association of Boards of Health called "PLANNING FOR A HEALTHIER FUTURE THROUGH THE BUILT ENVIRONMENT AND COMMUNITY DESIGN" (Appendix A). The Resolution encourages communities to create "healthier" communities by reducing injury, chronic disease and obesity through the local built environment, and outlines 23 specific actions a community can undertake to encourage physical activity, and decrease automobile dependence.

The Pioneer Valley Planning Commission (PVPC) received this local technical assistance request from Springfield City Councilor Jose Tosado. Recognizing that the request would take more than the 15 hours available through our existing local technical assistance program, Councilor Tosado secured additional financial assistance from Baystate Health Systems and their initiative, Partners for a Healthier Community, Inc. The request was to review the proposed Springfield Zoning Ordinance; however it was necessary to also analyze the existing Springfield Subdivision Rules and Regulations to address the criteria in the proposed resolution. Ideally we would have also liked to analyze existing plans and spend more time meeting with city staff and boards to thoroughly address all the elements of the proposed resolution.

The report cites the section in the zoning ordinance or subdivision regulation in which specific language or a similar policy (ies) is located and suggests where the particular method could be incorporated into Springfield's zoning. At the end of the report are resources and recommendations to guide public health practitioners' to get involved in land use policy solutions that have been shown to improve community health. This analysis addressed the proposed zoning and existing subdivision rules and regulations. Other regulatory documents, not limited to the following, should be reviewed for a comprehensive analysis of policies regulating the built environment:

- Massachusetts State Building Code
- State of Massachusetts: Project Development and Design Guide MA State Design Manual
- Springfield Water and Sewer Commission Requirements

- City of Springfield Standards (In-House Manual used by DPW)
- Streets and Sidewalks (Title 10, City Ordinance)
- Title 5
- Nuisance Laws (Title 7 City Ordinance)
- American Disabilities Act Standards
- Conservation Commission Regulations

The following table is an analysis of Springfield’s Zoning Ordinance draft and Subdivision Regulations through the public health lens using 23 criteria incorporated in a model resolution by Massachusetts Municipal Association and the Massachusetts Association of Boards of Health to plan for a healthier future through the built environment and community design (copy of resolution in Appendix). Further information on recommended model ordinances, overlay districts, or assessments can be found in the Resources section.

Methods (specific language)	Location in Zoning Ordinance	Comments and Recommendations
<p>1. Minimize land disturbance and the removal of existing trees during new construction.</p> <p><b>Adequate</b> <u>X</u> Need Improvement ___ Need More Research ___</p>	<p><u>Subdivision Regulations- Design Standards Section VI. I.1.</u>            “Due regard shall be shown for all natural features, such as large trees,…”</p>	<p>Encourage the planting of trees that help reduce air pollution.</p> <p>Provide landscape credit for tree preservation.</p>
<p>2. Preserve farmland, conservation land and open green space as much as possible.</p> <p><b>Adequate</b> <u>X</u> Need Improvement ___ Need More Research ___</p>	<p><u>Springfield Zoning Ordinance Draft Section 4.4.14- Accessory Apartments</u></p> <p><u>Springfield Zoning Ordinance Draft Article V Section 5.5</u>            “…Apartment buildings shall provide 20,000 sq feet of Usable Open Space for the first 50 dwelling units plus 400 sq feet for each additional dwelling unit in excess of fifty.”</p> <p><u>Springfield Zoning Ordinance Draft Article III Section 3.2</u>            Zoning district Residential B-1</p>	<p>The permitting of Accessory Units helps to maximize use of existing public infrastructure and services since they are created on already developed sites thereby reducing the pressure to develop on open space and farmlands. They are permitted by Administrative Site Plan Review in Residence B, Residence B1 and Commercial A zoning districts; and by special permit by the Planning Board in Residence A, Residence A1 and Business A. (Table 4-4, Use Regulations Springfield Zoning Ordinance Draft).</p> <p>Residential B-1 encourages the creation of compact, smart growth infill development in row house style. The zoning district is Residence B-1 and allows for two-family attached dwelling to be built by right. This ordinance allows the city to encourage infill development in the neighborhood commercial districts and traditional densely developed older neighborhoods.</p> <p>Locating commercial, industrial, and other services near residential zones increases opportunities for walking and reducing traffic. The Springfield draft zoning proposes 7 mixed use districts.</p>

Methods (specific language)	Location in Zoning Ordinance	Comments and Recommendations
	<p><u>Subdivision Regulations Design Standards Section VI. H.1.</u>  “Before approval of a Definitive Plan, the Planning Board may also, in proper cases, require the Plan to show a park or parks, suitability located, for playground or recreation purposes, or for providing light and air...”</p> <p><u>Subdivision Regulations Design Standards Section VI. I.1.</u>  “Due regard shall be shown for all natural features, such as large trees, water courses, scenic points, historic spots, and similar community assets, which, if preserved, will add attractiveness and amenity to the subdivision.”</p> <p><u>Cluster Development</u>  This section has been revised to allow Cluster Development by-right in Residence A-1, A, or B district on parcels over 3 or 5 acres, depending on the Residential district.</p>	<p>Allows the city to protect open space and create parks through the subdivision process; however, the land must be placed in permanent protection within 3 years of approval, or the land can be subdivided by the applicant. The responsibility lies with the city to ensure that this land is permanently protected within three years.</p> <p>Encourages natural features to be integrated into the subdivision design.</p> <p>Encourages the protection of open space and natural features in new subdivision development</p> <p><b>Recommendation:</b> <i>Consider Adopting the following ordinances which encourage smaller lot sizes and in turn encourage open space protection.</i></p> <ul style="list-style-type: none"> <li>• Infill Development Overlay District</li> <li>• Planned Unit Development</li> <li>• Transit Oriented Development</li> <li>• Traditional Neighborhood Development</li> </ul>
<p>3. Promote safe, inviting and efficient routes and trails for walking and cycling.</p> <p>Adequate__ <b>Need Improvement</b> <u>X</u> Need More Research__</p>	<p><u>Subdivision Regulations Design Standards Section VI. D.1</u>  “Sidewalks having not less than five (5) feet of width <i>may be required</i> on either one or both sides of a street by the Planning Board.”</p>	<p>Language is subjective. Change “sidewalks...<b>may</b> be required” to “<b>are</b> required”.</p>

Methods (specific language)	Location in Zoning Ordinance	Comments and Recommendations
	<p><u>Springfield Zoning Ordinance Draft Article III Section 3.2</u> River Front (RF) Special Zoning District provides for mixed-use buildings, medium density residential, lodging, medical and financial services, open space areas and recreation and entertainment.</p> <p><u>Springfield Zoning Ordinance Draft Article 3.2 Purpose of Zoning Districts OR Table of Uses Article 4.4:</u> Residential C, (RES C), Residential C-2 (RES C-2), Commercial A (COM A), Business A (BUS A), Business C (BUS C), Mixed Use Industrial (MUI), and Riverfront (RF).</p>	<p>The City of Springfield has completed construction of the Connecticut River Walk and Bikeway, a three mile bike path along the riverfront connecting three neighborhoods with Downtown, a major employment center. The path is planned to connect to Holyoke, Chicopee, and Agawam allowing for greater intra-regional travel by bike and on foot. Plans are in the works for additional east-west routes that will connect additional Springfield neighborhoods with the existing network.</p> <p>Locating commercial, industrial, and other services near residential zones increases opportunities for walking and reducing traffic. The Springfield draft zoning proposes 7 mixed use districts.</p> <p><b>Recommendation:</b> <i>Consider adoption of the following ordinances to encourage bicycle and pedestrian infrastructure improvements</i></p> <ul style="list-style-type: none"> <li>• Sidewalk Ordinance</li> <li>• Bike Parking Ordinance</li> </ul> <p><i>We also recommend the city research and adopt a Complete Streets policy; information available at <a href="http://www.completestreets.org">www.completestreets.org</a> and in Appendix.</i></p>
<p>4. Consider the use of “greyfields” (economically obsolescent and/or underutilized real estate) such as unused or underutilized parking lots for development.</p> <p>Adequate__Need Improvement__<b>Need More Research</b>_X</p>	<p>None found</p>	<p>Organizations such as Habitat for Humanity, Concerned Citizens and HAP work with the City to construct and rehabilitate single family and multifamily homes in areas that are easily accessible to work and transit services. The city has taken hundreds of properties for non-payment of taxes which it then auctions to developers who make a commitment to rehabilitation.</p> <p><b>Recommendation:</b> <i>Consider adopting</i></p> <ul style="list-style-type: none"> <li>• Infill Development Overlay District Bylaw</li> </ul>

Methods (specific language)	Location in Zoning Ordinance	Comments and Recommendations
<p>5. Encourage construction and maintenance of playing fields and playgrounds.</p> <p>Adequate ___ <b>Need Improvement</b> <u>X</u> Need More Research ___</p>	<p><u>Subdivision Regulations Design Standards Section VI. H.1</u></p> <p>“Before approval of a Definitive Plan, the Planning Board may also, in proper cases, require the Plan to show a park or parks, suitability located, for playground or recreation purposes, or for providing light and air...</p> <p><u>Cluster Development</u></p>	<p>Language is subjective; need more specific language to define “may also, in proper cases”.</p> <p>Cluster Development (Section 6.1) has been revised to allow Cluster Development by-right in Residence A-1, A, or B district on parcels over 3 or 5 acres, depending on the Residential district.</p> <p><b>Recommendations:</b> Upgrade Cluster Ordinance with an Open Space Residential Development Ordinance (models in resource list)</p>
<p>6. Encourage the use of pervious pavement to reduce rain puddles that are a source of mosquito breeding.</p> <p>Adequate ___ <b>Need Improvement</b> <u>X</u> Need More Research ___</p>	<p>Pavement design standards are found in Springfield’s Design Standards, an In-house document that mirrors the Massachusetts Design Guidebook.</p> <p>The draft zoning ordinance details the type of pavement but does not encourage pervious pavement.</p> <p>The Subdivision regulations mention in <u>Section VII. F.1.</u>, “<i>or by any other treatment acceptable to the Director of Public Works</i>” and leave an opportunity for pervious pavement methods to be proven an acceptable method.</p>	<p>Add language to Subdivision regulations Section VI. A. and B. for options of using pervious pavement where applicable.</p> <p>Jim Roberts head of City Engineering stated pervious pavement has not proven to be a viable option in New England climate.</p> <p><b>Recommendation:</b> Low Impact Design Ordinance</p>

Methods (specific language)	Location in Zoning Ordinance	Comments and Recommendations
<p>7. Design roads using “Complete Streets” ideas. “Complete Streets” are roads that offer safe and convenient options for drivers, pedestrians, bicyclists and transit riders including bike lanes, wide shoulders, adequate crosswalks, continuous sidewalks, refuge medians, bus pullouts and sidewalk bulb-outs. (See Appendix B for sample Board of Health endorsement)</p> <p>Adequate__<b>Need Improvement X</b>__Need More Research__</p>	<p><u>Subdivision Regulations Design Standards Section VI. D.1</u>  “Sidewalks having not less than five (5) feet of width may be required on either one or both sides of a street by the Planning Board.”</p> <p><u>Springfield Zoning Ordinance Draft Article VIII Section 8.1.43 A- Neighborhood Commercial Design Overlay District.</u>  “The area between buildings and front lot line must be hard surfaced for use by pedestrians as an extension of the sidewalk as shown ...”</p> <p><u>Springfield Zoning Ordinance Draft Article VIII Section 8.1.43 C- Neighborhood Commercial Design Overlay District.</u>  “For each 100 square feet of hard-surface area between the BUILDING and the FRONT LOT LINE at least one of the following amenities must be provided; 1. A bench or other seating; 2 A tree; 3. A landscape planter 4. A bicycle parking facility.”</p>	<p>The regulations found to support complete street ideas were related to sidewalks in the Neighborhood Design overlay district. Hard surface and pedestrian amenities were detailed; However, the subdivision regulations state the Planning Board “<i>may require</i>” sidewalks; not “<i>will require</i>”.</p> <p>The State design guidebook (<i>State of Massachusetts: Project Development and Design Guide</i>) encourages local governments to consider ALL roadway users. “A guiding principle of the Guidebook is that the roadway system of the Commonwealth should safely accommodate all users of the public right-of-way including: pedestrians, (including people requiring mobility aids)... bicyclists; drivers and passengers of transit vehicles, trucks, automobiles and motorcycles.” 01/01/06</p> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>• Change “sidewalks...may be required” to “are required” in Neighborhood Overlay District.</li> <li>• Sign and circulate “Complete Streets Endorsement” (See Appendix B for sample) for adopting local street specifications that incorporate “Complete Streets” principles.</li> <li>• Require sidewalks through parking lots.</li> <li>• Require pedestrian and bicycle level of service (LOS) for non-residential developments.</li> </ul> <p><b>Model:</b></p> <ul style="list-style-type: none"> <li>• San Francisco, Ca.</li> <li>• Seattle, Wa.</li> </ul>

Methods (specific language)	Location in Zoning Ordinance	Comments and Recommendations
<p>8. Engineer traffic calming measures to reduce vehicle speed and improve pedestrian crossing safety through measures such as, but not limited to, modest street widths, raised crossings, “bump outs”, speed bumps and traffic signal modifications such as countdowns for walkers.</p> <p>Adequate__Need Improvement__<b>Need More Research <u>X</u></b></p>	None found	<p>City Engineer expressed concern that most traffic calming measures don’t accommodate snow removal vehicles (conversation, 10/22/08)</p> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Create Pedestrian Overlay District</li> <li>• Smart Growth Overlay District</li> <li>• Planned Unit Development Bylaw</li> </ul> <p><b>Model:</b> Seattle citizen driven traffic calming initiative</p>
<p>9. Maximize sidewalk usage with adequate lighting and curb cuts.</p> <p>Adequate__Need Improvement__<b>Need More Research <u>X</u></b></p>	None found	<p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Create Pedestrian Overlay District</li> <li>• Smart Growth Overlay District</li> <li>• Sidewalk Bylaw</li> </ul> <p><b>Model:</b> Seattle Pedestrian lighting program</p>
<p>10. Incorporate a 5 or 10 year plan with developers for sidewalk and crosswalk maintenance.</p> <p>Adequate__Need Improvement__<b>Need More Research <u>X</u></b></p>	None found	<p><b>Recommendations:</b> Add as a requirement in Subdivision rules and regulations. This is a rare request. No evidence to support this language in zoning laws. Responsibility goes to property owner.</p>
<p>11. Maximize access from residential areas to commercial areas to increase walking, generate pedestrian activity and reduce traffic congestion.</p> <p><b>Adequate <u>X</u></b> Need Improvement__Need More Research__</p>	Locating commercial, industrial, and other services near residential zones increases opportunities for walking and reducing traffic. The Springfield draft zoning proposes 7 mixed use districts; six of the seven districts permit residential uses.	Doubling a mix of uses within a district is associated with reducing vehicle miles traveled and traffic accident rates.

Methods (specific language)	Location in Zoning Ordinance	Comments and Recommendations
	<p><u>Springfield Zoning Ordinance Draft Article VIII Section 8.1.43 C- Neighborhood Commercial Design Overlay District.</u>            “For each 100 square feet of hard-surface area between the BUILDING and the FRONT LOT LINE at least one of the following amenities must be provided; 1. A bench or other seating; 2 A tree; 3. A landscape planter 4. A bicycle parking facility.”</p> <p><u>Springfield Zoning Ordinance Draft Article IV Section 4.4.13 Mixed Use Buildings</u>            In order to maintain an active pedestrian street environment, enhance the character of commercial districts, and maintain continuity of commercial activity without interruption by residential façades, the portion of all mixed –sue buildings along street frontages shall be used only for non-residential purposes.</p> <p><u>Springfield Zoning Ordinance Draft Article VIII Section 8.4 State Street Overlay District</u></p>	<p>The Neighborhood Overlay District in Section 8 requires development of bike facilities or pedestrian amenities within commercial. This requirement helps create connectivity and encourages alternative transportation options.</p> <p>The City of Springfield, as of October 21, 2008, has no plans to include a smart growth overlay district in the proposed zoning ordinance (statement by Scott Hanson in a phone conversation on 10/21/08). The reserved Section 8.4 in draft zoning is a bookmark for a future overlay district.</p> <p><b>Recommend:</b>            Chapter 40R Smart Growth Overlay District.</p>
<p>12. Minimize cul-de-sac and dead-end developments and promote grid layouts for streets. If cul-de-sacs are necessary, limit their length. Encourage connectivity with other neighborhoods to reduce arterial road use and improve fire apparatus and emergency access.</p> <p><b>Adequate</b> <input checked="" type="checkbox"/> <b>Need Improvement</b> <input type="checkbox"/> <b>Need More Research</b> <input type="checkbox"/></p>	<p><u>Subdivision Regulations Design Standards Section VI. B.1b</u>            “Cul-de-sac, or permanent dead-end streets, shall be provided with a minimum turnaround radius distance of not less than 35 feet and a property line radius of at least 46 feet. The turnaround shall be paved to its full width.</p>	<p>The City of Springfield is a densely populated urban environment and cul de sac developments that are widespread in suburban geographies are rare.</p>

Methods (specific language)	Location in Zoning Ordinance	Comments and Recommendations
	<p><u>Subdivision Regulations Design Standards Section VI. A.1</u>            “All streets in the subdivision shall be so designed that, in the opinion of the Planning Board, they will provide safe vehicular and pedestrian travel. Due consideration shall be given to present-day standards which contribute to the attractiveness of the street layout and which contribute to the maximum livability and amenities of the subdivision.”</p> <p><u>Subdivision Regulations Design Standards Section VI. A.3</u>            “Streets shall be continuous and in alignment with existing streets as far as practicable, and shall comprise a convenient system, with adequate connections to insure free circulation of vehicular travel.”</p>	
<p>13. Use universal design concepts whenever possible. “Universal design” is the design of products and built environments that are flexible in use, require low physical effort and can be used by all people regardless of physical limitations without the need for special adaptation.</p> <p>Adequate__Need Improvement__<b>Need More Research_X</b></p>	<p>None found</p>	<p>Springfield has been proactive in cutting curbs in sidewalks for ADA compliance. Whenever a road is repaved the City has made sure all curbs at pedestrian access to the road are cut.</p> <p><b>Recommendation:</b>            Universal Design Ordinance</p> <p><b>Model:</b>            Murrieta, CA Universal Design Ordinance</p>

Methods (specific language)	Location in Zoning Ordinance	Comments and Recommendations
<p>14. Decrease frontage, when the building code allows, for better emergency access and to promote village living with easy walkability.</p> <p>Adequate <input checked="" type="checkbox"/> Need Improvement <input type="checkbox"/> Need More Research <input type="checkbox"/></p>	<p><u>Springfield Zoning Ordinance Draft Article VIII Section 8.1.41 A- Neighborhood Commercial Design Overlay District.</u>            “At least 60% of the frontage of a lot, measured in percentages of linear feet of the lot frontage, shall occupied by Buildings that are set back no more than 10’ from the font lot line and at least 20’ in depth”.</p> <p><u>Springfield Zoning Ordinance Draft Article VIII Section 8.4 State Street Overlay District</u>            “...shall be occupied by buildings that are set back no more than 10 feet from front lot line...”</p>	
<p>15. Create safer routes to existing schools for students on foot or on bike.</p> <p>Adequate <input type="checkbox"/> Need Improvement <input type="checkbox"/> Need More Research <input checked="" type="checkbox"/></p>	<p>None found</p>	<p>Over the last 3 years, Springfield spent \$6-7 million building sidewalks along school routes to provide infrastructure for walking/biking to school and to eliminate bussing.</p> <p><b>Recommendation:</b>            Establish safe school routes and compliance in review process.</p>
<p>16. Reduce vehicle idling near schools, playgrounds and outside venues where the public congregates.</p> <p>Adequate <input type="checkbox"/> Need Improvement <input type="checkbox"/> Need More Research <input checked="" type="checkbox"/></p>	<p><u>Springfield Zoning Ordinance Draft Article IV Section 4.7.31 Proximity of Automobile Services to Residential Districts</u>            “No public garage, MOTOR VEHICLE REPAIR SHOP, greasing station, storage battery service station, nor gasoline filling station, or any of their appurtenances or ACCESSORY USES shall hereafter be erected or placed within twenty-five (25) feet of any residential DISTRICT...”</p>	<p>The proposed zoning does prohibit locating automobile services in proximity to schools, churches, and residential areas.</p>

Methods (specific language)	Location in Zoning Ordinance	Comments and Recommendations
	<p><u>Springfield Zoning Ordinance Draft Article IV</u>  <u>Section 4.7.32 Proximity of Automobile Services to Educational, Religious, or Institutional Uses</u>            “No such public GARAGE, automobile MOTOR VEHICLE REPAIR SHOP, greasing station, storage battery service station, nor gasoline filling station, nor any of their appurtenances or accessory uses, shall have at the street line, any entrance or exit for motor vehicles within a radius of one hundred (100) feet of any entrance or exit at the front lot line of any public or private school, public library, church, playground or for children under sixteen years of age, if such entrances or exits are on the same street or on an intersecting street.”</p>	<p>MGL Chapter 90 Section 16A prohibits idling for five minutes or more, but it is rarely enforced. The city needs to enforce and promote the law.</p> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Participate in DEP’s Idling Reduction Program.</li> <li>• Enforce State Idling Reduction law Chapter 90 Section 16A at area schools.</li> </ul>
<p>17. Consider siting new schools and municipal buildings in locations proximate to population centers to encourage walking or biking to these facilities.</p> <p>Adequate__Need Improvement__<b>Need More Research_X</b></p>	<p><u>Springfield Zoning Ordinance Draft Article III</u>  <u>Section 3.2 Purpose of Zoning Districts</u></p> <p>All residential district allow for “...supporting public facilities...”.</p>	<p>The zoning districts allow these uses in population centers, however does not encourage or promote such developments. The mere fact that these uses are permitted could be considered a policy of encouragement.</p> <p><b>Recommendations:</b>            Adequate Public Facilities Ordinance (APFO)</p>
<p>18. Discourage residential building and school building near highways to reduce asthma incidence due to vehicular emissions.</p> <p>Adequate__Need Improvement__<b>Need More Research_X</b></p>	<p>None found</p>	<p><b>Recommendation:</b>            Prohibit residential and school facilities within 1,000’ of highways, freeways, or air pollutant industries.</p>
<p>19. Encourage vehicle pick-up areas to be built away from building and school entrances to reduce inhalation of vehicle exhaust.</p> <p>Adequate__Need Improvement__<b>Need More Research_X</b></p>	<p>None found</p>	<p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>• Establish pick up/drop off site at edge of school grounds.</li> <li>• Launch Idling Reduction Initiative.</li> </ul>

Methods (specific language)	Location in Zoning Ordinance	Comments and Recommendations
<p>20. Promote residential building in areas with access to full-service grocery stores and other goods and services for those residents, especially elderly residents, who may not drive.</p> <p><b>Adequate</b> <u>X</u> Needs Improvement <u>  </u> Not addressed <u>  </u></p>	<p>The proposed draft zoning includes 6 mixed use districts that allow pedestrian services and residential to be located within close proximity. 5 districts permit grocery stores and residential uses.</p>	
<p>21. Develop transportation strategies that enable older adults and people with disabilities to remain socially engaged and independent.</p> <p>Adequate <u>  </u> Need Improvement <u>  </u> <b>Need More Research</b> <u>X</u></p>	<p>None Found</p>	<p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Include language in Purpose or Character section of residential zones allowing mixed uses - “55 and older housing sited near public transit, pedestrian infrastructure, local grocers, medical and day-to-day services”.</li> <li>• Add “55 and Older” overlay district.</li> </ul>
<p>22. Discourage the construction of drive-through windows for retailers and fast-food outlets near schools.</p> <p><b>Adequate</b> <u>X</u> Need Improvement <u>  </u> Not addressed <u>  </u></p>	<p><u>Springfield Zoning Ordinance Draft Article IV Section 4.4 Use Regulation Table</u></p> <p>In the use table category (19.1) for Drive-through establishments allows by Tier 2 review in zones Business A, B, and D. In the Summary Business A prohibits such activity.</p>	<p>Drive-through establishments are allowed in 3 zones, Business A, B, and D by a Tier 2 (Planning Board) review process according to Use Table 4.4 But only 2 zones Business B heavy industry and D regional shopping zones.</p>
<p>23. Incorporate public health data and goals into Springfield’s Master Plan.</p>	<p>Master Plan Not reviewed.</p>	

## Conclusion

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The results of reviewing the city of Springfield's proposed new zoning and existing subdivision regulations through a public health lens provided by the Massachusetts Municipal Association and the Massachusetts Association of Boards of Health resolution to plan for a healthier future through the built environment and community design shows that Springfield is making progress toward designing and building a healthy environment for its citizens. The review also highlights some areas for improvement and many areas for further research as the review was limited in scope. We strongly recommend a more comprehensive assessment of all documents, plans and policies that regulate decisions about the built environment in close collaboration with city staff and boards.

A highlight of the proposed new zoning is that it allows many more opportunities for mixed use environments. The permitting of mixed uses within zones can promote physical activity, encourage community interactions, and provide easier access to healthy food. The update added a Mixed Use Industrial (MUI) district to encourage walkability and reuse of old buildings and included a Neighborhood Commercial Design Overlay District that encourages main street character business and discourages sprawling big box developments.

The proposed update introduced a Site plan review for development projects and standards for Special Permits. The city currently requires no review of site plans and has no standards for special permits. The proposed changes enhance consideration of health related issues affecting the city. Requiring a review of the site allows the Planning Board to mitigate health and environmental impacts of a development. The site plan review process strives for timeliness, predictability, and consistency. Consistency means each department will analyze plans from a uniform policy directive consistent with the City's vision for the future. Adopting the resolution proposed by the MMA and MAHB is important as it provides a mechanism for embedding health language and consideration in the purpose, intention, and character of land use decision making documents.

A limitation of the proposed zoning is a lack of focus on mobility and the decision to not create a Smart Growth overlay district. Transportation system design plays an important role in how residents and visitors to Springfield choose to get around and an auto dependent society has contributed to the rise in chronic diseases. Modern, smart growth policies need to focus less on efficient vehicular movement and more on supporting pedestrians, cyclists, and transit vehicles. Springfield is a densely populated city centrally located in the state and near major employment centers. This is an ideal scenario for implementing multimodal principles that support alternative modes of transportation, such as ideas of "Complete Streets". We recommend the city adopt a "Complete Streets" policy to supplement the revised zoning ordinance.

## RESOURCES

Valley Vision Smart Growth Plan for the Pioneer Valley tool kit (includes many model ordinances [http://www.pvpc.org/val\\_vision/html/toolbox/index.html](http://www.pvpc.org/val_vision/html/toolbox/index.html) )

Massachusetts Smart Growth tool kit (includes model ordinances [http://www.mass.gov/envir/smart\\_growth\\_toolkit/](http://www.mass.gov/envir/smart_growth_toolkit/) )

55 and Older Overlay District:

West Boylston, MA. example: [http://www.westboylston.com/Pages/WBoylstonMA\\_ByLaws/zoning\\_sect\\_2.9](http://www.westboylston.com/Pages/WBoylstonMA_ByLaws/zoning_sect_2.9)

Adequate Public Facilities Ordinance:

Model Maryland: [http://www.smartgrowth.umd.edu/research/pdf/NCSG\\_APFOMaryland\\_041906.pdf](http://www.smartgrowth.umd.edu/research/pdf/NCSG_APFOMaryland_041906.pdf)

Bike Parking Bylaw:

[http://pvpc.org/val\\_vision/html/toolbox/PDFs/building%20blocks/Bike%20and%20Pedestrian%20Features.pdf](http://pvpc.org/val_vision/html/toolbox/PDFs/building%20blocks/Bike%20and%20Pedestrian%20Features.pdf)

Complete Street Models:

San Francisco Livable City: <http://www.livablecity.org/campaigns/completestreets.html>

Seattle: <http://www.seattle.gov> passed by city council 4/30/07.

Health Impact Assessment:

San Francisco Public Health Measurement Tool: [www.thehdm.org](http://www.thehdm.org)

Idle Reduction Initiatives:

<http://www.northeastdiesel.org/pdf/nhriworkshops08/KBrockett-Idling-Reduction-Funding-Opportunities.pdf>

<http://www.valleyairnow.com/idlereduction.htm>

Mass. Idling Reduction Law:

<http://www.mass.gov/dep/air/community/schbusir.htm>

Low Impact Design Ordinance, Programs, and Municipal Toolkit:

[http://pvpc.org/val\\_vision/html/toolbox/PDFs/building%20blocks/Low%20Impact%20Development.pdf](http://pvpc.org/val_vision/html/toolbox/PDFs/building%20blocks/Low%20Impact%20Development.pdf)

Mixed-Use Development Ordinance:

Cambridge, MA [http://www.cambridgema.gov/~CDD/cp/zng/zord/zo\\_article14\\_1316.pdf](http://www.cambridgema.gov/~CDD/cp/zng/zord/zo_article14_1316.pdf)

Freemont, CA

[http://www.ci.fremont.ca.us/NR/rdonlyres/edk2l6bs2qwf4zqizikbscgydhutjecblmu37xupchfwnq5ter7x4t7q6mzjkdaor2pdzx6jqznqxakbi\\_hvg6pdvbh/0407MixedUseDevelopmentOrdinance.pdf](http://www.ci.fremont.ca.us/NR/rdonlyres/edk2l6bs2qwf4zqizikbscgydhutjecblmu37xupchfwnq5ter7x4t7q6mzjkdaor2pdzx6jqznqxakbi_hvg6pdvbh/0407MixedUseDevelopmentOrdinance.pdf)

Open Space Residential Development Ordinance:

[http://pvpc.org/val\\_vision/html/toolbox/PDFs/strategies/Strategy4.pdf](http://pvpc.org/val_vision/html/toolbox/PDFs/strategies/Strategy4.pdf)

Pedestrian Overlay District:

Model City:

Cleveland [http://www.cndc2.org/pedestrian\\_retail\\_overlay\\_ordina.htm](http://www.cndc2.org/pedestrian_retail_overlay_ordina.htm)

Planned Unit Development Ordinance:

[http://pvpc.org/val\\_vision/html/toolbox/PDFs/building%20blocks/PUD.pdf](http://pvpc.org/val_vision/html/toolbox/PDFs/building%20blocks/PUD.pdf)

Safe Routes to School Program:

<http://safety.fhwa.dot.gov/saferoutes/>

Sidewalk Ordinance:

[http://pvpc.org/val\\_vision/html/toolbox/PDFs/building%20blocks/Bike%20and%20Pedestrian%20Features.pdf](http://pvpc.org/val_vision/html/toolbox/PDFs/building%20blocks/Bike%20and%20Pedestrian%20Features.pdf)

Sidewalk Lighting Model: Seattle

[http://www.seattle.gov/economicdevelopment/biz\\_district\\_guide/pedestrian\\_lighting.htm](http://www.seattle.gov/economicdevelopment/biz_district_guide/pedestrian_lighting.htm)

Smart Growth Overlay District:

[http://pvpc.org/val\\_vision/html/toolbox/PDFs/building%20blocks/Chapter40R%20smart%20growth%20districts.pdf](http://pvpc.org/val_vision/html/toolbox/PDFs/building%20blocks/Chapter40R%20smart%20growth%20districts.pdf)

Traditional Neighborhood Development:

[http://pvpc.org/val\\_vision/html/toolbox/PDFs/strategies/Strategy1.pdf](http://pvpc.org/val_vision/html/toolbox/PDFs/strategies/Strategy1.pdf)

Transit Oriented Development Ordinance:

[http://pvpc.org/val\\_vision/html/toolbox/PDFs/building%20blocks/Transit%20Oriented%20Development.pdf](http://pvpc.org/val_vision/html/toolbox/PDFs/building%20blocks/Transit%20Oriented%20Development.pdf)

Traffic Calming Model:

[http://usmayors.org/bestpractices/traffic/best\\_traffic\\_initiative\\_seattle.htm](http://usmayors.org/bestpractices/traffic/best_traffic_initiative_seattle.htm)

<http://www.seattle.gov/Transportation/ntcpprogram.htm>

Universal Design Ordinance:

Model Cities:

Murrieta, CA [http://www.murrieta.org/uploads/presentations/Universal\\_Design\\_Presentation.pdf](http://www.murrieta.org/uploads/presentations/Universal_Design_Presentation.pdf)

San Antonio, TX [http://www.sanantonio.gov/ada/UHD\\_Ordinance.asp?res=1024&ver=true](http://www.sanantonio.gov/ada/UHD_Ordinance.asp?res=1024&ver=true)

## **Appendix A**

### **PLANNING FOR A HEALTHIER FUTURE THROUGH THE BUILT ENVIRONMENT AND COMMUNITY DESIGN**

#### **Board of Health Resolution**

#### **INSTRUCTIONS FOR USE:**

This model resolution incorporates numerous local methods available to reduce injury, chronic disease and obesity with increased physical activity and improved nutrition through your local built environment. Municipal boards of health may choose to incorporate all the methods listed or select just the ones that pertain to your municipality.

- (1) Fill in [city/town] – 5 instances (one in title);
- (2) Fill in effective date; and
- (3) Add board member signatures after vote.

#### **IF YOU WANT ASSISTANCE, PLEASE CALL:**

**D.J. Wilson, Public Health Liaison, Massachusetts Municipal Association at 617-426-7272**

**Cheryl Sbarra, Director, Tobacco Control and Chronic Disease Prevention Program, Massachusetts Association of Health Boards at 781-721-0183**

MMA and MAHB have been working on creating a resolution that Boards of Health could use connecting public health to built environment and planning. The resolution could be voted on by a Board, without the formality of a regulation (such as hearing, publication notice or enforcement) that could be used to gently goad municipalities to build better.

The resolution could be used in several ways including (1) sending it to all department heads; (2) asking the planning department to give it

to developers, architects and builders and (3) use it to fortify any board of health decision on plans requiring board approval be amended, for example, to include sidewalks.

**INSTRUCTIONS FOR USE:**

This model resolution incorporates numerous local methods available to reduce injury, chronic disease and obesity with increased physical activity and improved nutrition through your local built environment. Municipal boards of health may choose to incorporate all the methods listed or select just the ones that pertain to your municipality.

- (1) Fill in [city/town] – 5 instances (one in title);
- (2) Fill in effective date; and
- (3) Add board member signatures after vote.

**IF YOU WANT ASSISTANCE, PLEASE CALL:**

**D.J. Wilson, Public Health Liaison, Massachusetts Municipal Association at 617-426-7272**

**OR**

**Cheryl Sbarra, Director, Tobacco Control and Chronic Disease Prevention Program,  
Massachusetts Association of Health Boards at 781-721-0183**

**Resolution of the [city/town] Board of Health  
PLANNING FOR A HEALTHIER FUTURE THROUGH  
THE BUILT ENVIRONMENT AND COMMUNITY DESIGN**

Decades of evidence indicate that there is a relationship between land use planning decisions and public health outcomes. The planning department and health department can work together to improve our community's health through changes to [city/town]'s built environment.

WHEREAS, conclusive evidence exists that:

### Physical Activity

"To a large degree, the major chronic disease killers are an extension of what people do, or not do, as they go about the business of daily living. Health-damaging behaviors, in particular, tobacco use, lack of physical activity, and poor nutrition, are major contributors to heart disease and cancer, our nation's leading killers."<sup>1</sup>

In the United States, physical inactivity is responsible for an estimated 200,000 deaths per year, costing at least \$117 billion each year in health care expenditures.<sup>2</sup>;

The U.S. Centers for Disease Control recommends 30 minutes of moderate physical activity on most days per week for adults and 60 minutes of moderate physical activity on most days per week for children and adolescents.<sup>3</sup>;

Alarming, only 10% of public school students walk to school compared to a majority of public school students one generation ago.<sup>4</sup>;

Here in Massachusetts, only 25% of youth engage in moderate physical activity<sup>5</sup>, while among Adults, nearly 60% **do not** meet moderate physical activity recommendation.<sup>6</sup>;

Arthritis is the most common cause of disability in the United States. Luckily, effective strategies exist that reduce the impact of arthritis and include physical activity and maintaining a healthy weight. In Massachusetts, roughly 26% of adults in 2005 have diagnosed arthritis; of those with arthritis, 67% are obese and 21% are physically inactive.<sup>7</sup>;

### Overweight/Obesity Prevention

Nationally, in the last 20 years, obesity rates have increased by more than 60% in adults resulting in today's obesity epidemic.<sup>8</sup> Additionally, obesity and its complications have cost the nation \$117 billion annually.<sup>9</sup>;

In Massachusetts, from 1999 to 2005, the number of overweight teens rose by 53%,<sup>10</sup> while more than half (56%) of Massachusetts adults are above a healthy weight.<sup>11</sup> The risk for diabetes increases as a person's weight increases. In Massachusetts, overweight adults have diabetes more than twice as often as adults at a healthy weight.<sup>12</sup>

### Chronic Disease

Nationally, 20.8 million children and adults, or 7% of the population, have diabetes. One in three children born today in the United States will develop diabetes, while one in two minority children will develop diabetes.<sup>13</sup>;

Diabetes is the leading cause of kidney failure<sup>14</sup> and new cases of adult blindness. Additionally, people with diabetes have more than twice the rate of heart disease and triple the rate of stroke than do people without diabetes.<sup>15</sup>;

In 2005, roughly 9% of Massachusetts adults reported they have heart disease and 3% reported that have had a stroke.<sup>16</sup> Heart disease is the number one killer in Massachusetts, while stroke is the third.<sup>17</sup>;

Air pollution has been suggested as an important factor in the increased incidence of asthma. Children with asthma were statistically significantly more likely to live in close proximity to a higher volume of traffic than children without asthma. This finding stresses the importance of programs to reduce gaseous pollutants and particulates from vehicles.<sup>18</sup>;

Among people 65 years of age and older, falls are the leading cause of injury deaths and the most common cause of nonfatal injuries and hospital admissions for trauma. In the United States, each year nearly one third of older adults experience a fall. Exercise is one of the most important ways to lower your chances of falling by making you stronger, improving balance and coordination.<sup>19</sup>;

Basal cell and squamous cell carcinomas, which are highly curable, are the most common forms of skin cancer cancers in the United States. However, melanoma, the 3<sup>rd</sup> most common skin cancer, is more dangerous. Overwhelmingly, 65-90% of melanomas are caused by exposure to sunlight.<sup>20</sup> In Massachusetts, for every 100,000 men and women, on average, approximately 22 were diagnosed with melanoma, higher than the national average of 17 for every 100,000 men and women.<sup>21</sup>;

### Transportation

Per one million Massachusetts residents in 2005, for one pedal cyclist death there were 12 pedestrian fatalities, 49 motor vehicle occupant fatalities and 69 unintentional motor vehicle traffic fatalities. For one pedestrian injury, there were 2 pedal cyclist injuries, 17 motor vehicle occupant injuries and 19 unintentional motor vehicle traffic injuries.<sup>22</sup>;

The probability of pedestrian death from a vehicle collision is 5% at 20 mph, 40% at 30 mph, 80% at 40 mph and nearly 100% at 50 mph.<sup>23</sup>;

The older adult population (65+ years) is expected to double by 2030 with those 85 years of age and older being the most rapidly growing group.<sup>24</sup> This population will want to age in their community, requiring considerations for those that cannot or should not drive.;

About 25% of all trips in the United States are less than one mile in length and 75% of those are made by auto.<sup>25</sup>;

Americans spend an average of 25 minutes to commute to work each way (27% in the Northeast census region). The number of workers walking to work has declined by 50% since 1980.<sup>26</sup>;

Increasing evidence continues to show that easy access to recreational spaces promotes its usage.;

People who report having sidewalk access are 28% more likely to be physically active.<sup>27</sup>;

### Development

Dispersed, lower density development results in greater travel distances to jobs, schools, shopping and entertainment. The resulting increase in driving leads to worse air quality and higher rates of vehicle collisions and injuries.

Clustering residential areas, schools, retail, recreation and other destinations together promotes a sense of community, fosters walking and social connectedness and provides more “eyes on the street” for improved neighborhood surveillance and safety.<sup>28</sup> Infrastructure costs are lower when growth is centrally focused.;

Traditional neighborhoods that have higher residential density, a mix of residential and commercial land uses and grid-like streets with good connectivity and short block lengths result in more walking and cycling trips for transport as compared to sprawling neighborhoods.<sup>29</sup>;

Today’s zoning laws historically share both police powers and public nuisance concerns with public health laws by regulating land use through laws that prohibit activities that harm the public’s health.<sup>30</sup>;

NOW, THEREFORE, it is the intention of the **[city/town]** Board of Health to encourage increased physical activity, injury prevention and improved nutrition through local efforts; to promote the most appropriate use of land throughout **[city/town]** in accordance with a comprehensive plan; to preserve and increase its amenities; to reduce injury and to lessen street congestion and automobile dependence by recommending the following:

- (1) Minimize land disturbance and the removal of existing trees during new construction.;
- (2) Preserve farmland, conservation land and open green space as much as possible.;
- (3) Promote safe, inviting and efficient routes and trails for walking and cycling.;
- (4) Consider the use of “greyfields” (economically obsolescent and/or underutilized real estate) such as unused or underutilized parking lots for development.;

- (5) Encourage construction and maintenance of playing fields and playgrounds.;
- (6) Encourage the use of pervious pavement to reduce rain puddles that are a source of mosquito breeding.;
- (7) Design roads using “Complete Street” ideas. “Complete Streets” are roads that offer safe and convenient options for drivers, pedestrians, bicyclists and transit riders including bike lanes, wide shoulders, adequate crosswalks, continuous sidewalks, refuge medians, bus pullouts and sidewalk bulb-outs.;
- (8) Engineer traffic calming measures to reduce vehicle speed and improve pedestrian crossing safety through measures such as, but not limited to, modest street widths, raised crossings, “bump outs”, speed bumps and traffic signal modifications, such as countdowns for walkers.;
- (9) Maximize sidewalk usage with adequate lighting and curb cuts for safety.;
- (10) Incorporate a 5- or 10-year plan with developers for sidewalk and crosswalk maintenance and snow removal.;
- (11) Maximize access from residential areas to commercial areas to increase walking, generate pedestrian activity and reduce traffic congestion.;
- (12) Minimize cul-de-sac and dead-end developments and promote grid layouts for streets. If cul-de-sacs are necessary, limit their length. Encourage connectivity with other neighborhoods to reduce arterial road use and improve fire apparatus and emergency access.;
- (13) Use universal design concepts whenever possible. “Universal design” is the design of products and built environments that are flexible in use, require low physical effort and can be used by all people regardless of physical limitations without the need for special adaptation.
- (14) Decrease frontage, when the building code allows, for better emergency access and to promote village living with easy walkability.;
- (15) Create safer routes to existing schools for students on foot or on bike.;
- (16) Reduce vehicle idling near schools, playgrounds and outside venues where the public congregates.;
- (17) Consider siting new schools and municipal buildings in locations proximate to population centers to encourage walking or biking to these facilities.;
- (18) Discourage residential building and school building near highways to reduce asthma incidence due to vehicular emissions.;

- (19) Encourage vehicle pick-up areas to be built away from building and school entrances to reduce inhalation of vehicle exhaust.;
- (20) Promote residential building in areas with access to full-service grocery stores and other goods and services for those residents, especially elderly residents, who may not drive.;
- (21) Develop transportation strategies that enable older adults and people with disabilities to remain socially engaged and independent.;
- (22) Discourage the construction of drive-through windows for retailers and fast-food outlets near schools.; and
- (23) Incorporate public health data and goals into **[city/town]**'s Master Plan.

BOARD OF HEALTH SIGNATURES

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DATED: \_\_\_\_\_

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- <sup>1</sup> U.S. Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion, 2005.
- <sup>2</sup> U.S. Dept. of Health and Human Services, Centers for Disease Control, *Physical Activity and Health: A Report of the Surgeon General*, 1996 and U.S. Dept. of Health and Human Services, Public Health Service, Office of the Surgeon General, *The Surgeon General's call to action to prevent and decrease overweight and obesity*, 2001.
- <sup>3</sup> U.S. Centers for Disease Control and Prevention, Division of Nutrition, Physical Activity and Obesity, National Center for Chronic Disease Prevention and Health Promotion. Nutrition and Activity Recommendations. 2001.
- <sup>4</sup> U.S. Dept. of Transportation, FHA, 1995 Nationwide Personal Transportation Survey, 2001.
- <sup>5</sup> Youth Risk Behavior Surveillance System survey data. Malden (MA): Massachusetts Department of Education; 2005.
- <sup>6</sup> A profile of health among Massachusetts adults, 2005: Results from the Behavioral Risk Factor Surveillance System. Boston (MA). Health Survey Program, Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2006.
- <sup>7</sup> Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2005.
- <sup>8</sup> Dietz, W. H. *CDC's Role in Combating Obesity and the scientific basis of diet and physical activity*. House Committee on Government Reform, Washington, DC, July 25, 2002.
- <sup>9</sup> *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*. U.S. Department of Health and Human Services, Washington, DC, December 13, 2001.
- <sup>10</sup> Youth Risk Behavior Surveillance System survey data. Malden (MA): Massachusetts Department of Education; 1999-2005.

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<sup>11</sup> A profile of health among Massachusetts adults, 2006: Results from the Behavioral Risk Factor Surveillance System. Boston (MA): Health Survey Program, Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2007.

<sup>12</sup> Behavioral Risk Factor Surveillance System survey data. Boston (MA): Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2001.

<sup>13</sup> Diabetes Projects. Atlanta (GA): Centers for Disease Control and Prevention. <http://www.cdc.gov/diabetes/projects/cda2.htm>. Accessed April 10, 2008.

<sup>14</sup> Complications of Diabetes in the United States. Alexandria (VA): American Diabetes Association. <http://www.diabetes.org/diabetes-statistics/complications.jsp>. Accessed April 10, 2008.

<sup>15</sup> Behavioral Risk Factor Surveillance System survey data. Boston (MA): Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2001.

<sup>16</sup> A profile of health among Massachusetts adults, 2005: Results from the Behavioral Risk Factor Surveillance System. Boston (MA): Health Survey Program, Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2006.

<sup>17</sup> Massachusetts Deaths 2005. Boston (MA): Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2007. [http://www.mass.gov/Eeohhs2/docs/dph/research\\_epi/death\\_report\\_05.pdf](http://www.mass.gov/Eeohhs2/docs/dph/research_epi/death_report_05.pdf).

<sup>18</sup> *Air Pollution and Pediatric Asthma in the Merrimack Valley, Final Report*, Mass. Dept. of Public Health, Bureau of Environmental Health, 2008.

<sup>19</sup> Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. (2006) [cited Jan. 15 2007]. Available from URL: [www.cdc.gov/ncipc/wisqars](http://www.cdc.gov/ncipc/wisqars).

<sup>20</sup> Centers for Disease Control and Prevention. *Guidelines for School Programs to Prevent Skin Cancer*. MMWR 2002;51(No. RR-4):1–16.

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- <sup>21</sup> U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 2004 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2007. Available at: [www.cdc.gov/uscs](http://www.cdc.gov/uscs).
- <sup>22</sup> Registry of Vital Records and Statistics, Mass. Dept. of Public Health; Mass. Hospital Discharge Database, Mass. Division of Health Care Finance and Policy; Mass. Outpatient Observation Stay Database, Mass. Division of Health Care Finance and Policy; Mass. Emergency Department Discharge Database, Mass. Division of Health Care Finance and Policy. Nonfatal injuries include hospital discharges, observation bed stays, and emergency department visits.
- <sup>23</sup> Pasanen, E. *Driving Speeds and Pedestrian Safety; a mathematical model*. Technical Report No. REPT-77, and Nordisk Kabel- og Traadfabriker, Copenhagen, Denmark, 41 pp., 1992. Helsinki University of Technology, Laboratory of Traffic and Transportation Engineering, Espoo, Finland.
- <sup>24</sup> Roland J. Thorpe, Jr., PhD, National Association of Chronic Disease Directors Healthy Aging Council, February 28, 2007.
- <sup>25</sup> U.S. Dept. of Transportation, FHA, 1995 Nationwide Personal Transportation Survey, 2001.
- <sup>26</sup> *Commuting in America III*, Alan E. Pisarski, Transportation Research Board, 2006.
- <sup>27</sup> Brownson R, et al., Environmental Determinants of Physical Activity in the United States. *American Journal of Public Health*, Vol. 81, No. 12, 2001.
- <sup>28</sup> *Land Use Planning for Safe, Crime-Free Neighborhoods*, Local Government Commission, 2004.
- <sup>29</sup> Saelens BE, Sallis JF, Frank LD. Environmental correlates of walking and cycling, findings from the transportation, urban design, and planning literature. *Ann Behav. Med.* 2003;25:80-91.
- <sup>30</sup> *The Public Health Roots of Zoning*, J. Schilling and L. Linton, *American Journal of Preventative Medicine*, Vol. 28, No. 282.

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## Appendix B

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### Sample Board of Health Endorsement of Complete Street Policies

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#### **TACOMA-PIERCE COUNTY BOARD OF HEALTH ENDORSING THE ADOPTION AND IMPLEMENTATION OF COMPLETE STREETS POLICIES BY MUNICIPALITIES IN PIERCE COUNTY.**

**WHEREAS** “Complete Streets” are defined as roadways that enable safe and convenient access for all users, including pedestrians, bicyclists, transit riders, and motor vehicle drivers of all ages and abilities; and

**WHEREAS** Complete Streets policies are implemented when transportation agencies routinely design, construct, operate, and maintain the transportation network to improve travel conditions for bicyclists, pedestrians, transit and freight in a manner consistent with, and supportive of, the surrounding community; and

**WHEREAS** transportation improvements that are recognized as contributing to Complete Streets include: narrow vehicular travel lanes, sidewalks, bicycle lanes, wide shoulders, raised medians, raised crosswalks, audible pedestrian signals, sidewalk bulb-outs, street and sidewalk lighting, sidewalk curb cuts in compliance with the Americans with Disabilities Act, street furniture, transit pullouts, transit lanes, street trees and landscaping; and

**WHEREAS** Complete Streets may be achieved through single projects or incrementally through a series of smaller improvements or maintenance activities over time; and

**WHEREAS**, streets constitute a large portion of public space and should be corridors for all modes of transportation, including pedestrians, bicycles, and transit; and

**WHEREAS**, streets that support and invite multiple uses, including safe, active, and ample space for pedestrians, bicycles, and transit, are more conducive to the public life and efficient movement of people than streets designed primarily to move automobiles; and

**WHEREAS** the American Public Health Association, National Association of City and County Health Officials, Association of State and Territorial Health Officials, and the Institute of Medicine, have formally recognized linkages between the built environment and human health and call on public health officials to engage in local and regional land use and transportation planning and policy making processes; and

**WHEREAS** the United States Congress, National Association of Local Boards of Health, and the Washington Climate Advisory Team specifically recommend Complete Street policies as a strategy to increase pedestrian and bicycle travel modes and to reduce the negative impacts associated with climate change; and

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**WHEREAS** other jurisdictions and agencies nationwide have adopted Complete Streets legislation including the United States Department of Transportation, numerous state transportation agencies, and cities including San Francisco, Sacramento, San Diego, Boulder, Chicago, Seattle, Kirkland, Redmond and Portland; and

**WHEREAS** a 2007 Washington State Department of Transportation survey found that a lack of pedestrian and bicycle infrastructure, such as sidewalks and bicycle lanes, is a primary reason why Washington residents do not walk or bicycle more frequently; and

**WHEREAS** many of the existing roadways where Pierce County residents walk and bicycle are incomplete and unsafe. These streets lack sidewalks or crosswalks, have lanes too narrow to share with bicyclists, and make no accommodation for transit riders or for people with disabilities; and

**WHEREAS** recent trends indicate that Pierce County will experience increased traffic congestion and travel times as the population increases and the number of commuters to employment centers within the County increases; and

**WHEREAS** there are practical limits to the expansion of roadways in order to satisfy travel demands, and promoting pedestrian, bicycle and transit travel reduce negative environmental impacts, promote healthy living and are less costly to the commuter; and

**WHEREAS** decisions about transportation systems may contribute to:

**1. Physical inactivity and obesity:**

- Each additional hour spent driving is associated with a 6% increase in the likelihood of obesity, while each additional kilometer walked is associated with a 5% reduction in this likelihood.
- Transit users and people with safe places to walk within 10 minutes of their homes are more likely to meet the Surgeon General's recommendations for minimum daily exercise.
- The Task Force on Community Preventive Services strongly recommends creating or improving access to places such as sidewalks and trails and improving street lighting, installing traffic calming measures (e.g., speed humps, traffic circles), improving safety of street crossings, and enhancing street landscaping as effective strategies to increase physical activity.

**2. Unintentional injury:**

- Motor vehicle accidents are the leading cause of death among people between the ages of one and twenty-four and increases in the number of vehicle miles traveled and vehicle hours traveled increase the risk of injury or death;
- Roadways designed predominately for automobiles with multiple lanes, high speeds, lack of pedestrian and bicycle infrastructure, long distances between intersections or crosswalks, and many large commercial establishments, pose an increased risk of injury or death for pedestrians and cyclists

**3. Decreased air quality:**

- Transportation contributes 45% of all green house gas emissions in Washington State;

- 
- Asthma and other respiratory conditions may be triggered or exacerbated by poor air quality;

**4. Decreased water quality:**

- Runoff of oil and gasoline pollutes waterways, and is exacerbated when the amount of impervious surface, such as roadways and large parking lots, is increased.

**5. Social inequities:**

- Almost one-third of Americans do not drive. Streets that do not accommodate alternative transportation options disproportionately impact vulnerable populations such as children, low-income, elderly, and disabled residents, resulting in reduced access to jobs and needed services.

**THEREFORE BE IT RESOLVED** that the Tacoma-Pierce County Board of Health in order to ensure the promotion of the health of our communities, urges decision makers in all Pierce County municipalities to adopt and implement Complete Streets policies and practices that:

- Specify that ‘all users’ includes pedestrians, bicyclists, transit vehicles and users, and motorists, of all ages and abilities;
- Create a comprehensive, integrated, connected transportation network;
- Address all roads within its jurisdiction;
- Apply policies to both new and retrofit projects, including planning, design, maintenance, and operation, for the entire right of way;
- Make any exceptions for the exclusion of pedestrian and bicycle facilities specific, set a clear procedure that requires high-level approval of exceptions, and provide documented supporting data that indicates the basis for the decision;
- Direct the use of the latest and best design standards;
- Recognize the need for flexibility and direct that Complete Streets solutions fit in with context of the community; and
- Establish performance standards with measurable outcomes.