South Hill Neighborhood

Health Impact Assessment

Prepared by Tacoma-Pierce County
Health Department in partnership
with the City of Puyallup

South Hill Neighborhood

Health Impact Assessment

December 30, 2010

Tacoma - Pierce County Health Department
Healthy People in Healthy Communities
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ACKNOWLEDGEMENTS

Tacoma-Pierce County Health Department and the City of Puyallup owe many thanks to the collective efforts and support of the following individuals and organizations that have made this report possible.

Special Thanks

A special thanks to the City of Puyallup Planning Department, the Puyallup City Council, The Puyallup Planning Commission, and the Citizens of Puyallup and the South Hill area who offered their time, energy, and leadership.

Funding

The Centers for Disease Control and Prevention
Washington State Department of Health

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- City Council
- Planning Commission
- Engineering Division
- Police Department
- Parks and Recreation Department
- Planning Division
- Public Works Department

City of Puyallup, City Council
City of Puyallup, Planning Commission
City of Tacoma
Feet First
Foothills Rails to Trails Coalition
Master Builders Association- Pierce County
MultiCare/Good Samaritan Hospital
Pierce College
Pierce Conservation District
Pierce County Aging and Long Term Care
Pierce County Planning County and Land Services
Pierce Transit
Public Health- Seattle and King County
Puyallup/Sumner Chamber of Commerce
Puyallup Herald
Puyallup Main Street Association- Farmers Market
Puyallup Public Library
Puyallup School District
Sound Transit
South Hill and Puyallup Community Members
South Hill Mall
Tacoma Wheelmen
The Benaroya Company
Think First
Washington State Department of Transportation
Washington Department of Commerce (CTED)
Univ. of Washington Urban Design and Planning Dept.

Document Production

AHBL, Inc.

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the Oregonian
FRESH CUT FLOWERS
KENDAL

Executive Summary

South Hill Neighborhood Health Impact Assessment

The health of Americans is declining. This statement is easily illustrated when looking at the numbers of individuals that are of unhealthy weights, which have reached epidemic levels. Obesity rates in Pierce County, Washington, have risen steadily over the past two decades. Nearly two-thirds of all residents and 28 percent of children are of unhealthy weights. Research shows that being overweight and obese predisposes individuals to chronic diseases such as heart disease, stroke, diabetes and cancer and is associated with premature morbidity and mortality, and decreased quality of life.

This epidemic is the result of multiple factors interacting at several levels over many years. Research into reasons for the rapid rise of the obesity epidemic has established causal links between obesity and sprawl. As the relationship between the built environment to levels of physical activity has become more clear, research has indicated that the design of many features of the built environment influence recreational and travel-related physical activity which, in turn, can reduce risks of chronic

disease related to low levels of physical activity and that increased physical activity improves overall public health.

A systems-level approach to obesity means viewing the problem as more than a personal matter. This is a shift away from the tendency for society to blame the overweight or obese person for a perceived inability to make positive lifestyle choices. A more inclusive vision takes into account that although everyone is ultimately responsible for his or her own actions, factors beyond individual control can present barriers to health-promoting behavior. For example, unsafe streets with limited pedestrian and bicyclist amenities discourage residents from being physically active. Conversely, when fresh, affordable fruits and vegetables are readily available in neighborhoods, there are more chances for people to make healthy food choices.

Figure ES.1 - South Hill Neighborhood Plan Area

EXECUTIVE SUMMARY

HIA Purpose and Rationale

The benefits to preventing obesity become more apparent when we consider relative cost savings and impact compared to the costs of treatment. Chronic disease accounts for 75 percent of medical costs in Washington State and 10 percent of all Medicaid costs are obesity related. Community-based prevention programs in Washington State have an estimated return of every $5.60 for every $1.00 invested. Given the strong effect that obesity has on our society, a predominant focus of this HIA will be on issues related to physical activity and nutrition.

Health Impact Assessments (HIAs) are used to evaluate the positive and negative impacts policies have on public health, to inform public policy decisions and to promote public policy decisions that provide the most benefit for public health.

The Puyallup South Hill neighborhood, the subject of this HIA, is characterized by disparate land uses and a disconnected street pattern. Due to its urban form and configuration, those traveling through the neighborhood have little reasonable choice other than driving. However, over time, the South Hill neighborhood is envisioned to redevelop into a cohesive, mixed use neighborhood with concentrations of residential and employment areas served by high-capacity transit.

The purpose of this HIA is to determine the potential long-term health impacts of the South Hill Neighborhood Plan Policies in guiding further development of the South Hill Neighborhood. The desired outcomes of this HIA are to assess potential health impacts of existing South Hill Neighborhood Plan policies and offer recommendations to strengthen them.

Health and Local Government Planning

The South Hill Neighborhood refers to the 935-acre area of South Hill, which is located within the City of Puyallup in Washington State. This area, known best for its large regional mall, "big box" retail, and traffic congestion, is designated as a Regional Growth Center (RGC) by the Puget Sound Regional Council (PSRC) in Vision 2040. Beyond the commercial core there is low-density

Planning Commission Open House

multifamily residential development, office and light industrial parks, a large municipal park with a lake, a YMCA, and a community college. The area is characterized by disparate land uses and a disconnected street pattern.

Due to early development patterns and the predominance of commercial land uses, the South Hill area has not been viewed as a neighborhood or community. Only when the neighborhood planning process was initiated was the neighborhood looked at as a whole, with a community vision to support quality of place, quality of life and livability. As such, the South Hill neighborhood is envisioned to redevelop over a 30-50 year period into a cohesive, mixed use neighborhood with concentrations of residential and employment areas served by high-capacity transit, with close knit vibrant residential communities, educational opportunities, and public open spaces connected by active sidewalks, bicycle lanes, bus routes, and attractive, pedestrian-scaled streets.

The specific purpose of this HIA is to identify existing health conditions, risks and needs in this community and to assess long term impacts of the South Hill Neighborhood Plan policies as they relate to the five health elements (physical activity, nutrition, crime and safety, injury, and social connections and community identity), and to make recommendations to strengthen the policies and their implementation to improve of the health of this community through design, planning, and government operations. This HIA was prepared using an inclusive process that engaged residents and stakeholders through community forums, walking audits, Planning Commission meetings, and other venues.

Ultimately, the South Hill Neighborhood Plan is about personal and community well-being, which affect longevity, wellness, and the ability to live a healthy and fulfilling life.

Health Elements Assessed

Existing South Hill Neighborhood Plan policies address land use and urban form, green infrastructure and transportation and concurrency. The impact of these policies was assessed for five elements which significantly affect health, quality of life, and the well being of the

South Hill community. Within the context of health, certain individuals suffer disproportionately from disease and other health related effects. These tend to be older adults on a fixed income, low income adults, minorities and youth and those with inequality of access to facilities and services such as healthy food, affordable transportation choices or medical care. Below is a list of the health elements assessed.

HIA Findings

Results of this assessment show that the current infrastructure of the South Hill neighborhood presents many challenges that make it difficult for people to be physically active, eat healthy, socialize with neighbors, and

Health Elements Assessed

- **Physical Activity:** Conditions within the built environment that either support or deter individuals from being physically active as part of their daily lives.
- **Crime and Safety:** Degree and occurrence of crime, including violent crime and property crimes. High crime rates, or the perception of crime, may deter people from being physically and socially active within the neighborhoods.
- **Injury:** Injuries or fatalities within the area, specifically resulting from collisions between motor vehicles, pedestrians and bicyclists. A high degree of injury indicates unsafe conditions which may dissuade people from choosing physically active modes of transportation.
- **Access to Healthy Food:** The numbers and types of food outlets offering healthy foods and the proximity to residents and major employers. Evidence suggests that the location and types of food outlets within a community is a factor in determining the healthfulness of one's diet.
- **Social Connections and Community Identity**: Opportunities available that nurture social connections between community members and the degree to which residents have taken ownership of their neighborhood. Community identity creates a sense of belonging and being a part of something that is larger than oneself, which also nurture social connections and participation in community life.

Social events promote a sense of well-being

Walking for recreation and pleasure promotes health

to engage in activities safely. However; the report also shows that current planning policies, when implemented, are expected to have a significant positive impact to the health of the community and the individuals who work, live and play there.

Potential Health Impacts of the South Hill Neighborhood Plan Policies

The findings of this HIA report revealed that the cumulative degree of change in land use, urban form, and transportation would yield positive health impacts in nearly every case.

Long-term implementation of existing Neighborhood Plan policies will likely have the following cumulative results. There will likely be an increased mix of land uses, a complete circulation system for all modes of travel, and a cohesive urban form particular to the South Hill neighborhood. The physical environment will be changed to the degree that barriers to physical activity are largely removed. Increased proximity to the natural environment and greenery would result from increased parks, open space, trails and a green infrastructure system distributed throughout the neighborhood.

As a result of these changes, it is anticipated that there will be an increased willingness of residents and visitors to use active transport (walking, biking and transit), which in turn would promote and facilitate increased routine physical activity in daily life. Perceived safety and reduced risk of crime and personal injury would further support increased willingness to use active transport. There would likely be increased social networks and cohesion by providing locations for social connections and interactions. A unique, distinct neighborhood identity would emerge based on the development of increased social cohesion combined with cohesive urban form, signature streets, and a green infrastructure network. Access to healthy foods via active transport will be greatly improved.

Potential positive health impacts include:

- Reduced risk of chronic disease due to increased physical activity.
- Reduced stress and mental fatigue which promotes

- over-all physical and psychological well being from reduced fear of crime and injury and increased physical activity.
- Improved mental health, reductions in depression, improved attention span and focus, reduced impulsivity and irritability, and decreased mental fatigue due to increased proximity to parks, open spaces and greenery.
- Reductions in physical illness, including shortened recovery time from illness, reduced number of health complaints, improved mental well-being, reduced stress, and spiritual well-being due to increased proximity and exposure to greenery.
- Improved psychological well being associated with increased perceptions of safety, decreased risk of injury.
- Improved nutrition from the ability to better access healthy foods contributes to physical and mental well-being, health, and overall quality of life.
- Increased mental and psychological well being due to reduced isolation, increased social interaction and support, increased community pride and a sense of belonging.

HIA Recommendations

Combined neighborhood park and storm water facility

While current Neighborhood Plan policies address many health concerns, there are significant opportunities that should be considered in order to create the most desirable health outcomes. This report provides specific recommendations to achieve both the goals and vision of the South Hill Neighborhood and the Health Department. Recommendations take the form of both additional policies and other actions which will improve the overall health of the community. Examples of these recommendations (summarized in the following table) include incorporating a healthy food element into the Comprehensive Plan, prioritizing the development and maintenance of sidewalks especially in vulnerable neighborhoods, and establishing methods for greater community involvement in planning and social activities. Specific recommendations to strengthen these outcomes are provided in the last chapter of this report, and are summarized here.

In order to create a healthy South Hill Neighborhood, we ask policy makers, partner agencies, planners, community members, landowners, employers and other decision makers to work collaboratively in implementing the recommendations provided within this report. The ongoing engagement of these organizations and individuals within and across public and private sectors will provide the support needed to create changes with wide reaching benefits for the health and well-being of South Hill residents, employees and visitors.

The South Hill neighborhood is served by Pierce Transit and Sound Transit

Table ES.1 - Recommended Policy Additions

	PHYSICAL ACTIVITY	CRIME & SAFETY	INJURY	HEALTHY FOOD	SOCIAL CONNECTIONS/ COMMUNITY IDENTITY
LAND USE & URBAN FORM					
1. Revise Codes & Standards	x	x	x	x	x
2. Design Review Process					x
3. TOD District	x				x
4. Master Plans for Large Properties	x	x	x	x	x
5. Measure Mode Shift	x	x	x	x	x
6. Code Enforcement & Maintenance		x			x
GREEN INFRASTRUCTURE, PARKS & OPEN SPACE					
1. Green Infrastructure Plan	x			x	x
2. Master Plan Willows Pond	x	x	x	x	x
3. Safety Audits All Parks & Trails	x	x			
4. Trails Master Plan	x	x			
TRANSPORTATION					
1. Complete Streets Plan	x		x	x	x
2. New East/West Street	x	x	x		
3. Pedestrian/Bike Facilities on Bridges	x		x		

Table ES.2 - Recommended Implementation Actions

	PHYSICAL ACTIVITY	CRIME & SAFETY	INJURY	HEALTHY FOOD	SOCIAL CONNECTIONS/ COMMUNITY IDENTITY
1. Comprehensive Plan Food Element	x			x	
2. Community Gardens					
3. Farmers Market					
4. Neighborhood Service Center		x	x		x
5. South Hill Neighborhood Association	x	x	x	x	x
6. South Hill Business Association	x	x	x	x	x
7. HIA Implementation Committee	x	x	x	x	x
8. Implementation Priorities	x	x	x	x	x


STO

Section 1

Introduction

The geographic scope of this Health Impact Assessment (HIA) is the Puyallup South Hill neighborhood. This 935-acre neighborhood sits atop the "South Hill" bluff above the Puyallup River valley in the rapidly growing south central portion of the City of Puyallup (Figure 1.1-South Hill Neighborhood Plan Area). It is bounded by 27th Avenue SE to the north, Wildwood Park Drive to the east, 47th Avenue SE to the south and 9th St SW and State Route (SR) 512 to the west. The Puyallup South Hill neighborhood refers to the area of South Hill which is within the Puyallup City Limits and which is also a Regional Growth Center (RGC), as designated by the Puget Sound Regional Council. Areas in unincorporated Pierce County, also commonly referred to as South Hill, are not included within this HIA.

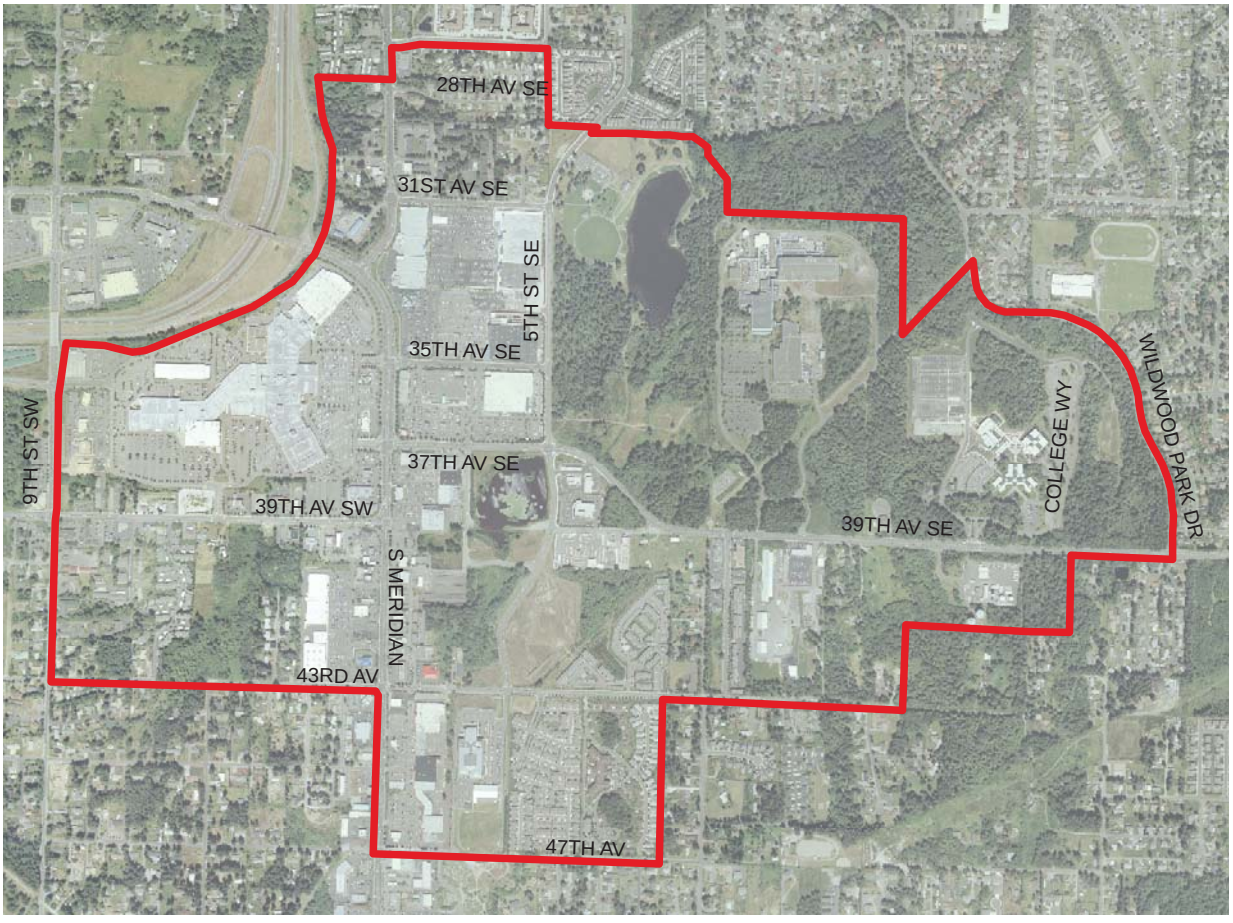
The South Hill neighborhood is characterized by a large commercial core, primarily consisting of a regional shopping mall, "big box" retail, and strip mall development, surrounded by a ring of predominantly low-density residential development. One of the most prominent

features of the area is Meridian Avenue, a six-lane state highway that bisects the RGC and carries some of the highest traffic volumes in Pierce County. Assets in the RGC include a large municipal park, a YMCA, a community college, a large employment campus, a few undeveloped parcels, undeveloped wetland areas, and wooded areas.

HIA Purpose and Rationale

Americans are becoming increasingly unhealthy. While the average age continues to increase, quality of life is decreasing. In order to improve people's health, it is critical to understand the role of our environment and how it affects health. Of particular concern are the rising rates of chronic disease and in particular, obesity. In Pierce County, nearly two-thirds of adults and 28 percent of children are of unhealthy weights. Research shows that being overweight and obese predisposes individuals to chronic diseases such as heart disease, stroke, diabetes and cancer.

Figure 1.1 - South Hill Neighborhood Plan Area



INTRODUCTION

The common view of obesity has been that it is a negative, personal failure in self-care. However; framing obesity as a predictable consequence of an "obesogenic" environment — one that promotes the consumption of unhealthy food — rather than as a personal disease, creates a paradigm shift in how we think about the causes and solutions to the problem. The benefits of preventing obesity become more apparent when we consider its relative societal and financial cost savings and impact compared to the costs of treatment. Chronic disease accounts for 75 percent of medical costs in Washington State and 10 percent of all Medicaid costs are obesity related. Given the strong, significant impact that obesity has on our society, a predominant focus of this HIA will be on issues related to physical activity and nutrition.

Health Impact Assessments are used to evaluate the positive and negative impacts that policies, programs, and other actions have on health, as well as to inform public policy, and promote policy decisions that provide the greatest opportunities to benefit health. The desired outcomes of this HIA are to: (1) Influence the development of the second phase of the South Hill Neighborhood Plan policies and future development regulations, (2) Assess potential impacts of those policies on public health, (3) Offer recommendations that could fill gaps and strengthen the policies, for improved public health of the South Hill community, and (4) Influence implementation of the policies.

The South Hill Neighborhood Plan policies, which were adopted by the Puyallup City Council in December 2009, are the outcome of a neighborhood planning process that developed over a period of years. The City expects to adopt additional policies and an official land use map and associated development regulations in a second stage of planning which will address specific land use locations, densities, building heights, street network and design, and other physical elements of the community in greater detail. The second stage of policy development will be completed by 2011 and provides a timely opportunity to incorporate the policy recommendations contained within this HIA.

Health Elements Assessed

Within this report, five health elements which have significant impact on quality of life and the well being of the South Hill Neighborhood were studied. These elements include physical activity, crime and safety, injury, access to healthy food and social connections and community identity. Within each of the sections that address these five health elements (Sections 3-7), data are used to draw a picture of the health element from both a local and national context. Additionally, a review of current, but not fully implemented, South Hill planning policies are analyzed through a health lens in three distinct policy categories: (1) Land Use and Urban Form, (2) Green Infrastructure, and (3) Transportation. Recommendations for additional policies and other actions to implement the policies, based on these health analyses, are provided in Section 8 of this document (Findings and Recommendations).

Health Elements Assessed

- **Physical Activity:** Conditions within the built environment that either support or deter individuals from being physically active as part of their daily lives.
- **Crime and Safety:** Degree and occurrence of crime, including violent crime and property crimes. High crime rates, or the perception of crime, may deter people from being physically and socially active within the neighborhoods.
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- **Access to Healthy Food:** The numbers and types of food outlets offering healthy foods and the proximity to residents and major employers. Evidence suggests that the location and types of food outlets within a community is a factor in determining the healthfulness of one's diet.
- **Social Connections and Community Identity**: Opportunities available that nurture social connections between community members and the degree to which residents have taken ownership of their neighborhood. Community identity creates a sense of belonging and being a part of something that is larger than oneself, which also nurture social connections and participation in community life.

Health Department Vision: Healthy People in Healthy Communities

The vision of the Health Department is to have *Healthy People in Healthy Communities*. This statement reinforces the concept that it's difficult to achieve one independently of the other, as the environment and the individual are undeniably linked. As our environments shift from natural to "built" ones, we must recognize the impact that these changes play on our physical and mental health. Communities in which health is considered during the planning and design process have healthier citizens, more vibrant communities, and are more desirable places to live. Healthy communities are ones in which citizens feel safe, have a sense of connection with their neighbors and community, and have easy access to services and environments that promote health.

Comfortable and safe streetscapes promote walking

Healthy communities are ones in which:

- Residents can walk from their homes to a near-by grocery store to purchase affordable, healthy foods because there are well maintained places to walk;
- Streets are designed with the safety of pedestrians and bicyclists in mind, resulting in lower rates of injury and higher rates of physical activity;
- All residents, especially low income and elderly individuals, have easy access to public transportation and low cost services that promote health – such as the YMCA or community gardens; and
- Open spaces and other places for the public to gather are readily available and accessible; thus increasing social connections within the community.

HIA Process

Identification of the Community

The South Hill Neighborhood in Puyallup was chosen as an ideal site for an HIA for several reasons, including:

(1) When chosen, the City was in the process of preparing a neighborhood plan for the area, (2) The high incidence of significant health related concerns as the result of rapid and unplanned growth, (3) An opportunity to affect a large number of people given the number of residents, employees and guests who visit the area on a daily basis, (4) A high likelihood that recommendations will be implemented given this area's designation as an RGC and interest by City Council members in re-development, and (5) Interest and readiness by the City's planning department to address HIA related issues.

Desired Outcomes

Through this report, community decision makers will be educated on various re-development strategies of the South Hill Neighborhood and how these actions influence health.

This will be accomplished through provision of an analysis which demonstrates the connection between public health issues and the built environment, especially as it relates to the South Hill Neighborhood. Specific policy recommendations will then be provided. It is hoped that these recommendations will be adopted and implemented by the City of Puyallup to improve the health, the quality of the place, and the quality of life of neighborhood residents, employees, and visitors within the neighborhood.

Community Input

To ensure a well rounded, relevant neighborhood plan, input was gathered from a variety of stakeholders including the Puyallup Planning Commission, residents, City departments, property and business owners, neighborhood groups, local topic area experts, transportation advocates, Health Department staff,

schools, home owners associations, and community organizations. This input was solicited in two primary ways- through Planning Commission "open house" forums and through a "Rapid HIA" process.

Open Houses

The Puyallup Planning Commission was charged with preparing the South Hill Neighborhood Plan and hosted several public open houses in 2007 to identify concerns, priorities with relation to the South Hill Plan, and to develop a vision for the neighborhood.

Planning Commission Open House

Rapid HIA

The Health Department led a two day Rapid HIA process in 2009. The HIA served two functions: to provide education on public health and urban planning and design, and to gather community input on the South Hill Neighborhood as it relates to the five health elements discussed in this report.

Input from the above forums provided valuable guidance in the development of the South Hill Plan. This guidance has been integrated into the Findings and Recommendations located in Section 8 of this report.

Health Impact Analysis of the South Hill Neighborhood Plan Policies

While public health considerations are becoming increasingly integrated into land use planning, inclusion of some health considerations such as food policy, crime and safety, injury, and social networks are not required in the Washington State Growth Management Act, and are not typically found within Comprehensive Plans in Washington State. The same is true for South Hill - health considerations are included within some recently adopted policies, but gaps and opportunities exist in which to strengthen health elements.

Active sidewalks increase public safety and encourage people to walk

In order to identify the strength of existing policies as they relate to health, this HIA analysis was undertaken for each of the five identified health elements. Specific efforts were made to evaluate how the existing policies could affect at-risk individuals. These analyses provide an overview of potential health impacts, both positive and negative, and include identification of potential additional policies which the City could adopt to address gaps and opportunities and further improve health outcomes. However; the degree and timing of the impacts are not known at this point given that specific implementation strategies have not been determined.

Anticipated policy outcomes were identified for each of the South Hill policies, and then grouped by topic. These outcomes provided the substantive basis for defining linkages or "pathways" between the existing policies and potential health impacts. Some health impacts identified in this analysis are understood to be direct, while others are inferred. For example, current policies are silent on the topic of Healthy Food, but it can be inferred that improved access throughout the neighborhood for drivers, pedestrians, bicyclists and transit users will increase access to healthy foods. Additionally, the interactions among individual health impacts are complex. A full description of the methodology used to analyze the health impacts of the South Hill Neighborhood Plan Policies is located in the Appendix of this report.

While the impacts are identified as separate elements, the combined and cumulative effects of multiple impacts present more far reaching results. For example, the combination of a broad mix of land uses with a complete multimodal streets system would be far greater than the impacts of each one or of the sum of the two.

The narrative review of potential health impacts of these policies is located at the end of section which analyze the five health elements (Sections 3-7) specifically, and in total in Section 8, Findings and Recommendations.

Policy Categories

The three categories of South Hill Neighborhood Plan Policies analyzed through the health context of this HIA are summarized below. Figures 1.2 – Non-motorized Transportation Vision, Figure 1.3 – Parks and Trails Vision, and Figure 1.4 – Transit Vision, were adopted as part of the South Hill Neighborhood Plan Policies and illustrate the desired future. These figures and are located in this section of the document.

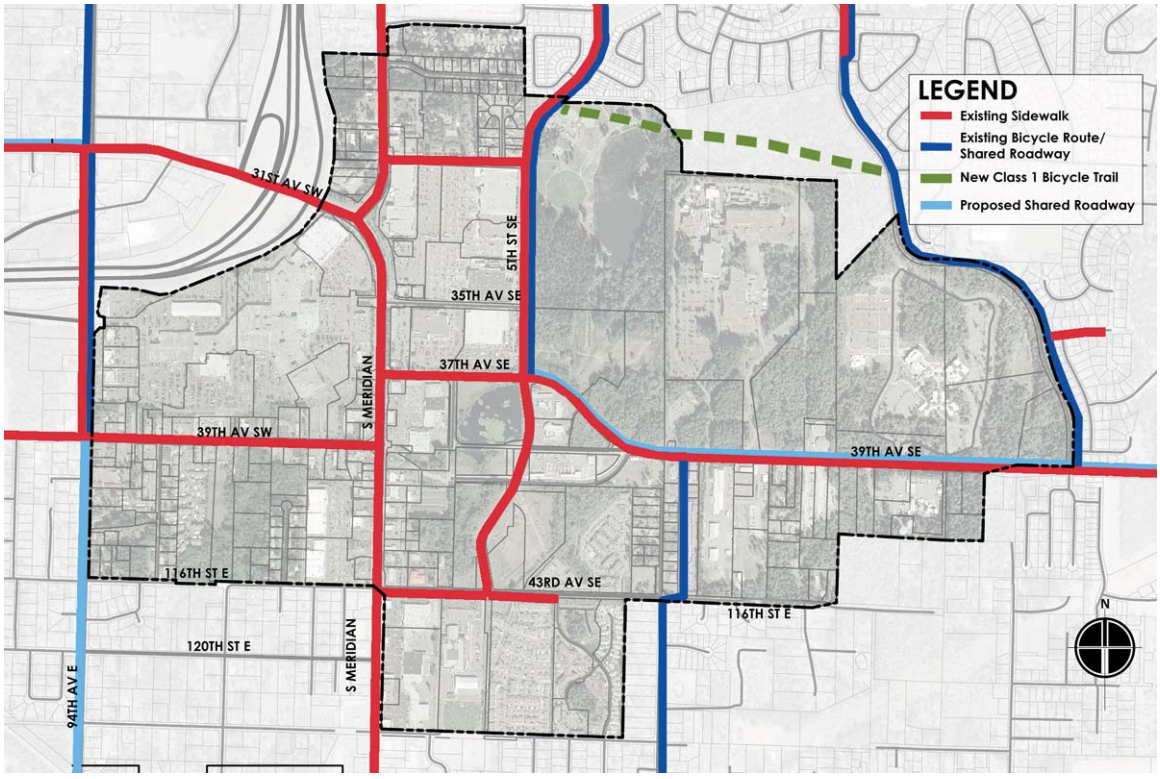
Land Use and Urban Form Policies

Changes to future land use designations are recommended in the policies to better reflect the vision for South Hill as a mixed-use community with a greater attention to a pedestrian oriented form, and in some cases, higher densities and "intensities" than were previously established for the area. Proposed designations are intended to replace the current "one size fits all" Comprehensive Plan designation of auto-oriented Commercial with three area specific mixed-use designations. Proposed changes to land use designations relate to the level of intensity and the degree to which land uses are mixed. As noted below, the auto-oriented Commercial designation correlates to three mixed-use designations which will each be modified to emphasize a specific use and form.

Comfortable public realm

The urban form and character of the South Hill Neighborhood are envisioned to change significantly over the long-term, from an auto-oriented to pedestrian-oriented form. Increasing densities, placing an emphasis on mixed-uses, incorporating

Figure 1.2 - Non-motorized Transportation Vision for South Hill Neighborhood



standards that require buildings to have a stronger relationship to the street, de-emphasizing the visual dominance of parking areas, and integrating pedestrian-oriented design elements are all part of the approach to transform the urban form within the South Hill Neighborhood.

Green Infrastructure Policies

Green infrastructure refers to those features and facilities that provide ecological and utility function. The South Hill Neighborhood has a significant amount of wetland areas, Bradley Lake Park, and an existing, underutilized storm water facility (Willows Pond). It is envisioned that all these features will be integrated into a green infrastructure system that both enhances and integrates the natural environment back into the neighborhood while providing amenity and increasing the livability of the South Hill Neighborhood. Although trails are considered as part of the green infrastructure system, they are discussed and referenced under Transportation Improvements.

Figure 1.3 - Parks and Trails Vision for South Hill Neighborhood

Transportation Policies

These policies, and the implementing regulations that follow, are intended to transform the current development pattern over time into a mixed-use urban center that is less dependent on the automobile and offers greater opportunities for people to live close by and travel to the area by transit, foot and bike, as well as by automobile.

HIA Challenges and Limitations

The development and completion of the HIA was a three-year process. At the onset, examples of past HIAs were not readily available, and this was the first HIA that this partnership undertook. As the HIA process evolved and priorities shifted, data required updating, and strategies were re-visited. Local data for the South Hill Neighborhood was often not readily available, requiring the use of proxy measures for the surrounding City of Puyallup. Some data was anecdotal in nature, and had to be used carefully. Staff turnover impacted the project, as well as the need to identify technical resources outside of the Health

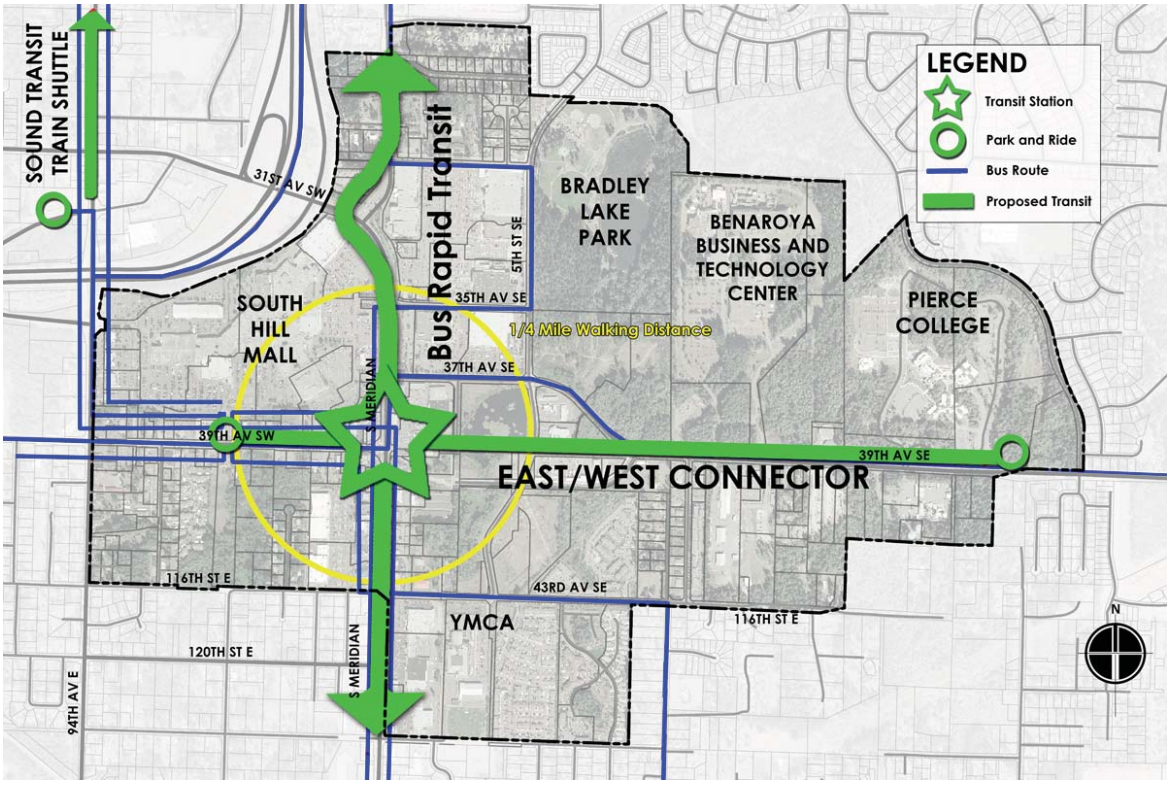
Storm water facility as a street amenity

Department and the Puyallup planning department. Lastly, the timeline of the political process for decision making and policy adoption often did not coincide with the timeline for the development of the HIA report. Through these challenges and lessons learned, it is hoped that Puyallup will benefit from this effort as they incorporate additional policies and an implementation plan for the South Hill Neighborhood. It is also hoped that other communities can benefit from this process and build upon these efforts to strengthen the evidence base for future HIAs.

Vulnerable Populations and Health Disparities

Within the context of health, certain individuals suffer disproportionately from disease and other health related effects. While there are many factors that contribute to this, the primary indicator underlying health status is income level. Low income individuals are more likely to have poor health outcomes when compared to their higher income cohorts. Thus, vulnerable individuals tend

Figure 1.4 - Transit Vision for South Hill Neighborhood



to be older adults on a fixed income, low income adults, culturally diverse individuals and youth. From a chronic disease standpoint, cultural and racial groups most at risk for health disparities include African Americans, South Pacific Islanders, Hispanic and Latino, and Native Indian. A persons age and gender can also place them "at risk" as it relates to certain design elements of the built environment within a community. Throughout the health element analysis and recommendations section of this report, vulnerable populations are given particular attention in an attempt to address and reduce health disparities. Within the context of health, certain individuals suffer disproportionately from disease and other health related effects. These tend to be older adults on a fixed income, low income adults, minorities and youth and those with inequality of access to facilities and services such as healthy food, affordable transportation choices or medical care.


BURGER
KING

Section 2

Planning Context

Recognizing how uncontrolled growth affects the natural environment and quality of life for its residents, the Washington State legislature adopted the Growth Management Act (GMA) in 1990. The GMA required local governments to adopt regulations that protect valued resource lands and critical areas and called for the establishment of Urban Growth Areas (UGAs) to curb sprawl. The majority of population and employment growth in the State is to occur within UGAs. The GMA provides goals for housing, economic development, open space, public facilities, and transportation; and requires local jurisdictions to adopt Comprehensive Plans that include an analysis, as well as goals and policies, for each of these elements. The South Hill Neighborhood is within the City of Puyallup's UGA, and therefore the City's Comprehensive Plan includes goals and policies that provide a framework for how the South Hill area should develop over time.

Higher density, mixed-use development supports walkable envrironments

Regional planning encourages land uses that support transportation options

Vision 2040 and Regional Growth Centers

In 1990, the Puget Sound Regional Council (PSRC) adopted Vision 2020 as the regional growth strategy, which has subsequently been updated and renamed Vision 2040. That plan identifies 27 Regional Growth Centers (RGC), which are places that play an important role as locations of the region's most significant business, governmental, and cultural facilities (Figure 2.1 – Regional Centers). The 18 cities that have one or more regional growth centers are expected to accommodate a significant portion of the region's residential growth (53 percent) and employment growth (71 percent). There are two RGCs within the City of Puyallup: Downtown Puyallup and South Hill. The RGC designation is important in that it qualifies communities for additional transportation funding. However; certain criteria must be established for density, urban form, land use mix, open space, and non-motorized networks, which ensure that these RGCs are established in livable, walkable, communities with a high quality of life.

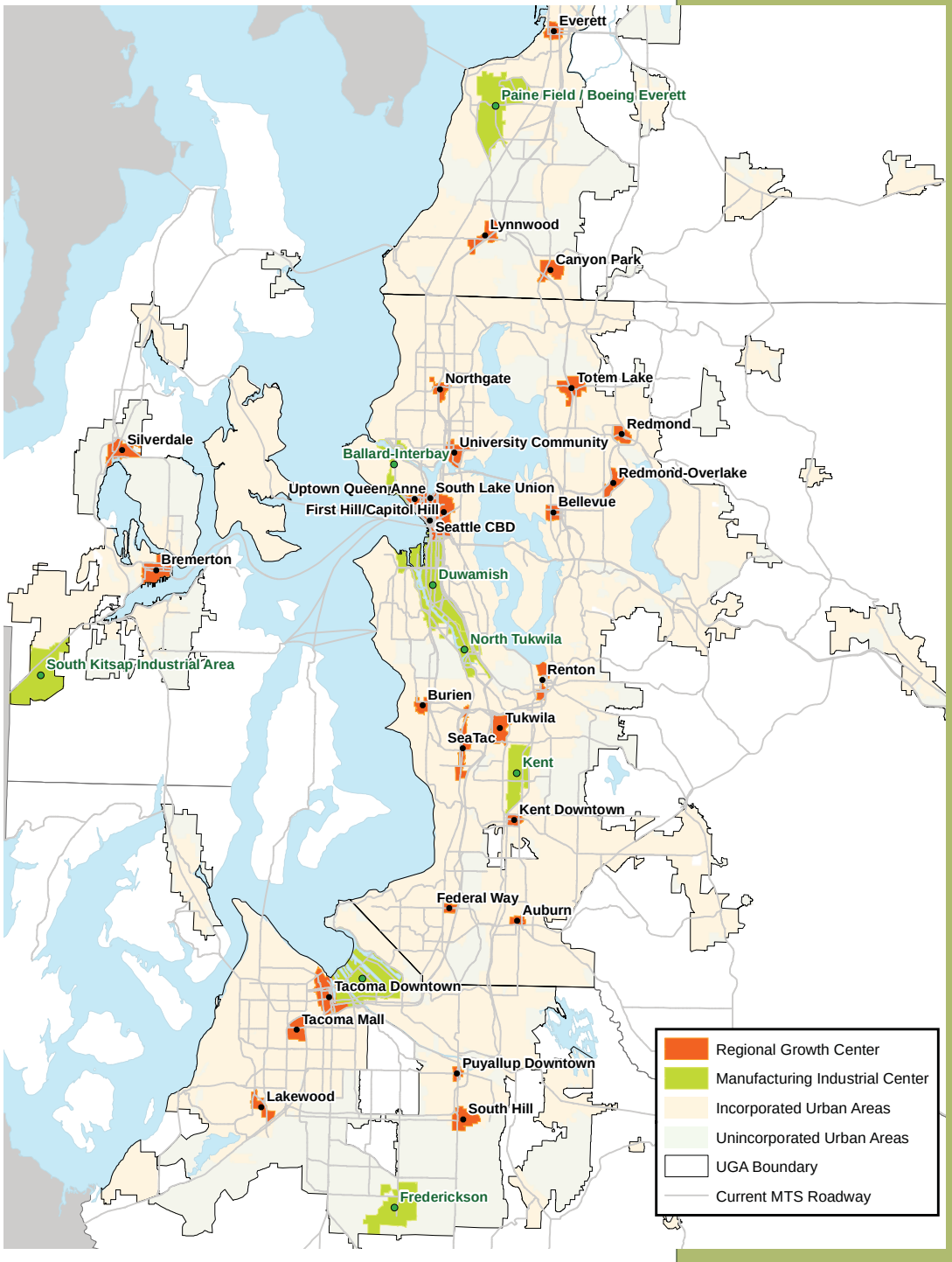
Local Planning Framework

This section provides an overview of the local planning framework for the South Hill Neighborhood Plan.

South Hill Neighborhood Plan

The City's current Comprehensive Plan identifies the South Hill Neighborhood as an area in need of transportation improvements, a greater mix of uses, urban design that facilitates walking and biking, and more recreational and community facilities. These policies, which address South Hill Neighborhood in a general way, have been in the Comprehensive Plan since the early 1990's. The Comprehensive Plan also identifies South Hill as an area requiring more detailed planning in order to be able to specifically implement the general policy direction. To implement these policies, the City initiated a planning effort for the South Hill neighborhood and has adopted the South Hill Neighborhood Plan Vision and Policies (adopted

Figure 2.1 - Regional Centers



December 2009), that more specifically respond to and address existing conditions. A second phase of planning will result in additional policies for the neighborhood including an official land use map, and specific heights and densities. A traffic study and other analyses will be conducted to understand traffic impacts of proposed land use designations. When adopted, phase 2 policies, in addition to the existing adopted policies, will be used as the basis for revisions to portions of the City zoning and development code. This will serve to better accommodate a broader range of land uses and intensities in the South Hill area, and potentially, will contain specific standards which will achieve some of the finer aspects of the community's visions, such as streetscape and building design.

LIFT funding will be used to invest in critical infrastructure in South Hill such as high capacity transit

Local Infrastructure Financing Tool (LIFT) Grant

In 2008, the City of Puyallup was awarded funds from the Washington State Community Economic Revitalization Board under the Local Infrastructure Financing Tool (LIFT) program. A proposal has been made which would allow these funds to be used to invest in critical infrastructure in the South Hill Neighborhood and downtown Puyallup in order to help the City be more competitive in attracting new employers and other private investment to these areas. Funds will be used in a variety of ways that will improve the health and livability of the South Hill area, specifically, with the addition of urban trails, utilities, and high capacity transit on Meridian Avenue between downtown and South Hill. Planning and design of the LIFT–funded facilities provides another opportunity to implement the HIA recommendations as they relate to provision of safe, connected streets, trails, and high capacity transit.

Existing Conditions in South Hill

An "Incomplete" Community

South Hill developed in the 1970's and 1980's prior to any formal planning of the area, thus creating a development plan typical of that era. The South Hill Mall developed as its own entity, strip and "big box" commercial patterns

developed along the state highway – Meridian Avenue, the large "Benaroya" property developed as a microchip plant and office complex during that era, as did the Pierce College campus. Other small industries, some single family houses, and various apartment complexes also were added during this period.

South Hill is typical of areas that developed during the same time period, with the resulting land uses and disconnected road patterns. It's believed that South Hill was originally designated as an RGC when early options for PSRC's Vision 2020 included plans for light rail to extend to South Hill. The commercial land area exceeds residential land area and as such, commercial land owners have participated in local policy decisions, while residents, many of them renters, have not. Though designated as an RGC, the area does not "read" as a whole and until the neighborhood planning process was initiated, had not been thought of, or planned for, as a whole. As a result, the South Hill neighborhood does not contain many of the amenities of the older downtown such as civic uses, public gathering places, nor a specific architectural identity, and in fact, many property owners and others had not thought that these things were important. However, when viewed as an RGC which is forecasted for not only large increases in residential and employment populations, but required to address urban form and design through specific criteria, quality of community and quality of life are viewed as very important.

South Hill Neighborhood street with no sidewalks

Land Use

The South Hill Neighborhood is approximately 85 percent "built out" with the majority of land (~ 29 percent) being used for commercial purposes. Residential uses make up another 18 percent followed by industrial uses at 14 percent, public and quasi-public uses at 11 percent, open space and recreational uses at 10 percent, and transportation, communication and utility uses at 3 percent (Figure 2.2 – Existing Land Uses). Land uses in the South Hill area are segregated, which creates certain health and social challenges.

South Hill Neighborhood street

Commercial development is centered in and surrounding the South Hill Mall and the Meridian Ave. corridor which primarily consists of strip shopping centers and "big

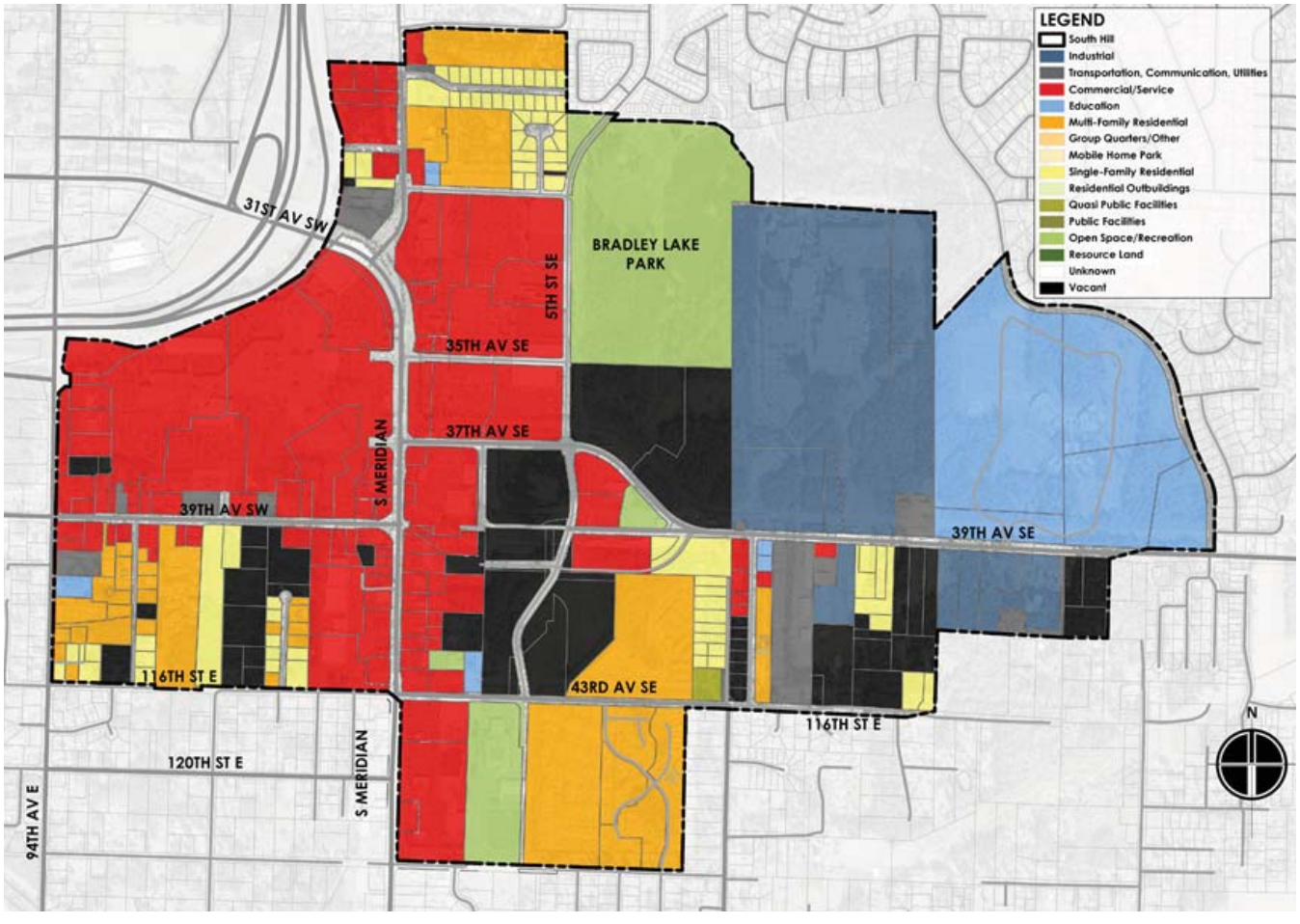
South Hill Neighborhood residential area

box" retail. The South Hill Mall is the primary commercial attraction in the area with over one million square feet and 125 stores.

Residential development within the South Hill Neighborhood is located outside of the commercial corridors in three separate areas. The majority of residential land consists of multi-family residences (63%), most of which are located to the south. Two condominium complexes for seniors and one subsidized housing complex are also located in this area. Single-family residences occur in the north, and in the west. A mobile home park is located along the neighborhood's northern boundary.

Other land uses include industrial areas and Pierce College, a major public institution located along the eastern edge of the neighborhood.

Figure 2.2 - Existing Land Use



Open Space and Recreation

Open space and recreational areas make up almost 10 percent of the land within the South Hill neighborhood. Bradley Lake Park, a 60 acre parcel, is located in the north central part of the neighborhood. It is primarily wooded with a large lake, and consists of a number of trails and other recreational facilities. The Korum Family Branch YMCA, located in the south central part of the neighborhood, is another recreational facility. Other open spaces, such as Willows Pond – a large stormwater pond near the center of the neighborhood – has not been viewed as an amenity in its current condition. There are also numerous wetlands in the neighborhood, some wooded, which have remained relatively untouched, but may have potential as new recreational amenities for the neighborhood.

Bradley Lake Park

Urban Form

The majority of commercial properties have developed as single-story structures with fields of parking on large parcels. Development on large parcels results in the formation of mega-blocks with few through streets (Figure 2.3 – South Hill Street Network). Within the South Hill neighborhood, blocks range in size from 2.7 acres to 421 acres, with an average size of 78 acres (just over one third of a mile), while typical city blocks tend to range in the 2-4 acre size. Unfortunately, large block sizes are synonymous with incomplete or dispersed street networks, which tend to concentrate traffic flows and result in congestion. Furthermore, such street patterns tend to discourage physical activity due to the long distances between street connections, which often force people to go out of their way in order to reach a destination. Additionally, most commercial properties in this neighborhood have large parking lots that separate building frontages and entrances from the sidewalk and/or the street. Such urban form has a negative impact on people's willingness to walk for a number of reasons. First and foremost, it deters physical activity on the sidewalk, such as people entering and leaving shops or window shopping. Secondly, it results in a lack of visual variety and interest and tends to make pedestrians feel exposed and uncomfortable, thus further discouraging walking. Other factors that reduce the

Commercial area in South Hill

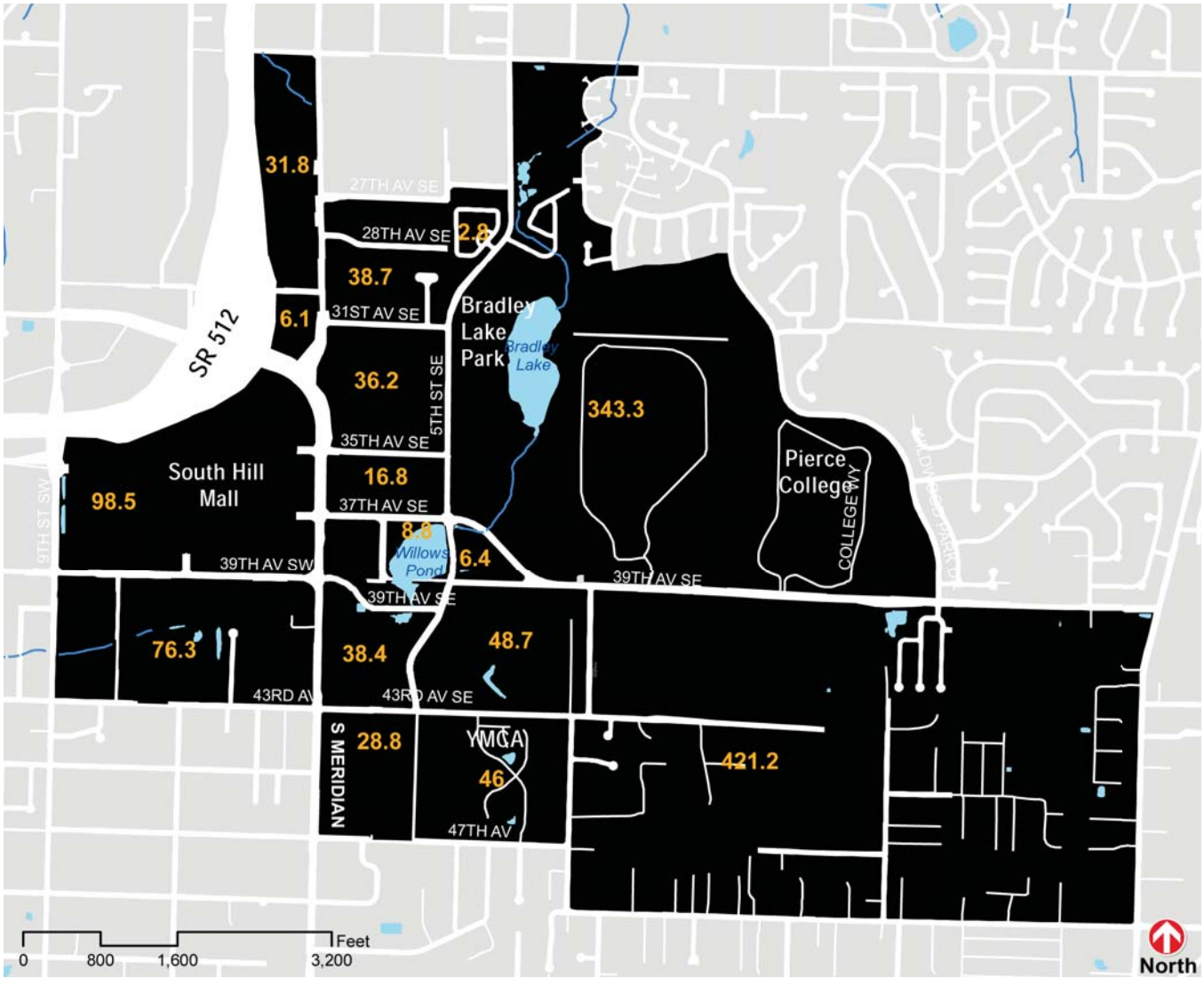
Typical pedestrian conditions in a commercial parking lot in South Hill

comfort and safety of pedestrians, and may deter people from walking in the South Hill Neighborhood include a general lack of buffering between the sidewalk and street, a large number of curb cuts (driveways) where vehicle-pedestrian "conflicts" are likely, and large arterial roads that are difficult to cross.

Transportation Street Network

The South Hill street network (Figure 7 – South Hill Street Network) consists of a dispersed and discontinuous grid of streets which supports traffic congestion and increases the risk of injury given the limited pedestrian and bicycle facilities and volumes of traffic. Street continuity is constrained by SR 512 in the northwest and by large

Figure 2.3 - South Hill Neighborhood Street Network and Block Sizes (Acres)



parcels of undivided land in the northeast including Bradley Lake Park, Pierce College and land parcels owned by Microchip Technologies and the Benaroya Company. There are a limited number of north-south streets within the neighborhood, and only two continuous north-south streets. There are a number of east-west streets, but only one continuous east-west street. Within the South Hill area, the street network is irregular and discontinuous, primarily consisting of dead end streets that connect to collector or arterial streets with higher traffic volumes. The distances between streets range from a quarter mile to one mile which illustrates the lack of a connected street system. Lack of coordinated street systems, as illustrated in the examples above, creates barriers for individuals wanting to be physically active.

Regional and State Owned Transportation Facilities

There are two state-owned roadways within the South Hill Neighborhood: SR 512 and SR 161. SR 161, locally named South Meridian, is a major north-south roadway that carries large volumes of traffic within and around South Hill. Due to the volume of traffic along this route, the design of the roadway with abutting development, and limited number of pedestrian crossings, this roadway currently does not provide a walkable environment and acts as a major pedestrian barrier.

Meridian corridor, the main arterial through South Hill Neighborhood

Meridian corridor approaching SR 512

Traffic Volumes

The major traffic generators in the South Hill Neighborhood are Pierce College, the South Hill Mall and surrounding commercial areas. Much of the traffic is pass-through originating from the south. Roadway segments with the highest traffic volumes in 2004 were S Meridian at 37th Ave, 9th Street SW N and 39th Ave, followed by 39th Avenue SW east of 9th St., and 37th Avenue SE at S Meridian. These locations accounted for an average of 35,000, 26,000, 15,000 and 14,000 trips, respectively.

Public Transportation

Seven public transportation routes service the South Hill Neighborhood via the South Hill Transit Center/Park and Ride located adjacent to the South Hill Mall. All bus routes

South Hill Transit Center

except Route 564 are operated by Pierce Transit. Route 564 is operated by Sound Transit linking the South Hill neighborhood with the larger Puget Sound Region. The number and frequency of bus routes may change in 2010 due to a system redesign that Pierce Transit is currently undertaking. The City has an interest in bus rapid transit (BRT) service along South Meridian and 39th Ave SE, connecting Pierce College, the commercial areas of South Hill, a medical zone located to the north, and Downtown Puyallup. Design and construction of the proposed BRT is still several years away.

Non-Motorized Transportation

Currently, there are 1.6 miles of bicycle lanes on roads within and along the border of the South Hill Neighborhood. These lanes are currently discontinuous, but there are plans for additional lanes along 39th Ave SE, between 5th St SE and Wildwood Dr. Sidewalks exist along 4.2 miles of roadways within the South Hill Neighborhood on at least one side of the street. There are a number of streets that have either no sidewalks or discontinuous sidewalks. Dirt pathways are evident along many of these streets where sidewalks are absent, indicating the desire of pedestrians to walk in these areas.

Vision for the South Hill Neighborhood

The South Hill Neighborhood Vision, adopted by the Puyallup City Council in December 2009, states: The City of Puyallup, South Hill Neighborhood, will become a place where people live, work, learn, shop, and play – a complete community. The elements of the South Hill Neighborhood Vision are listed on the following page.

City of Puyallup Vision for South Hill Neighborhood

A Thriving Retail Core

The neighborhood will remain a regional retail destination. Improved access to a more interesting environment will contribute to the economic vitality of the commercial core – attracting customers, visitors, and employers.

Close Knit Vibrant Neighborhoods

New housing will be integrated into the neighborhood and display quality and character through materials and architectural expression. A variety of housing types, including senior housing and workforce housing, will be available which will enable people of all ages and abilities to live in the neighborhoods in which they work.

Educational Opportunities

Pierce College will be a center of learning and a resource available that meets the educational needs of a diverse community by providing quality education that prepares learners to live and work successfully in an ever-changing world.

Employment Opportunities

Pierce College, the Benaroya campus, the South Hill Mall, and other business owners will expand opportunities for living wage jobs. Specific infrastructure and transit service improvements, including Bus Rapid Transit, will provide greater access to sites of employment.

Public Open Spaces

Improvements to natural and man-made open spaces, such as Willows Pond and Bradley Lake, will be made to enhance and promote their use. An array of public gathering spaces including plazas, courtyards, squares, and parks will be created at every opportunity.

Pedestrian-Friendly Building Design

Building frontages will incorporate combinations of uses, amenities and architectural details, and artistic expressions that are both appealing to pedestrians and provide a safe environment. Parking will be in structures, both above and below ground.

Multi-Modal Transportation – Walking, Biking, Transit, and Driving

Improved roadway connections and improvements to public and non-motorized transportation opportunities will provide greater access to business and residential uses on South Hill. While much congestion in the vicinity originates outside the area, these improvements in addition to land use changes will lessen long-term, local cumulative traffic impacts.

Active and Appealing Streets

Streets within the South Hill Neighborhood will be lined with sidewalks, trees, and other design elements that provide strong aesthetic appeal to encourage pedestrian activity and promote healthy living. Additionally, block lengths will be shortened, so as to encourage walking.


BURLEY

Section 3

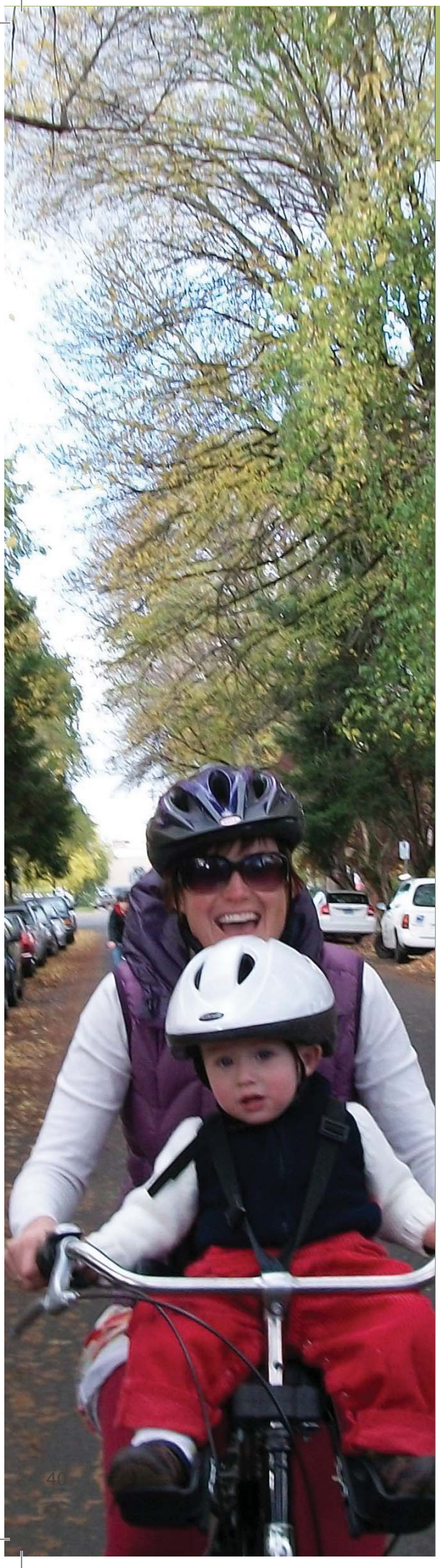
Physical Activity Assessment

Over the last two decades there has been a sharp, significant increase in the number of Americans who are of unhealthy weights. Obesity is now considered to be at epidemic levels in the United States, among adults and children. Unfortunately, this chronic disease is associated with premature morbidity and mortality, and decreased quality of life.

Chronic disease is largely preventable. Until recently, chronic disease research and interventions focused on individual-level interventions related to behavior and choice. Increasing physical activity has been one way of managing disease and reducing risk of diseases associated with obesity such as diabetes, heart disease, high blood pressure, stroke, and others.

National Physical Activity Plan

In May 2010, the US National Physical Activity Plan was developed. This plan provides a road map for increasing physical activity levels of Americans. This vision is that one day Americans will be physically active and they will live, work, and play in environments that facilitate regular physical activity. One of the identified strategies



within this plan to increase physical activity levels is to integrate land use, transportation, community design, and economic development planning with public health planning to increase active transportation and physical activity levels.

Obesity and the Built Environment

Health research into reasons for the rapid rise of obesity has revealed links between decreased physical activity in the daily lives of Americans and the built environment, and causal links have been established between obesity and sprawl. As the importance of the built environment to levels of physical activity has become more evident, recent research indicates that the design of many features of the built environment influence recreational and travel-related physical activity which in turn, can reduce risks of chronic disease related to low levels of physical activity. Many Americans live in neighborhoods which are remote from shopping, employment, and services or in neighborhoods where the immediate built environment presents barriers to walking, such as in the South Hill Neighborhood.

Recent research concludes that promotion of increased levels of mixed land use, street connectivity, and residential density as interventions can have lasting public health benefits. Predictions from research are that people are more physically active and more likely to meet the recommended minimum 30 minutes per day of moderate physical activity when they live in neighborhoods with nearby shops and services, with many street connections between residential and commercial districts. Research into people's willingness to walk has shown the interrelationships between many variables including neighborhood social environment for walking and biking, street amenities, visual quality, and problems related to automobiles in the neighborhood. The following characteristics are correlated with increased willingness to walk:

- Ability to meet basic daily food and retail needs;
- Proximity to destinations, particularly stores and services within 1,500 feet of their home;

- Community design features that promote walking for transport rather than for overall activity or recreational walking;
- Net residential densities of 20 units per acre;
- Net intersection density (see detailed discussion below);
- Block sizes less than 5 acres;
- Combined factors of higher intersection and residential density;
- Areas where people have many net destinations near their home and can get there in a direct way; and
- Opportunities to socialize with neighbors.

Land uses positively associated with willingness to walk include grocery stores, supermarkets, markets, and eating and drinking establishments that are located within one third to one half mile from home. Thresholds for attractive walking environments include those with approximately two or more of grocery stores, non-fast food restaurants and retail stores, but no more than four such individual grocery stores, within 0.6 miles of home. While parks and schools are perceived to be positive in terms of willingness to walk, grocery stores are the most strongly associated land use to which people are willing to walk and which have the potential for encouraging walking to meet daily minimum health requirements.

Destinations known to discourage walking include: big box stores, shopping centers and malls, hospitals, theatres, and museums. Negative land uses associated with walking include large office and school complexes, perhaps due to large parcel sizes which tend to average 12 acres or more, even when less than one third mile from home. A study in the Physician and Sports Medicine Journal found that physically active individuals had lower annual direct medical costs than inactive ones. The authors estimated that if all inactive American adults became physically active, the potential savings could be $76.6 billion.

Active sidewalks invite people to walk

Community events encourage social interaction

A complete street with bicycle facilities, sidewalks, and storm water facilities

Physical Activity as a Daily Part of Life

According to a recent Interagency Committee for Outdoor Recreation report, Washington residents engage in a wide variety of recreational activities, but they are most likely to participate in those that are low cost and close to home. The most popular activities statewide are walking and bicycling.

Motor vehicle traffic can be a significant deterrent to walking. Local trails and paths for walking and bicycling are in high demand across the state. Trails and paths that are separated from traffic encourage people to walk and bicycle by providing a recreational environment that is safer than walking or bicycling on streets and roads. However, due to lack of trails, residents often depend upon streets and roads for recreational purposes.

Community Design and Physical Activity

Recent research in the Puget Sound area of Washington shows that there is significant latent demand for pedestrian travel and that "suburban clusters" are currently underserved by pedestrian infrastructure. This research indicates that approximately 20 percent of the suburban population lives in dense, compact areas with latent demand for pedestrian travel. Areas of latent demand are of prime interest because smaller changes in land use patterns or transportation investments could result in substantially higher shares of non-motorized travel. The findings suggest that the potential to convert latent demand for walking and biking into actual travel behavior change seems high and that one of the key approaches to this change will likely be through changes in the built environment.

Neighborhood Features Enhance Physical Activity

Certain neighborhood features predict greater use for physical activity. These features include accessibility, proximity, good lighting, toilets and drinking water, and well-designed and well-maintained paths, as well as attractive scenery.

Traffic calming measures such as widening sidewalks, raising medians, narrowing roadways, placing bus stops

in a safe and convenient environment, and making various improvements for disabled individuals (e.g., refuge medians) – can all increase levels of physical activity by increasing safety, and thus reducing barriers to walking.

Housing Density, Mixed-Use Development and Traffic

Higher-density development generates less traffic per unit than low-density single-family housing development. It also makes walking and bicycling more feasible and can create opportunities for shared parking. Residents of higher-density apartments and condominiums tend to have only one car per household whereas residents of low-density single-family homes tend to have two or more cars per household.

According to one study from the National Personal Transportation Survey, a doubling of density can decrease vehicle miles traveled by 38 percent because higher density developments create more walkable neighborhoods and contain the necessary concentrations of population to support regular public transportation services. Furthermore, mixed-use neighborhoods make it possible for people to park their car in one place and accomplish several tasks at once. This not only reduces the number of car trips, traffic and congestion, but also reduces overall parking needs for the community. In addition, parking efficiencies can be created when office and residential uses are combined because these uses typically require parking at opposite times.

Parks, Recreation Facilities and Open Space

Parks, recreational facilities, and open spaces can provide individuals with a chance to engage in active play types of opportunities such as bike riding, enjoying play equipment, strolling along trails, using fitness equipment, or engaging in sports related activities.

Unfortunately, often times, places for physical activity are not distributed evenly among communities. Studies have shown that low income individuals and people of color are less likely to have access to parks and other types of recreation than more affluent and white individuals. Additionally, studies have also shown that people who live closer to open spaces had a significantly higher rate of physical activity, than those who lived further away.

Example of residences near transit

Higher-density residences

Neighborhood green space

Another study of park use by older adults published in Parks & Recreation magazine shows that active park users were less likely to be overweight than those who used the park for passive activities or did not use the park at all, and that active park users took less visits to a physician – with the exception of routine checkups.

Transportation and Traffic

Transportation planning decisions impact public health in three main ways: through vehicle collisions, air quality, and physical activity levels. Housing density and mixed-use development also impact transportation choices and health and quality of life. Transportation planning decisions can affect most major causes of death and disability including heart disease, cancer, diabetes, and chronic respiratory disease. The Environmental Protection Agency attributes 64,000 deaths annually to air pollution. Asthma and other respiratory conditions may also be triggered or exacerbated by poor air quality. Individuals living in neighborhoods with a mix of housing, shops, and businesses within easy walking distance are about 7 percent less likely to be obese than those living in less compact and primarily residential areas located further from jobs and services.

How 'Active Transportation' Promotes Physical Activity

Active transportation can be defined as transportation derived from human muscle power and includes walking, bicycling, and the movement of goods. Transit trips, although not entirely active, generally involve a significant amount of walking or biking to and from a transit stop. The use of public transit can significantly increase physical activity levels by providing an opportunity to extend the distance that people can travel by walking or biking. Automobiles as the primary mode of transport greatly impacts individuals' levels of physical activity. Studies demonstrate that people living in neighborhoods with the lowest levels of walkability drive approximately 30 percent more on weekdays and 40 percent more on weekends than those who live in areas with high levels of walkability.

The National Household Travel Survey found that adults who use public transportation spend a minimum of 19 minutes walking to and from transit, and 29 percent achieve the recommended level of 30 minutes of physical activity during these transit access trips. Thus, the use of active modes of transport may represent a very practical and effective way to improve individual's fitness levels. Walking to a transit stop does not require special time, money, or skill – factors that often discourage individuals from being regularly active throughout their lives. Land use patterns and transportation decisions that encourage shifts from single-occupancy vehicle trips to alternative and active transportation modes are beneficial because they not only increase an individual's level of physical activity, but they also reduce traffic, congestion, and air pollution.

Safe bicycling on a safe street

Vehicle Collisions

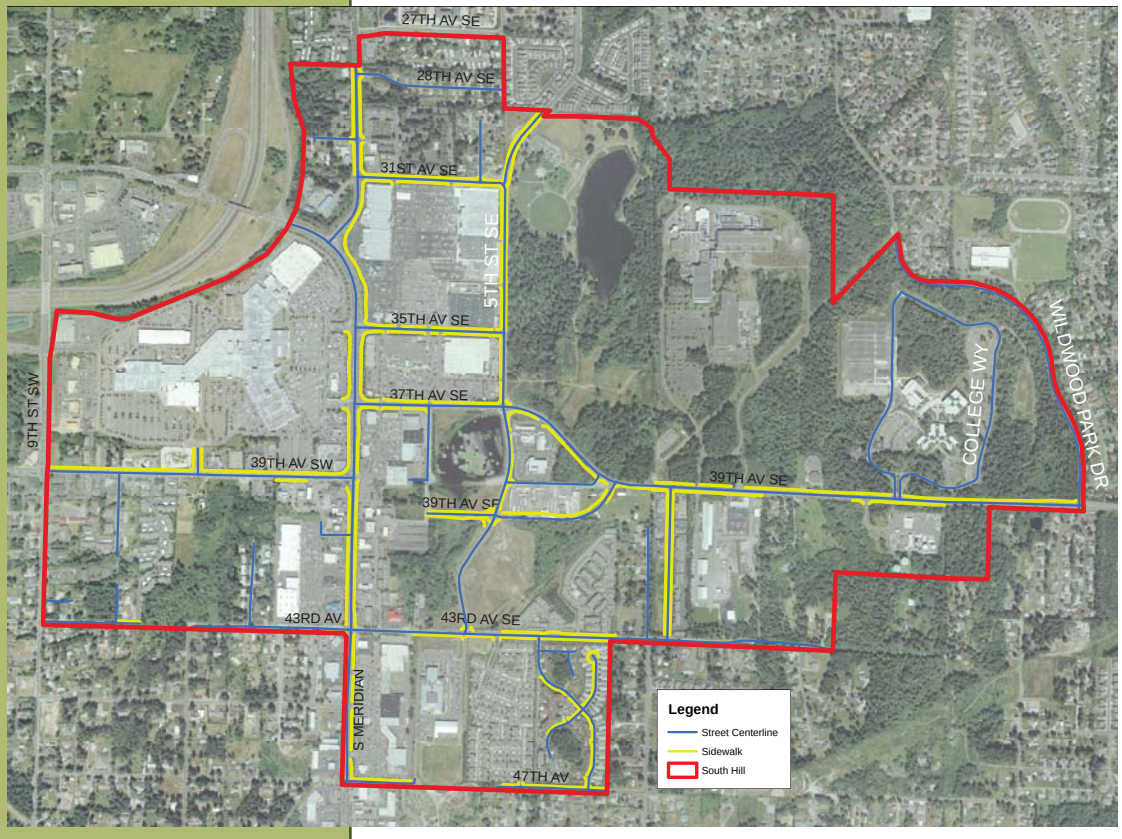
Traffic speed is often considered the most important variable impacting walkability and pedestrian safety. Roadway characteristics that affect pedestrian safety include traffic volumes, road width, number of lanes, typical traffic speeds, and speed limits. The number of intersections in a given length of roadway, or intersection density, is another factor important to pedestrian safety. High intersection density may increase risk to pedestrians due to frequent vehicle turnings. However, very low

intersection density may also increase risk if they are too far apart they result in pedestrians attempting risky mid-block crossings rather than making a longer walk to a protected crossing and back.

Faster traffic speeds increase the likelihood of pedestrians being hit by a car, and being seriously injured or killed in a collision. Well-planned measures to decrease travel speeds such as traffic calming, road or lane narrowing, and reductions in posted speed limits can have a significant impact on pedestrian safety without greatly impacting travel flow or capacity.

US collision rates, as measured by unit of travel, have declined over the last four decades. When fatalities and injuries are measured on a per capita basis, there has been surprisingly little improvement in safety conditions despite large investments in safer roads and automobiles, increased use of crash protection devices, reductions in drunk driving, and improvements in emergency response

Figure 3.1 - Existing Sidewalks in South Hill Neighborhood



and trauma care. This difference can be attributed, in part, to the fact that per capita vehicle mileage has more than doubled over this same period.

Intersection Density

Intersection density is the number of intersections within a given area. Of the built environment measurements that are commonly studied by public policy (such as, population density, distance to a store, or jobs within a mile), intersection density has been found to have the largest effect on walking.

Intersection density also has a large effect on transit use and the amount of driving. Areas with a low intersection density discourage walking because the distances between intersections where there are likely to be safe crossings tend to be long, which may result in pedestrians having to go out of their way to reach a destination. These types of places also tend to offer less visual variety due to the character and scale of development, which further discourages walking.

Existing Conditions in the South Hill Neighborhood

Through data, observation, and the community input process several barriers to physical activity in the South Hill Neighborhood were identified. One of the most significant barriers includes lack of safe and continuous pedestrian facilities, specifically the long distance and indirect routes between residences, parks, trails, employment, and services. Additionally, residents feel a heightened fear of crime in using isolated park and trail areas, such as near Bradley Lake Park and the Benaroya Property. Infrequent transit and a need to transfer at several locations to get to one's destination were also a barrier, as well as fear of child abduction and perception of unsafe intersections.

Walking environment along Meridian

Pedestrian Infrastructure Analysis

An analysis was conducted to determine the extent and accessibility of the pedestrian network in the South Hill Neighborhood. The findings were produced using City sidewalk data and aerial photographs. Network routes were analyzed for the presence of sidewalks, major gaps in the

Table 3.1 - Access to Parks from Multi-family Housing Sites and Critical Centers

ORIGIN	DESTINATION (NEAREST)	DISTANCE (MILES	PEDESTRIAN INFRASTRUCTURE	
			Sidewalks	Crossings
Meridian Firs Apartments	Bradley Lake Park	0.23	Sidewalks both sides of street	Crossing at park entrance
Willow Spring Apartments	Half Dollar Park	0.55	Major gaps in sidewalk network, no sidewalks along 9th St SW outside of City	No crossing at Park entrance
Glenbrooke Apartments	Bradley Lake Park	0.82	No sidewalks along 5th ST SE between 39th Ave SE and 43rd Ave SE, 260 ft. gap in sidewalk on north side of 43rd Ave SE	Marked crossings present at major intersections, no crossing at park entrance
Highland Apartments Adult Community	Bradley Lake Park	0.74	No sidewalks along 5th ST SE between 39th Ave SE and 43rd Ave SE	Marked crossings present at major intersections, no crossing at park entrance
Harvest Willow Garden Retirement Community	Bradley Lake Park	0.82	No sidewalks along 5th ST SE between 39th Ave SE and 43rd Ave SE	Marked crossings present at major intersections, no crossing at park entrance
Transit Center	Bradley Lake Park	0.83	Continuous sidewalks on north side of 39th Ave SE only, sidewalks both sides of Meridian and 35th Ave SE	Marked crossings present at major intersections
Mall	Bradley Lake Park	0.50	No internal sidewalk network connecting Mall to public right-of-way. Continuous sidewalk network north side of 35th Ave SE only	No marked crossings of drive aisles within parking lot, no crossing at park entrance
Benaroya Property	Bradley Lake Park	0.96	No internal network of sidewalks connecting public right-of-way. No sidewalks on north side of 37th/39th Ave SE between Benaroya and 5th St SE. Sidewalks on west side of 5th St SE only. Likely informal paths connecting property to Bradley Lake Park	Marked crossings present at major intersections. No crossing at park entrance

sidewalk network, and the presence of marked pedestrian crossings, specifically as they relate to the cluster of senior housing in the southern area of the neighborhood. Figure 3.1 shows existing sidewalks in the South Hill neighborhood.

Gaps in Sidewalk Infrastructure

The analysis documented major gaps in the sidewalk network within the South Hill Neighborhood. Most notably, the absence of sidewalks along 5th St SE (between

39th Ave SE and 43rd Ave SE) creates a major barrier for individuals living in the senior housing unit and other apartments in the southern portion of the neighborhood who want (or need) to walk to the nearest food store offering healthy food choices or to recreational facilities. In addition, the absence of a marked pedestrian crossing at 5th St SE and 35th Ave SE where there is an entrance to Bradley Lake Park may create unsafe conditions for pedestrians accessing the park at this location. Marked crossings are present at all other major intersections throughout the neighborhood; however, the long distances between these crossings may encourage pedestrians to cross mid-block where there are no marked crossings.

Walking conditions in South Hill Neighborhood

While all of the key residential areas, with the exception of the Meridian Firs apartment complex, have a complete network of internal walkways connecting to the public right-of-way, it should be noted that the commercial areas do not. Accessing healthy food outlets requires traversing parking lots that have no pedestrian walkways or crossings. Also, the South Hill Mall has no pedestrian walkways connecting the mall entrances to streets or public-right-of-ways, and the same can be said for the Benaroya Property and Pierce College, where there are no pedestrian walkways on any of the roads internal to the site.

Typical walking conditions in commercial development in South Hill Neighborhood

Measurement of Proximity of Parks to Residences

The lack of pedestrian facilities on these properties likely discourages walking. In order to determine whether key residential multifamily housing units had adequate access to parks, in terms of distance, the Healthy Development Measurement Tool (HDMT) was used. The HDMT is a tool that is used in urban development to evaluate a variety of conditions using "indicators." One such indicator is proximity of households to parks. Using this tool, a development goal would be to have parks be located within one quarter of a mile from residential homes. Glenbrooke Apartments, Highland Apartments Adult Community, and the Harvest Willow Retirement Community are more than three quarters of a mile from the nearest park entrance. The Willow Spring apartment

Figure 3.2 - Formal Park Entrances in Relation to Major Residential Areas

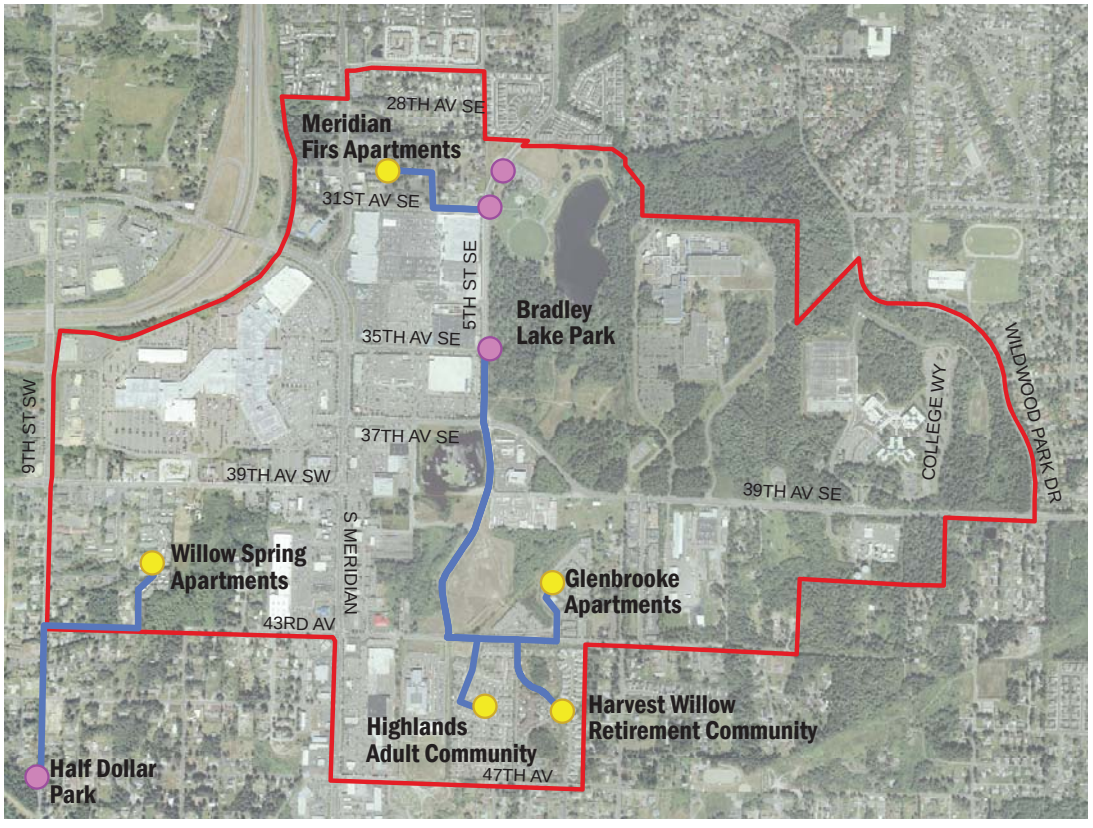
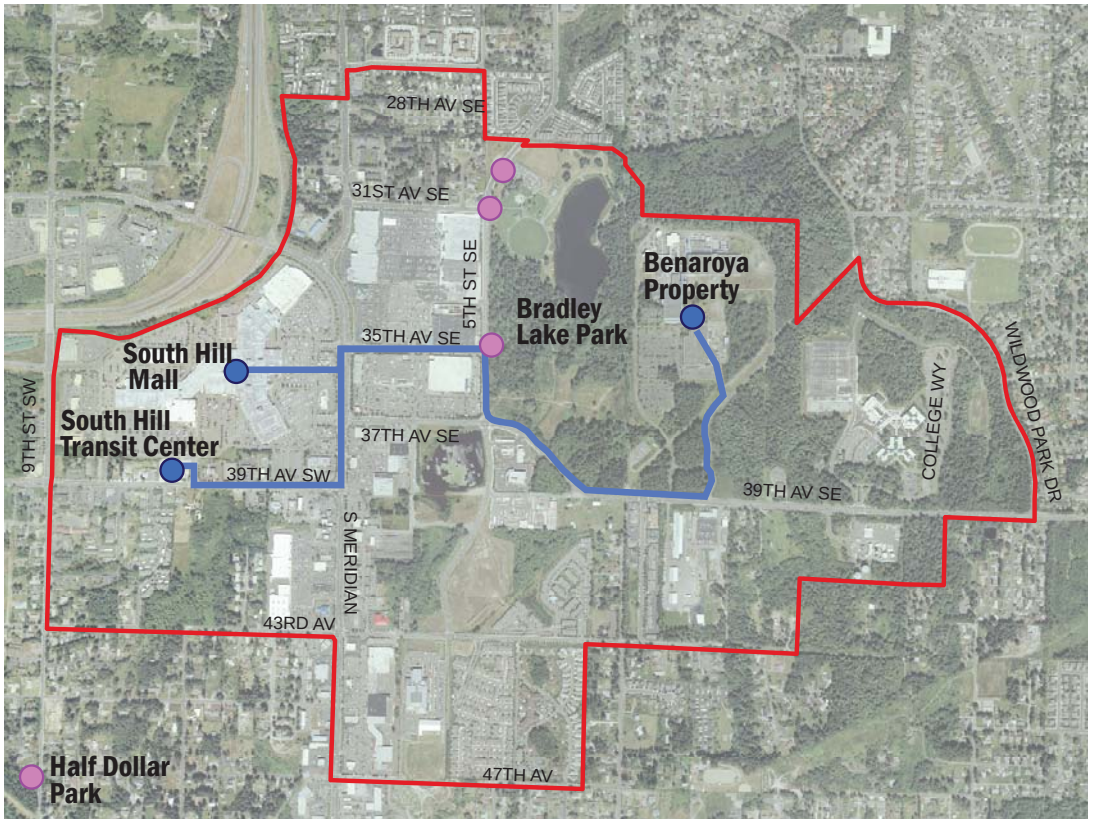


Figure 3.3 - Formal Park Entrances in Relation to Major Commercial Areas



complex is just over a half mile from the entrance to Half Dollar Park, which is a small Pierce County owned park. The Meridian Firs apartment complex is the only multifamily housing unit which meets this goal by being less than a quarter mile to the north entrance of Bradley Lake Park. Table 3.1 provides a summary of distances between park entrances and multi-family housing and critical centers.

Bradley Lake Park is the nearest park to each of the three key commercial areas. Its southern entrance is a half mile from the Mall and over three quarters of a mile from the South Hill Transit Center. This same entrance is just under a mile from the Benaroya Property; however, there appears to be informal paths connecting this property to the adjacent Bradley Lake Park property, which would significantly reduce the walking distance, making the park more accessible to employees. Figures 3.2 and 3.3 show the relation between formal park entrances and major residential and commercial areas, respectively.

Bradley Lake Park

Intersection Density Analysis

In South Hill, three-way and four-way intersections were identified using geographic information system (GIS) data. The number of intersections (42) was divided by the total area of the neighborhood (1.3 square miles) to determine the number of intersections per square mile, with the result being 32.2.

The Congress for New Urbanism has suggested that an intersection density of 150 intersections per square mile is the minimum needed for supporting a walkable environment. One study of California cities found that "safer cities" are those having an intersection density averaging 106.2 intersections per square mile and "less safe cities" as those with an intersection density averaging 62.7 intersections per square mile. The study also notes that a street network with high intersection density may have more than 225 intersections per square mile while a street network with low intersection density might have fewer than 81 intersections per square mile. The study showed that less safe cities had 41 percent fewer intersections per square mile. It should be noted that only nine of the 42 intersections within the South Hill Neighborhood are 4-way intersections, and the other 33 intersections are

Crosswalk in South Hill

Accessible transit facilities

3-way. Four-way intersections greatly increase connectivity and have a much greater, positive effect on increasing walking and transit use.

A similar analysis was conducted to determine the network distance between key residential and commercial areas and the nearest formal park entrance. Using City of Puyallup GIS data, network distances between key residential areas (defined as multi-family developments and senior housing) and the nearest formal park entrance were measured. The same methodology was used to determine the network distance between key commercial areas (the South Hill Mall, Benaroya Property, and South Hill Transit Center) and the nearest formal park entrance.

Vulnerable Populations

The absence of sidewalks along 5th St SE between 39th Ave SE and 43rd Ave SE creates significant barriers for individuals living in the senior housing and other apartments in the southern portion of the neighborhood who want, or need, to walk to the closest food outlet offering healthy and affordable foods (Top Foods) or to the nearest recreational facility (Bradley Lake Park).

Existing barriers and deterrents in the South Hill Neighborhood which create disparities regarding who will walk include:

- Fear of crime in isolated park and trail areas (Bradley Lake Park and the Benaroya Property) especially as this relates to children;
- Lack of safe and continuous pedestrian facilities, long distance and indirect routes between residences, parks, trails, employment, and services;
- Walking distances and indirect routes between housing and employment, services;
- Uncontrolled and unsafe intersections;
- Infrequent transit, need to take multiple transfer bus trips to services; and
- Fear of child abduction.

Safer road conditions promote active transportation

Physical Activity Policy Analysis

The following section provides an analysis of the existing South Hill Neighborhood policies and identifies potential health impacts on physical activity.

Land Use and Urban Form Impacts on Physical Activity

When implemented, existing Land Use and Urban Form policies will likely stimulate significant increases in physical activity, with resulting decreased rates of chronic disease. The physical environment will change such that it will promote and facilitate increased routine physical activity as part of daily life. A strong potential positive impact will be an increase in physical activity, thru walking, bicycling, transit use and recreation. Specific impacts include increases in:

- Walking and bicycling for short trips close to home;
- Use of active transport for routine daily activities;
- The numbers of individuals walking to and from transit;
- The number of employees who will be able to walk or bike to work;
- Individuals who incorporate active living in daily life and potential to meet minimum daily goals for physical activity; and
- Psychological well being.

These impacts will be supported by:

- An urban form that increases willingness to walk, bike, and use transit;
- Shopping and services near residences and employment;
- A cohesive urban form which is comfortable and easy to navigate;
- Improved building design quality;
- Visually interesting streets (retail shops, streetscape improvements, etc.); and
- Concentrations of higher housing densities near employment.

Accessible and safe trails invite increased physical activity

Community trails provide recreation and active transportation opportunities

Storm water features as an attractive neighborhood amenity

Safe pedestrian facilities in retail area

Green Infrastructure Impacts on Physical Activity

The Green Infrastructure policy impact analysis includes two subcategories: Parks, Open Space and Trails, and Natural Environment.

Parks, Open Space, and Trails

Implementation of these policies will likely stimulate significant increases in routine physical activity related to recreational activities and the use of active transport to access the parks system. The physical environment will be changed such that it promotes and facilitates increased routine physical activity in daily life. Potential positive impacts include increases in:

- Active transport to and from parks;
- Active recreation use in parks;
- Trail use for active transport and recreation;
- Willingness and desire to walk due to perceived safety supports;
- Stress reduction which promotes over-all physical and psychological well being; and
- Greenery and access to natural spaces which promote well being and relaxation.

These impacts will be supported by:

- Improved distribution of parks, trails and open spaces throughout the neighborhood;
- Improved access and use of the expanded parks, open space and trails system;
- Increased convenience due to shorter distance to facilities from housing and employment;
- Increase in viable transportation choices; and
- Increased greenery and views of green space.

Natural Environment

Implementation of the adopted Natural Environment policies will likely stimulate increases in routine physical activity related to recreational activities and the use of active transport to access the parks system. The physical environment will be changed such that it promotes and facilitates increased routine physical activity in daily life as a result of the increase in green space and improved visual quality of the environment.

Comfortable transit facility promote transit use

Transportation Impacts on Physical Activity

The existing transportation policies will likely stimulate significant increases in physical activity. Potential positive impacts include:

- Reduction in commute stress, resulting in increased mental well-being;
- Increased number of individuals being physically active and meeting minimum daily goals for physical activity; and
- Reduction in chronic disease rates.

These impacts will be supported by:

- A complete, safe street grid throughout the neighborhood which includes safe pedestrian, bicycle, and transit systems;
- Smaller blocks with a maximum of 300 feet between intersections, which provides shorter distances and direct routes between destinations;
- A comprehensive wayfinding system (comprehensive signage geared towards pedestrians, bicyclists, and transit riders which identifies destinations, routes, and distances).
- Viable high capacity transit (BRT) supported by high intensity housing and employment;
- Reduced barriers to walking; and
- Ability to walk and bike to high capacity transit.

Integrating non-motorized facilities on bridges addresses major pedestrian and bicycle barriers

Section 4

Crime and Safety Assessment

There is a growing body of research that demonstrates the health impacts of different types of crime. Crime can result in physical injuries such as fractures, bruises and wounds, and infection with sexually transmitted diseases. Victims of crime can also suffer psychological impacts, including Post-Traumatic Stress Disorder (PTSD), the effects of which can be serious and long lasting. Both the experience of being victimized and fear of crime have been shown to impact health through an increase in symptoms such as stress, sleeping difficulties, loss of appetite, loss of confidence, depression, social isolation and health harming coping mechanisms such as tobacco and alcohol use.

Community Design and Crime and Safety

Crime and perceived insecurity can also act as a barrier to physical activity. Research shows that those who perceive their neighborhoods as unsafe are less physically active. Walking levels of women, minorities and the elderly populations may be disproportionately impacted by fear of crime and neighborhood disorder. Additionally,

parent concerns about crime may influence children's physical activity levels. Parents who perceive a high level of neighborhood hazards may limit their children's opportunities to walk to school or play outside.

The sections below identify some ways in which our communities can be designed that have an influence on the incidence of crime.

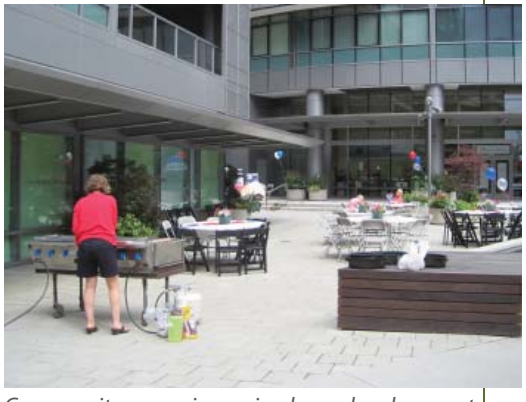
Density and Crime

Mixed-use development

There is a common perception that high-density development leads to higher crime rates. However, several studies have shown that crime rates in higher-density areas are not significantly different from those in lower-density areas.

Conversely, evidence indicates that specific features of the physical environment including housing design, block layout, land use patterns, circulation patterns, and resident generated territorial features (such as, fences or plantings that are perceived as a deterrent to intrusion) are associated with lower crime while physical deterioration is associated with higher crime rates and fear of crime.

Mixed-Use Development



Community space in a mixed-use development

Integrating residential and retail uses is a recognized strategy in reducing opportunities for crime and increases perceived safety. In the context of mixed-use development, retail users generate natural public surveillance because of the increased range of activities during all times of day. This increased activity discourages potential crimes.

Neighborhoods that contain an integrated mix of housing types to accommodate different kinds of households also nurture self-policing communities. When residents have different occupations and family types, it is likely that there will be someone home in the neighborhood most of the time. Fear of crime is also strongly related to the strength of community connections. A sense of being a part of a community results in less fear, and a vibrant neighborhood retail environment provides one type of setting for social interaction. Lastly, integrating a variety of retail uses may also be important in preventing certain types of crime. Research studies have found that stores located

in shopping complexes had fewer robberies than stand alone businesses or those in less concentrated commercial settings.

Safe, Walkable Environments

In general, crime "hot spots" are locations with low pedestrian traffic and limited visibility of homes and entrances. Hidden or partly visible homes, on long, curvy culs-de-sac that are part of a "branching" network of thoroughfares, have the highest crime rates.

Conversely, the safest locations are on well-connected streets with plenty of foot traffic and many highly visible dwellings. The safest culs-de-sac are short, straight, and connect directly to through streets.

Other Factors That Affect Crime and Safety

Maintenance of Property

The appearance and upkeep of an area can have a major impact on whether it will become a crime target. Areas that show blight and visual signs of decay are more likely to experience higher levels of civil disorder, crime and perceived insecurity.

Neighborhood characteristics, such as abandoned buildings, broken sidewalks, and poor street lighting lead to fear of injury and vulnerability to crime, and thereby limit mobility in persons with disabilities and in the elderly. Enforcement of regulations related to the prompt removal of abandoned vehicles and graffiti, replacement of broken windows, and clean up of illegally dumped items, litter and spilled garbage, maintaining paint on buildings, and regularly cleaning sidewalks and street gutters can help to deter and reduce crime.

Illegally dumped items, graffiti and other signs of neglect increase the perception of unsafe walking environments

Neighborliness

The degree of social responsibility and sense of community influences crime rates. Research shows that the quality of relationships between neighbors is an important factor in increasing the safety and security of a neighborhood. The homicide rate in neighborhoods with a high degree of social connectedness was 40 percent lower than in similar

neighborhoods where there were few social connections. The principles of Crime Prevention through Environmental Design (CPTED) can be applied to improve both public and private existing and future development including natural surveillance, access control, territoriality, and maintenance.

Community event

Additional strategies to reduce crime include creating designated places for youth to gather by reducing loitering and starting neighborhood watch groups and community stewardship organizations.,

Traffic Levels

High volumes of traffic can inhibit a person's feeling of safety and comfort in any given area, by creating a "fence effect" where the street is a seemingly impenetrable barrier. Interestingly, researcher Donald Appelyard found that individuals living on a San Francisco street with light traffic had three times as many friends and twice as many acquaintances on the street as did people living on a heavy-traffic street.

Existing Crime and Safety Conditions in the South Hill Neighborhood

To determine the extent to which crime and perceptions of safety affect the health of South Hill Neighborhood residents, data was collected and analyzed from the following sources: the Crime in Washington Annual Report Puyallup Police Department reports and conversations; National Healthy People 2010 Objectives; an administered community survey, a survey of senior citizens; a local walking audit; and a community open house. The findings of these analyses are summarized below.

Crime in Washington Annual Report

Based on data gathered by the Washington Association of Sheriffs and Police Chiefs between 1985 and 2008, the overall crime rate in Puyallup steadily increased by 1.0 percent per year (Figure 4.1: Puyallup and Pierce County Crime Rate per 1,000 people, 1985 – 2008). The majority of these crimes (94 percent) were property crimes such as

burglary, larceny-theft, motor vehicle theft, and arson.

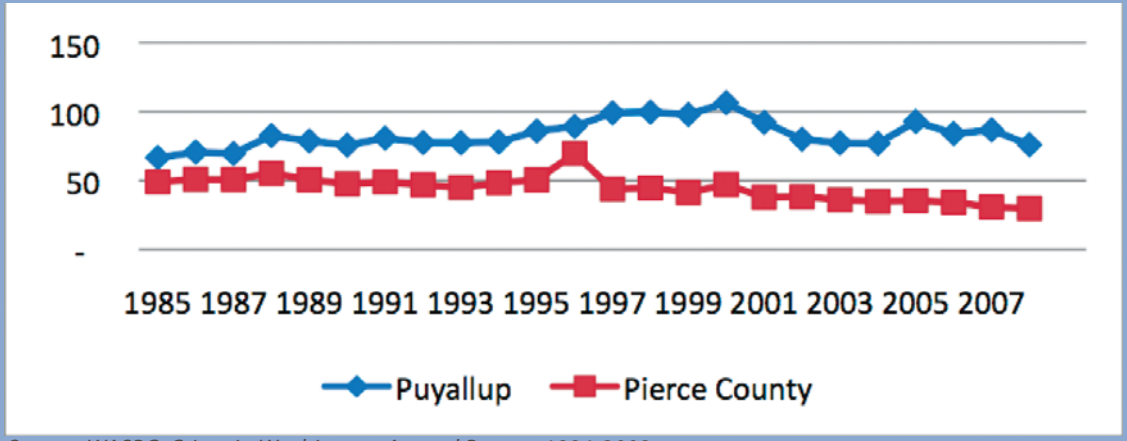
By comparison, the overall crime rate throughout Pierce County decreased by 1.3 percent per year over the same period. Similar to Puyallup, the majority of these crimes (83 %) were property crimes.

Law Enforcement Statistics

To assess the degree of crime and safety related incidents, data was obtained by the Puyallup Police Department. The top 10 law enforcement dispatched call types in the South Hill Neighborhood were compared between South Hill and Puyallup as a whole (Figure 4.2: Law Enforcement Dispatched Call Types). As noted in the graph, the South Hill Neighborhood has considerably higher rates of traffic accidents, shoplifting, theft, response to alarms, traffic complaints, domestic violence, suspicious persons, welfare checks, and malicious mischief rates per capita than Puyallup.

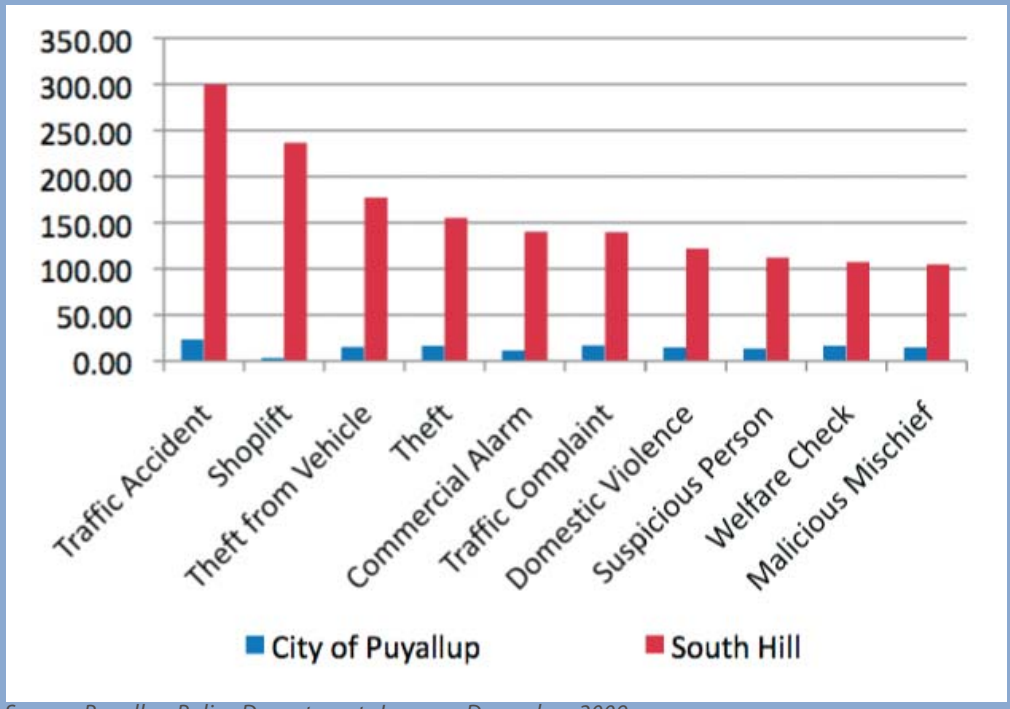
Additionally, data from 2006 show that non-residential burglaries and robberies per 1,000 people were almost four times higher in the South Hill Neighborhood than in downtown Puyallup (Figure 4.3). National data indicates that business hours of operation are one of the most important factors contributing to robbery. Businesses operating in the late evening to early morning hours carry a greater risk of being targeted.

Figure 4.1 - Puyallup and Pierce County Crime Rate (per 1000 people, 1985-2008)



Source: WASPC, Crime in Washington Annual Report, 1984-2008

Figure 4.2 - Law Enforcement Dispatch Call Types



Source: Puyallup Police Department, January-December, 2009

According to the Puyallup Police Department, espresso stands are the most likely business type to be burglarized, although it is unclear why. These businesses tend to be isolated and may potentially be easier to break into and are closed in the evenings when burglaries are more likely to occur. Police Department staff indicated that the number of burglaries and robberies in residential areas is very similar for the South Hill RGC and Downtown RGC. However, theft from cars is significantly greater in South Hill, especially near the South Hill Mall.

Healthy People 2010 Objectives

The United States Department of Health and Human Services establishes national injury and violence prevention objectives as recorded in the publication, Healthy People 2010. Based on these objectives, the average rates of homicide, rape and aggravated assault in Puyallup between 1984 and 2008 were all below the associated Healthy People 2010 targets (Table 4.1 - Average Rates of Specific Violent Crimes in Puyallup, 1984-2008).

Puyallup Community Assessment

As part of a neighborhood community assessment within Puyallup, residents expressed growing concern about increasing crime, specifically violent crime, car break-ins, vandalism and theft. They reminisced about a time when one's house could be left unlocked and expressed feelings of loss for a time and place that was safer. Specifically, many assessment participants indicated that bicycles were one of the most frequently stolen items.

Notice board at South Hill Mall indicates a high occurrence of auto break-ins

AdvantAge Initiative Assessment

In 2002, an assessment of older adults living within Puyallup was undertaken. This assessment, called the AdvantAge Initiative, indicated that almost three quarters of surveyed residents aged 65 and older felt that the safety in their neighborhood was excellent or very good. However, when survey participants were read a list of ten potential neighborhood problems and asked whether each item posed a problem in their neighborhood, nearly three out of five Puyallup respondents perceived that there were multiple problems in their neighborhood, with crime being the second most commonly cited neighborhood problem (Figure 14: Prevalence of Perceived Neighborhood Problems Identified by Puyallup Senior Citizens).

Figure 4.3 - Burglaries and Robberies (per 1000 People)

Source: Puyallup Police Department, January-August, 2006

Walking audit in the Wildwood Neighborhood

Table 4.1 - Average Rates of Specific Violent Crimes in Puyallup (1984-2008)

CRIME	PUYALLUP (average per year per 1,000 people)	HEALTHY PEOPLE 2010 TARGET
Homicide	0.03	No greater than 3.0 per 1,000 people
Rape	0.4	No greater than 0.7 per 1,000 people
Aggravated Assault	1.6	No greater than 13.6 per 1,000 people age 12 and older

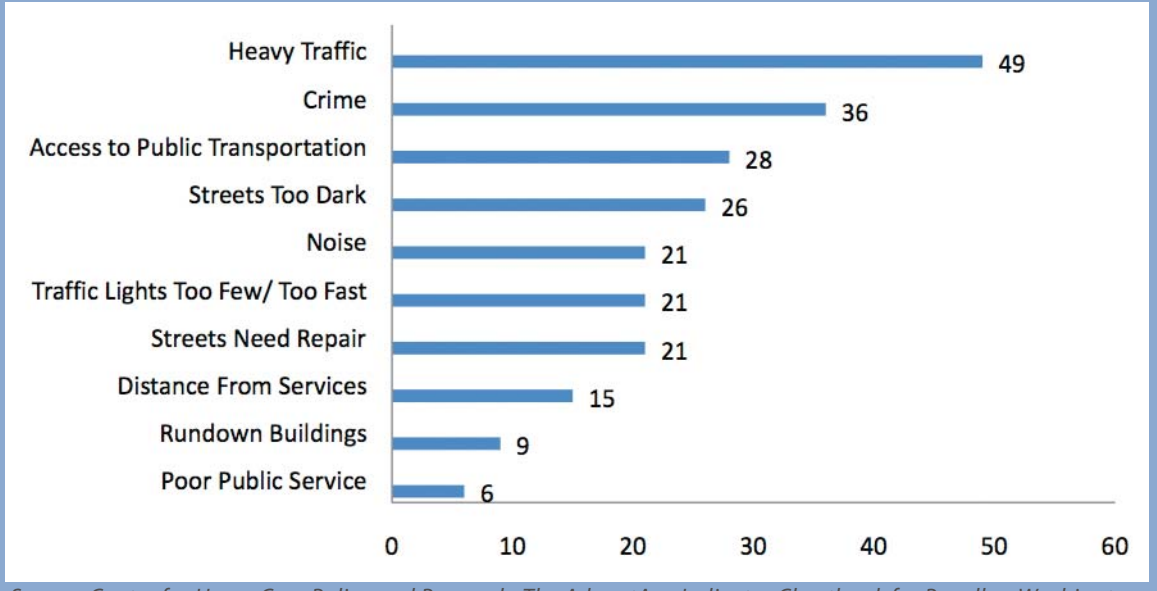
Source: Washington Association of Sheriffs & Police Chiefs, Washington State Part-One Offenses Known to Law Enforcement, 1984-2008

Wildwood Park Neighborhood Walking Audit

In 2006, the Tacoma-Pierce County Health Department sponsored a walking audit of the Wildwood Park neighborhood in the South Hill Neighborhood. The area was predominately residential and included one elementary school and one junior high school.

A group of twenty residents participated in identifying problems and developing suggestions for improvement to facilitate more walking and bicycling.

Figure 4.4 - Prevalence of Perceived Neighborhood Problems Identified by Puyallup Senior Citizens



Source: Center for Home Care Policy and Research, The AdvantAge Indicator Chartbook for Puyallup Washington, 2002

Two of the concerns documented during the walkability audit have specific relevance to crime prevention efforts and the perception of safety. These include safety concerns, such as the risk of child abduction and lack of street lighting among major routes.

The concerns cited above indicate that parents are less likely to allow their children to walk or ride their bicycle to school within this specific school zone. While it is noted that there are currently no schools within the South Hill Neighborhood boundaries, the comments can be interpreted more broadly to reflect that perceived level of safety by parents can enhance or hinder their child's physical activity levels in the general community or within other schools within the surrounding South Hill Neighborhood and Puyallup as a whole.

Local crime watch sign

Planning Commission Open House Public Comments

In 2007, the City of Puyallup and the Puyallup Planning Commission hosted an open house to solicit stakeholder input on their vision for the South Hill Neighborhood. Public comments were captured in two ways: through documented, written concerns, and through suggestions shared by residents during conversations. One of the questions asked of residents was "What characteristics of the South Hill Neighborhood (residential and commercial areas) make you feel safe from or exposed to crime?"

Participant responses fell into four categories:

Adequacy of Police and Programs

Open house participants expressed a desire for additional police officers and a need for enhanced community outreach and proactive crime prevention programs such as block watch and crime free multi-family housing. Additionally, residents expressed a desire for the City to work in cooperation with the Pierce County Sheriff to implement these programs in areas that are within the urban growth area but not currently within the city limits. According to the Puyallup Police Department, these groups are typically established after the neighborhood is affected by a specific criminal incident.

Safety in Parks and on Trails

Community members expressed specific concerns about homeless encampments and gang related activity in city parks. Several female residents also expressed general concern about their safety when using certain trails due to the secluded nature of these locations. Participants requested prompt removal of graffiti, improved visibility on trails, and an increased police presence in parks and on trails to deter criminal activity.

Well-maintained neighborhood park

Code Enforcement Concerns

Residents expressed the need for additional enforcement of existing ordinances to reduce parking on lawns, storage of non-functioning vehicles on property, and other issues related to private property maintenance.

Adequacy of Infrastructure

Community members expressed the need for additional streetlights on major routes and neighborhood streets.

Existing crime and safety risks and concerns as well as community fears and concerns were cited during the public process. Such risks can reduce neighborhood comfort, affect mental and psychological well-being, and affect willingness to walk and bicycle. The list below summarized key crime and safety issues in the South Hill Neighborhood:

- The highest category of Puyallup Police Department calls are traffic accidents on South Hill;
- Car break-ins and theft at South Hill Mall are a high-incident crime, as is shoplifting;
- Fear of child abduction;
- Users of wooded, isolated areas such as the Benaroya Property and Pierce College Campus for assault; and
- Concerns about crime in the woods at the Pierce College campus.

Vulnerable Populations and Health Disparities

Populations that are most at risk for being victims of crime and have the highest perceived lack of safety in the South Hill Neighborhood include: seniors, children, ethnic minorities, low income households, Pierce College students, employees at the Benaroya Property, pedestrians in isolated areas, and women.

Crime and Safety Policy Analysis

The following section provides an analysis of the existing South Hill Neighborhood policies and identifies potential health impacts on crime and safety.

Land Use and Urban Form Policy Impacts on Crime and Safety

The existing policies make limited reference to Crime and Safety. However, it can be inferred through evidence and literature that implementation of the Land Use and Urban Form policies will likely result in an urban form which fosters reduced risk and incidence of crime in most areas of the neighborhood. Specific areas of potential risk would still exist and need to be addressed with site-specific strategies. Potential positive impacts include improved safety and perceptions of safety specifically resulting in:

- Lower actual rates of crime;
- Positive mental health benefits of living, working, and shopping in a neighborhood that is safe with low risk of crime;
- Increased willingness to walk due to decreased fear of crime associated with isolated single use areas; and
- Reduced incidence of car break-ins at the South Hill Mall.

These outcomes will be supported by:

- Population and employment densities which create more local activity, including more people in the area for longer hours of the day, which is a deterrent to crime;

Visible trails provide pedestrians with an increased sense of safety

- Increased "eyes on the street," which is a deterrent to crime;
- Increased residential population, which tends to result in a population that cares about the area with an interest in personal safety and security;
- Higher quality building design with direct access which deters crime;
- Reduced car break-ins, due to less land area devoted to large parking lots with isolated areas, such as the South Hill Mall and other commercial areas;
- Increased visibility and use of parks;
- Increased greenery may contribute to a more "cared-for appearance, which can be a deterrent to crime; and
- Reduced barriers to walking.

Green Infrastructure Policy Impacts on Crime and Safety

Incorporating safety considerations in parks is mentioned within the policies to a minimal extent. The potential health outcomes of improved neighborhood safety and lower risk of crime is similar to that identified above in the Land Use and Urban Form section. Specifically, a potential positive impact would be an increased use of some parks and trails with new or upgraded facilities, which will likely be designed with a focus on crime prevention principles. However; the isolated nature of parks and trails continues to present safety risks and would require site-specific strategies to improve safety. For example, there are several areas of Bradley Lake Park that are isolated, which may deter use of the trails in the park.

Low impact storm water facilities provides greenery in a parking area

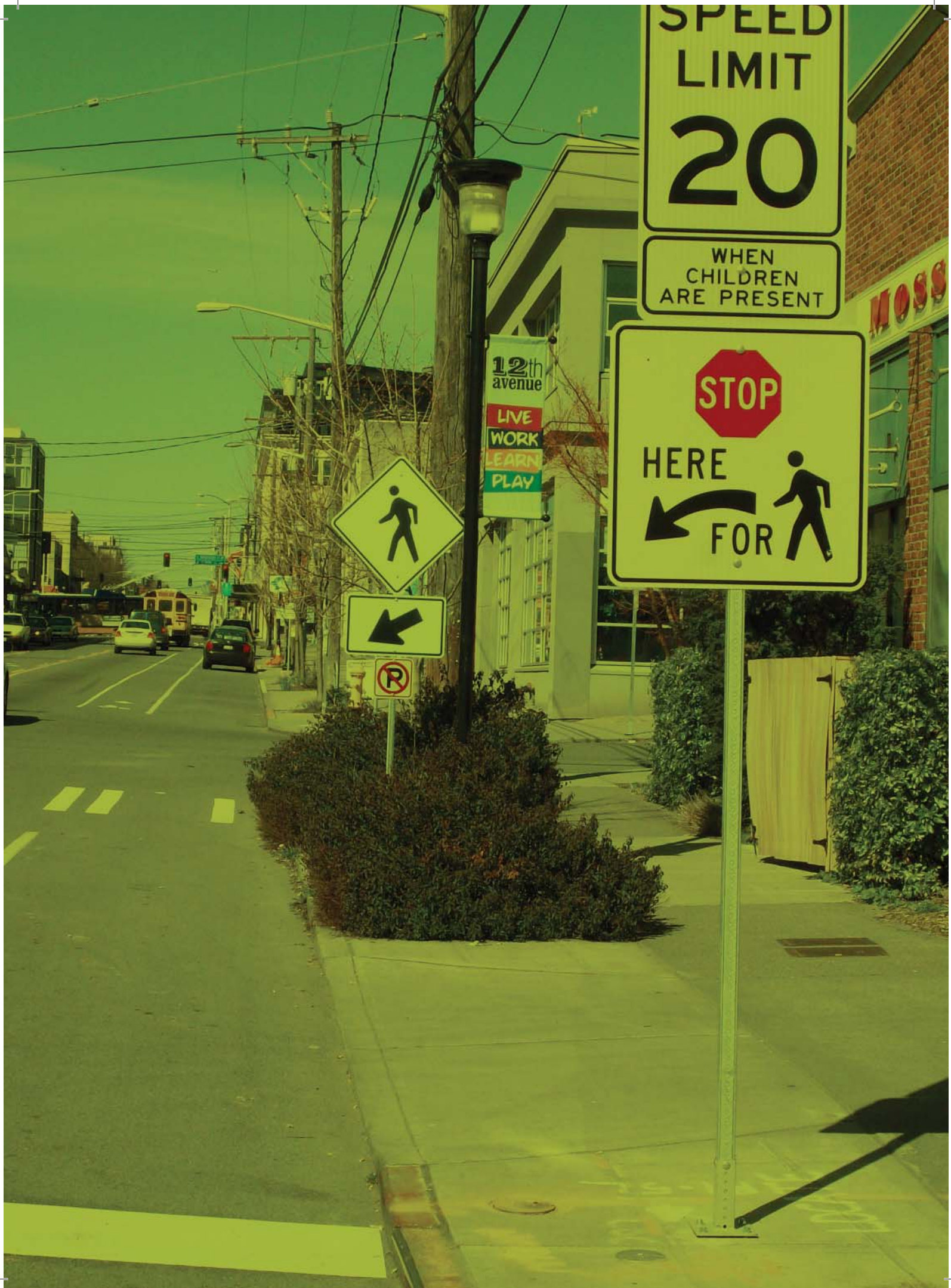
As a result of these policies, it is expected that there will be increased levels of physical activity in the community given individuals' greater willingness to walk. Additionally, it is expected that psychological well being will increase as perceptions of safety increase along with being in a natural environment with green space.

Transportation Policy Impacts on Crime and Safety

Potential policy outcomes and positive health impacts are synonymous with those identified above in the Land Use and Urban Form section. However, a potential negative impact relates to the fact that urban trails are planned as the primary east-west non-motorized connections between Pierce College, the Benaroya Property, and 5th Street SE, rather than on-street facilities. Specifically:

Visibility and regular police patrols of trails promotes use of these facilities

- Several planned urban trails will be located in isolated wooded areas and can pose a risk of crime and personal assault to users, especially in non-daylight hours. Fear of crime will likely deter use and create barriers to physical activity in this area;
- The distance one must walk from the buildings at Pierce College and the Benaroya Property to surface streets is the equivalent of multiple city blocks through isolated wooded areas and the entry and loop roads for both properties do not have sidewalks. This distance, combined with risk of crime and assault especially during non-daylight hours, will likely deter individuals from walking through this area to the street in order to use transit; and
- Safe, non-motorized access to and through the Benaroya Property and Pierce College are particularly important given the significant levels of growth forecasted for employees and the student population, which will likely number in the thousands. These properties will be one of the most intensely used areas of the entire neighborhood. As such, provision of a safe, circulation network is of particular importance. Facilities that would provide safe access and increase willingness to walk include increased number of street connections, smaller blocks, and a completed non-motorized network.


SPEED
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WORK
LEARN
PLAY

Section 5

Injury Assessment

The ways in which our communities are designed for transportation can have a significant impact on injury rates, risk of injury, perceptions of safety, and willingness to walk and travel by bicycle. The design of the built environment can influence injury levels. A poorly designed environment can result in increased bodily injury. A community can be intentionally designed to reduce risk and incidence of injury while increasing willingness to walk and bicycle. This becomes particularly evident when looking at statistics regarding injury related to motorized and non-motorized forms of transportation.

Injury and Death from Motor Vehicle Accidents

According to the Centers for Disease Control and Prevention, motor vehicle crashes are the leading cause of death among people between the ages of one and twenty-four and cause approximately 3.4 million nonfatal injuries each year.

In 2003, 4,749 pedestrians were reported to have been killed in motor vehicle crashes in the United States, accounting for 11 percent of the 42,643 motor vehicle deaths nationwide that year. Since that time, there has been a decrease in pedestrian fatalities which may reflect the facts that people

are walking less and that safety conditions are improving. In Washington State, between 2006 and 2008 over 9,500 bicycle and pedestrian collisions and 341 deaths occurred (Figure 15: Percentage of Fatalities and Injuries Resulting from Traffic Collisions). Factors which contribute to or affect injury are summarized below.

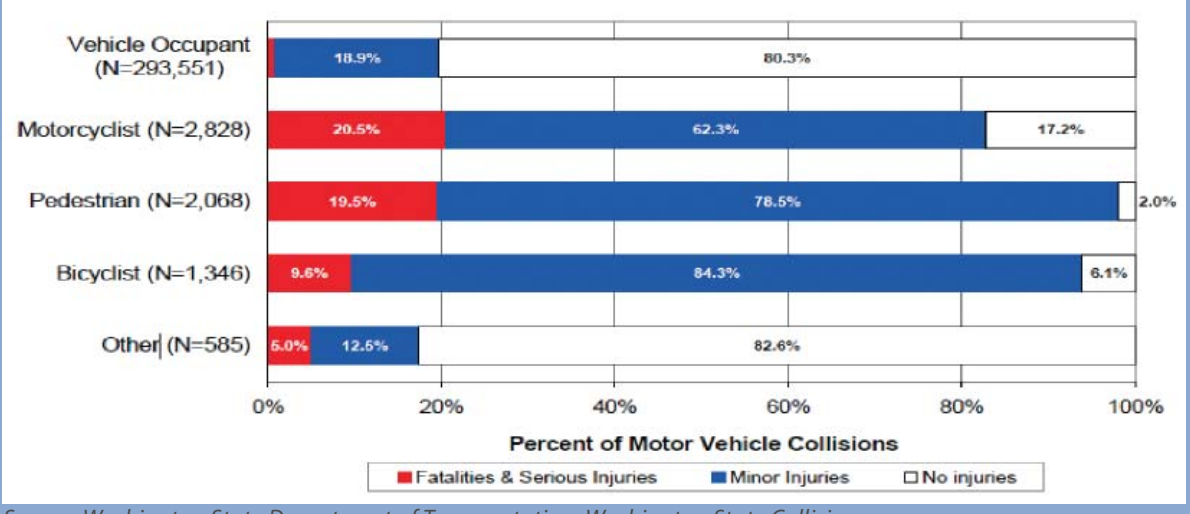
Vehicle Speed

Vehicle speed is an important contributing factor in all types of collisions. In 2003, speeding was a contributing factor in 31 percent of all fatal crashes within the United States. Faster speeds increase the likelihood of a pedestrian being hit due to the chance that motorists are less able to see a pedestrian or stop in time to avoid hitting them. Vehicle speed also contributes to a pedestrian's likelihood of death, if hit. A pedestrian hit by a car traveling 20 mph has a 5 percent chance of being killed compared to an 85 percent chance of death at 40 mph.

Number of Vehicles and Trips

Research consistently demonstrates that when the number of vehicle trips and the number of cars in any

Figure 5.1 - Percentage of Fatalities and Injuries Resulting from Traffic Collisions



Source: Washington State Department of Transportation, Washington State Collision Data Summary, 2006

given area increases, the number of vehicle-related injuries to pedestrians will also increase. A study of intersections in Boston's Chinatown neighborhood found there was an increase of 3 to 5 injuries per year for each increase of 1,000 vehicles.

Roadways designed predominantly for automobiles with multiple lanes, high speeds, long distances between intersections or crosswalks, lack of pedestrian and bicycle infrastructure, and many large commercial establishments pose an increased risk of injury or death for pedestrians and cyclists.

Discontinuous Street Networks

Suburban developments often consist primarily of "loop and lollipop" roadway configurations connecting to feeder roads that combine high speed, high traffic volumes, and frequent curb cuts for entering and exiting stores and other destinations. These areas are characterized by dead end streets and limited route options due to the limited number of connecting streets. This street configuration is associated with increased risk of collisions and automobile accidents, as are congested roadways.

Injury from Collisions in Urban and Rural Environments

Over three-fourths of all non-motorist fatalities occur in urban areas. The rate of collisions in Washington State is significantly higher on city streets than compared to state routes, highways and county roads (Figure 5.2: Motor Vehicle Collisions in Pierce County by Road Type, 2008).

Existing Injury Conditions in the South Hill Neighborhood

Pedestrian and Bicycle Collisions in Puyallup

Based on data provided by the Washington State Department of Transportation in 2008, there were 213 automobile collisions involving pedestrians and 116 involving bicyclists in Pierce County. Respectively, 8.9 percent and 12.9 percent of these collisions occurred in Puyallup.

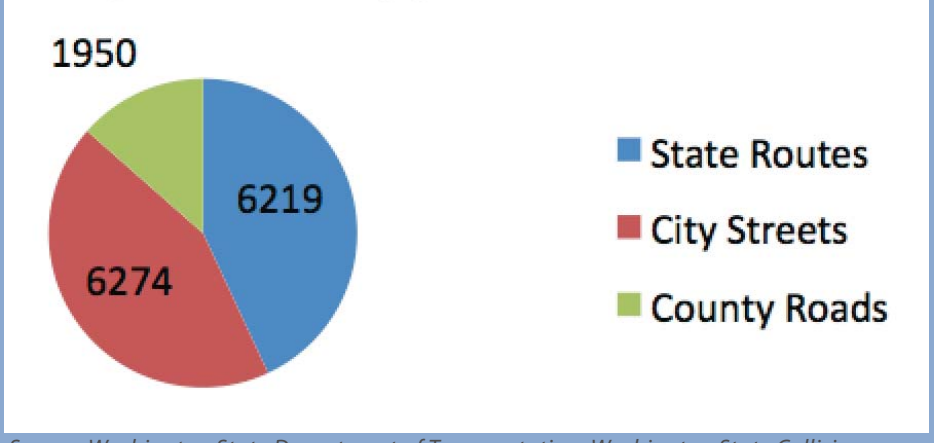
The Washington State Department of Transportation examined collision rates between automobiles and pedestrians and bicyclists throughout the state to determine areas with highest rates of collisions, death and injury due to collisions. A collision rate for each jurisdiction in Washington was determined based on a community's population, density, and collision information. Results of this study showed that Puyallup had significantly higher rates of collisions, fatalities and injuries, when compared to the rest of the State. In Puyallup in 2008, there were 1,234 collisions or 31.9 collisions per 1,000 people (Figure 5.3 - Collision and Fatality/Injury Rate in Cities with a Population between 22,500 and 60,000).

Age and Gender Characteristics of Pedestrian and Bicyclist Collisions in Puyallup

This section summarizes age and gender characteristics of pedestrian and bicycle collisions in Puyallup based upon 2008 data.

- 74 percent of all pedestrians involved in crashes in Puyallup involved adults and 26 percent involved youth less than 19 years of age;
- 54 percent of pedestrian crashes involved males and 46 percent involved females;
- A higher proportion of bicycle collisions in Puyallup involved children under the age of 18 (55 percent versus 45 percent adult); and

Figure 5.2 - Motor Vehicle Collisions in Pierce County by Road Type



Source: Washington State Department of Transportation, Washington State Collision Data Summary, 2008

- Individuals involved in bicycle collisions in Puyallup were overwhelmingly male (88 percent versus 12 percent female). Countywide, males were also much more likely to be involved in bicycle collisions than females.

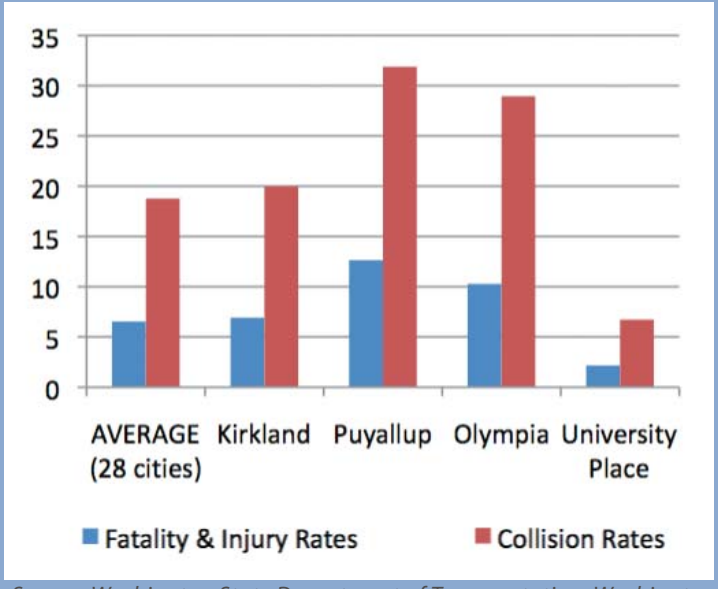
Location Characteristics of Pedestrian and Bicyclist Collisions in Puyallup

This section summarizes location characteristics of pedestrian and bicycle collisions in Puyallup based upon 2008 data.

- Nearly all the pedestrian and bicycle collisions in Puyallup occurred on city streets (96 percent). Three incidents took place on county roads;
- A majority of collisions in Puyallup occurred at intersections (59 percent). Driveways were the second most common location where incidents occurred (20 percent);
- Four out of five total collisions (80 percent) in the South Hill Neighborhood occurred at the junction between a roadway and a commercial driveway access point; and
- Nearly three-quarters of all incidents took place on roadways classified as 'Straight & Level.' Approximately 22 percent took place on 'Straight & Grade' roadways.

See Figure 5.4 for a representation of pedestrian fatalities by "facility" type.

Figure 5.3 - Collision and Fatality/Injury Rate in Cities with Population between 22,500 and 60,000



Source: Washington State Department of Transportation, Washington State Collision Data Summary, 2008

Safe walking environments decrease injury and encourage active lifestyles

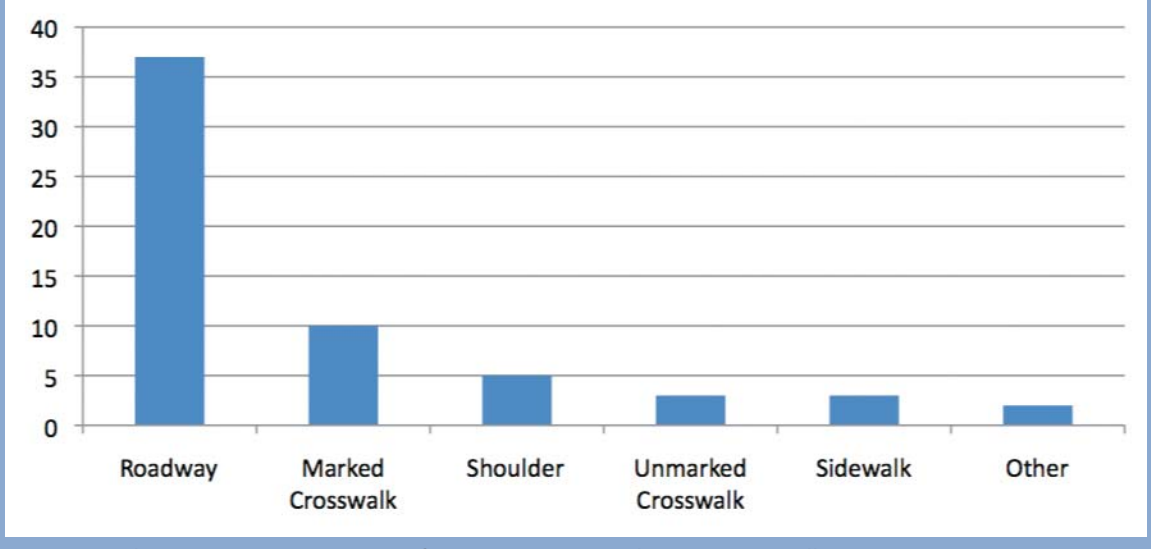
Signage improves the safety of non-motorized transportation facilities

Behavioral Characteristics Pedestrian and Bicyclist Collisions in Puyallup

This section summarizes behavioral characteristics and other factors related to pedestrian and bicycle collisions in Puyallup based upon 2008 data.

- Approximately one half of the pedestrian collisions in Puyallup occurred while the pedestrian was attempting to cross a roadway at an intersection. Another 20 percent occurred while the pedestrian was crossing at a 'non-intersection.' In comparison, only 31 percent of pedestrian collisions in the rest of Pierce County occurred at an intersection and 23 percent occurred at a 'non-intersection;
- Approximately 42 percent of bicycle collisions in Puyallup occurred while the cyclist was crossing or entering traffic;
- 42 percent of collisions in Puyallup occurred while the driver was going straight ahead, 28 percent while they were making a left turn, and 17 percent while they were making a right turn;
- Failure to yield right-of-way to a pedestrian or cyclist was the most common driver action cited as a cause of collision in Puyallup (55 percent). Failure to yield

Figure 5.4 - Number of Pedestrian Fatalities by Type of Facility, Washington State



Source: Washington State Department of Transportation, Washington State Collision Data Summary, 2008

was cited as a cause in approximately 35 percent of collisions in the rest of the County; and

- Alcohol was either not considered a factor (77 percent) or the alcohol status was listed as unknown (23 percent) in all of the collisions that occurred in Puyallup.

See Figure 5.5 for contributing factors of collisions between for pedestrians and bicyclists versus motor vehicles in Washington State.

Qualitative Factors Regarding Pedestrian and Bicycle Collisions

Qualitative data from the Tacoma-Pierce County Health Department Puyallup Community Assessment indicated that residents felt that pedestrian and bicycle safety was a significant concern. Excessive traffic speeds, lack of pedestrian and bicycle infrastructure, lack of street lighting, and an insufficient number of traffic control measures at intersections (for example, traffic signals and stop signs) were frequently mentioned as problems that created pedestrian and bicycle safety concerns.

Community members wanted to decrease injury in

Safe non-motorized facilities encourage people to walk and bike

Figure 5.5 - Contributing Factors to Pedestrian and Bicyclist Collision Rates

PEDESTRIANS VS. MOTOR VEHICLES (Washington State 2008)	
Motor Vehicle Driver-Contributing Circumstances	Pedestrian Collision Rate
Fail to yield right of way to pedestrian	877
Other	244
Inattention	82
Under influence of alcohol	61
Exceeding reasonable safe speed	54
BICYCLISTS VS. MOTOR VEHICLES (Washington State, 2008)	
Motor vehicle Driver-Contributing Circumstances	Bicyclist Collision Rate
Fail to yield right of way to pedestrian	604
Other	120
Inattention	50
Disregard stop and go light	16
Driver distractions outside vehicle	16

Lack of sidewalks can increase the potential for injury, particularly in vulnerable populations

their community by reducing traffic risks especially to children and be proactive in advocating for these changes as opposed to waiting until accidents occur to make significant changes.

Puyallup youth also commented about road safety. While some described the area as being small enough to walk around for shopping and services, many felt uncomfortable walking and biking in the area due to increasing traffic congestion.

Vulnerable Populations

Injuries in the built environment are primarily due to auto accidents which involve other autos, pedestrians, and bicyclists. At risk populations for injury in the South Hill Neighborhood include seniors, children, and males for bicycle-related injuries.

Injury Policy Analysis

The following section provides an analysis of the existing South Hill Neighborhood policies and identifies potential health impacts on injury.

Land Use & Urban Form Impacts on Injury

Injury is not mentioned explicitly within existing Land Use and Urban Form policies. However, it can be inferred through evidence and literature related to injury that implementation of these adopted policies will likely result in reduced risk of personal injury over the long term. Potential positive impacts include increases in physical activity and, ultimately, reduction in chronic disease, as barriers to walking are decreased and levels of perceived safety increase.

These impacts are supported in existing policies by:

- Decreased visual predominance of large parking lots;
- Safe, direct visible pedestrian routes through parking lots;
- Perceived increased safety and reduced risk of injury; and
- Completed bicycle network.

Green Infrastructure Impacts on Injury

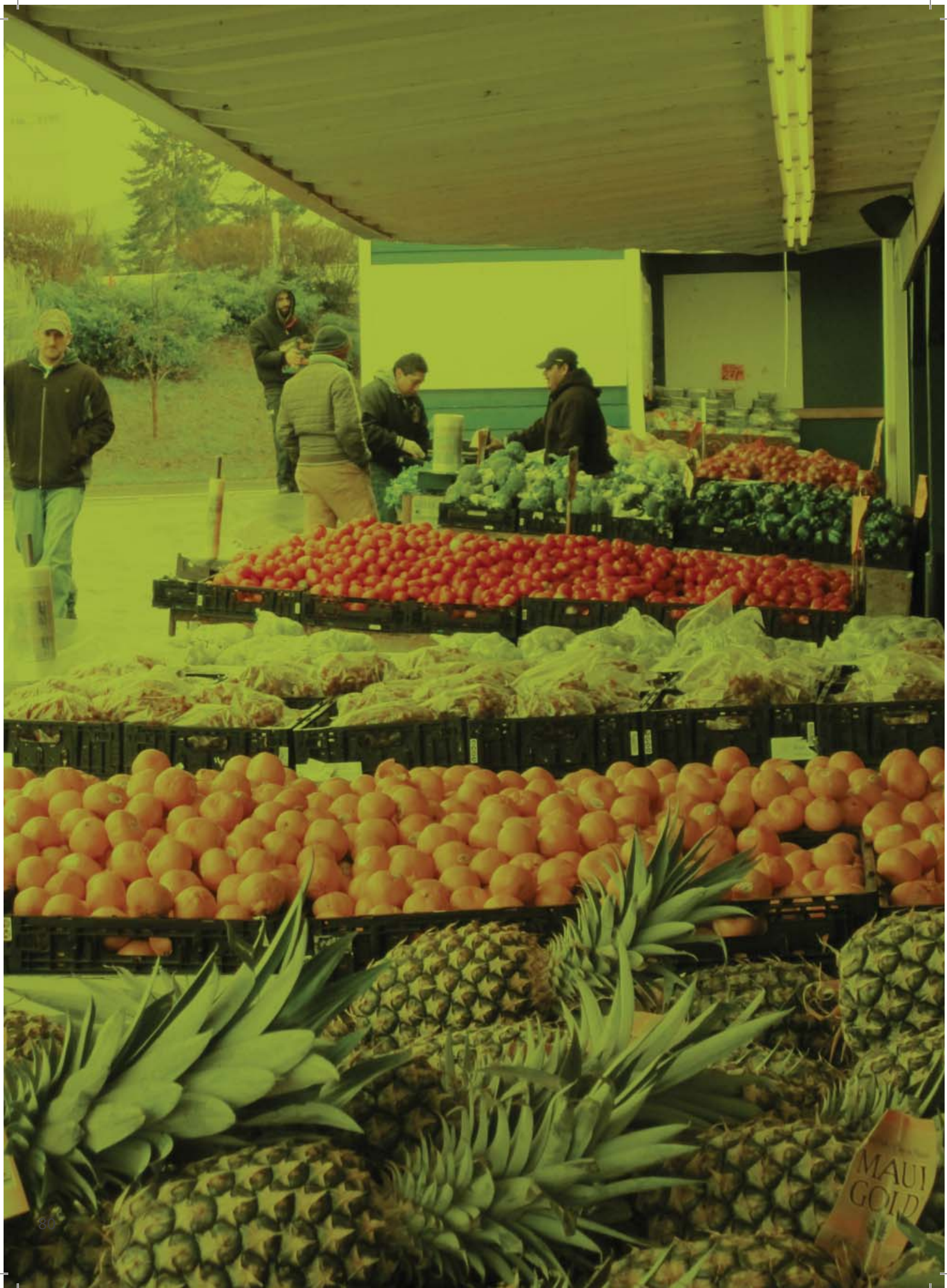
Current Green Infrastructure policies have no identified direct or indirect injury impacts.

Transportation Impacts on Injury

Injury is not mentioned explicitly within existing South Hill Neighborhood Transportation policies. However, it can be inferred through evidence and literature related to injury that implementation of the adopted transportation policies will likely result in reduced risk of personal injury over the long term. Potential positive impacts include increased physical activity and improved perception of safety, with specific impacts being similar to the ones identified in the above Land Use and Urban Form section. These potential outcomes are supported by a complete streets network, proposed streetscapes with cohesive design and safety features, signage which provide strong image and represent significant civic investment, and present a well-maintained and "cared-for" appearance.

However, within existing policies, increased risk of injury to pedestrians and bicyclists may exist. There is mixed evidence regarding whether increased residential and employment densities reduce risk of injury to pedestrians and bicyclists. Some evidence suggests that injuries may initially increase with intensified land use and an increase in pedestrians and bicyclists, then decrease over time as drivers become more aware of pedestrians and bicyclists in their midst.

Large intersections and high vehicle speeds increase the need for safe pedestrian facilities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Section 6

Healthy Food Assessment

The types and amounts of food that we eat have a significant effect on our health and the quality of our lives. The consequences of having a poor diet are far reaching. Consumption of high fat foods and conversely, too few vegetables, fruits, and whole grain products has a negative effort on health. High intakes of saturated fats, trans fats, and cholesterol increases one's risk of heart disease while consumption of fruits and vegetables and whole grains serve as a protective factor by reducing disease and strengthen health and immunity.

Of specific concern is overconsumption of calories. Paradoxically, while many people can be overweight, they can also be undernourished. This happens often in cases of food insecure households, where there is consumption of inexpensive, high calorie foods but lacking in more expensive, nutritious foods. In these instances, health is often impaired, making individuals less able to resist illness and more likely to become sick or hospitalized. Children living in food insecure households often have problems with learning, are more likely to be anxious and irritable in the classroom, and more likely to be tardy, or absent from school.

Health and nutrition programs that will help the South Hill Neighborhood and nearby Puyallup residents eat more healthily are integral components for obesity prevention initiatives. However, in order to make a significant impact on eating behavior, policy makers must consider how the environment plays a role in impacting people's food choices.

Physical Environment and Food Choices

Prevailing research clearly shows that our physical environment strongly influences individuals' food choices. Factors such as the number and proximity of supermarkets, gardens, farmers markets, convenience stores, and fast food restaurants to communities can be a strong indicator of individual and community health. Evidence shows that when people are hungry, they will seek food that is convenient. When healthy food is made easily available to them, they are more likely to consume it. Likewise, if people have to go out of their way to seek healthy food, they are less likely to eat it. An important goal in designing our communities is to create an environment where the healthy choice is the easy choice.

Public Policy and Promotion of Access to Healthy Food

Cities can play an important role in facilitating healthy food outlets. Grocery stores, farmers' markets, and community gardens can be supported by including language in comprehensive plans, eliminating zoning barriers, and by providing sufficient space, infrastructure, parking, and inter-modal transportation access for such uses.

Conversely, cities can play a role in restricting unhealthy food. The City of Los Angeles recently joined other jurisdictions in passing an ordinance restricting new fast food restaurants in South Los Angeles, an area with a high percentage of fast food restaurants and lower income individuals.

Health Benefits of Grocery Stores and Supermarkets

The availability and proximity of grocery stores and supermarkets to neighborhoods has an effect on dietary behaviors and health status. Compared to other retail food environments, grocery stores and supermarkets generally provide a greater variety of inexpensive and healthy food options. Research has shown that individuals living near supermarkets have a higher-quality diet, are more likely to eat the daily recommended amounts of fruits and vegetables and are less likely to be obese.

Health Benefits of Farmers' Markets

Farmers' markets can be an important supplementary food source. Although they lack the wide variety and consistent selection of grocery stores, farmers' markets often provide convenient access to fresh and affordable produce. One study found that fruit and vegetable intake increased by 57 percent by new customers at a Philadelphia farmers' market.

Health Benefits of Community Gardens

Community garden plots provide people with a means of growing their own food and an opportunity to strengthen social connections. Individuals and families who engage in gardening eat more fruits and vegetables. These gardening opportunities can be especially important to low income individuals who lack access to produce due to cost, and often struggle with isolation. In addition to the nutritional and social benefits, gardeners can also get significant physical activity while they are cultivating their plots.

Community market garden

Detrimental Effects of Easy Access to Fast Food

Evidence shows that when people are hungry, they will seek food that is convenient and conversely, if people have to go out of their way to seek healthy food, they are less likely to eat it.

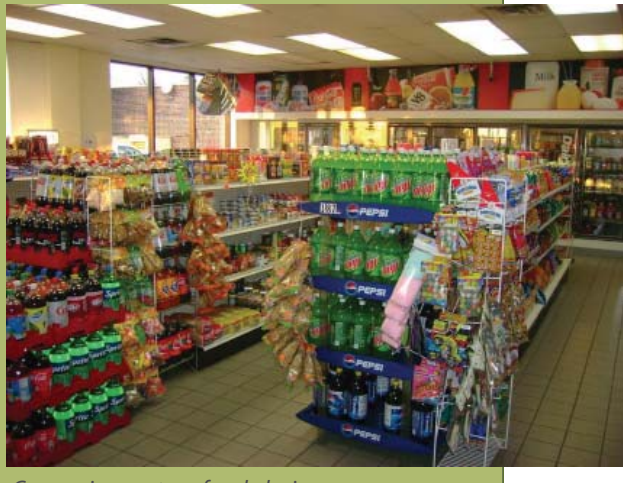
Fast food is a contributing factor to obesity, particularly in areas where there are few healthy food choices

Detrimental Effects of Fast Food Restaurants

Fast food restaurants typically serve low-cost, high-calorie foods of limited nutritional value. Studies have shown that those who eat at fast food restaurants generally consume more calories and sweetened beverages, eat less fruits and vegetables, and (adults) are more likely to be obese then when compared to foods eaten in the home or other eating establishments.

Communities with high concentrations of fast food restaurants often have higher obesity rates, higher rates of hospitalization, and death. One study found that individuals living in an urban neighborhood with high numbers of fast food restaurants compared to grocery stores were more likely to die prematurely due to diabetes, cancer, and cardiovascular disease. Another study found that fast food restaurants are three to four times more prevalent in areas within a short walking distance from schools, which suggests that these restaurants target youth customers.

There is also some evidence to suggest that full-service restaurants are associated with healthier food choices than fast food restaurants. Although both fast food meals and full service restaurant meals are typically high in calories, eating at non-fast-food restaurants has been associated with greater vegetable intake.



Convenience store food choices

Detrimental Health Effects of Convenience Stores

Convenience Stores frequently rely on the sales of alcohol, tobacco, and packaged/processed foods to remain profitable. These stores provide limited shelf space for healthier food items and rarely provide fresh produce. Prices at small grocery

and convenience stores can exceed those at chain supermarkets by as much as 48 percent for the same food items and residents in communities who rely on these stores for food have higher rates of obesity and overweight.

Existing Healthy Food Conditions in the South Hill Neighborhood

An assessment of the current food environment in the South Hill Neighborhood was undertaken to determine where and what kinds of foods were easily available to residents. The following areas were assessed: food classification type (e.g., supermarket, grocery, fast food restaurant), facility characteristics, and the names of food establishment that fit into the various food classification types (see Table 6.1).

Measurement of the Local Food Environment

Defining what constitutes a healthy food can be a challenge and often the line between healthy and unhealthy food is blurred. While nutritionists recommend that no foods should be considered "bad," research clearly indicates that certain types of foods are health promoting and should be consumed as a regular part of one's diet. These foods include whole, or unprocessed, foods that are nutrient dense. Examples of these foods include fruits, vegetables, legumes, nuts, lean meats, and whole grains. Determining whether a food establishment has a good variety and number of healthy foods is difficult to determine without conducting an in-depth analysis of the products available within these establishments. For this report, such a detailed analysis was not possible and instead relied on the research that demonstrates that foods purchased in restaurants and in convenience stores are higher in fat, calories and sodium and lower in fiber, vitamins and minerals. While an argument can be made that some food outlets in the South Hill Regional Growth Center, such as Jamba Juice and even Subway focus on providing healthier food options, they are included as a restaurant or specialty store for the purpose of this assessment.

Fresh food is becoming more common in fast food restaurants

Table 6.1 - Retail Food Classifications and Facility Characteristics in the South Hill RGC (2009)

CLASSIFICATION & NUMBER	FACILITY CHARACTERISTICS	# OF STORES PER 1,000 POPULATION	EXAMPLE
Supermarket (2)	Large corporate owned "chain" grocery stores, supercenters (combination supermarket and general merchandise store), and warehouse club stores that primarily sell food products intended for off-premise preparation and consumption.	0.94	• Target • Walmart
Grocery (1)	Smaller corporate owned grocery stores including specialty/ethnic grocery stores and produce stands* that primarily sell food products intended for off-premise preparation and consumption.	0.47	• Top Foods
Convenience store (6)	Store selling a limited variety of food and nonfood products, such as gas stations, pharmacies, general merchandise, or similar stores.	2.82	• 7 Eleven • Chevron • Dollar Tree • Jackson Food Stores • South Hill Minimart • Walgreen's
Restaurant (12)	Full service restaurants, steak houses, buffet restaurants, fine dining restaurants, and full service pizzerias.	5.65	• Applebee's • Black Angus • Cheers Bar & Grill • Iron Chef • Ma's Place Restaurant • Marinepolis Sushi Land • New China Buffet • Pierce College • Ram Restaurant & Brewery • Rio Blanco 3 • Rock Wood Fired Pizza • Shari's Restaurant
Fast Food (23)	Quick service restaurants and carryout eating places with limited menus and which frequently have drive-through service such as burger restaurants, sandwich shops, pizza parlors, and pizza delivery shops. This classification also includes mall food court restaurants.	10.82	• Aloha Hawaiian Grill • Ayothaya Thai • Burger King • Garlic Jim's • Honey Baked Ham • Jack In The Box • Little Caesar Pizza • McDonald's • McDonald's (Walmart) • Papa Murphy's • Pita Pit • Prime Steak & Gyros • Quizno's • Sapporo Teriyaki • Sbarro's • Shilla Teriyaki • Skippers • Subway • Taco Del Mar • Taqueria Los Amigos • Thai Jasmine Cuisine • Wendy's • Wok This Way
Specialty Food (15)	Limited service restaurants that provide carryout specialty items and typically specialize in one type of food such as bakeries, coffee shops, smoothie bars, doughnut shops, ice cream parlors, and pretzel shops.	7.06	• Austin Chase Coffee & Wine Bar • Baskin Robbins • Caffe Adamo • Cinnabon • Cuppy's Coffee • Del Taco • Forza Coffee • Fox Hollow Coffee • Grand Central Espresso • Jamba Juice • Krispy Kreme • Seattle's Best Coffee (Borders) • Starbucks • Starbucks • Wine Styles

Figure 6.1 - Healthy Food Outlets in Relation to Major Residential Areas

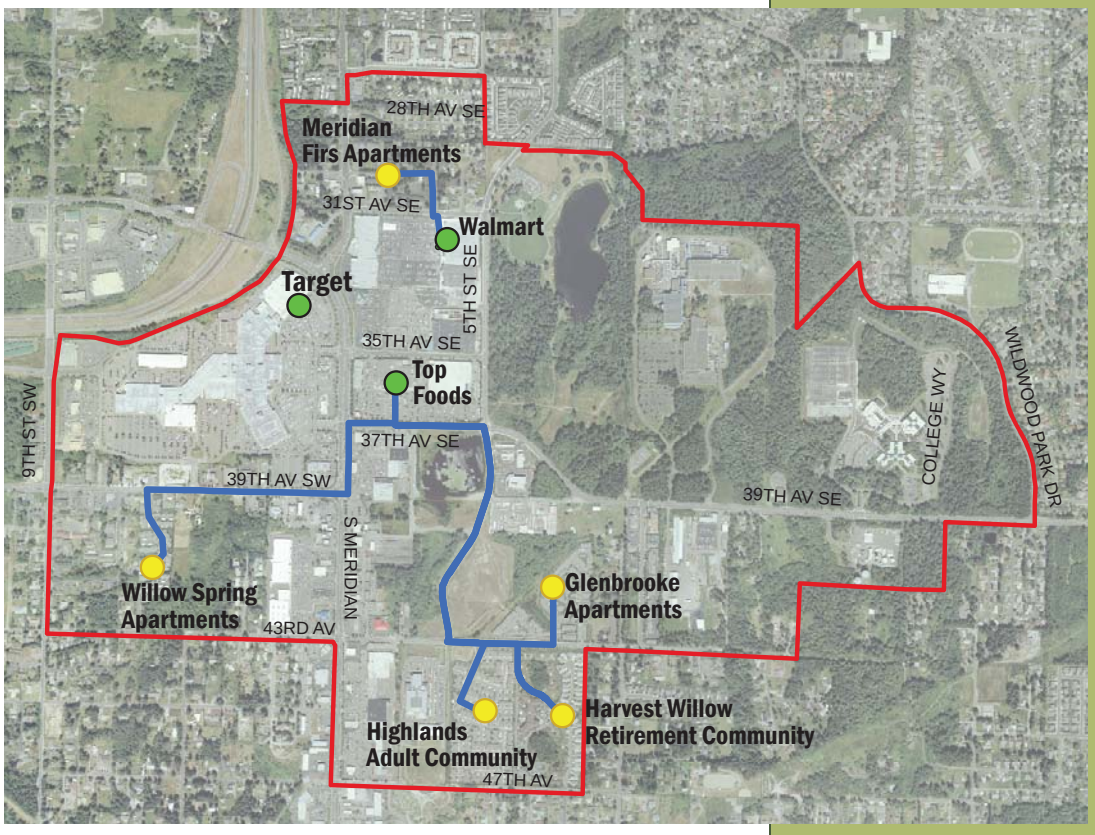
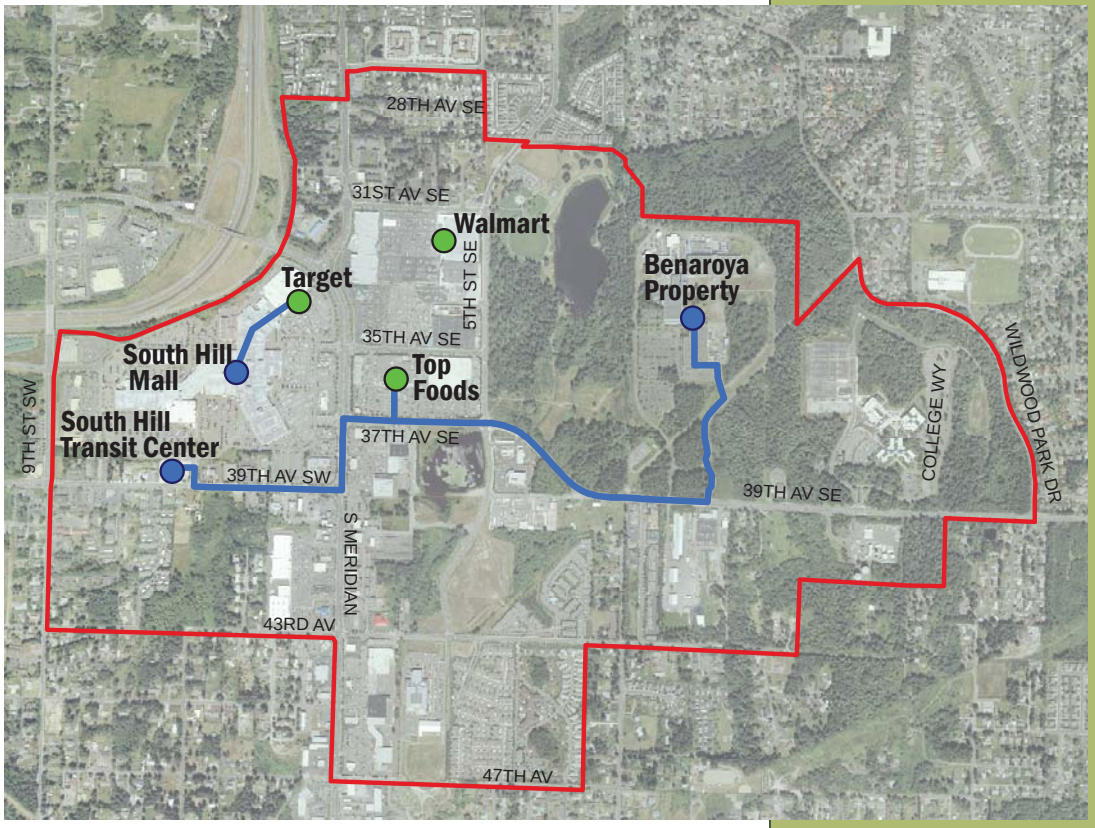


Figure 6.2 - Healthy Food Outlets in Relation to Major Commercial Areas



Existing Access to Healthy Foods

In order to determine how readily healthy food is available to residents and employees, a GIS analysis was used (Figures 6.1 and 6.2). The proximity of healthy foods to key residential and commercial areas was analyzed. Network distances (using existing streets) between key residential areas (defined as multi-family developments and/or senior housing) and the nearest food outlet offering access to healthy food, which are defined above, were calculated. The same methodology was used for key commercial areas, which for the purposes of this analysis were limited to three high intensity uses: the South Hill Mall, the Benaroya Property, and the South Hill Transit Center. These uses have a significant number of employees, and in the case of the South Hill Transit Center, generate pedestrian traffic.

Supermarket offering healthy food choices in South Hill Neighborhood

Table 6.2 shows the distances between origins (key residential and commercial areas) and destinations (nearest healthy food outlet). Healthy food outlets are remote from where most South Hill Neighborhood residential areas are located. Of the key multi-family housing sites identified, only one in 5 of these housing units meets the standard of living within a 1/2 mile of a grocery store. Additionally, none of these housing units meets the Healthy Development Measurement Tool standards of living within one quarter of a mile to a community garden or three quarters of a mile to a farmers market. The Highland Adult Community is just under three quarters of a mile, and the Meridian Firs apartment complex is just less than a quarter mile distance from a healthy food outlet. The Glenbrooke Apartment complex, which are subsidized units, Highland Apartments Adult Community (senior housing), and Harvest Willow Garden Retirement Community (senior housing), are likely to have a high number of residents who do not drive, and thus are more likely to walk and/or use transit.

It is worth noting that there are major gaps in the sidewalk network between these three apartment complexes and the nearest store offering access to healthy foods, which both creates unsafe walking conditions and

likely discourages walking. It is expected that once the intervening parcels have been developed, the sidewalk network will be completed, however, in the meantime, a pedestrian journey between various sites can be difficult and provide a disincentive to walking.

Transportation Access

Transportation should be considered in food planning as it can be a barrier to accessing healthy food venues, especially for individuals without cars. This would include both the design of streets and the adequate provision of pedestrian walkways through large parking lots typically

Table 6.2 - Access to Healthy Food Outlets from Multi-family Sites and Critical Centers

ORIGIN	DESTINATION (NEAREST)	DISTANCE (MILES)	PEDESTRIAN INFRASTRUCTURE	
			Sidewalks	Crossings
Meridian Firs Apartments	WalMart	0.23	Sidewalks both sides of street	Marked crossings present at major intersections
Willow Spring Apartments	Top Foods	0.79	Discontinuous sidewalk network on south side of 39th Ave SW	Marked crossings present at major intersections
Glenbrooke Apartments	Top Foods	0.90	No sidewalks along 5th ST SE between 39th Ave SE and 43rd Ave SE, 260 ft. gap in sidewalk on north side of 43rd Ave SE	Marked crossings present at major intersections
Highland Apartments Adult Community	Top Foods	0.73	No sidewalks along 5th ST SE between 39th Ave SE and 43rd Ave SE	Marked crossings present at major intersections
Harvest Willow Garden Retirement Community	Top Foods	0.81	No sidewalks along 5th ST SE between 39th Ave SE and 43rd Ave SE	Marked crossings present at major intersections
Transit Center	Top Foods	0.58	Continuous sidewalks on north side of 39th Ave SE only, sidewalks both sides of Meridian	Marked crossings present at major intersections
Mall	Target	0.16	Discontinuous internal sidewalk network. Access through mall.	No marked crossings of drive aisles within parking lot
Benaroya Property	Top Foods	0.99	No internal network of sidewalks connecting public right-of-way. No sidewalks on north side of 37th/39th Ave SE between Benaroya and 5th St SE	Marked crossings present at major intersections

associated with grocery stores. Public transportation in the South Hill Neighborhood to most supermarkets and grocery stores is somewhat limited. Only Pierce Transit bus route 402 provides access to these stores. Although the bus runs approximately every 30 minutes on weekdays and hourly on weekends, it does not run through any residential areas, requiring users to make at least one transfer in order to get from their homes to the stores.

Farmers' Markets

Puyallup currently operates one farmers market in the Downtown area, just over 1 mile north of the South Hill RGC boundary. The market operates each Saturday and Sunday from May through October and accepts WIC checks, Senior Farmers' Market checks, and food stamps. Pedestrian and bicycle access from the South Hill neighborhood to the market is limited because the primary route (Meridian) is a state highway with sidewalks that meet only minimum standards, no bicycle lanes, and a large hill. Again, only Pierce Transit bus route 402 provides access to the farmers' market, running every hour on the weekend. However, as previously stated, users would be required to make at least one transfer since the route does not run through any residential areas.

Community Gardens

Puyallup currently has one 40-plot community garden on an undeveloped City owned parcel called the Brown Property. The site is located 1 mile northwest of the South Hill neighborhood in a low-density residential area and managed by the Puyallup Recreation Center. In addition to the garden, the site contains fruit and nut orchards, and berry fields. Work by City staff and community volunteers on the site over the last couple of years has increased the number of plots available.

South Hill Neighborhood fast food drive through

Existing Access to Less Healthy Foods

When communities are planned, it is critical to understand the effects of easy access to fast food restaurants and convenience stores on residents' health. As mentioned previously, studies suggest that people who live near an abundance of fast-food restaurants and convenience stores have a higher prevalence of obesity and diabetes than those who live near grocery stores and fresh produce vendors.

South Hill Neighborhood convenience store

In order to determine the frequency of fast food establishments and convenience stores in the South Hill Neighborhood, a tool called the Retail Food Environment Index (RFEI) was used. The RFEI is determined by dividing the total number of fast food restaurants and convenience stores by the total number of supermarkets and produce vendors in a particular area. The higher the RFEI, the greater the number of fast food restaurants and convenience stores compared to supermarkets and produce vendors.

In the South Hill Neighborhood, the RFEI is 9.6. This means that there are 9.6 times as many fast-food restaurants and convenience stores as supermarkets and produce vendors.

The higher the RFEI index, the more likely consumers will find unhealthy food options. A study published by the California Center for Public Health Advocacy, PolicyLink and the UCLA Center for Health Policy Research in April of 2008, found a relationship between the RFEI and the likelihood of being obese or having diabetes. According to the study, California adults living in areas with an RFEI of 5.0 or higher had a 20 percent higher prevalence of

obesity and a 23 percent higher prevalence of diabetes than their counterparts living in RFEI areas of 3.0 or lower.

Vulnerable Populations

Low income individuals have several barriers to accessing healthy food. In addition to transportation concerns, these individuals and their families often have limited funds in which to purchase healthy foods. Therefore, it is critical that these individuals have access to grocery stores that have a wide selection of healthy foods at lower prices. Those most at risk for food insecurity are youth and senior citizens. A local assessment conducted in 2002 indicated that 2 percent of residents aged 65 and older or another adult in their household had cut the size of, or skipped meals because there was not enough money for food within in the past 12 months.

Fast food can often be the only readily accessible food for vulnerable populations

Healthy Food Policy Analysis

The following section provides an analysis of the existing South Hill Neighborhood policies and identifies potential health impacts on access to healthy food.

Land Use & Urban Form Policy Impacts on Healthy Food

Reference to healthy foods is not made explicitly in existing South Hill Neighborhood Plan policies. However, it can be inferred through evidence and literature related to healthy food that implementation of the adopted Land Use and Urban Form policies will likely result in an increase in access healthy food; and subsequently better nutritional health of individuals, due to improved transportation opportunities to healthy food outlets. A positive result of this impact will be improved nutrition of individuals within the South Hill Neighborhood.

These impacts will be supported by:

- Direct non-motorized connections to food outlets;
- Safe pedestrian routes through individual properties to food outlets through parking lots and between adjacent properties;

- Increased pedestrian and bicycle safety; and
- A high capacity transit link to downtown will provide faster, safe easy access to the downtown Farmers' Market.

Green Infrastructure Policy Impacts on Healthy Food

Direct health impacts of the Parks, Open Space and Trails policies on access to healthy foods were not identified. However, parks and new open spaces may provide good locations for community gardens or a farmers' market.

Transportation Policy Impacts on Healthy Food

Access to healthy food is not mentioned explicitly in the existing South Hill Neighborhood Plan policies. However, it can be inferred through evidence and literature related to healthy food that implementation of the adopted Transportation policies will likely result in an increase in healthy food access as a result of the addition of sidewalks and safe pedestrian walkways directly through parking lots to building entrances.

This potential outcome is supported by:

- Direct non-motorized connections to food outlets;
- Safe pedestrian routes through individual properties to food outlets through parking lots and between adjacent properties;
- Increased willingness to walk;
- Improved infrastructure of pedestrian and bicycle paths; and
- A high capacity transit link to downtown will provide faster, safe easy access to the downtown Farmers' Market.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Section 7

Social Connections and Community Identity Assessment

Social connection, also known as social capital, refers to the value of relationships – ones that can be mutually beneficial to the individual, a group of people or to the community. Evidence suggests that social connections may be as important to an individual's health as cholesterol, obesity, physical activity or smoking and that there are important connections between the communities where people live, social capital, and health.

In the United States, social connection has decreased since the middle of the 20th century. While there are many underlying reasons for this, it is believed that a significant contributing factor for this decline is Americans' increased dependence on the automobile. With individuals living further from places of employment, more time is spent commuting, leaving less time to socialize with neighbors, attend community functions, and build a sense of connectedness with their local community. Increased dependence on automobiles have also had profound impacts on urban form such as separation of residential neighborhoods from commercial areas, separation of residential uses by building type, and allocation of increasingly large land areas to parking. These changes

discourage transportation choices outside of driving, limit housing choices, and promote greater separation of families with varying incomes.

Social Connections and Health

There are other components of health that are affected by social connection, which are summarized below.

Civic Trust and Well-being

There is a relationship between level of civic trust, self-reported well-being and death rates. States with lower trust between citizens had a higher proportion of residents reporting that their health was fair or poor and had higher average death rates.

Volunteerism and mortality

A similar relationship exists between volunteerism and death rates. States that have a higher number of residents participate in voluntary associations had a lower average mortality rate.

Social Bonds and Disease Recovery

Social bonds appear to affect recovery from disease. Heart attack, stroke recovery and survival rates are markedly better for individuals with a greater number of social ties.

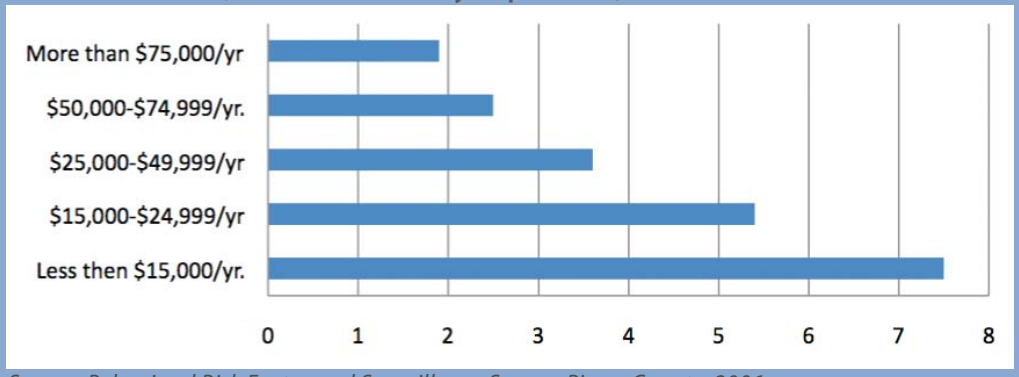
Social Connection and Undesirable Behaviors

Communities with lower rates of social capital have higher rates of violent crime, binge-drinking, teen pregnancy, depression and lower rates of leisure-time physical activity An additional feature of a society that appears to influence both cohesiveness and health is the level of economic inequality. Studies have found that the larger the income gap within a community, the lower the rate of citizens' trust is in one another and participation in voluntary associations.

Influence of Neighborhood Design and Land Use

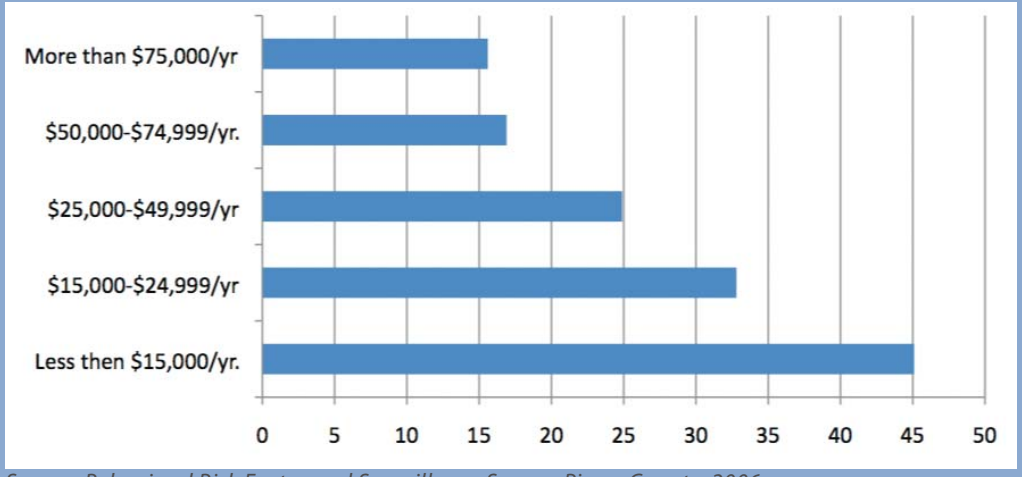
A growing body of research suggests that neighborhood design influences social connection. Suburban sprawl is a barrier to creating social networks and traditional neighborhoods are better at fostering incidental contact

Figure 7.1 - Number of Days in the Past Month Where Mental Health "Was Not Good" (% of Pierce County Population)



Source: Behavioral Risk Factor and Surveillance Survey, Pierce County, 2006

Figure 7.2 - Percent of Pierce County Adults Reporting Symptoms of Depression



Source: Behavioral Risk Factor and Surveillance Survey, Pierce County, 2006

between neighbors and promoting loose associations that may be important for well functioning society.

A Traditional Neighborhood Development (TND), or Neotraditional Planning is a "New Urbanist" approach to designing cities, towns, and neighborhoods, which are designed to reduce traffic and eliminate sprawl. Within this model, homes, shops, businesses, theaters, schools, parks, and other important services are placed within easy walking distance, and neighborhoods consist of a connected system of small blocks and public spaces. This street pattern provides many choices and direct routes to destinations, which promotes walking and bicycling.

There are a number of ways in which social connection can be fostered through land use and transportation design and policies. Specifically:

- Incorporating sidewalks, parks, and public meeting spaces such as community gardens, can promote a greater sense of community due to the increased frequency of interactions among community members;
- Designing for mixed-use neighborhoods which can provide for both residential and commercial development and offer residents opportunities for spontaneous social interaction;
- Creating neighborhoods that allow for different types of housing throughout the lifespan (singles, families, empty-nesters). This is especially important for older individuals. Remaining in a community in which they have developed and fostered relationships can help to decrease feelings of isolation;
- Providing safe, centrally located public gathering spaces for local community and cultural events and festivals; and
- Creating neighborhood associations and similar or local organizations who are stewards and advocates for the area.

Existing Social Connections and Community Identity in the South Hill Neighborhood

Community Organizations, Events and Resources

Community and social programs and cultural events have a strong presence City-wide. However, most are located in downtown Puyallup.

North of the South Hill Neighborhood, a hospital operated by Multicare Health Systems offers many community wellness and educational programs and events. Additionally, the City of Puyallup and related organizations offer a variety of social services.

Some Community Organizations and Resources in Puyallup:

All Saints Community Services

Creative Living Services, Inc.

Share and Care House of Puyallup

New Beginnings Home

Korean Women's Association

St. Francis House

Salvation Army

Valley Supported Living

Food Banks

All Saints Community Services

Puyallup FISH Food Bank

Salvation Army

American Red Cross Puyallup Meal Site

Destiny Christian Center

The City has approximately 40 churches or religious organizations, the majority of which are Christian denominations or nondenominational. The city also boasts 25 community and service organizations, 30 different social, athletic, and special interest groups, and 10 "other" community groups such as unions and political groups.

With expansion of the MultiCare hospital system, there has been a recent increase in the number of medical clinics in the South Hill Neighborhood, which has increased the availability of health care facilities in the last few years. However, it has not been determined to what extent these facilities are being used by local residents, as compared to visitors.

Arts, Entertainment and Community Celebrations

There is a vibrant arts community that is primarily centered in downtown Puyallup, which is available to all residents through a variety of transportation modes. Valley Arts United brings the arts and arts appreciation to City of Puyallup residents through supporting a wide variety of member organizations and events throughout the year.

Other opportunities for arts and entertainment can be found at the Meeker Museum, the Karshner Memorial Museum, the Amphitheatre, and the Liberty Theatre. Additionally, a wide variety of community events occur throughout the year that bring individuals and family members together. Existing arts and community celebrations in Puyallup are identified in the box to the right.

Arts and Entertainment Attractions in Puyallup

- Antique and Collectible Show
- Washington Sportsmen's Show
- Puyallup Spring Fair
- Daffodil Festival and Parade
- Puyallup Farmer's Market
- Concert in Pioneer Park
- Pacific Northwest Street Hot Rod Nationals
- Puyallup Pro Rodeo
- The Puyallup Fair
- Cider Squeeze
- Christmas at the Mansion
- Christmas Parade

Within the South Hill Neighborhood, examples of social and community activities and venues include mall-walking and mall-sponsored events at the South Hill Mall, the South Hill Little League, the South Hill Rotary Club, the Pierce College Performing Arts Center, the YMCA, and movie theatres. The Puyallup Parks and Recreation Department offers programmed activities for various age groups at Bradley Lake Park. Many other venues exist in the unincorporated area of Pierce County south of the City limits.

Community event

As identified within the analysis of distances to parks and food stores, many of the venues identified above are either in dispersed locations within the South Hill Neighborhood and are remote from pedestrian and bicycle facilities, thus limiting access to those who drive or whose only choice is infrequent bus service.

Puyallup Parks and Recreation Department offers programmed activities for various age groups at Bradley Lake Park. Many other venues exist in the unincorporated area of Pierce County south of the City limits.

Local kids' event

Vulnerable Populations

Risks and issues associated with social networks and cohesion affect individuals and groups. These include isolation, lack of access to services, lack of a sense of belonging, lack of community stewardship. Such isolation can lead to depression, mental illness, apathy, and lack of interest in the community or activities. The risks identified above related to barriers to physical activity, crime and safety, injury, and access to healthy foods contribute to experience of isolation and lack of community connections. At risk populations include seniors, children, and ethnic minorities. Of primary concern is the senior citizen population. In 2002, only two thirds of Puyallup seniors age 65+ socialized with friends or neighbors within the span of a week (see Figure 7.3).

Community events build neighborhood cohesion

Analysis of the Existing South Hill Policies

The following section provides an analysis of the existing South Hill Neighborhood policies and identifies potential health impacts on social connections and community identity.

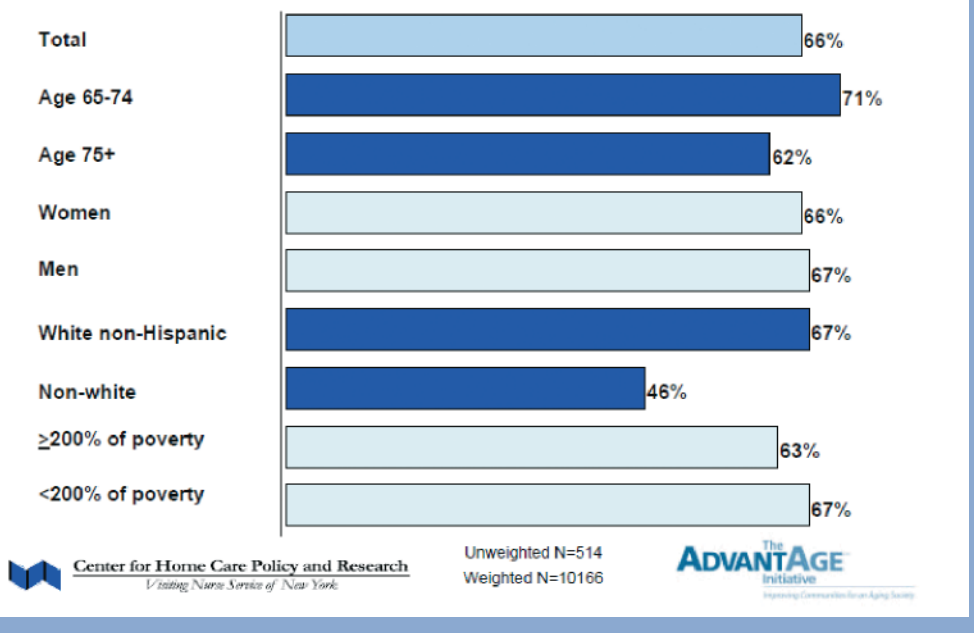
Land Use, Urban Form and Transportation Impacts on Social Connections and Community Identity

The Land Use and Urban Form and Transportation policies are silent on the health elements of social networks and cohesion. However, it can be inferred from evidence and literature that implementation of these adopted policies will likely increase social networks and cohesion. Potential positive impacts include:

- Increased Social Connections and Community Identity;
- Increased social and community interaction at public gathering places, transit stops, in parks and in mixed use areas;
- An active engagement in civic life and community activities;
- A cohesive and unique neighborhood identity for the South Hill Neighborhood;
- Increased sense of ownership of the neighborhood and related impacts associated with these changes;
- Increased mental and psychological well being due to reduced isolation, increased social interaction and support, increased community pride and a sense of belonging; and
- Reduced isolation, increased social support, a sense of belonging, and psychological and mental well-being may result from increased community pride, community interaction, sense of belonging, and community ownership of the neighborhood.

Social interaction contributes to health and well-being

Figure 7.3 - Percentage of People Age 65+ Who Socialized With Friends/ Neighbors in Past Week



Comfortable and attractive public spaces enable social interactions

These outcomes will be supported by:

- Public gathering places at Willows Pond and near the projected bus rapid transit (BRT) station at Meridian Ave and 39th Street SE;
- Social connections developed at community gatherings and events; and
- Development of signature elements (such as green infrastructure, increased greenery, signature streets, public art program, improved building design, and a comprehensive wayfinding system).

Green Infrastructure Impacts on Social Connections and Community Identity

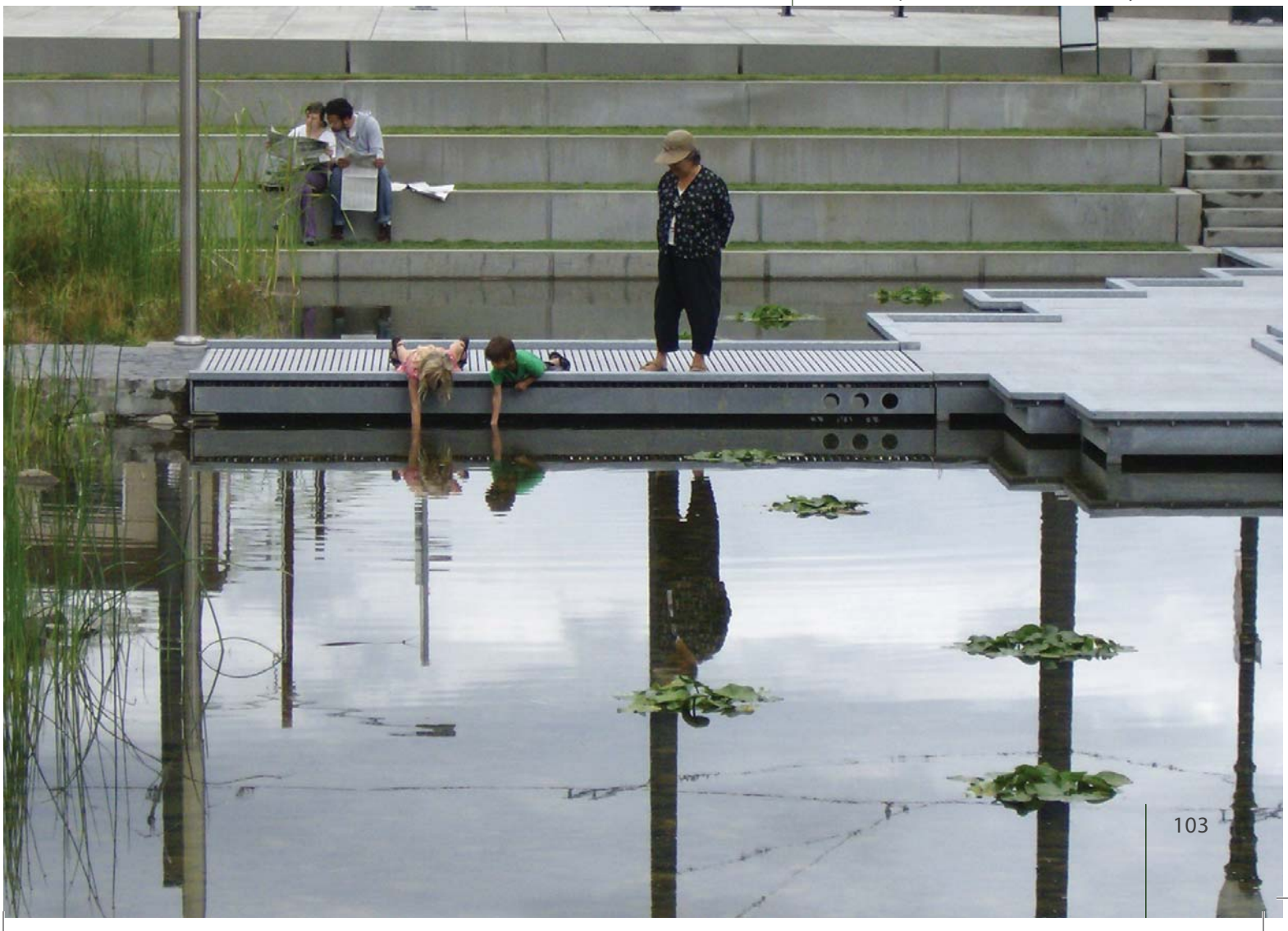
Two new public gathering spaces have been identified for development: one at Willows Pond, and one near the intersection of Meridian Ave and 39th Street SE, close to the projected BRT. These spaces will host community events, recreational programs, festivals and cultural activities. With these changes, it is expected that there will be increased community interaction at these gathering spaces and social connections will be built which will foster community identity and a sense of belonging. Potential positive health impacts include improved mental health through stress reduction, reduction in depression, improved attention span and focus, reduced impulsivity and irritability, and decreased mental fatigue. Additional expected outcomes include decreased incidence of illness, shortened recovery time from illness, reduced number of health complaints, improved mental well-being, reduced

stress, and spiritual well-being.

These impacts will be supported by:

- Creation of spaces which foster community connections, networks and a community identity;
- Increased access to parks, recreation, open spaces and increased proximity to greenery;
- Increased availability of parks, open space, and trails which will be more widely distributed throughout the neighborhood; and
- Increased use of parks, open spaces and trails.

Combined park and storm water facility



Section 8

Findings and Recommendations

Health conditions, risks and disparities specific to South Hill, Puyallup and Pierce County were identified in the previous sections of this document. Health risks and disparities are summarized here in order to analyze the policies for response to these specific needs. Specific policy recommendations are contained further in this section to address these needs.

For this HIA, at risk populations include groups of people who share characteristics that cause each member to be susceptible to a risk, for example crime, injury, or others. Being at risk may also be associated with inequality of access. Age, gender, income, ethnicity, and place (location) are common determinants of at risk populations.

Physical Activity

At risk populations for physical inactivity due to barriers to physical activity include: seniors, children, ethnic minorities, low income households, and women. Of particular concern, the absence of sidewalks along 5th St SE (between 39th Ave SE and 43rd Ave SE) creates significant barriers for individuals living in the senior housing and other apartments in the southern portion

Good visibility increases actual and perceived safety

of the neighborhood who want (or need) to walk to the nearest food store offering healthy food choices (Top Foods) or nearest formal entrance to Bradley Lake Park. Senior citizens are less likely to drive as a group than younger populations so barriers to physical activity which limit access to services are particularly important.

Existing barriers and deterrents in the South Hill neighborhood which create disparities regarding who will walk include:

- Fear of crime in isolated park and trail areas (Bradley Lake Park, Benaroya Properties,) and in general regarding children;
- Lack of safe and continuous pedestrian facilities, large block size and infrequent intersections, long distance and indirect routes between residences, parks, trails, employment and services;
- Walking distances and indirect routes between housing and employment and housing and services;
- Uncontrolled and unsafe intersections;
- Infrequent transit, need to take multiple transfer bus trips to services; and
- Fear of child abduction.

Crime and Safety

At risk populations for being victims of crime and perceived lack of safety in the South Hill neighborhood include: seniors, children, ethnic minorities, low income households, Pierce College students, Benaroya employees, pedestrians in isolated areas and women.

Existing crime and safety risks and concerns as well as community fears and concerns were cited during the public process. Such risks can reduce neighborhood comfort, affect mental and psychological well-being, and affect willingness to walk and bicycle. These include:

- The highest category of calls to the Puyallup Police Department are traffic accidents on South Hill;
- Car break-ins and theft at South Hill Mall are a high-incident crime as are shoplifting;

- Fear of child abduction;
- Users of wooded, isolated areas such as the Benaroya property and Pierce College Campus for assault; and
- Concerns about crime in the woods at the Pierce College Campus, including hunting, and assault.

Injury

Injuries in the built environment are primarily due to auto accidents which involve other autos, pedestrians, and bicyclists. At risk populations for injury in the South Hill neighborhood include: seniors, children, males for bicycle-related injuries. At risk populations for personal injury include: seniors, children, males for bicycle-related injuries. Existing risks due to the incomplete pedestrian and bicycle network, and lack of safe facilities which are deterrents to bicycling and walking include:

- Most (80%) of car/pedestrian injuries in the neighborhood are at the intersection of a street and a driveway to a commercial business; and
- Pedestrian and bicycle travel on streets not designed for them, which increases risk of injury.

Access to Healthy Foods

Risks and issues associated with access to healthy food and food security specific to South Hill and Puyallup include:

- Skipping meals among seniors due to lack of food;
- Infrequent and distant transit access to food, need to take multiple transfer bus trips to food outlets, and in particular, the Farmer's Market in downtown Puyallup; and
- Healthy food outlets are remote from where most South Hill residential areas are located.

Fresh produce offers healthy food choices

Social Networks and Community Identity

Risks and issues associated with social networks and community identity affect individuals and groups. These include isolation, lack of access to services, lack of a sense of belonging, lack

of community stewardship. Such isolation can lead to depression, mental illness, apathy, and lack of interest in the community or activities. The risks identified above related to barriers to physical activity, crime and safety, injury, and access to healthy foods contribute to experience of isolation and lack of community connections.

Policy Impact Analysis

The findings of this HIA report revealed that the cumulative degree of change in land use, urban form, and transportation would yield positive health impacts in nearly every case.

Community pet show

Long-term implementation of the Neighborhood Plan Policies will likely have the following cumulative results. There will likely be an increased mix of land uses, a complete circulation system for all modes of travel, and a cohesive urban form particular to the South Hill neighborhood. The physical environment will be changed to the degree that barriers to physical activity are largely removed. Increased proximity to the natural environment and greenery would result from increased parks, open space, trails and a green infrastructure system distributed throughout the neighborhood.

There will be increased willingness to walk and to use active transport (walking, biking and transit), which in turn would promotes and facilitates increased routine physical activity in daily life. Perceived increased safety and reduced risk of crime and personal injury would further support increased willingness to use active transport (though some evidence suggests that injuries may initially increase, then decrease over time as drivers become more aware of pedestrians and bicyclists in their midst). There would likely be increased social networks and cohesion by providing locations for social connections and interactions. A unique, distinct neighborhood identity would emerge based on the development of increased social cohesion combined with cohesive urban form, signature streets, and a green infrastructure network. Access to healthy foods via active transport will be greatly improved.

Potential positive health impacts include:

- Reduced risk of chronic disease associated with low level of physical activity including cardiovascular disease, obesity, diabetes, depression and premature mortality due to increased physical activity; and
- Increased stress reduction, decreased mental fatigue which promotes over-all physical and psychological well being from reduced fear of crime and injury and increased physical activity; and
- Improved mental health, such as stress reduction, reductions in depression, improved attention span and focus, reduced impulsivity and irritability, and decreased mental fatigue due to increased proximity to parks, open spaces and greenery; and
- Decreased illness, including shortened recovery time from illness, reduced number of health complaints, improved mental well-being, reduced stress, and spiritual well-being due to increased proximity and exposure to greenery; and
- Improved psychological well being associated with perceptions of safety, decreased risk of injury; and
- Improved nutrition from the ability to better access healthy foods contributes to physical and mental well-being, health, and overall quality of life; and
- Increased mental and psychological well being due to reduced isolation, increased social interaction and support, increased community pride and a sense of belonging.

The following tables (Tables 8.1-8.4) provide summaries which illustrate anticipated policy outcomes, pathways to health impacts and health-related impacts for the three Neighborhood Plan policy topics: land use and urban form,

Public spaces facilitate impromptu social events

Table 8.1 - Land Use and Urban Form

POLICY RESULTS & OUTCOMES	PATHWAYS	HEALTH-RELATED IMPACTS				
		Physical Activity	Injury	Crime & Safety	Access to Healthy Foods	Social Networks & Cohesiveness
Broader Mix of Uses Area-wide	• Shorter trips to services • Locates housing near employment • Comfortable walking environment • Ability to walk & bike to stores • Reduces risk factors for chronic disease associated with low levels of physical activity	++	+	+	+	+
Cohesive Urban Form	• Creates community identity • Comfortable walking environment	+	0	+	+	++
Increased Residential Population & Employment Densities	• Population & employment base: • Makes transit viable • Creates "eyes on the street" • Supports broad base of services • Creates resident community that cares for the area • Creates ability to walk &bicycle to work • Decreases commute stress	+	0	+	+	++
Direct Routes to Visible, Accessible Storefronts	• Safe, easy direct walking trips • Vibrant streets with accessible services • Reduces risk of ped or bike injury	++	+	+	+	+
Reduced Visual Dominance of Parking	• Perceived safety • Strengthens community character	+	+	+	+	+
Centrally-located Public Gathering Places	• Increased community activity & ownership • Provides a location for local cultural activities • Community interaction & mental wellbeing • Provides space for increased community connections & interaction	+	0	+	0	++

++ Strong Beneficial Impact
+ Beneficial Impact
0 Neutral Impact
- Negative Impact
** Unknown Impacts
N/A Not Applicable; no relationship between this outcome and this health element

Table 8.2 - Green Infrastructure: Parks, Open Space & Trails

POLICY RESULTS & OUTCOMES	PATHWAYS	HEALTH-RELATED IMPACTS				
		Physical Activity	Injury	Crime & Safety	Access to Healthy Foods	Social Networks & Cohesive-ness
Broader distribution of parks, open spaces, natural areas, and trails lands throughout South Hill	• Parks, trails, & recreation facilities located within short walking distance of housing & employment increases access opportunities • Provides leisure, recreation, relaxation & formal & informal social interaction • Promotes mental, physical, & spiritual well-being • Creates community identity & improves livability	+	+	+	+	+
Comprehensive trails network integrated with sidewalk/bike system, & public and natural spaces	• Trails provide access to area-wide non-motorized system for recreation, exercise & active transport to employment, services & transit • Increased access to parks & recreation facilities	+	0	-	+	+
Improved Connections & Access to Bradley Lake Park	• Safe, visible access to Park from multiple directions, streets, & adjacent properties via trails & sidewalks • Park accessible via walking, biking, & transit	+	0	+	NA	+
Safe, Accessible Public Gathering Places	• Public spaces near 39th & Meridian, Willows Pond, & Bradley Lake Park provide venues for informal interaction & programmed events • Spaces have multiple ped, bike & transit accesses • Cultural & community events occur in public spaces • Spaces designed for visibility & safety • Increased interaction, socialization & communal purpose, community pride & sense of ownership	+	+	+	+	+
Connections to viable natural spaces & increased greenery	• Provides respite, promotes stress reduction, decreased mental fatigue & psychological well being	+	NA	+	+	+

++ Strong Beneficial Impact
+ Beneficial Impact
0 Neutral Impact
- Negative Impact
** Unknown Impacts
N/A Not Applicable; no relationship between this outcome and this health element

Table 8.3 - Green Infrastructure: Natural Environment

POLICY RESULTS & OUTCOMES	PATHWAYS	HEALTH-RELATED IMPACTS				
		Physical Activity	Injury	Crime & Safety	Access to Healthy Foods	Social Networks & Cohesive-ness
Improved Surface Water Quality Area-wide	• LID Storm Water Facilities • Preserved, improved viable functioning wetlands • Willows Pond amenities & access • Overall environmental & community quality • Promotes well-being & mental health • Community identity & character	0	0	0	0	+
Increased, Preserved & Improved Habitat	• Overall environmental & community quality • Promotes well-being & mental health • Community identity & character • Natural environment & functioning ecology proximate to residences & workplaces	NA	0	+	0	+
Increased Greenery & Consistent Area-wide Street Trees	• Street trees, visual linkages to natural areas • Pleasant walking environment • Increased walking & biking • Overall environmental & community quality • Promotes mental, physical & spiritual well-being • Community identity & character • Improved livability • Greenery & natural environment proximate to residences & workplaces	+	**	+	+	++

++ Strong Beneficial Impact
+ Beneficial Impact
0 Neutral Impact
- Negative Impact
** Unknown Impacts
N/A Not Applicable; no relationship between this outcome and this health element

Table 8.4 - Transportation

POLICY RESULTS & OUTCOMES	PATHWAYS	HEALTH-RELATED IMPACTS				
		Physical Activity	Injury	Crime & Safety	Access to Healthy Foods	Social Networks & Cohesiveness
Complete, Safe, Comprehensive Street Grid for all Modes of Travel	• Smaller blocks with frequent connections & crossings provide multiple travel routes • Convenient, safe transportation choices • Increased mode choice & mode shift	++	+**	+	+	+
Improved Non-motorized Safety & Access for all Modes of Travel	• Continuous, Integrated sidewalks, trails, & bike facilities • Increased pedestrian & bike safety – streets & intersections • Comfortable, pleasant, & interesting walking conditions • Comprehensive wayfinding system	++	**	+	+	+
Viable Local & Regional Transit Network	• High capacity transit such as BRT with • Improved facilities, access & safety • Local transit service supports local circulation & regional connections • Social interaction among transit users	++	0	+	+	+
Meridian Corridor	• Main north south roadway & transit spine is safe, comfortable, & interesting for all modes • Designed for high capacity transit such as BRT • Creates community identity	++	**	+	+	+
Signature Corridors (5th SE & 39th SE)	• 5th Street SE – Key North/South Non-motorized Corridor with unique natural areas & enhanced landscaping • 39th Avenue SE – Key East West Corridor for all modes with continuous, safe, non-motorized facilities • Create community identity	+	**	+	+	+
Consistent Streetscapes & Street Trees	• Comfortable, interesting walking conditions • Streetscapes unique to South Hill create community identity & cohesive appearance	+	0	0	+	+

++ Strong Beneficial Impact
+ Beneficial Impact
0 Neutral Impact
- Negative Impact
** Unknown Impacts
N/A Not Applicable; no relationship between this outcome and this health element

green infrastructure transportation.

HIA Recommendations

The following HIA recommendations are intended to further strengthen existing adopted policies, to address policy gaps among the five health elements assessed, to reduce health risks and disparities, especially among vulnerable populations, and to further promote public health and quality of life for all who live in, work in, and visit the South Hill Neighborhood. While this section is written primarily for planners and policy makers, agency partners and community members and other decision makers can also play an important role in reducing the incidence of chronic disease within their communities by influencing community design and creating environments that are supportive and conducive of health.

The recommendations take two forms: additional Neighborhood Plan policies and Implementation Actions. The recommendations are identified in table format followed by a more detailed narrative.

Bicycle facilities encourage use of alternative modes of transportation that can contribute to health

Recommended Policy Additions

This section contains recommended policies that be added to the South Hill Neighborhood Plan to further support health and decrease risks and disparities in the neighborhood. Table 8.5 provides a summary of recommended policies.

Land Use Designations and Urban Form

1. **Revise Codes and Standards**. Revise the land use code, map and development standards to implement the Neighborhood Vision.
2. **Establish a Design Review Process.** After re-zoning, establish a design review process for South Hill to ensure envisioned design quality and to develop a specific community identity.
3. **TOD District**. Establish a Transit-Oriented Development (TOD) District near the future Bus Rapid Transit station to address minimum density requirements, mixed-use requirements and shared and reduced parking requirements.

Table 8.5 -Recommended Policy Additions

	PHYSICAL ACTIVITY	CRIME & SAFETY	INJURY	HEALTHY FOOD	SOCIAL CONNECTIONS/ COMMUNITY IDENTITY
LAND USE & URBAN FORM					
1. Revise Codes & Standards	x	x	x	x	x
2. Design Review Process					x
3. TOD District	x				x
4. Master Plans for Large Properties	x	x	x	x	x
5. Measure Mode Shift	x	x	x	x	x
6. Code Enforcement & Maintenance		x			x
GREEN INFRASTRUCTURE, PARKS & OPEN SPACE					
1. Green Infrastructure Plan	x			x	x
2. Master Plan Willows Pond	x	x	x	x	x
3. Safety Audits All Parks & Trails	x	x			
4. Trails Master Plan	x	x			
TRANSPORTATION					
1. Complete Streets Plan	x		x	x	x
2. New East/West Street	x	x	x		
3. Pedestrian/Bike Facilities on Bridges	x		x		

4. **Master Plans for Large Properties.** Require phased, binding master plans for institutions and properties larger than five acres in size to use a comprehensive approach and quality of development considerations. Flexibility of design is encouraged to achieve vehicular and non-motorized circulation (internal and external), vegetation and tree cover, area-wide drainage facilities, safety provisions, building-street relationships, and compatibility with adjacent properties. Specific attention should be paid to applying master plan requirements to existing facilities and development in order to affect future redevelopment plans.

5. **Measure Mode Shift.** Prepare and maintain a model to predict and measure transportation mode shift over time from automobiles to walking, bicycling,

and use of transit.

6. **Code Enforcement & Maintenance.** Increase building code and property maintenance enforcement for private properties to ensure yard maintenance, removal of trash and graffiti, and overall building appearance and cleanliness.

Storm water facilities can be integrated into development to provide attractive public amenities

Green Infrastructure, Parks, Open Space, and Trails

1. **Green Infrastructure Plan.** Prepare a neighborhood-wide Green Infrastructure Plan which cohesively integrates natural and man-made systems as a signature element of the South Hill Neighborhood identity. The Plan should include a comprehensive storm water drainage plan, neighborhood-wide wetlands protection and functions, neighborhood-wide tree and vegetation cover goals, and strategies including retention of existing significant stands of trees. Specific strategies should be developed for meeting vegetative goals in parks, natural areas, open spaces, on trails, streets, in private development, on public lands, and for retrofit of existing development, including parking areas.

2. **Master Plan for Willows Pond.** Prepare and implement a Master Plan for the Willows Pond area which includes a public gathering space, improved visual quality, linkages to the broader non-motorized network, direct connections between Willows Pond and the Top Foods store to the north, and to Bradley Lake Park. Appropriate building footprints and parking strategies should be identified for private development around the Pond to secure visual access from adjacent streets.

3. **Safety Audits for Parks and Trails**. Prepare and implement safety audits of all parks, public spaces, and trails to identify site-specific safety improvements to deter crime. Increase the visibility of law enforcement and community patrol volunteers on police trails, isolated streets and properties, as well as police patrols where appropriate, to increase safety and deter crime. Place specific emphasis on the South Hill Mall parking lots, Pierce College, Bradley Lake Park, and the Benaroya

property.

4. **Trails Master Plan.** Prepare a detailed Master Trails Plan to identify site-specific trail locations to secure access to parks, identify needed linkages through public and private properties and to the on-street non-motorized network. Specific attention should be given to obtaining safe and direct access to Willows Pond, access to all sides of Bradley Lake Park, the Benaroya property, and Pierce College. Trail connections identified in the Master Trails Plan should be required as a condition of development of properties and facilities.

Transportation

1. **Complete Streets Master Plan**. Develop a detailed Complete Streets Master Plan and related standards for the South Hill Neighborhood which includes:

   - Locations of future roadways and street connections to complete a grid, both within the neighborhood and to adjacent residential and commercial areas in the City and County, and which meet intersection distance criteria established in the existing South Hill policies;
   - Urban trail connections identified in the Trails Master Plan;
   - Urban trail connections identified in the Willows Pond Master Plan;
   - Non-motorized system which identifies active transport, mobility and safety needs based on existing and future land use, existing and future transit facilities, and specific needs of pedestrians and vulnerable populations;
   - Future transit facilities and connections;
   - Detailed access management plans for arterial streets to consolidate the number of driveways to reduce the high incidence of accidents at driveways, to facilitate access and circulation between adjacent

Community events strengthen neighborhood identity and social connections

properties and to enable shared parking;

- Analysis of the potential to reduce speed limits on arterial streets while maintaining overall multimodal mobility goals;
- Revised street and intersection standards to provide a comprehensive complete streets system for all modes of travel;
- A comprehensive parking plan to define shared parking, reduce parking close to transit, and establish public/private parking partnerships to achieve consistent high usage rates for parking facilities and other options to reduce total land devoted to parking;
- Streetscape and gateway concepts for arterials and other key streets, and
- Coordination with the proposed Growth and Transportation Efficiency Center (GTEC) recommendations and implementation. The proposed GTEC program for South Hill is a collection of City-adopted goals and policies, facility and service improvements, and marketing strategies about how the City of Puyallup will help make progress for reducing drive along trip and vehicle miles traveled for the GTEC over the next six years.

2. **New East-West Street.** Add a new local east-west street north of 39th Street SE between Pierce College and 5th Street SE (the optimal location is through the Benaroya property and along the southern boundary of Bradley Lake Park). This street will provide an alternate east-west route across the neighborhood. This route would:

   - Provide a safe, well-travelled route for students, employees and users who must currently walk several hundred feet (equivalent of multiple city blocks) through isolated, wooded areas to access infrequent transit and sidewalks on 39th Street SE;
   - Alleviate congestion on 39th SE and contribute to a more complete grid by distributing traffic and providing more route choices and smaller blocks;

A South Hill Neighborhood intersection

- Provide transportation choices for high concentrations of employees and students at the Benaroya Property and Pierce College;
- Provide sidewalks and bike facilities on a well-lit street and provide a safe, well-travelled route through these large, isolated wooded properties;
- Provide improved personal security which cannot be easily provided on isolated wooded trails;
- Provide direct access to Bradley Lake Park and its recreation facilities and to future planned active recreation facilities at Pierce College;
- Enable transit vehicles to directly access the buildings at the Benaroya property and Pierce College. Such direct transit connections would improve transit viability for large concentrations of employees and students via frequent service and increased ridership and ensure speed and reliability for transit users; and
- Renovate 39th Ave SE to a "Complete Street" standard that includes full bicycle facilities and sidewalks on both sides to ensure active transport options and safety in the area of the Benaroya property and Pierce College.

3. **Pedestrian/Bicycle Facilities on Bridges.** Add pedestrian and bicycle facilities to both SR 512 bridges in the neighborhood in order to provide increased route options and access to the Sound Transit Park and Ride, the future BRT line on Meridian, the South Hill Mall, and other destinations throughout the neighborhood. The bridge improvements should be designed to function as visual gate ways to the South Hill Neighborhood.

Safe bicycling conditions

Bicycle and pedestrian facilities on bridge

Recommended Implementation Actions

This section contains recommended implementation actions and priorities to address health that be added to the South Hill Neighborhood Plan to further support health and decrease risks and disparities in the neighborhood.

1. **Food Element in the Comprehensive Plan.** Prepare

Community gardens provide nutritional benefits, as well as the opportunity for exercise

Local community gardens

a Food Element for the Comprehensive Plan which defines City-wide strategies for consistent access to affordable, healthy foods in South Hill and all other City neighborhoods.

The Food Element should also address:

- Incentives for more healthy food choices in grocery stores and restaurants;
- Restrictions on numbers and types of fast food restaurants in the neighborhood;
- Strategies for community gardens to be distributed throughout the community, especially in areas where seniors, youth, and low income individuals reside;
- Opportunities for commercial urban agriculture production in and around Puyallup;
- Partnerships with the School District and the health department on nutrition programs; and
- Support for local food carts providing affordable, healthy food in downtown Puyallup and on South Hill.

2. **Community Gardens.** Work with Puyallup Parks and Recreation and other community partners to create space for a community garden at Bradley Lake Park or in other appropriate locations. Criteria to optimally locate community gardens would be in close proximity to residential areas, multifamily housing and senior housing.
3. **Farmers' Market.** Work with the Puyallup Farmers' Market Association to create a Farmers' Market for South Hill residents for a minimum of one day per week. This market should be easily accessible to residents via transit. Potential Farmers' Market locations could include: South Hill Mall parking lots adjacent to the Transit Center, future gathering spaces at 39th and Meridian, and Bradley Lake Park.
4. **Establish a South Hill Neighborhood Service Center** or "mini-City Hall" to provide a branch library or kiosk, provide city and community information

and programs, accept bill payments, house a police department sub-station and to provide other civic functions and bring a civic presence to the neighborhood. Potential partners in the service center could include social service agencies, arts and cultural organizations, or others. This center should be located in a central location that has high visibility and is accessible by active transport and transit.

5. **Establish a South Hill Neighborhood Association** to strengthen community connections, social networks, host community events, and to build a local advocacy group. This group would:

   - Work with City staff to develop a specific identity for the neighborhood;
   - Provide stewardship of the long-term implementation of the Neighborhood Plan as it relates to the quality, safety, and desirability of the area;
   - Consist primarily of local South Hill residents, but could also include business owners, advocates of parks, non-motorized transportation users, and others;
   - Provide guidance to the City in implementing infrastructure improvements envisioned in the LIFT grant;
   - Serve to unite groups and individuals with differing points of view;

Table 8.6 - Recommended Implementation Actions

	PHYSICAL ACTIVITY	CRIME & SAFETY	INJURY	HEALTHY FOOD	SOCIAL CONNECTIONS/ COMMUNITY IDENTITY
1. Comprehensive Plan Food Element	x			x	
2. Community Gardens					
3. Farmers Market					
4. Neighborhood Service Center		x	x		x
5. South Hill Neighborhood Association	x	x	x	x	x
6. South Hill Business Association	x	x	x	x	x
7. HIA Implementation Committee	x	x	x	x	x
8. Implementation Priorities	x	x	x	x	x

South Hill Mall

- Assist with crime prevention efforts; and
- Sponsor activities such as special events in the park or on trails to encourage community gatherings as well as to increase the communities' familiarity with local recreational resources and activities.

6. **Create a South Hill Business Association.** Create a subgroup of commercial property and business owners to coordinate business community cohesion and employee practices. Additionally, this group could coordinate the implementation of the South Hill Growth and Transportation Efficiency Center (GTEC) to reduce single occupancy vehicle trips to the area, which would address traffic congestion and livability issues in the area.

7. **Convene an HIA Implementation Committee** to provide leadership and track the implementation of the HIA over a period of several years. This Committee would be charged with assisting in goal setting and establishing priorities for HIA implementation.

   The Committee should be comprised of representatives from:

   - City of Puyallup staff (Planning, Parks, Public Utilities, Public Works and Police Department);
   - Health Department;
   - Puyallup Planning Commission;
   - Benaroya Property;
   - Pierce College;
   - Puyallup School District;
   - South Hill Mall;
   - Washington State Department of Transportation;
   - Pierce Transit;
   - Multicare Hospital; and
   - South Hill community members.

8. **Establish Implementation Priorities.** Priorities for near-term and long-term implementation should be established. HIA priority recommendations include:

    - Prioritize code revisions and infrastructure planning to ensure that potential near-term development of significant centrally-located properties (such as Willows Pond) does not use existing development standards. The existing standards would likely not yield needed trail connections or a public gathering space, lack visual access to Willows Pond, and would be low-intensity single use development with large areas devoted to parking. Such development in these key locations would add significant barriers to achieving the Neighborhood Vision;
    - Prioritize planning and design of projects which will be funded by the LIFT grant, such as trails, high capacity transit, and utilities;
    - Prioritize development and maintenance of sidewalks and safety features in areas that serve vulnerable populations, such as the concentration of senior housing in the southern end of the neighborhood; and
    - Add direct walking connections and remove barriers to walking between the concentration of senior housing near the intersection of 43rd Street SE and 5th Street SE and the adjacent YMCA.

In order to create a healthy South Hill Neighborhood, we ask policy makers, partner agencies, planners, community members, landowners, employers and other decision makers to work collaboratively in implementing the recommendations provided within this report. The ongoing engagement of these organizations and individuals within and across public and private sectors will provide the support needed to create changes with wide reaching benefits for the health and well-being of South Hill residents, employees and visitors.

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APPENDIX

This Appendix contains:

1. Existing South Hill Neighborhood Plan policies analyzed in this HIA
2. Methodology used to determine potential health impacts and define recommendations
3. Potential policy outcomes matrices

APPENDIX

1. Existing South Hill Neighborhood Plan Policies

SOUTH HILL NEIGHBORHOOD PLAN POLICIES

I. Overview

The City's adopted Comprehensive Plan identifies two centers that, over time, are anticipated to play a more significant role in the future of the Puget Sound Region: South Hill and Downtown Puyallup. In recent years, the City has focused on taking advantage of opportunities to solidify the community's attributes and contribute to its desirability as a place to live, work, visit, and do business.

In 2008, the City was awarded a Local Infrastructure Financing Tool (LIFT) award, which will provide great opportunities for Puyallup to enhance both of its centers. This award will provide support for development of a Bus Rapid Transit system that will extend along the Meridian Corridor through South Hill, as well as other express transit systems that will facilitate movement between the South Hill business and residential centers and downtown Puyallup. In addition, the LIFT program identified several stormwater improvement projects in the Willows Pond/Bradley Lake Park drainage basin that will improve water quality flowing into the Puyallup River and Puget Sound. These improvements will also create and enhance recreational amenities in this area by establishing a system of water features that will complement future South Hill land uses and trail system. The trail system will be installed in conjunction with high capacity telecommunications system improvements as well.

Purpose of this Element

The purpose of this element is to provide the framework of policies that will guide the further development of the South Hill Neighborhood Plan. These policies provide the foundation for future work on the plan for this area, including the general land use patterns, pedestrian and vehicular connectivity, livability, site and aesthetic design, improvement of community assets such as Willows Pond that add to the quality of life for South Hill residents and employees, housing choice, economic vibrancy, and so on.

The following describes the Vision for South Hill. This Vision was developed in conjunction with the community and the Planning Commission at numerous community open houses and Planning Commission meetings over the past 4 years.

At the end of this document are images that represent the attached policies graphically on a map of South Hill.

Vision for South Hill

A Complete Community

The City of Puyallup South Hill Neighborhood will become a place where people live, work, learn, shop, and play. It will contain a thriving retail core, close knit vibrant residential communities, educational opportunities, and public open spaces, all connected together with active sidewalks, bicycle lanes, bus routes, and attractive, pedestrian-scale streets. The implementation of this Vision will include the following measures:

SOUTH HILL NEIGHBORHOOD PLAN POLICIES

• **Thriving Retail Core**
Puyallup's South Hill Neighborhood will remain a regional retail destination. Improved access and a more interesting environment will contribute to the economic vitality of the commercial core, attracting customers, visitors, and employers.

• **Close Knit Vibrant Neighborhoods**
New housing will be integrated into the neighborhood and will display quality and character through materials and architectural expression, such as massing, articulation, and roof forms. A variety of housing types, including senior housing and workforce housing will be available. Housing options will enable people of all ages and people who work within the neighborhood to also live within the neighborhood, encouraging more trips to be made by walking, biking and public transportation.

• **Educational Opportunities**
Pierce College will be a center of learning and a resource available to all, meeting the educational needs of a diverse community by providing quality education that prepares learners to live and work successfully in an ever-changing world.

• **Employment Opportunities**
Pierce College, the Benaroya Campus, South Hill Mall and other properties will continue to increase in offering living wage jobs for Puyallup residents and workers from outside of Puyallup. Consistent with LIFT program objectives, infrastructure and local/regional transit service improvements, including Bus Rapid Transit, will provide greater access to job sites, as well as from other areas of Puyallup to South Hill.

• **Public Open Space**
Both natural and man-made open spaces, such as Willows Pond and Bradley Lake, will be integrated into the neighborhood. An array of public spaces including plazas, courtyards, squares, and parks will be created at every opportunity.

• **Pedestrian-friendly Building Design**
Building frontages will incorporate combinations of uses, amenities and architectural details and artistic expressions that are both appealing to people on foot and provide a safe environment. Parking will be in structures, both above and below ground.

• **Multi-Modal Transportation – Walking, Biking, Transit and Driving**
Improved roadways connections and improvements to the non-motorized circulation network (e.g., an improved trail system, Bus Rapid Transit and enhanced transit service), will provide greater access to business and residential uses on South Hill. While much current congestion in the vicinity originates outside the city, these circulation improvements, plus changes to land use (e.g., increased mixed use development) will target lower long-term, local cumulative traffic impacts. Nearby Puyallup residential neighborhoods will have ready access to goods, services, and employment within the South Hill Neighborhood via a range of transportation options, including walking, bicycling, public transportation and the automobile.

• **Active and Appealing Streets**
Streets within the South Hill Neighborhood will be lined with sidewalks and street trees to provide a strong consistent character, encourage pedestrian activity, and promote healthy living. Blocks will be small to allow for convenient access by foot.

SOUTH HILL NEIGHBORHOOD PLAN POLICIES

A. Function of the South Hill Policy Framework

The following policies provide the policy framework to realize the South Hill Vision. Upon further technical analysis, the Planning Commission will finalize their recommendation for a future land use map for South Hill and will identify key regulatory mechanisms that would need to be changed and/or added in order to achieve the type and character of development envisioned for the South Hill Center.

B. LIFT Award 2009

In 2008, the City was awarded a Local Infrastructure Financing Tool (LIFT) grant. This award will give the City greater capacity to provide adequate infrastructure to maintain and attract new population and jobs. LIFT funding will provide up to $1 million per year until 2039 for capital improvements within the LIFT revenue development area, which includes the South Hill Regional Growth Center. In 2008, the City was awarded a Local Infrastructure Financing Tool (LIFT) grant. This award will provide support for development of a Bus Rapid Transit system that will extend along the Meridian Corridor through South Hill, as well as other express transit systems that will facilitate movement between the South Hill business and residential centers and downtown Puyallup. In addition, the LIFT program identified several stormwater improvement projects in the Willows Pond/Bradley Lake Park drainage basin that will improve water quality flowing into the Puyallup River and Puget Sound. These improvements will also create and enhance recreational amenities in this area by establishing a system of water features that will complement future South Hill land uses and trail system. The trail system will be installed in conjunction with high capacity telecommunications system improvements as well.

II. Land Use

A. Future Land Use Designations

Changes to the Future Land Use Designations are recommended to better reflect the vision for South Hill as a mixed-use community with a greater attention to a pedestrian oriented form, and in some cases, higher densities and intensities than were previously established for the area. Proposed designations are intended to replace the current “one size fits all” Comprehensive Plan Designation of Auto-Oriented Commercial with three area-specific mixed-use designations. Table 1 shows existing land use designations and how they would change with the proposed future land use designations.

Proposed changes to land use designations relate to the level of intensity and the degree to which land uses are mixed. As noted below, the Auto-oriented Commercial designation correlates to three mixed-use designations (MU-1, MU-2, and MU-3) that will each be modified to emphasize a specific use and form.

Table 1

Existing Designation	Proposed Designation
Auto-oriented Commercial	MU-1, MU-2, MU-3
Business/Industrial Park	No change, possible future zoning overlay to emphasize campus style development and employment
Light Manufacturing/Warehousing	No change, possible future zoning overlay to emphasize campus style development and employment
Limited Commercial	MU-3
High Density Residential	High Density Residential (with modifications), MU-3 in some areas
Moderate Density Residential	High Density Residential
Moderate Density Single Family	High Density Residential
Public Facilities	No change, on Pierce College site possible future zoning overlay to emphasize campus style development and employment
Open Space/Public Park	No change

At this time, pending further technical analysis, no specific future land use map is formally proposed for adoption into the Comprehensive Plan; however, the Planning Commission and City Council are being asked to "endorse for analysis purposes only" a proposed land use plan that will serve to guide continued analysis of alternatives by the Planning Commission. When the Planning Commission evaluates all information, they will propose a Land Use map and prepare development regulations to implement that map.

B. Key Policies

1. Land Use Designation Goals and Policies

I. MU-1 Designation

Goal I: MU-1 designation is the most intensive mixed-use designation in South Hill, allows the highest height limits and is intended to accommodate commercial uses with a regional draw.

Policy I.1: Apply the MU-1 designation in the area encompassing the South Hill Mall and adjacent parcels, bounded by 9th Street SW, SR 512, Meridian and 39th Ave. S.

Policy I.2: A full range of uses including residential, office, lodging, and retail uses should be encouraged in this designation.

Policy I .3: Accommodate mall development, with provisions to ensure a stronger relationship between the building and street and encourage exterior store fronts, including physical proximity, entrance visibility and placement of parking beneath, behind or beside the building façade where possible.

Policy I .4: Discourage additional stand alone large format retail development in this designation, unless included as part of a mixed-use project.

Policy I .5: Greater connectivity in the circulation network, including a finer grid of pedestrian and vehicular connections, should be encouraged in this designation.

Policy I .6: The street/building relationship and a more continuous street wall should be particularly emphasized along 39th and Meridian.

II. MU-2 Designation

Goal II: MU-2 designation is a mixed-use designation with a significant commercial component where standards to ensure pedestrian-oriented design are emphasized, and the constraints of large format retail are acknowledged and accommodated.

Policy II.1: Apply the MU-2 designation to areas primarily composed of large parcels located on arterials that are highly accessible and other areas currently dominated by retail uses or where larger developments can be accommodated. (Note: this designation applies to the majority of the areas outside of the Mall that are currently designated Auto-Oriented Commercial).

Policy II.2: Encourage and accommodate the greatest range of uses within this designation, including high-density residential, pedestrian oriented retail, large format retail and multi-story office.

Policy II.3: Ground floor commercial uses with building entrances facing the street should be required along S. Meridian and 39th Ave. SW.

Policy II.4: Large format commercial uses should be limited to 2-3 stories, unless significant public benefits are provided as part of the development.

Policy II.5: Ensure an appropriate edge transition in MU-2 areas that are adjacent to or across the street from Bradley Lake Park. Development should be encouraged to provide views and connections to the Park, but should also incorporate open space, stepping down of heights, landscaping, and other techniques to improve use compatibility and integration.

III. MU-3 Designation

Goal III: The MU-3 designation is a mixed-use designation with an emphasis on residential, office and neighborhood serving pedestrian retail emphasis.

Policy III.1: Apply the MU-3 designation in locations that can accommodate high density residential development, where large retail uses are not appropriate or likely because of parcel size, patterns of ownership, proximity to other uses or access and traffic issues and sites that are particularly well suited to implement the vision of improved pedestrian orientation for South Hill.

Policy III.2: This designation emphasizes mixed-use, multi-story residential and office development and accommodates smaller-scale stand alone retail development.

IV. Business/Industrial, Light Manufacturing/Warehousing, and Public Facilities

No change to Comprehensive Plan designations. A new Campus Employment Zoning Overlay could be applied to the Pierce College and Benaroya properties, which will be covered in more detail in the

zoning memo. Policy direction would be added to address visual compatibility, aesthetics, connectivity and encourage living wage employment.

Policy IV.1: Maintain a campus appearance, including significant landscaping, retention of native vegetation clusters, signage standards and building setbacks, in Business/Industrial, Light Manufacturing, and Public Facilities designations as a common element to enhance compatibility between a wide range of employment and education uses.

Policy IV.2: Improve connectivity between properties in the eastern portion of the 39th Ave. SE corridor.

Policy IV.3: In business and industrial zones, consider limits on low employment density uses and use of incentives to promote living wage and high density employment uses.

Policy IV.4: Work with Pierce College to improve non-motorized and transit connections, provide opportunities for student housing and provide stronger ties between the college and the community, including providing facilities and support for educational, cultural, and community events.

V. High Density Residential (HDR):

Goal V: The High Density Residential designation would be applied to areas that are currently developed as high density residential and other areas where high density residential development is appropriate because of proximity to arterials, compatibility with adjacent land uses and the vision of the South Hill area as an Urban Center.

Policy V.1: Setbacks and landscaping should be used to ensure increased compatibility with less intensive land uses.

2. Policies Common to All Zones

In general, existing goals and policies in the City's Comprehensive Plan provide substantive support for the type and character of development envisioned for the South Hill Center. However, more specific policy direction is needed for sub-areas within the South Hill Center in order to address location-specific conditions and opportunities.

Goal VI: Plan for and create a land use pattern and intensity that will encourage South Hill residents to walk, bicycle, and actively engage in their community, and where a growing number of people will live and work as land uses intensify and diversify.

Policy IV-1: Emphasize the building-street relationship by ensuring that the majority of the building façade is located are placed adjacent to the sidewalk or public pedestrian areas and parking areas are placed beneath, beside, or behind buildings.

Policy IV-2: Residential densities that are supportive of high capacity transit and a vibrant mixed-use community should be encouraged.

Policy IV-3: Establish a minimum net residential density of 24 units per acre for stand alone residential development in the South Hill Center.

3. Use Policies*

Goal VII: The South Hill Center is envisioned to have a dynamic mix of uses that both complement one another in terms of creating a place where people can live, work, shop, and recreate while also strengthening the area as a regional draw for shopping and employment.

Policy VII.1: The emphasis of use regulation should be on avoiding nuisances related to noise, odor, glare, and vibration rather than on detailed restrictions on or requirements for specific uses.

Policy VII.2: Uses should be defined in terms of broader categories and a use interpretation process should be established with clear criteria. The approach to regulating uses should move away from defining uses based on the North American Industry Classification System (NAICS).

Policy VI.3: Encourage a diverse mix of employment and support high wage employment with infrastructure investments, development and tax incentives, public-private partnerships and other tools.

Policy VI.4: Mixed-use development should be encouraged. Ground floor commercial uses on major arterials may be required in some locations.

* More detail on such an approach will be included in a subsequent memo on zoning recommendations.

4. Adjacent Land Uses

Goal VII: Minimize impacts of higher intensity development within the South Hill Center on adjacent lower intensity areas.

Policy VII.1: Where higher intensity development is not buffered from lower intensity development by a road, require the higher intensity development to be setback from the lower intensity development and a vegetative buffer to be incorporated within the setback.

Policy VII.2: Where adjacent to lower intensity uses, ensure that new higher intensity development is designed to step down in order to provide a transition of building bulk and scale between the two land use intensities.

5. Public Spaces

Goal VIII: Establish a public realm that includes public spaces, sidewalks, trails, and parks as a critical component to creating a vibrant community in which people want to live and be active, and serving as a catalyst for attracting future development.

Policy VIII.1: Ensure that new development incorporates public spaces and accommodates trail connections, where adjacent to the defined trail network, in order to create an amenity for those living, working, and shopping in the South Hill Center.

Policy VIII.2: All public spaces should be easily accessible and visible from a sidewalk or trail.

Policy VIII.3: Protect solar access to public spaces and important views from public spaces.

Policy VIII.4: Encourage new development occurring adjacent to, or across the street from Bradley Lake Park to provide visual and physical access to the Park in order to best utilize this facility and provide amenity for new uses.

Policy VIII.5: Through the use of public/private partnerships of investor incentives, establish a significant public space in the vicinity of 39th Ave SW and S. Meridian to serve as an urban gathering place and possibly as the focal point for future mixed-use development and a rapid transit hub.

Policy VIII.6: The City should explore the acquisition of Willows Pond, or otherwise attain use privileges, both for purposes of enhancing its ecological function and developing it as a green focal point and an amenity for the neighborhood that includes a trail system that ties into a larger network of trails that connect to Bradley Lake Park, Pierce College, and other destinations.

Policy: Protect and enhance the system of wetlands within the South Hill Center and encourage new development to have visual and physical connections to these areas so that they serve as open space amenities for residents.

6. Relationship to Established Regional Growth Center Criteria and LIFT Objectives

The above policy direction is consistent with the following established regional growth center criteria:

- Population targets and densities,
- Mixes-use districts within the center,
- Transitions to adjacent neighborhoods,
- Critical areas,
- Distribution and location of uses, and
- Pedestrian-friendly development.

Many of the established criteria related to land use will be more specifically addressed following further technical analysis and Planning Commission review within development standards and other regulatory provisions, to be developed in 2010.

In addition, these policies address LIFT objectives calling for mixed-use, pedestrian/transit-oriented development that offers citizens a full range of choices to live, work and play in their own community. LIFT objectives also include several critical infrastructure investments, including a system of trails, improved recreational opportunities and water quality treatment in the Willows Pond/Bradley Lake Park drainage basin, which the above policies support.

III. Urban Form and Design

A. Overview of Approach

Urban form of the South Hill Center is envisioned to change significantly over the long-term, from an auto-oriented to pedestrian-oriented form. Increased densities, an emphasis on mixed-uses, and standards that require buildings to be have a stronger relationship to the street, deemphasize the visual

dominance of parking areas, and integrate pedestrian-oriented design elements are all part of the approach to transform the urban form within the South Hill Center.

B. Policy Direction Common to All Zones

Goal IX: Create an urban form that encourages pedestrian activity and transit use by increasing connectivity within the street and pedestrian networks, integrating amenities such as street trees, public spaces, etc, minimizing conflicts between cars and people, and strengthening the relationship between buildings and the street.

Policy IX.1: A maximum setback should be established for buildings in order to ensure that buildings are built up to the sidewalk, thus contributing to activation of the sidewalk and a more pedestrian-oriented urban form.

Policy IX.2: Parking areas should be located behind, within, or to the side of buildings where feasible in order to strengthen the building-street relationship and minimize the visual impact of such areas.

Policy IX.3: Emphasize and enhance the relationship between the building and the street through design standards that address transparency, blank walls, weather protection, lighting, primary entrances, signage, and site amenities.

Policy IX.4: Consider the desired urban form of a more walkable and connected community built around a green infrastructure framework in the development of transportation, capital improvement, and utility policies, standards and required improvements.

Policy IX.5: The City should consider establishing location and spacing criteria for new streets and/or pedestrian linkages to break large parcels into a finer urban grid, e.g., provide connections within the range of every 250 to 350 linear feet.

Policy IX.6: Encourage private and public use of public art to enrich design aesthetics and add character, visual interest, and a sense of place.

Policy IX.7: Encourage place-making and a dynamic public realm by integrating publicly accessible plazas, open spaces and other gathering spaces with new development and redevelopment, in public and private projects.

C. Area and Corridor Specific Policies

1. S. Meridian

Goal X: Redevelopment along S. Meridian will transform the street into a comfortable environment for all modes of travel.

Policy X.1: Establish a streetscape through building placement and design that provides a more comfortable pedestrian environment along the S. Meridian corridor, including wider sidewalks and buffer strips.

Policy X.2: Encourage the edges of parking areas adjacent to sidewalks to infill with small-scale retail uses that activate the sidewalk and provide a sense of enclosure for the sidewalk environment.

2. Signature Corridors: 5th St SE and 39th Ave SE

Goal XII.1: Establish signature streetscapes and built forms that emphasize these corridors as key spines for non-motorized travel.

Policy XII.2: Establish 5th St. SE as the key north-south corridor for non-motorized users in the South Hill Center to provide an alternative to the more congested S. Meridian corridor. Establish a unique streetscape character that includes strong connections with adjacent natural areas, enhanced landscaping, low impact surface drainage systems, neighborhood scale and pedestrian oriented design that creates an attractive corridor where pedestrians and bicyclists feel comfortable and safe.

Policy XII.3: Reinforce 39th Ave. SE as the key east-west corridor for all modes to provide connections between jobs, housing, commercial areas and transit in the South Hill Center. Ensure continuous and safe non-motorized facilities along this street.

Policy XII.4: Encourage building design that reduces building bulk and scale, increases visual interest and provides direct access to the street.

Policy XII.5: Incorporate mid-block crossings where distances between intersections exceed 300 feet.

3. Relationship to Established RGC Criteria and LIFT Objectives

The above policies respond to established regional center criteria that address block size, street network, sidewalk network, trail/bicycle network, and design standards for pedestrian-friendly development. Policies addressing urban form and design support LIFT objectives to improve the connectivity of South Hill and make the area more pedestrian/transit-oriented and much less constrained by automobile congestion.

IV. Green Infrastructure, Parks, Open Space and Trails

A. Definition, Vision and Map

Green infrastructure refers to those features and facilities that provide ecological and utility function, i.e., treatment and/or infiltration of stormwater, habitat, etc., amenity function, i.e., trails, parks, and open space; and a transportation function, e.g., trails, and other non-motorized improvements. The South Hill Center has a significant amount of wetland areas, as well as Bradley Lake Park, and an existing, underutilized stormwater facility (Willows Pond). It is envisioned that all these features will be integrated into a green infrastructure system that both enhances and inserts the natural environment back into the neighborhood while also providing amenity and increasing the livability of the South Hill Center. Although trails are considered as part of the green infrastructure system, they are also discussed and referenced under Transportation Improvements.

B. Green Infrastructure Integration Policies

Goal XIII: Create a green infrastructure system that serves as a planning framework, enhances ecological functions, performs transportation and utility functions and provides an amenity to enhance livability for residents, employees, students, and other users.

Policy X.III.1: Establish stormwater basin planning as a key priority for the South Hill Center. This effort should include the evaluation and coordination of stormwater treatment and detention across multiple properties and may provide for broader environmental benefits and public amenities as compared to a site-by-site approach.

Policy XIII.2: Use public property, critical areas, rights-of-way and portions of private property subject to public access and utility easements for the establishment of a green infrastructure system that combines non-motorized transportation, stormwater treatment, open space and ecosystem services.

Policy XIII.3: Prioritize plan green infrastructure improvements and use them to establish an identity for the South Hill Center.

Policy XIII.4: Use enhanced public streets with non-motorized transportation improvements, natural landscaping and surface water conveyance and treatment to link natural open spaces, community destinations and urban gathering places.

Policy XIII.5: Protect and enhance wetlands and other designated critical areas in the South Hill Center, through the use of development regulations, incentives, and potentially public funds.

Policy XIII.6: Encourage natural drainage practices where feasible in public and private projects, as an alternative to traditional stormwater treatment and control.

C. Parks, Open Space and Trails

Goal XIV: Create an interconnected system of open spaces, parks, and public spaces that provide an amenity for South Hill residents, employees, and the broader community, as well as contribute to an alternative non-motorized transportation network.

Policy XIV.1: Develop a system of trails, open spaces, and parks for the South Hill Center through land acquisition, integration of green infrastructure in street projects, and partnerships with private property owners and institutions.

Policy XIV.2: Utilize trail corridors for installation of high capacity fiber optic networks.

Policy XIV.3: Provide an interconnected system of non-motorized trails for mobility and recreation within the South Hill Center. Trails should be integrated with the sidewalk system and provide access to major destinations within the neighborhood, including Pierce College, transit facilities, parks and open spaces, and shopping opportunities.

Policy XIV.4: Encourage new development to be designed to accommodate both visual and physical connections to the system of trails and open spaces that are planned for the South Hill Center.

Policy XIV.5: Encourage new development and redevelopment occurring within the vicinity of or adjacent to Bradley Park to provide trail connections to the Park.

Policy XIV.6: Provide safe and clearly marked walking connections between South Hill and adjacent schools and neighborhoods outside of the Center.

Policy XIV.7: Provide improved connections and wayfinding specifically between the South Hill Center and Rogers High School, the Wildwood neighborhood, Bradley Lake Park trails, Pierce College trails and paths and roadways on the Benaroya site.

D. Site Specific Opportunities

1. Willows Pond

Goal XV: Willows Pond is a central component of a green infrastructure system, providing multiple environmental and other public benefits.

Policy XV.1: The City shall explore the acquisition of Willows Pond, or otherwise attain use privileges, as a key component of a neighborhood green infrastructure system that provides natural treatment and retention of stormwater, habitat, public open space and a visual amenity for adjacent development.

Policy XV.2: Ensure that any development occurring adjacent to Willows Pond provides physical and visual connections from the development and from surrounding public streets to the Pond and future recreational amenities.

2. Wetland Areas

Goal XVI: Protect and improve the ecological function of wetlands as redevelopment occurs.

Policy XVI.1: Adopt development standards that encourage new development to treat wetlands as amenities while encouraging enhancement of ecological functions and values.

E. Relationship to Established RGC Criteria and LIFT Objectives

The policies above respond to items in the Regional Growth Center Plan Checklist that address critical areas, public facilities, and parks and open space. These features are key components of the South Hill Plan in that they will make the neighborhood a more attractive place to live and do business while also enhancing the natural environment. The policies also respond to LIFT objectives for the development of safe pedestrian and bicycle trails to connect neighborhoods, parks, schools and large land parcels that lack necessary urban infrastructure. In addition, the objective to enhance stormwater and drainage facilities, particularly within the Willows Pond/Bradley Lake Park drainage basin, to protect water quality, promote environmentally responsible economic development, and create better recreation and land use opportunities is also addressed in the policies above.

V. Transportation and Concurrency

Transportation policies and improvement plans must be consistent and support implementation of the land use designations and policies. Transportation is a mandatory element of comprehensive plans prepared under the Act as state in RCW 36.70A.070(6). The current Transportation element recognizes the South Hill Center as a major traffic generator and describes it as "rapidly developing as strip commercial development along Meridian from SR 512 south to 160th Street East." The vision

for the South Hill Plan articulated in these policies will take time to implement, but these policies and the implementing regulations that will follow, are intended to transform this current development pattern over time into a mixed-use urban center that is less dependent on the automobile and offers greater opportunities for people to live close by and travel to the center by transit, foot and bike, as well as by automobile.

Concurrency refers to the timely provision of public facilities and services relative to the demand for them. To maintain concurrency means that adequate public facilities are in place to serve new development as it occurs. Policies to promote concurrency are generally intended to encourage land use patterns that can be served efficiently by public infrastructure, to provide appropriate infrastructure at the time of new development, and to prevent new development from degrading locally agreed-upon service standards for the current users of existing infrastructure. In Washington, concurrency is both a state planning goal and a state-mandated local regulation under the Growth Management Act (GMA).

The GMA gives special attention to concurrency for transportation. The GMA requires that transportation improvements or strategies to accommodate development impacts need to be made concurrently with land development. "Concurrent with the development" is defined by the GMA to mean that any needed "improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years." Local governments have flexibility regarding how to apply concurrency within their plans, regulations, and permit systems.

As part of the requirement to develop a comprehensive plan, jurisdictions are required to establish level-of-service standards (LOS) for arterials, transit service, and other facilities. Once a jurisdiction establishes an LOS, it is used to determine whether the impacts of a proposed development can be met through existing capacity, and/or to decide what level of additional facilities will be required. Local jurisdictions must have a program to correct existing deficiencies and bring existing transportation facilities and services up to locally adopted standards. A developer may not be required to pay for improvements to correct existing deficiencies, but he/she can be required to fund a proportional share for needed improvements to address the impacts of planned growth.

Puyallup currently monitors transportation concurrency based on a ratio of roadway vehicle volume to roadway vehicle capacity (v/c ratio). Roadway capacities are based on the idea that lanes can carry an average number of vehicles per hour (VPH), e.g., an arterial lane can carry a maximum of 100 vph and collectors can carry 800 vph. According to Puyallup City staff, the City has established .85 v/c ratio in the PM Peak Hour as the required level of service standard.

The current level of service standard does not measure the movement of people, only vehicles. The current standard of .85 v/c represents a traffic condition with limited delay. Many communities allow a greater level of congestion under their adopted LOS, for example, Bellevue permits a .95 v/c rato in its Factoria and Bel-Red areas. Adoption of a similar standard by Puyallup could be contingent on providing additional transit service to the area, such as the planned Bus Rapid Transit (BRT), and non-motorized improvements, such as a trail system linking natural areas, Pierce College, and the Benaroya properties with the core area along Meridian. This change would better reflect the mix of land uses and future transportation options planned for this area. The concept is that an area can tolerate more congestion as new travel options emerge. The change in the LOS standard or target helps to establish transportation infrastructure for the future, which for the South Hill Center will be more mobility options including BRT and pedestrian/bicycle facilities. The change to .95 v/c would

tolerate more congestion but lower the requirement for building new roadway infrastructure because there are transportation options. Amendment of the LOS standard would allow the City to use its infrastructure investments wisely and to improve roadway capacity enough to preserve its function, while acknowledging that there are alternative mobility options.

Because the current LOS standard only measures one dimension of transportation, the key factors that impact this measurement are roadway capacity and the number of vehicles using the facility. The emphasis in the South Hill Plan is on encouraging compact land use development patterns that are less dependent on the automobile and providing alternatives to this mode of travel. Increasing roadway capacity, for example, adding lanes to Meridian, could conflict with key goals of the South Area Plan and could ironically facilitate even greater traffic growth. Because of these inherent limitations, the Puget Sound Regional Council and many local jurisdictions, such as Bellingham, Redmond and Vancouver, are considering the use of or using multi-modal concurrency measurements for urban centers that focus on measuring the movement of people.

Capacity improvements, such as signalization and creation of turn lanes, are needed as part of the mix to address future growth in the South Hill Center. However, transportation improvements needed to address the impacts of existing congestion and future growth should not focus primarily on the needs of the automobile if the South Hill goal is to create a vibrant, mixed-use pedestrian friendly community. Investments in South Hill should balance the needs of the automobile with non-motorized improvements and continued commitment to establishing BRT in the Meridian corridor, as well as other transit improvements. A multi-modal transportation level of service standard would emphasize travel times or other measurements that target the number of people and the speed of movement and not simply movement of vehicles.

A. Complete Streets

Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are able to safely move along and across a complete street. There is no one design prescription for complete streets. Ingredients that may be found on a complete street include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent crossing opportunities, median islands, accessible pedestrian signals, curb extensions, and more. Complete Streets policies direct transportation planners and engineers to consistently design with all users in mind including drivers, public transportation riders, pedestrians, and bicyclists as well as older people, children, and people with disabilities.

B. Transportation Policy Framework

Key potential Transportation Goals and Policies are provided below:

Goal XVII: Provide streets that safely and conveniently accommodate all modes of travel, an improved street grid and a balanced transportation system with investments that contribute to the sense of place and sustainability of South Hill.

Policy XVII.1: Support the South Hill Plan with a multi-modal transportation system that provides improved connections and mobility with the subarea and to other parts of the City and region.

Policy XVII.2: Plan for and provide complete streets and integrate existing and future transportation improvements into the larger context of the green infrastructure system.

Policy XVII.3: Improve Meridian as the key multi-modal corridor that includes vehicular, transit and non-motorized transit modes and a street design that contributes to the community character and sense of place in South Hill.

Policy XVII.4: Improve 39th Ave. SE as the key east west-west corridor with non-motorized, transit and vehicular improvements designed to improve access through the center and provide a critical link to Meridian.

Policy XVII.5: Design and develop street improvements, including facilities that support Bus Rapid Transit, other transit facilities, bike and pedestrian facilities and dedicated trails and vehicular capacity improvements to serve travel demand generated by the proposed land use in addition to regional travel demand.

Policy XVII.6: Develop, improve and where possible extend alternative north-south connections through the South Hill Subarea, including the 5th Street SE, 3rd Street SE, and a connection west of Meridian E.

Policy XVII.7: Develop, improve and where possible extend alternative east-west connections through the South Hill Subarea, including 43rd Ave. SE, 39th Ave. SE, and 35th Ave. SE.

Policy XVII.8: Improve access to and through areas designated as MU1, focused on the South Hill Mall site. Future significant development on this site should include a plan to improve circulation through the mall site and improvements that are proportionate to the extent of new development proposed.

Policy XVII.9: Develop local streets to establish a new grid system with smaller block sizes, particularly in areas within ¼ mile of 39th Ave. SE and Meridian. Maximum block face length should be 350 feet.

Policy XVII.10: Work with the Washington State Department of Transportation to improve Meridian and balance local and regional transportation needs.

Policy XVII.11: Off of principal arterials, consider the inclusion of on-street parking where it contributes to the pedestrian environment and neighborhood character.

Policy XVII.12: Include bicycle and pedestrian facilities in the design of arterials and local streets and improve connectivity with the development of a comprehensive sidewalk and trail system, including mid-block crossings, through block connections and amenities such as lighting, seating and signage.

Policy XVII.13: Develop a non-motorized trail system that incorporates a north-south spine focused on natural areas and east-west connections that provides access through and to major employment areas to core retail and future housing concentrations in South Hill.

Policy XVII.14: Identify existing informal trails and through land acquisition partnerships with private property owners and institutions, or other means, explore integrating them into formal transportation plans and provide wayfinding, surfacing, and other improvements where possible.

Policy XVII.15: Establish sidewalks that are a minimum 8 feet clear with an additional 5 to 6 feet buffer for planting and other amenities, i.e., transit stops, lighting, etc.

Policy XVII.16: Encourage site access to be off of streets other than S. Meridian.

Policy XVII.17: Establish some form of mass transit (possibly Bus Rapid Transit (BRT)) as the key transit priority for the City and for South Hill, work with Pierce Transit on this improvement and pursue all available funding and implementation tools necessary to achieve this objective.

Policy XVII.18: Work with Pierce Transit to ensure that feeder transit service is provided along 39th Ave. SW to link schools, employment, and housing to BRT.

Policy XVII.19: Implement a transportation demand management program and support the development of a Transportation Management Association to reduce single-occupancy vehicle demand in South Hill and increase the share of trips that use alternative modes.

Policy XVII.20: Consider establishing maximum parking requirements, shared parking requirements, priority carpool parking areas and using other tools to manage the parking supply and encourage the use of transportation alternatives to single occupancy vehicles.

Policy XVII.21: Consider modifying the required Level of Service standards for transportation concurrency in the South Hill Center, including changes to the current volume/capacity threshold and the development of a multi-modal concurrency standard that are more consistent with the land use and community vision for the South Hill Plan. Develop measures to fully integrate the analysis of all modes into future transportation modeling.

C. RGC Policy Relationship

The above policies respond to established RGC criteria that address non-motorized facilities and services, concurrency program, level of service standards, streetscaping and transportation facilities design, parking management, and transit.

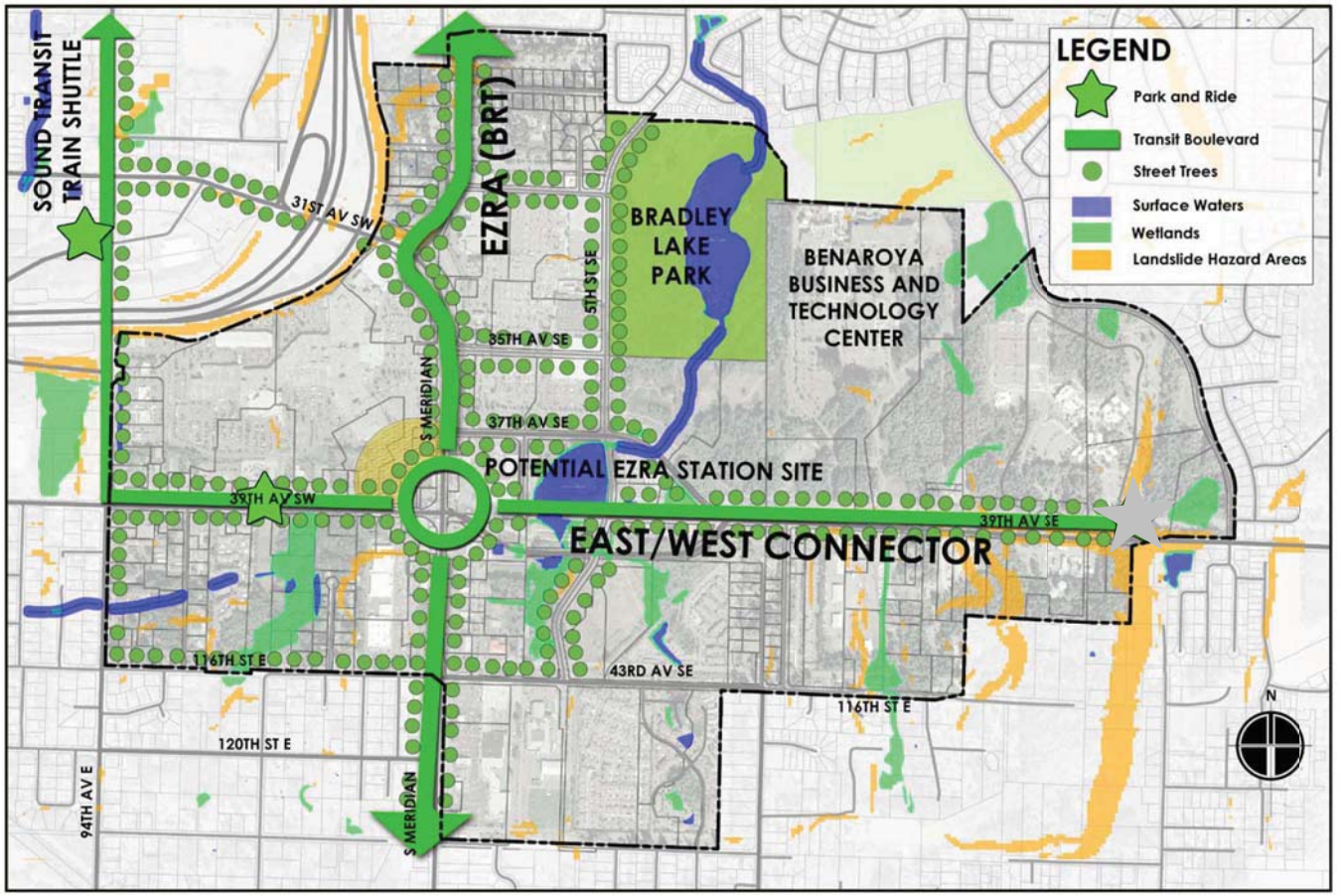
VI. Concurrency for Other Facilities

Growth management administrative regulations encourage local jurisdictions to define in their comprehensive plans other types of public facilities for which concurrency is required. These may include parks and recreational facilities, sanitary sewer systems, storm water facilities, and schools. The Draft 2008 Sanitary Sewer System Comprehensive Plan identifies the possible need for additional sewer treatment capacity to serve the planned level of growth under the South Hill Plan. Additional analysis of this information relative to South Hill plan alternatives will be provided to the Planning Commission for their consideration in 2010.

Policy XVIII 1: Require concurrency, including but not limited to adequate water, sewer, stormwater and transportation facilities, for all development in the South Hill Subarea.

Policy XVIII.2: Balance the need for development to pay for the financial impacts of growth with the targeted use of incentives, including capital improvements, to encourage growth to occur in desired locations, forms and intensities that will bring future value and revenue to the City.

Green Framework

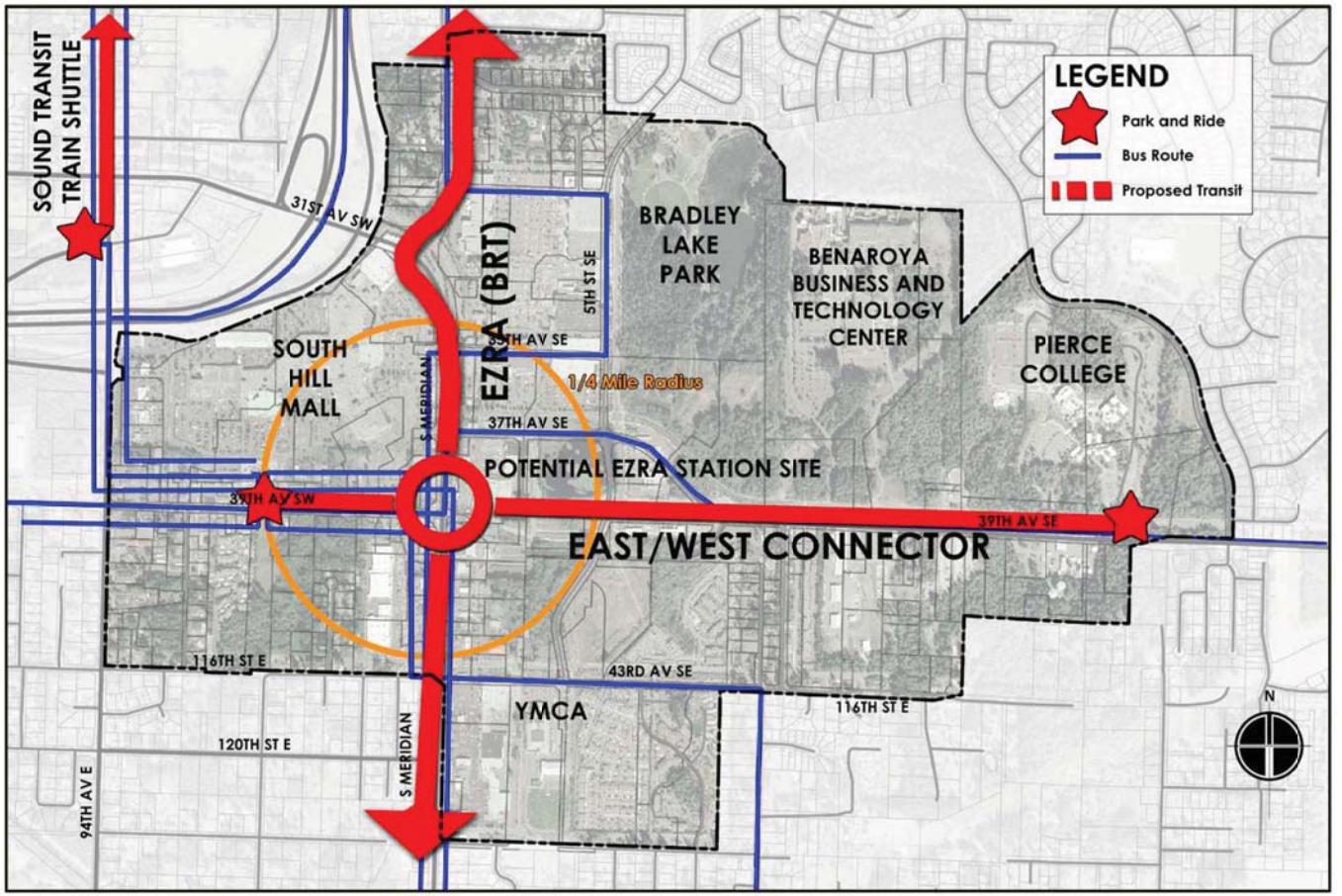


Parks, Trails and Recreation

Planning Commission, 9/16/09

AHBL, Inc

Proposed Transit



2. Methodology Used to Determine Potential Health Impacts and Define Recommendations

Methodology Used to Determine Potential Health Impacts and Define Recommendations

This section outlines the methods used to determine potential health impacts and recommendations that are included within this document.

Determination of Health Impacts

The potential impacts of the South Hill Neighborhood Plan Vision and Policies were derived through the following process:

1. Vulnerable populations and existing health disparities and need were identified for the South Hill neighborhood based upon the analyses of health data and health literature, analysis of specific existing South Hill conditions, and through the public involvement process for the South Hill Neighborhood Plan and HIA.
2. The policies were analyzed for potential outcomes and results by policy categories used in the existing policies: Future Land Use, Urban Form & Design, Green Infrastructure and Transportation. This analysis was documented in matrix format. The matrices are included in this appendix.
3. The outcomes from the matrices were then consolidated into list form by the same policy categories (Land Use, Urban Form and Design, Green Infrastructure and Transportation).
4. The outcomes were further consolidated into outcomes and "pathways". The pathways then provide the nexus, or linkages, between the policies and the health impacts. Policy outcomes and pathways were then identified as they related to the five health elements assessed in the HIA: Physical Activity, Crime & Safety, Injury, Access to Healthy Food and Social Networks & Community Identity. These finding and conclusions regarding outcomes, pathways and impacts are presented in text format in the body of the Health Impact Assessment and in summary table format at the end of Section 8. During this step, two policy categories, Future Land Use and Urban Form and Design, were consolidated into one category to avoid redundancy and overlap.
5. Potential outcomes were summarized as they relate to the topics identified in the South Hill Neighborhood Plan Vision. This summary was prepared in text form and is included in this appendix.
6. Recommendations were identified for areas in which (1) policies are silent on the health elements analyzed, (2) specific recommendations could be made to address health disparities and impacts to vulnerable populations, and (3) recommendations could help to strengthen potential positive impacts or reduce any potential negative impacts.

The potential policy outcomes and results, pathways, and health impacts are qualitative in nature, derived through the method defined above, use of literature, previous studies, and professional judgment. The impact assessment was prepared at a qualitative level, commensurate with the level of detail contained in the South Hill Neighborhood Plan policies.

The analysis presents health impacts which defined the direction of impact: positive, negative, neutral, or unknown. The specific degree and timing of the impacts are not known.

3. Potential Policy Outcomes Matrices

Land Use Policies – Potential Outcomes

POLICIES	TRANSIT ORIENTATION	PARKING	COMPATIBLE USES	PARKS, PUBLIC & OPEN SPACE, TRAILS					NATURAL ENVIRONMENT		
	Viable High Capacity Transit	Reduced Visual Dominance of Parking	Compatible Scale & Character Between Different Buildings & Uses	Comprehensive Trails Network	Improved Connections & Increased Access to Bradley Lake Park	Safe, Accessible Public Gathering Spaces	Viable Natural Spaces	Established Community Identity	LID Storm Water Facilities	Preserved, Viable Wetlands	Improved water quality
II.B.1 Land Use Designations and Policies											
Mall Area											
Large Commercial Parcels on Arterials			x								
Primarily High Density Residential including mixed use - smaller/non-large format retail sites											
Business/Industrial, Light Manufacturing/ Warehousing, Public Facilities* - East 39th area											
High Density Residential			x								
II.B.2 Policies Common to All Designations											
Land Use Intensity that encourages walking, biking and engaging the community	x	x									
Densities to support High Capacity Transit	x	x									
II.B.3 Use Policies	x										
II.B.4 Adjacent Land Uses											
Transitions between higher and lower density areas			x								
II.B.5 Public Spaces											
Public realm includes public spaces, sidewalks, trails, and parks			x		x			x			
Visible public spaces						x		x			
Solar Access											
Significant public space 39th & Meridian						x		x			
Acquire Willows Pond as green node, for trails, etc				x		x		x	x		
Protect Wetlands							x	x		x	x

Land Use Policies – Potential Outcomes (cont.)

POLICIES	MIX OF USES		INCREASED INTENSITY		CIRCULATION & ACCESS		PEDESTRIAN ORIENTATION		
	Broader Mix of Uses Area-wide	Mixed Use Over Larger Physical Area	Increased Residential Population and Densities	Increased Employment & Densities	Area-wide Improved Non-motorized safety & access	Area-wide Increased Circulation Facilities & Connectivity, All Modes	Visible & Accessible Storefronts	Pedestrian-oriented Development, Sites & Buildings	Ground Floor Commercial, Entrances Facing Street - Required on Key Arterials
II.B.1 Land Use Designations and Policies									
Mall Area	x	x	x	x	x	x	x		
Large Commercial Parcels on Arterials	x	x	x	x	x	x		x	x
Primarily High Density Residential including mixed use - smaller/non-large format retail sites	x	x	x	x				x	
Business/Industrial, Light Manufacturing/Warehousing, Public Facilities* - East 39th area			x	x		x			
High Density Residential									
II.B.2 Policies Common to All Designations									
Land Use Intensity that encourages walking, biking and engaging the community	x	x	x	x			x	x	x
Densities to support High Capacity Transit	x	x	x	x		x	x	x	x
II.B.3 Use Policies	x			x					x
II.B.4 Adjacent Land Uses									
Transitions between higher and lower density areas									
II.B.5 Public Spaces									
Public realm includes public spaces, sidewalks, trails, and parks								x	
Visible public spaces									
Solar Access									
Significant public space 39th & Meridian									
Acquire Willows Pond as green node, for trails, etc									
Protect Wetlands									

Urban Form Policies – Potential Outcomes

POLICIES	URBAN FORM		CIRCULATION & ACCESS		PEDESTRIAN ORIENTATION			TRANSIT ORIENTATION
	Cohesive Urban Form	Pedestrian-oriented urban form	Improved Non-motorized safety & access	Increased circulation connectivity, all modes	Stronger Building-Street Relationship with Visible, Accessible Storefronts	Pedestrian-orientated Development	Comfortable, Pleasant & Interesting Walking Conditions	Increased Transit Facilities & Improved Access
III.A Transform Urban Form Over Long Term								
III.B Common to All Zones								
Create pedestrian and transit oriented urban form	x	x	x	x			x	x
Street trees	x	x				x	x	
Maximum building setbacks	x	x	x	x	x	x	x	
Emphasize building street relationship through	x	x	x	x	x	x	x	
Walkable and connected community with green infrastructure framework	x	x	x	x	x		x	
Finer urban grid with connections every 250-300'	x	x	x	x			x	x
Public art in public and private spaces	x	x				x	x	
Integrate public space in public and private areas		x			x	x	x	
III.C. Area/Corridor Specific Policies								
III.C.1 Meridian								
Comfortable street for all modes		x	x	x			x	x
Pedestrian oriented streetscape though building placement, wider sidewalks & buffers	x	x	x					x
Activate sidewalks with retail uses and provide	x	x	x	x	x	x		
III.C.2 Signature Corridors							x	
5th Street SE - Key North South Non-motorized								
Unique streetscape with connections to natural areas, enhanced landscaping, LID Storm Water							x	
Neighborhood scale pedestrian oriented design for safety and comfort	x	x	x	x	x	x	x	
39th Avenue SE - Key East West Corridor for all							x	
Continuous, safe non motorized facilities along 39th			x	x			x	x
Building design with reduced bulk and scale		x						
Building design with visual interest & direct street	x	x	x		x	x	x	
Mid block crossings where intersections are more than 300' apart			x	x			x	x

Urban Form Policies – Potential Outcomes (cont.)

POLICIES	PARKING		PARKS, PUBLIC AND OPEN SPACE, TRAILS			NATURAL ENVIRONMENT		
	Parking Behind, Beneath, or Beside Buildings	Reduced Visual Dominance of Parking	Safe, Accessible Public Gathering Spaces	Connections to Natural Spaces	Established Community Identity & Sense of Place	LID Storm Water Facilities	Improved Water Quality	Increased Greenery & Consistent Street Trees
III.A Transform Urban Form Over Long Term								
III.B Common to All Zones								
Create pedestrian and transit oriented urban form								
Street trees		x			x			x
Maximum building setbacks		x			x			
Emphasize building street relationship through standards		x			x			
Walkable and connected community with green infrastructure framework				x	x	x	x	x
Finer urban grid with connections every 250-300'								
Public art in public and private spaces					x			
Integrate public space in public and private areas			x	x	x			
III.C. Area/Corridor Specific Policies								
III.C.1 Meridian								
Comfortable street for all modes								
Pedestrian oriented streetscape though building placement, wider sidewalks & buffers	x	x			x			
Activate sidewalks with retail uses and provide					x			
III.C.2 Signature Corridors								
5th Street SE - Key North South Non-motorized								
Unique streetscape with connections to natural areas, enhanced landscaping, LID Storm Water				x	x	x	x	x
Neighborhood scale pedestrian oriented design for safety and comfort					x			
39th Avenue SE - Key East West Corridor for all								
Continuous, safe non motorized facilities along 39th								
Building design with reduced bulk and scale								
Building design with visual interest & direct street								
Mid block crossings where intersections are more than 300' apart								

Green Infrastructure Policies – Potential Outcomes

POLICIES	INTEGRATED GREEN INFRASTRUCTURE SYSTEM	NATURAL ENVIRONMENT			UTILITY FUNCTIONS		COMMUNITY IDENTITY	
		Improved Ecological Function	Increased & Improved Habitat	Preserved & Enhanced Wetlands	LID Storm Water	Improved Water Quality	Strengthened Community Identity	Visible, Accessible Area-wide Green Infrastructure
IV.B Integrated Green Infrastructure System as Planning Framework								
Establish Storm Water Basin Planning	x	x			x	x	x	x
Establish identity with green infrastructure	x	x	x	x	x	x	x	x
Provide non-motorized facilities, naturalized vegetation, and LID storm water treatment on streets to link natural spaces, community destinations and public gathering spaces	x				x	x	x	x
Protect & enhance wetlands & critical areas	x	x		x	x	x	x	x
IV.C Parks, Open Space, & Trails	x							
Interconnected System of open spaces, parks & public spaces for non-motorized transportation & amenity	x						x	x
Use trail corridors for fiber optic networks	x						x	x
Provide interconnected system of non-motorized trails for mobility & recreation, integrated with the sidewalk system, to destinations (Pierce College, shopping, transit, parks, & open spaces)	x						x	x
Design visual & physical trail and open space connections into private development & institutions	x						x	x
Encourage new trail connections to Bradley Lake Park through new development	x						x	x
Safely marked walking connections between South Hill & adjacent neighborhoods & schools	x						x	x
Improved connections & wayfinding between South Hill & Rogers High School, Wildwood, Bradley Lake Park trails, Pierce College, & roadways on Benaroya site	x							x
IV.D Site Specific Opportunities	x							
Willows Pond								
Explore acquisition of Willows Pondfor LID storm water treatment & retention, habitat, public open space, & visual amenity	x	x	x		x	x	x	x
Ensure development adjacent to the pond provides physical & visual connections to surrounding streets, the Pond, & future recreational facilities	x		x			x		x
Wetland Areas								
Protect & improve wetland function with redevelopment	x	x	x	x		x	x	x
Treat wetlands as amenities while improving ecological function	x	x	x	x		x	x	x

Green Infrastructure Policies – Potential Outcomes (cont.)

POLICIES	PARKS, PUBLIC AND OPEN SPACE, TRAILS				CIRCULATION & ACCESS		AMENITY & LIVABILITY		
	Integrated Trails, Parks, & Sidewalk Network	Improved Access & Increased Connections to Bradley Lake Park	Safe, Accessible Public Gathering Spaces	Increased Parks, Open Space, & Natural Spaces	Increased Non-Motorized Network	Off road Non-motorized circulation	Increased Greenery	Increased Access to Open Space	Improved Livability
IV.B Integrated Green Infrastructure System as Planning Framework									
Establish Storm Water Basin Planning									x
Establish identity with green infrastructure	x	x	x	x	x	x	x	x	x
Provide non-motorized facilities, naturalized vegetation, and LID storm water treatment on streets to link natural spaces, community destinations and public gathering spaces	x		x		x	x	x	x	x
Protect & enhance wetlands & critical areas				x					x
IV.C Parks, Open Space, & Trails									
Interconnected System of open spaces, parks & public spaces for non-motorized transportation & amenity	x		x	x	x	x		x	x
Use trail corridors for fiber optic networks				x		x			
Provide interconnected system of non-motorized trails for mobility & recreation, integrated with the sidewalk system, to destinations (Pierce College, shopping, transit, parks, & open spaces)	x		x	x	x	x	x	x	x
Design visual & physical trail and open space connections into private development & institutions	x			x	x	x		x	x
Encourage new trail connections to Bradley Lake Park through new development	x	x	x	x	x	x		x	x
Safely marked walking connections between South Hill & adjacent neighborhoods & schools	x			x	x	x		x	x
Improved connections & wayfinding between South Hill & Rogers High School, Wildwood, Bradley Lake Park trails, Pierce College, & roadways on Benaroya site		x	x				x	x	x
IV.D Site Specific Opportunities									
Willows Pond									
Explore acquisition of Willows Pondfor LID storm water treatment & retention, habitat, public open space, & visual amenity	x		x	x	x	x	x	x	x
Ensure development adjacent to the pond provides physical & visual connections to surrounding streets, the Pond, & future recreational facilities	x		x	x	x	x	x	x	x
Wetland Areas									
Protect & improve wetland function with redevelopment				x					x
Treat wetlands as amenities while improving ecological function				x					x

Transportation Policies – Potential Outcomes

POLICIES	COMPLETE, COMPREHENSIVE CIRCULATION NETWORK				CIRCULATION & ACCESS	
	More Complete Grid	Smaller Blocks with More Frequent Connections & Crossings	Convenient Transportation Choices for all Modes	Increased Mode Choice & Shift	Improved Non-motorized safety & access	Increased circulation connectivity, all modes
V. Transportation						
V.A Complete Streets to Provide Safe Access for all Users						
Plan area-wide complete streets system				x	x	x
Design streets for drivers, transit users, pedestrians, bicyclists, old & young people & people with disabilities				x	x	x
V. B Transportation Policy Framework						
Safe, convenient travel for all modes & improved grid contribute to sense of place	x	x	x	x	x	x
Multimodal system for local & regional mobility	x		x	x	x	x
Integrate complete streets with green infrastructure system	x	x	x	x		x
Improve Meridian for all modes with street design that contributes to community character & sense of place	x		x	x	x	x
Improve 39th as key east west corridor for all modes & link to Meridian	x		x	x	x	x
Design Meridian to support Bus Rapid Transit and all modes for local and regional travel			x	x	x	x
Provide multiple north south connections	x	x	x	x	x	x
Provide multiple east west connections	x	x	x	x	x	x
Improve access around & through MU1 & Mall area	x	x	x	x	x	x
Establish grid system of local streets with smaller block sizes especially near 39th Ave SE & Meridian	x	x	x	x	x	x
Maximum block face of 350'	x	x	x	x	x	x
Off street parking off of principal arterials where contributes to pedestrian environment & local character						
Include pedestrian & bike improvements on arterials & local streets			x	x	x	x
Improve connectivity of comprehensive sidewalk & trail system with mid block crossings, through block connections, & physical amenities	x	x	x	x	x	x
Non-motorized trail system with north south spine through natural areas & east west access through major employment to core retail areas & future housing	x	x	x	x	x	x
Formalize existing informal trails	x	x	x	x	x	x
Sidewalks with 8' minimum travel space & 5-6' planting & amenity buffer	x		x	x	x	x
Access off of streets other than Meridian	x	x	x	x	x	x
Mass transit (ie Bus Rapid Transit) as key transit priority for South Hill			x	x	x	x
Transit feeder service to link schools, employment & housing to BRT			x	x	x	x
Transportation Demand Management Program & Transportation Management Association to achieve mode split			x	x	x	x
Manage parking supply with maximum & shared parking requirements & encourage mode split				x		

Transportation Policies – Potential Outcomes (cont.)

POLICIES	TRANSIT ORIENTATION			PARKING		COMMUNITY IDENTITY & SENSE OF PLACE
	Increased Transit Facilities & Improved Access	Increased Transit Priority	Viable Regional, Local, & Bus Rapid Transit	Parking Behind, Beneath, or Beside buildings	Reduced Visual Dominance of Parking	
V. Transportation						
V.A Complete Streets to Provide Safe Access for all Users						
Plan area-wide complete streets system	x	x	x			x
Design streets for drivers, transit users, pedestrians, bicyclists, old & young people & people with disabilities	x	x	x			x
V. B Transportation Policy Framework						
Safe, convenient travel for all modes & improved grid contribute to sense of place	x	x	x			x
Multimodal system for local & regional mobility	x	x	x			x
Integrate complete streets with green infrastructure system	x	x	x			x
Improve Meridian for all modes with street design that contributes to community character & sense of place	x	x	x			x
Improve 39th as key east west corridor for all modes & link to Meridian	x	x	x			x
Design Meridian to support Bus Rapid Transit and all modes for local and regional travel	x	x	x			x
Provide multiple north south connections	x	x	x			x
Provide multiple east west connections	x	x	x			x
Improve access around & through MU1 & Mall area	x	x	x			x
Establish grid system of local streets with smaller block sizes especially near 39th Ave SE & Meridian	x	x	x			x
Maximum block face of 350'	x	x	x			x
Off street parking off of principal arterials where contributes to pedestrian environment & local character						x
Include pedestrian & bike improvements on arterials & local streets	x	x	x			x
Improve connectivity of comprehensive sidewalk & trail system with mid block crossings, through block connections, & physical amenities	x	x	x			x
Non-motorized trail system with north south spine through natural areas & east west access through major employment to core retail areas & future housing	x	x	x			x
Formalize existing informal trails	x	x	x			x
Sidewalks with 8' minimum travel space & 5-6' planting & amenity buffer	x	x	x		x	x
Access off of streets other than Meridian	x	x	x			x
Mass transit (ie Bus Rapid Transit) as key transit priority for South Hill	x	x	x			x
Transit feeder service to link schools, employment & housing to BRT	x	x	x			x
Transportation Demand Management Program & Transportation Management Association to achieve mode split	x	x	x			
Manage parking supply with maximum & shared parking requirements & encourage mode split				x	x	x

Contact Tacoma-Pierce County Health Department for more information or to obtain a copy of this report:

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Tacoma - Pierce County Health Department
Healthy People in Healthy Communities
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