

List of Appendices

Appendix A: Implementation, Priorities, and Funding	A-1
Implementation Process	A-1
Private Construction.....	A-1
Project Prioritization	A-2
Funding	A-3
Appendix B: Needs Analysis	B-1
Bicycling.....	B-1
Walking	B-4
Accident Summary.....	B-6
Healthy Youth Survey	B-8
Public Input	B-9
Appendix C: Planning and Policy Context	C-1
Summary of Existing Plans	C-1
Appendix D: Requested Project Improvement Details	D-1
Appendix E: Surveys and Summaries	E-1
Short Survey	E-1
Long Survey.....	E-3
Survey Summary	E-13
Appendix F. Glossary	F-1
Appendix G. Bibliography	G-1

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Appendix A: Implementation, Priorities, and Funding

Implementation Process

There are three ways for improvements to occur in the nonmotorized transportation and recreational system: (1) installation by a private individual or company, (2) installation by public entities, and (3) installation via a partnership of the two.

(1) Installation by a Private Individual or Company

Typically a paved or unpaved path or a sidewalk can be installed during the development/redevelopment of a site. If the City has identified a need for an improvement on a property that is proposed for development, then a discussion regarding the installation with the developer can occur and the chance of a missed opportunity is avoided. The development review staff is involved in the capital improvement needs and efforts of the City.

(2) Installation by Public Entities

The local improvement process through which public projects are chosen and completed involves functional plans such as the Parks, Golf and Open Space Six Year and the Capital Improvement Functional Plans. These plans financially lay out project descriptions, priority for project construction, funding source and cost. The annual budgeting process then allocates the necessary financial and staff resources to implement the capital improvement plans.

(3) Installation via Public/Private Partnerships

The two major recreational trails within the City are the result of multiple entities such as King County, surrounding jurisdictions and private individuals and organizations that donated or sold easements for the Green River and Interurban trails. This approach often requires phasing because the scope is typically large, complex, and requires coordination among a variety of entities. Often the most difficult or time consuming aspect of public infrastructure systems is the acquisition of the easements or right of way. The rails to trails recommendation is an example of a long term relationship and assembly project.

Private Construction

Having an adopted Plan provides opportunities to ask private development to help implement the Plan. Currently the City requires all developments of five residential units or more and all commercial development to construct frontage improvements, which typically consist of storm drainage, curbs, and a sidewalk. If a development site is on a bike friendly route then adequate right of way and safe driveway design will also be necessary.

A significant amount of development occurs through smaller scale development of one, two or three homes. In particular the “pass-through” trails to schools or parks will happen within the residential neighborhoods and will need to occur during residential platting. Much of the City’s policies and existing trail system are neighborhood-oriented systems that will not necessarily be competitive for funding on a state or national level. In order to avoid missed opportunities as well as the preclusion of the Plan and its goals, at a minimum, the easement and or right of way for trails should be required at the time of

Nonmotorized Transportation Plan

short platting or permitting. The City should consider funding small trail building efforts. These types of efforts can be combined with community building events and scouting projects. The funding allocated by the City can act as seed money.

Project Prioritization

The amount of work to create a system and programs for bicyclists and to improve the pedestrian system is daunting due to its scope, the limited amount of City resources, and the competing needs and goals of the community. Following are descriptions of some recommended considerations in the decision of which projects to construct first.

Eliminating missing links

Connections to adjacent jurisdictions and regional routes have the potential to create the longest corridors and impact the greatest number of users. Examples include Southcenter Blvd, the Strander extension from Tukwila's urban center into Renton, the Two Rivers Trail, and extensions of the Green/Duwamish River trail to the north and south.

Proximity to major destinations

The total number of public facilities such as parks and libraries and major CTR affected employers that a route passed through provided a tally that was then converted to a rank.

Matches available funding

There are sources of funding that are known to exist as mentioned above; they are the Federal Enhancements Fund, the Safe Route to Schools Fund and certain street improvement projects that are under design.

Potential for public/private partnerships

Those streets that will likely be front on future commercial redevelopment sites were marked in this category.

Most Dangerous Accident Locations.

The numbers are relatively small and do not indicate any specific design issues so no routes were highlighted in this category.

Recommended from Public Input

There were clear patterns of concern by the public during the outreach efforts for this Plan. East Marginal Way is adjacent to a number of large employers whose employees like to bicycle commute and the street is a major route for those cyclists traveling north and south.

Street improvements that are planned or anticipated for improvement

Those projects that are within the design scope of future street/freeway projects such as I-405 are ranked high,

Cost Effective

Projects that are eligible for multiple sources of funding or that if matched will attract significant outside sources would rank high in this category.

Near Highest Population Densities

Similar to proximity to major destinations, this criterion focuses on housing and employment density

Designed to attract new users

This criterion would rank new systems that open up a new opportunity as opposed to expanding or improving an existing system.

Areas most likely to redevelop

This final criterion is listed in order to capture the concept of serving new populations and the notion that public improvement can act as an important catalyst. The funding and improvement therefore has function not only in and of itself as it serves nonmotorized users, the project may also implement other community development goals.

Funding

Private

Private funding sources are those administered by non-profit organizations or corporations. Private funding can either be on the national, state or local level. An example of private funding includes Power Bar's Direct Impact on Rivers and Trails (D.I.R.T.) Program run by Power food, Inc.

Public Funding

There are a limited number of dedicated sources of funding. Within the realm of the city budget are certain revenue sources. Often projects will have multiple funding sources and will include some grant funds (often multiple) and/or private funds as well. Funding trails takes a bit of ingenuity and a lot of research, between federal, state and local government funding mechanisms as well as grants, private partnerships and other creative funding methods.

Federal funding mechanisms include not only transportation and park programs, but also Brownfield, community development and arts programs. Funding through state governments can be found in the departments of health, parks and transportation. Some communities have also passed referenda to specifically fund trail projects.

Foundations and companies also provide grants for trail projects, open space preservation, community development and community health. It is important to explore creating partnerships to build and maintain our trails. These can be important for not only constructing and maintaining our projects, but also building community pride. In addition, there needs to be evidence of a community planning process and local action (such as plan adoption) in order for local nonmotorized transportation projects to be eligible for grant awards or to attract funding partners. This plan serves as such evidence.

Federal

All Federal funding is distributed to local agencies via state or regionally competitive grant programs unless money has been specifically earmarked for distribution to the City. Examples of federal funding include the Recreational Trails Program and the

Nonmotorized Transportation Plan

Transportation Enhancements program of the Federal Highway Administration and the Community Development Block Grant Program of the U.S. Department of Housing and Urban Development. A new federal Safe Routes to School program was established, that provides federal funding to the state. For the 2007-2009 capital planning period, approximately \$18 million is available for the two programs (\$11 million of state funds and \$7 million of Safe Routes to School federal funds) as a result of the Safe, Accountable, Efficient Transportation Equity Act (SAFETEA).

The Federal Transportation Acts provide a 10 percent set-aside from the Surface Transportation Program (STP) for the Transportation Enhancement program. The Transportation Enhancement program was created to invest in a more balanced, multi-modal approach to mobility and accessibility. The purpose of the Transportation Enhancement program is to fund projects that allow communities to strengthen the local economy, improve the quality of life, enhance the travel experience for people traveling by all modes, and protect the environment. Projects must relate to surface transportation, and include at least one of the twelve (12) qualifying activities listed below:

1. Provision of facilities for pedestrians and bicycles.
2. Provision of safety and educational activities for pedestrians and bicyclists.
3. Acquisition of scenic easements and scenic or historic sites (including historic battlefields).
4. Scenic or historic highway programs (including the provision of tourist and welcome center facilities).
5. Landscaping and other scenic beautification.
6. Historic preservation.
7. Rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals).
8. Preservation of abandoned railway corridors (including the conversion and use of the corridors for pedestrian or bicycle trails).
9. Inventory control and removal of outdoor advertising.
10. Archaeological planning and research.
11. Environmental mitigation
 - to address water pollution due to highway runoff; or
 - reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.
12. Establishment of transportation museums.

State*Safe Routes to School Grant Evaluation*

The purpose of this program is to aid public agencies in funding cost-effective projects within two-miles of primary and middle schools (K-8) that will provide children a safe, healthy alternative to riding the bus or being driven to school. Project proposals describe how a project will increase the number of students walking and biking to school by making improvements in areas of health and safety education, enforcement and engineering. Eligibility criteria and an evaluation process were developed to ensure projects meet the intent of the legislation.

Additionally, The Center for Safe Routes to School is available to help local communities in their efforts to develop Safe Routes to School. The Center for Safe Routes to School is an organization funded by a Transportation Enhancement grant from the Washington State Department of Transportation, and it provides resources and support to schools, families, and professionals in areas of design, public health, and public safety.

Pedestrian and Bicycle Safety Grant

The purpose of this program is to aid public agencies in funding cost-effective projects that improve pedestrian and bicycle safety through engineering, education and enforcement. Project proposals were evaluated and prioritized by a committee composed of one member from the Washington Traffic Safety Commission and two members from the Washington State Department of Transportation. Projects providing a match were given preference.

Recreation and Conservation Funding Board

The Recreation and Conservation Funding Board, formerly the Interagency Committee for Outdoor Recreation (IAC) creates and maintains opportunities for recreation, protects the best of the state's wild lands, and contributes to the state's efforts to recover salmon from the brink of extinction.

Local*Capital Improvement Program (CIP)*

The City has twenty Capital Improvement Program (CIP) policies stating how revenues should be spent. The highest capital spending priority of the City is residential streets with safety issues, high traffic volumes, high pedestrian activity and poor street conditions. Currently no residential streets have been identified for improvement although 42 Ave S from S. 160 Street to S 131 Place is listed in the CIP without any dedicated funding.

Real Estate Excise Tax

Revenue from the real estate excise tax has been uneven over the last six years. Whenever a property within the City is sold, a tax on the transfer of the property is levied on the sale. $\frac{1}{2}$ cent is received by the City of Tukwila and $\frac{1}{4}$ cent is devoted, by Council policy, to parks and open space land acquisition and development. The second $\frac{1}{4}$ percent is devoted to arterial street improvement. The 2007 – 2009 CIP shows an annual revenue average of \$850,000.

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Appendix B: Needs Analysis

Bicycling

Types of Bicyclists

It is important to understand that the needs and preferences of bicyclists vary depending on the skill level of the cyclist and the type of trip the cyclist is taking. For example, bicyclists who bicycle for recreational purposes may prefer scenic, winding, off-street trails, while bicyclists who bicycle to work or for errands may prefer more direct on-street bicycle facilities. A bicycle plan should take these differences into account when planning a system that serves all user types.

Children are especially vulnerable to safety hazards as bicyclists within the street because, even when they do know and follow the rules related to operating a bicycle, it is usually more difficult for automobile drivers to see them. According to the Cascade Bicycle Club's website, "the 10 to 14 age group suffers from the highest number of bicycle collisions - nearly twice that of any other age group" (http://www.cbcef.org/youth_pra.html). This statistic points to the need for facilities completely separated from the street, such as bike trails, in areas near schools, parks, and other destinations to which children are likely to ride their bikes.

The following sections describe the different types of bicyclists, the different reasons for bicycling, and the respective needs of these categories of bicyclists.

Needs of Casual and Experienced Bicyclists

Bicyclists can be separated generally into two skill levels: casual and experienced. Casual bicyclists include youth and adults who are intermittent riders. Some casual bicyclists, such as youth under driving age, may be unfamiliar with operating a vehicle on roads and related laws. Experienced bicyclists include commuters, long-distance road bicyclists, racers, and those who use their bicycle as a primary means of transportation. While there are some bicycle commuters who prefer a route without bicycle lanes, most casual bicyclists are not comfortable riding with automobile traffic unless there is designated space marked within the street for specific use by bicyclists. Bike lanes often provide the needed distinction within the street between space reserved for automobile use and space reserved for bicycles, and give bicyclists the confidence to ride on-street, sharing the street with automobiles.

Facilities should safely accommodate the majority of users. Streets designed to accommodate cyclists with moderate skills will meet the needs of most riders; special consideration should be given close to school areas, where facilities designed specifically for children should be provided. Streets designed to accommodate young, elderly and disabled pedestrians serve all users well (1995 Oregon Bicycle and Pedestrian Plan, p. 48).

A summary of the needs of the different types of bicyclists is provided below in Table 8, Characteristics of Casual and Experienced Bicyclists.

Table 8: Characteristics of Casual and Experienced Bicyclists

Casual Riders	Experienced Riders
Prefer off-street bike paths or bike lanes along low-volume, low-speed streets	Prefer on street or bicycle-only facilities to multi-use paths
May have difficulty gauging traffic and may be unfamiliar with rules of the road. May walk bike across intersections	Comfortable riding with vehicles on streets. Negotiates streets like a motor vehicle, including “taking the lane” and using left-turn pockets
May use less direct route to avoid arterials with heavy traffic volumes	May prefer a more direct route
May ride on sidewalks and ride the wrong way on streets and sidewalks	Avoids riding on sidewalks or on multi-use paths. Rides with the flow of traffic on streets
May ride at speeds slightly faster than walking	Rides at speeds up to 20 mph on flat ground, up to 40 mph on steep descents
Cycles shorter distances: up to 2 miles	May cycle longer distances, sometimes more than 100 miles

The casual bicyclist will benefit from route markers, multi-use paths, bike lanes on lower-volume streets, traffic calming, and educational programs. Casual bicyclists may also benefit from marked routes that lead to parks, schools, shopping areas, and other destinations. To encourage youth to ride, routes must be safe enough for their parents to allow them to ride.

The experienced bicyclist will benefit from bike lanes on high-volume arterials, wider curb lanes and loop detectors at signals. A loop detector is a sensor installed within the pavement that is able to detect the presence of a vehicle. These detectors are usually installed to detect automobiles, but some loop detectors are designed to detect vehicles such as bicycles and motorcycles as well.

Characteristics of Recreational and Utilitarian Trips

In addition to the differing skill levels of bicyclists, there are also different types of trips that should be accommodated: recreational (trips made for fun) and utilitarian (trips made for transportation). Recreational trips can range from a 50-mile weekend group ride to a family outing along the Green River Trail, and all levels in between. Utilitarian trips include commuter bicyclists, which are a primary focus of state and federal bicycle funding, as well as bicyclists going to school, shopping or running other errands. The following table, Table 9, Characteristics of Recreational and Utilitarian Trips, helps distinguish between the two types of trips.

Table 9: Characteristics of Recreational and Utilitarian Trips

Recreational Trips	Utilitarian Trips
Directness of route not as important as visual interest, shade, protection from wind	Directness of route more important than visual interest, etc.
Loop trips may be preferred to backtracking	Trips generally travel from residential to shopping or work areas and back

Recreational Trips	Utilitarian Trips
Trips may range from under a mile to over 50 miles	Trips generally are 1-5 miles in length
Short-term bicycle parking should be provided at recreational sites, parks, trailheads and other recreational activity centers	Short-term and long term bicycle parking should be provided at stores, transit stations, schools, workplace
Varied topography may be desired, depending on the skill level of the cyclist	Flat topography is desired
May be riding in a group	Often ride alone
May drive with their bicycles to the starting point of a ride	Use bicycle as primary transportation mode for the trip; may transfer to public transportation; may or may not have access to a car for the trip
Trips typically occur on the weekend or on weekdays before morning commute hours or after evening commute hours	Trips typically occur during morning and evening commute hours (commute to school and work). Shopping trips also occur on the weekends
Type of facility varies, depending on the skill level of cyclist	Generally use on-street facilities, may use pathways if they provide easier access to destinations than on-street facilities

Recreational bicyclist's needs vary depending on their skill level. Street bicyclists out for a 100-mile weekend ride may prefer well-maintained streets with wide shoulders, few intersections, and few stop signs or stop lights. Casual bicyclists out for a family trip may prefer a quiet bike path with adjacent parks, benches, and water fountains.

As mentioned in the previous section, Tukwila's trail system provides good opportunities for the casual recreational rider. However, not all neighborhoods have easy bicycle access to the trail system. For the casual recreational riders, this may not be a serious deterrent, since they may be willing and able to drive their bicycle to the trailhead. However, this may not be an option for the experienced recreational riders or the commuters, as they generally like to use their bicycles for the whole trip. Bicycle-friendly connections between residential areas and trails will likely increase the prevalence of bicycle commuting, as well as recreational riding.

Bicyclists who make utilitarian trips have needs that are more straightforward. Their needs can be summarized as key commuter needs:

- 1) Safety.
- 2) Direct connections.
- 3) Bicycle facilities should be provided on arterials.
- 4) Protected intersection crossing locations are needed for safe and efficient bicycle commuting.
- 5) Bicycle commutes must have secure places to store their bicycles at their destinations.

Accommodations for Bicyclists

The needs of cyclists can be accommodated by retrofitting bike lanes onto many existing urban streets using the following methods:

- Marking and signing existing shoulders as bike lanes.
- Physically widening the street to add bike lanes.
- Restriping the existing street to add bike lanes.

Where existing width doesn't allow full standards to be used, it may be possible to modify portions of the street to accommodate bike lanes. The following standards are typically used when sufficient right of way exists: 14 foot (4.2-meter) center turn lanes, 12-foot (3.6-meter) travel lanes, 6-foot (1.8-meter) bike lanes, and 8 foot (2.4-meter) parking lanes. These guidelines should be used to determine how the street can be modified to accommodate bike lanes without significantly affecting the safety or vehicular operation in the street.

Reduced travel-lane widths are within the American Association of State Highway and Transportation Officials (AASHTO) minimums. The need for full-width travel lanes decreases with speed:

- Up to 25mph: Travel lanes may be reduced to 10 or 10.5 feet
- 30 to 40mph: 11-foot travel lanes and 12-foot center turn lanes may be acceptable
- 45 mph or greater: try to maintain a 12-foot outside travel lane and 14-foot center turn lane if there are high truck volumes
- Lanes that accommodate both motor vehicles and bicycles (wide curb lanes) should be 14-16 feet wide

Adding bike lanes to existing streets creates benefit for motorists and pedestrians as well as cyclists.

- Safety is enhanced as vehicular travel lanes are offset from curbs, lanes are better defined through the use of an additional painted line, and parking is sometimes removed or reduced. Adding bike lanes can often improve sight distance and increase turning radii at intersections and driveways.
- Restriping travel lanes moves motor vehicle traffic over, which can help extend the pavement life, as traffic is no longer driving in the same well-worn ruts.
- Vehicular traffic is that much farther from the sidewalk and pedestrian.

Standard bike lane width is 6 feet; however, there are some circumstances where street right of way can not accommodate 6 feet, so designs can be reduced to the widths following widths:

- 5 feet against a curb or adjacent to a parking lane
- 4 feet on un-curbed shoulders. A 4-foot curbed bike lane may be allowable where there are very severe physical constraints

Walking

Needs of Pedestrians

People walk for many reasons: traveling to work, transit or other multi-modal facilities, school, recreation and entertainment, health and exercise, shopping, social events,

personal errands, appointments, social visits. There are those who make the decision to walk by choice and there are also those whose options are limited, for whom walking is a necessity.

For some of Washington's population, pedestrian travel is the primary mode of transportation. Citizens in this segment of the population include those who do not use a motor vehicle including some older adults, children and young adults, people who walk to the bus or other forms of transit, people with certain disabilities, and people who can't afford to own cars. There are also many who choose pedestrian travel as their primary mode (*Pedestrian Facilities Guidebook*, p. 11-12).

Additionally, most people are pedestrians at some point of every trip they make, regardless of their primary mode of transportation. Whether a person is walking from a car to the entrance to a shopping mall, or walking from home to a bus stop, a person becomes a pedestrian on almost any trip he or she makes.

All pedestrians have several needs in common, including safety, connectivity, and accessibility. Pedestrian mobility networks should also consider persons with disabilities. The Americans with Disabilities Act (ADA) mandates that reasonable accommodation for access should be provided for those who may need such assistance.

Pedestrian needs for different trip types vary. For example, a commuter may desire a well-connected direct route with efficient signal timing, while a recreational pedestrian may be concerned about the aesthetics of the surroundings. Similarly, a commuter would typically prefer to walk a shorter distance to get to a transit stop, while someone walking for recreation would be willing to walk a farther distance. The *Pedestrian Facilities Guidebook* (p. 12) provides some guidance on acceptable walking distances: Guidelines for acceptable walking distances are listed below:

- Traditionally, planners strive to locate community facilities, neighborhood parks, and other popular pedestrian origins and destinations no more than 400 meters (1/4 mile, 1,320 feet or approximately 5 blocks) from the origin of most pedestrian travel. Tukwila uses a 1/2 mile standard for neighborhood parks.
- Site designers typically use 90 meters (300 feet) as the maximum distance from parking areas to building entrances. Street crossings are typically most effective when located approximately 120 to 180 meters (400 to 600 feet) apart in areas heavily used by pedestrians.
- A Guide to Land Use and Public Transportation, Volume I, published by SNO-TRAN (Snohomish County Department of Transportation), states that pedestrians can be expected to travel about 300 meters (1000 feet) to a transit stop or park-and-ride space—about 230 meters (750 feet) for mobility impaired—and about 535 meters (1758 feet or one-third mile) to a commuter rail station.

One common obstacle in design of pedestrian facilities is assuming that one standard can be applied to fit an 'average' population. For example, the speed that pedestrians travel can vary greatly, yet pedestrian signals are often timed for average walking

speeds of 4.8 to 6.4 kph (3 to 4 mph). Children, older adults, and people with certain disabilities typically travel at much lower walking speeds 3.2 kph (2 mph).

Accommodations for Pedestrians

Based on field observations and input provided in the public input process, the most critical needs of pedestrians in Tukwila include:

- Crossing visibility. Crossing facilities, including crosswalks and signage, should alert both motorists and pedestrians to the presence of the facility. Crosswalk design can aid in increasing visibility through the use of specific striping patterns and lights.
- Continuous facilities. Sidewalk gaps, missing sidewalks and worn crosswalks are all barriers to safe pedestrian travel. Continuous facilities allow pedestrians to choose the safest and most efficient path to and from their destination, encouraging them to choose walking as their mode of transportation.
- Common design guidelines. Narrow sidewalks, sidewalks that are directly adjacent to heavy-volume roadways without vegetation or parking buffer, and sidewalks with utility boxes or lighting poles in the walkway detract from the walking environment and can make it difficult or impossible for the mobility-impaired to use the sidewalk. A retrofitting program to bring existing sidewalks up to code can improve the walking environment.
- Slow traffic. The larger the street and/or turning radii at intersections, the faster vehicles will travel through the area. Where appropriate, constraining street width with bulbouts and tightening right turns at intersections can slow vehicles as they approach areas with high pedestrian volumes.
- Mixed land uses. Segregated land uses generally increase the distance between different destinations, and make it difficult for residents to walk to employment, shopping, schools and recreational facilities from their homes. Mixed land uses make it easier to build housing, employment, shopping, schools, and recreational amenities within walking distance of each other.
- Direct connections. Pedestrians must sometimes walk long distances to access adjacent destinations when the street network is developed in a non-grid street pattern with cul-de-sacs and limited collector streets that connect to the arterial network. Pedestrian cut-throughs between cul-de-sacs can mitigate lack of connections for pedestrians.

Accident Summary

In 2002, the City of Tukwila began keeping an electronic record of its pedestrian and bicycle collisions. At the time an analysis of bicycle and pedestrian collisions was done for the Walk & Roll Plan, data through the year 2005 had been recorded. **Figure 17** shows the locations of pedestrian and bicycle collisions reported to Tukwila Police from 2002 through 2006.

A general description of pedestrian and bicycle collisions is provided below, followed by a more detailed analysis for 2005. The following provides a summary of bicycle and pedestrian collision characteristics within Tukwila from 2002 through 2005.

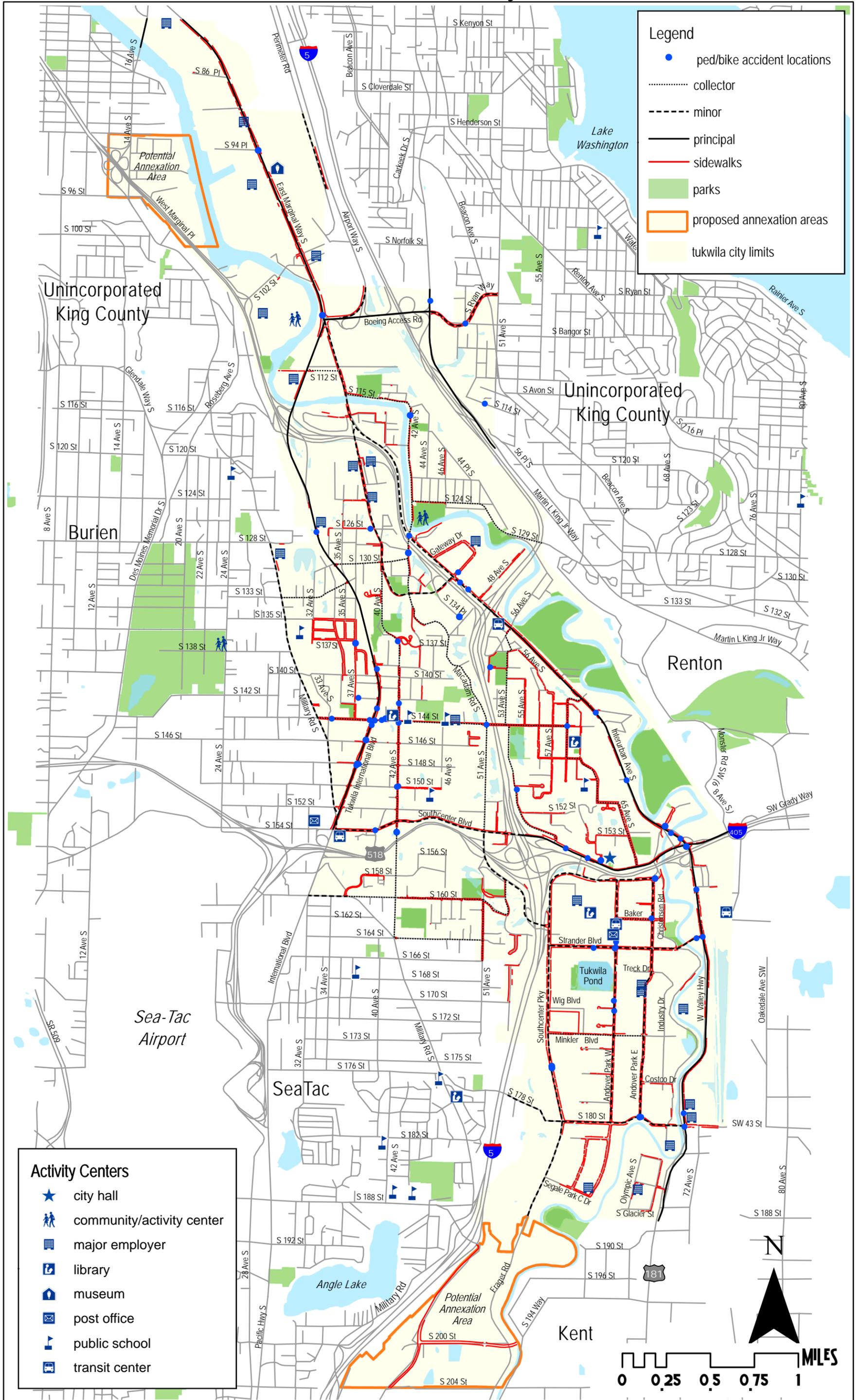
From 2002 to 2005, there were a total of 50 pedestrian and bicycle accidents in Tukwila. All of the pedestrian and bicycle accidents reported to Tukwila Police during this time involved an automobile. One of the accidents resulted in the death of an adult pedestrian.

Of the 51 pedestrian and bicycle accidents reported, 8 (15%) involved children under the age of 18. Of the children involved in these accidents, three were teenagers, one was 12 years old, and the other two were very young, at the ages of 4 and 2 years old. Three of the accidents (5.8%) involved adults over the age of 65.

The most common locations for pedestrian and bicycle collisions with automobiles included Tukwila International Boulevard (7 accidents total, or 13.7%), Interurban Ave S (7 accidents total, or 13.7%), S 144th Street (7 accidents total, or 13.7%), Andover Park West (5 accidents total, or 9.8%), and 42nd Ave S (5 accidents total, or 9.8%). Other locations where more than two accidents were reported include Strander Blvd (4 accidents), Macadam Road S (3 accidents total, including 2 near S 150th, and 1 near S 144th), Southcenter Blvd (3 accidents total), and West Valley Highway (3 accidents total).

Most of the pedestrian accidents occurred at intersections as vehicles were making turns. Driveways are also areas where accidents commonly occur, as pedestrians and cyclists passing across the sidewalk/driveway and are not seen by drivers who then hit them. Besides driveways and intersections where drivers disregard or do not see pedestrians, several collisions occurred when pedestrians were jaywalking, or crossing where there is not a marked crosswalk. The two wheelchair-vehicle collisions that occurred in 2005 were a result of the pedestrian not using the marked crosswalk. In one of these incidents, the victim cited construction blocking the wheelchair ramp as a cause for crossing in an unmarked crossing area.

Pedestrian and Bicycle Accident Locations 2002-2006



Healthy Youth Survey

An important survey is conducted for school districts within King County on a biennial basis. Sixth, Eighth, Tenth and Twelfth graders are surveyed¹ regarding health issues and there are two pertinent questions that are asked. The 2006 responses by grade are as follows:

(1) "Not counting very short trips such as walking from the car to your house or walking to get the mail, in an average week, on how many days do you bicycle or walk near your home or to school?"

Table 10: Tukwila 6th Graders days spent walking or bicycling

Responses	Tukwila Sixth	WA State	Tukwila Eighth	WA State	Tukwila Tenth	WA State	Tukwila Twelfth	WA State
I do not walk or bike near my home or to school	24%	23%	12%	27%	48%	33%	30%	52%
1-2 days	21%	26%	27%	27%	24%	26.5%	20%	22%
3 or more days	55%	51%	61%	46%	29%	40.5%	50%	26%

Results:

It appears that sixth graders in Tukwila are walking at similar rates to other sixth graders around the state and that eighth and twelfth graders are walking more. However, the results for twelfth graders, as well as those for 10th graders, are unreliable due to the relatively small sample collected for this age group.

¹ A 70% sampling of the tenth and twelfth grades was not returned indicating that a representative sampling was not collected.

(2) “When you rode a bicycle during the past 12 months, how often did you wear a helmet?”

Table 11: Tukwila 6th Graders Helmet Wearing Patterns

Responses	Tukwila Sixth	WA State	Tukwila Eighth	WA State	Tukwila Tenth	WA State	Tukwila Twelfth	WA State
I did not ride a bicycle in the past 12 months	19%	10%	26%	14%	46%	28%	50%	44%
Never wore a helmet	27%	18%	49%	35%	30%	44%	45.5%	35%
Rarely wore a helmet	20%	13%	6%	13%	11%	8%		4%
Sometimes wore a helmet	15%	14%	8%	9%	2%	5%		4%
Most of the time wore a helmet	9%	17%	1%	13%	6%	6%		4%
Always wore a helmet	10%	28%	10%	17%	4%	9%	4.5%	8%

Results:

Tukwila students do not ride bicycles in the same amount that other students do around the state, and when they do ride a bike they do not wear helmets.

If the 2006 sixth grade group is treated as a cohort and the City attempts to get a representative sampling of them in 2012 as twelfth graders, the change could be measured to these two questions to judge effect upon individual behavior. Also, the responses by the various grades could be measured for change in the population in general.

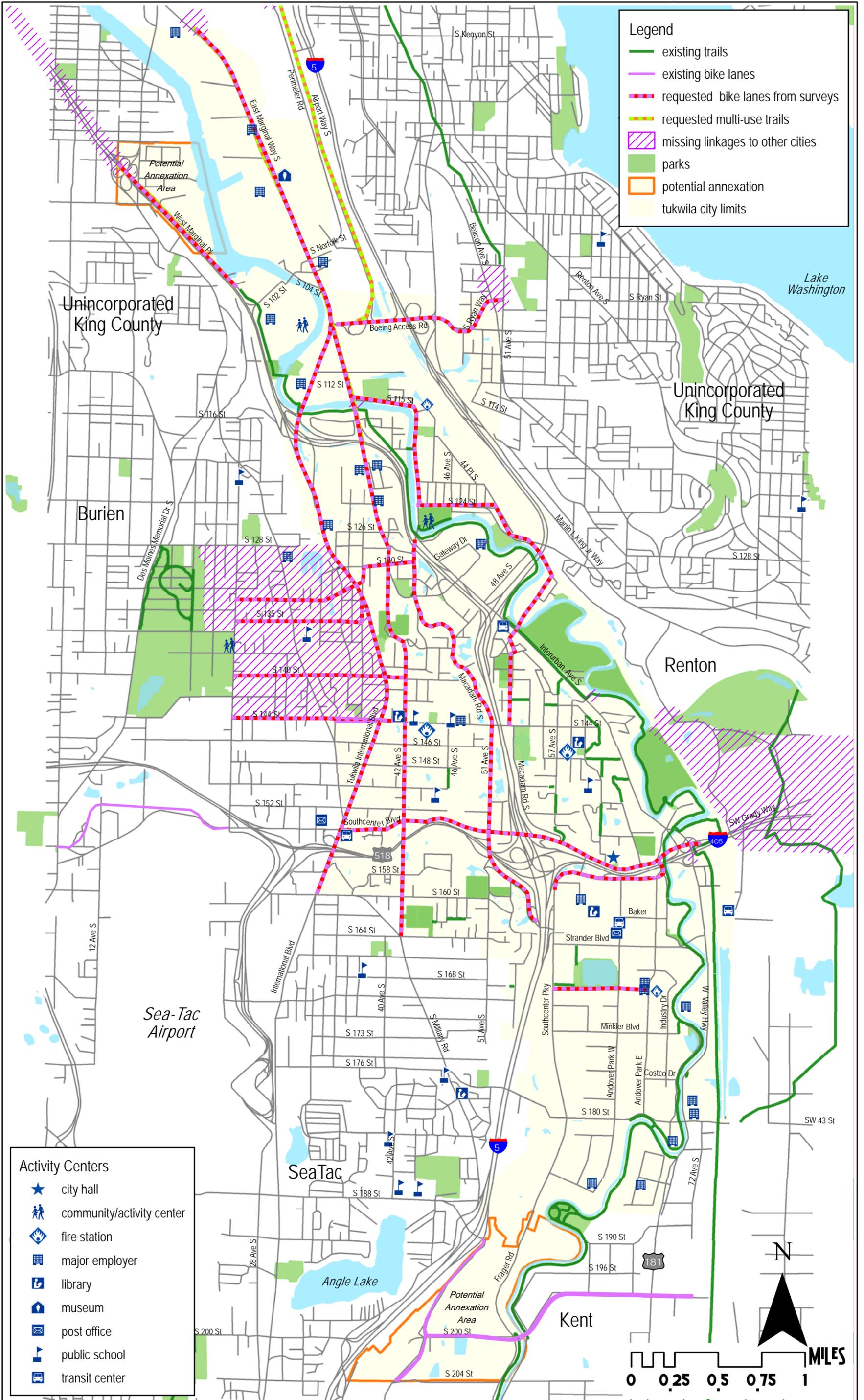
Public Input

Three main efforts were made to involve citizens in the development of this Plan – contact through a survey, a specially organized fair to highlight walking and biking, and targeted contact with interest groups such as the School District, CTR affected employers, and bicycle clubs. The ideas generated through the public involvement are summarized on Survey Responses: Requested Bicycle Improvements, **Figure 18**, and Survey Responses: Requested Pedestrian Improvements, **Figure 19**. In addition, a charette was held to solicit broad input from the diverse disciplines within the City organization.

Walk & Roll Fair and Backyard Wildlife Fair

A Walk & Roll Fair was held on December 6, 2006. Staff also attended the popular Backyard Wildlife Fair on May 12, 2007 to receive public input about potential improvement locations Tukwila residents would like to see included in the Walk & Roll Plan, and to share information about existing community organizations and programs to encourage bicycling and walking.

Survey Responses: Requested Bicycle Improvements



Walk & Roll Survey

Survey Distribution

Two Walk & Roll surveys, including a long version and a short version, were made available from November 2006 until March 2007. Both copies of the survey were made available on the City's website, and were advertised in the Hazelnut (the City's newsletter), at public outreach events (including the Walk & Roll Fair), meetings with employers, and meetings with community and advocacy groups. Copies of the longer version of the survey were distributed at locations around the city including the Foster Library, Tukwila Library, the Tukwila Community Center, and Tukwila City Hall. The short version of the survey was only available on the city's website.

A brief review of the survey results is provided below. A copy of each survey, containing a summary of the survey results, is available in **Appendix E**. In survey responses related to walking, what was found is that:

Survey Responses Related to Walking

- Most people who are walking and biking in Tukwila do so for fitness/health or for social/recreational activity. Several people said that they also walk to go shopping.
- Most people walk 1-2 miles, or even farther (up to 6 miles)
- Most popular places to walk are -Green River Trail, Interurban Trail, parks and the Tukwila Community Center, and inside the mall.
- Most Difficult Places to Walk are anywhere without sidewalks and street lights, Interurban Ave, mall area, Tukwila International Blvd, 144th & Tukwila International Blvd, street crossings along Tukwila International Blvd, Military Road, 42nd Ave S, east-west directions in general.

Reasons for difficulty in the area listed above include no space to walk, lack of curb ramps, gaps in pathways along routes, and difficult street crossings. A couple of people said that they do not feel safe because of crime and disregard for the rules of the road (including disregard for signals at crossings by both pedestrians and drivers and jaywalking).

Survey respondents recommended the following solutions to problems in the areas where they have the most difficulty walking: construction of sidewalks, curb ramps, safe street crossings, and more lighting. A couple people said they would like to see walking trails. Safer crossings and increased enforcement at signalized crossings were also identified as possible solutions to areas where walking is a challenge.

People said they would be encouraged to walk more often if they had more free time, and if sidewalks or trails were constructed in their neighborhoods.

There are a variety of different kinds of bicyclists in Tukwila, including beginning, recreational, intermediate, and advanced riders. Of note in the survey results, is that several people either did not answer this portion of the survey or responded that they do not own a bicycle.

Survey Responses Related to Bicycling

- Most people ride a bicycle in Tukwila for health/fitness and social/recreational activity. A large number of bicyclists also ride to work and to go shopping.
- Most people ride more than 6 miles.
- Most popular places for people to ride their bikes in Tukwila include -Green River and Interurban Trails, places in nearby cities including SeaTac, Kent, Renton, and Seattle (including West Seattle)
- Top reasons why people don't ride more often - bad weather; (2) lack of bike lanes and/or paths; (3) the time it takes
- Survey respondents said better infrastructure (including bike lanes and trails) would encourage them to bicycle more often
- Most Difficult Places to Ride a Bicycle - Southcenter Blvd; the mall area; Interurban Ave/West Valley Highway; Tukwila International Blvd; Boeing Access Road; West Marginal Way; East Marginal Way; Connections to Renton (via Fort Dent/Monster Road), West Seattle; downtown Seattle; the Burke Gilman Trail; and east-west connections.

No space to ride, difficult street crossings, and gaps along the route were top reasons survey respondents cited for the difficulty they have riding in these areas

When asked what their preference is for (1) wide street lanes/shoulders; (2) striped/marked on-street bike lanes, or (3) off-street bike paths/trails, trails were most preferred, followed by bike lanes and wide shoulders.

To improve these areas, survey respondents most commonly cited bike lanes as improvements that would make these areas better for bicycling, along with the construction of missing link trail connections, new trails, and curbs and sidewalks, and lighting.

Meetings with Tukwila Employers

Interviews with Tukwila's major employers, defined as employers who have at least 100 full-time employees who arrive at the worksite between the hours of 6am-9am, were conducted from February through May of 2007. Interviews were conducted in coordination with work being conducted for the City's Commute Trip Reduction (CTR) Plan, the aim of which is to reduce employees' rates of driving to work alone (drive-alone rates) and to reduce the vehicle miles traveled (VMT) of each employee arriving at CTR-affected worksites in Tukwila. The purpose of the interviews was to assess worksite conditions, to find out what walking and bicycling is like for employees, to identify challenges and opportunities in meeting the CTR policies, and to develop a list of potential improvement projects for pedestrians and bicyclists. Interviews with the employee transportation coordinators revealed that each work site had its unique challenges in reducing drive-alone rates and VMT. However, there were several general comments that were common to all worksites.

Common barriers to bicycling and walking for employees within the City of Tukwila include lack of bike lanes, lack of secured bike parking and/or showers, the large distances between where employees live and where they work, lack of places for employees to walk to during breaks, lunch, etc. (especially within the MIC), weather

Nonmotorized Transportation Plan

conditions, and feelings of insecurity due to high traffic speeds, heavy truck traffic, and drivers disobeying the rules of the road with regard to bicyclists and pedestrians.

The CTR Plan will continue ahead with recommendations that will assist employers in making changes in employee commuting habits. As the comments above indicate, the Walk and Roll Plan can also play a part by making changes that will assist in those efforts. Making infrastructure improvements that encourage and support employees who use transit and bicycle as well as providing a recreational system that is usable during the work day will support goals from both Plans.

Walk & Roll Charette

A Walk & Roll Charette was held on April 28th, 2007. The purpose of the charette was to have broad cross section of City staff from different disciplines review and recommend any modifications to existing conditions for bicyclists and pedestrians, including street, trail, and sidewalk conditions, and existing policies, standards, and practices, and to come to agreement about potential project improvement locations and designs. Staff included department heads of Community Development and Parks and Recreation, Police Patrol officers, the City Engineer, Transportation engineers and maintenance and operations personnel for streets and parks.

In terms of bicycle improvements, it was decided that priority should be for construction of trails and bike lanes when possible. The charette discussion identified Bicycle Friendly Routes, shown on **Figure 5**. Review and agreement was also reached for design guidelines for bicycle lanes, paved and unpaved trails, and sidewalks, which are shown in the **Bicycle and Pedestrian Infrastructure Designs** section of this plan.

Appendix C: Planning and Policy Context

What support exists for bicycle and pedestrian planning?

Tukwila is relatively small geographically especially when compared to its larger urban setting. Coordination with the regional system is crucial for the transportation system to be functional. An important effort within this Plan is to show existing and planned linkages to adjacent facilities in neighboring cities and to recommend new opportunities where collaboration will result in an expanded and improved system.

In addition, evidence of a community planning process and local action such as plan adoption is required by outside funding agencies and potential private funding partners.

Summary of Existing Plans

Coordination and involvement with the state and region is critical for identifying opportunities, resources and funding, but is also needed to make the local system more effective and connected to the regional system.

State

WA State Bicycle Facilities and Pedestrian Walkways Plan 2008-2027 2008)

Washington's Statewide Goal is to increase bicycling and walking while reducing injuries and deaths. The Plan sets a goal of decreasing collisions by five percent per year for the next 20 years, while doubling the amount of biking and walking. The strategies for achieving these goals are: maximizing funding through partnerships; raising awareness of bicycle and pedestrian safety needs; and sharing information on bicycle and pedestrian issues between Washington's agencies, jurisdictions, and organizations. The Plan contains a statewide list of 1.9 billion dollars of cycling and pedestrian projects. The incomplete list includes nine multi-use trails and sidewalks in Tukwila, which does not include all of the missing links or bike lanes needed to implement the City's Plan.

Commute Trip Reduction

The Washington State Commute Trip Reduction (CTR) law (1991) has had significant success in encouraging employees to bus, vanpool, carpool, walk, or bike to work from home, or to compress their workweek. A 2006 update to the CTR law, called the CTR Efficiency Act, made changes to the law that require CTR-affected employers (that is, employers with at least 100 employees who commute to work between the hours of 6:00am and 9:00am) to reduce trips made to work by single occupancy vehicles by 10 percent, and to reduce vehicle miles traveled to their worksite by 13 percent by 2011.

Under the new legislation, local jurisdictions in areas that experience the highest levels of highway congestion, such as Tukwila, must write their own local CTR Plans. These plans set targets for reduction of the percentage of single-occupancy vehicles arriving to CTR employment sites, as well as for reductions in vehicle miles traveled, for employers located within the jurisdiction. Local CTR Plans also outline strategies to achieve the targets outlined in the plan, with implementation dependent on availability of state funding.

Nonmotorized Transportation Plan

Within Tukwila, an aggressive incentive program that provides employees with cash when they use alternate commute modes, as well as increased marketing and promotion of transit, carpool, vanpool, and vanshare options have been identified within the CTR Plan as strategies to encourage people to carpool, vanpool, to use transit, or to bike or walk to work. State funding through the CTR Plan may also be used for construction of bicycle and pedestrian projects in proximity to CTR-affected employers, transit centers, and areas of high residential density.

Regional

Regional Investing in Nonmotorized Transportation

To provide for nonmotorized mobility, the goal of the region is to respond to Federal Highway Administration direction that identifies bicycle and pedestrian facilities as crucial components of all future transportation improvements. (See USDOT FHWA *Design Guidance — Accommodating Bicycle and Pedestrian Travel: A Recommended Approach*, 2000). The U.S. Department of Transportation has set a national goal that by 2010 bike and walk trips will comprise 15 percent of all trips. A regionally integrated network of nonmotorized facilities linking bicycle and pedestrian infrastructure within urban places, and connecting these facilities to regional transit services, will help to achieve this goal in the central Puget Sound region. Priority investments are those that complete the nonmotorized system by filling gaps in the existing network, creating connections to, and within, urban centers, and developing intermodal connections. Ultimately for Tukwila's Plan Destination 2030 supports local networks and associated programs, and effectively mainstreams bicycle and pedestrian travel into the overall regional transportation system.

Ten-Year Investment Program (2010 Action Strategy)

The 10-year investment program consists of filling gaps that have been identified in the existing nonmotorized network, creating safe bicycle and pedestrian connections within, to and between the most developed designated urban centers, creating safe access to Sound Transit's existing and planned high capacity transit station areas, and building projects with the highest level of local commitment. The most developed urban centers are Bellevue, Bremerton, Capitol Hill/First Hill, Everett, Kent, Northgate, Redmond, Renton, Seattle Center, Seattle Downtown, Tacoma Downtown and University District.

Project sponsors, including Tukwila, have identified over 1,200 miles of regionally significant nonmotorized project investments to be completed by 2030. Sponsors plan additional nonmotorized investments on many local facilities. The regionally significant investments are summarized below.

Shared Use Bicycle/Pedestrian Paths and Bicycle Lanes

In total the early action strategy is comprised of over 700 miles of new regionally significant paths and bikeways, including:

- Over 180 miles of off-road, shared use bicycle/pedestrian paths
- Over 550 miles of on-road bicycle lanes

Commuter Bicycle Stations

The early action strategy includes six commuter bicycle stations at the following locations: Overlake Transit Center in Redmond, the Montlake flyer stop on SR 520, the Everett Multimodal Station, the downtown Bellevue Transit Center, and the Tacoma

Dome. The region developed a methodology for estimating bike demand at transit stations, investigated the feasibility of bike stations at four locations in the region, and created a regional design template for future stations. A Commuter Bike Station opened in 2003 in Pioneer Square near King Street Station and includes bike-sharing and car-sharing services, bicycle rentals, sales and repairs as well as secure indoor bicycle parking available 24 hours a day, seven days a week. It is the first automated mobility center concept in the U.S.

Puget Sound Regional Council

Through the Puget Sound Regional Council (PSRC), the region's cities and counties work together to preserve and enhance quality of life in the central Puget Sound region. The PSRC created a framework plan for the region called [VISION 2020](#). A major theme underlying the principles and policies of both VISION 2020 and Destination 2030 is that the region must develop a transportation system that creates and encourages the use of more travel choices, such as transit, biking, walking and ridesharing, and begins to reduce the degree of reliance on the single-occupant automobile for vehicle travel. Bicycle and pedestrian transportation plays an integral role in achieving these goals.

Destination 2030

In 2002, the region unanimously adopted a transportation action plan called Destination 2030. The plan is about making traffic better, keeping pace with growth, and supporting the region's economic and environmental health. It addresses long-range transportation needs of a growing population, with a focus on important early actions to keep the region moving in the right direction. The plan includes a detailed and balanced set of projects and programs that focus on agreed-upon investment and finance principles and recognizes the link between transportation and growth planning. It identifies more than 2,000 specific projects that will improve roads, transit and ferry service, bicycle and pedestrian systems, freight mobility, and traffic management and operations. Destination 2030 calls for the development of new state and regional funding mechanisms to provide sustained and flexible revenues that support plan strategies. And it outlines a monitoring and review process for ensuring that plans are current and that implementation stays on course.

The transportation project list within Destination 2030 is the result of locally adopted plans and projects under discussion for key regional funding. Limited additions to the project list are made periodically (most recently in 2006.)

There are five nonmotorized projects for Tukwila listed in Destination 2030. They are:

- Boeing Access Road Bike Lanes
- Green River Trail spur to the Springbrook Trail near Valley Road
- Pacific Highway Bike Lanes from S. 112 Street to the Boeing Access Road
- Strander Boulevard Bike Lanes from Green River Trail to Andover Park West
- S. 180 Street Bike Lanes from the Green River Trail to the Interurban Avenue Trail

Nonmotorized Transportation Plan

Pedestrian Improvement Zones

Destination 2030 identifies “Pedestrian Improvement Zones” as geographic areas where priority should be given to completing the network of pedestrian facilities. These “zones” are defined as areas within designated Urban Centers and within a mile radius of major regional transit stations. Pedestrian improvement zones included in the 2000-2010 action strategy are:

- Within the boundaries and a mile radius (a 10-minute walk) of the urban centers of Bellevue, Bremerton, Capitol Hill/First Hill, Everett, Kent, Northgate, Redmond, Renton, Seattle Center, Seattle Downtown, Tacoma Downtown and University District.
- Within a mile radius of existing transit centers, including Southcenter Mall, and Sound Transit stations.

Pedestrian Improvement Zone investment for the Southcenter urban center is slated for the second phase of Destination 2030, which is 2011-2030.

Accomplishments

Destination 2030 calls for a regionally integrated network of nonmotorized transportation facilities linking bicycle and pedestrian infrastructure within urban places and connecting these facilities to regional transit services. Priority investments are those that complete the nonmotorized transportation system.

Infrastructure investments are filling gaps in the existing network, creating connections to and improving circulation within urban centers and high capacity station areas, and developing intermodal connections. Providing facilities that support nonmotorized travel is important, but education and encouragement are essential to the success of bicycle and pedestrian systems. The region has moved forward in both infrastructure and education/encouragement programs.

Education and Encouragement

A key objective in the Implementation Strategy is educating the general public and public officials through expanded and improved marketing, promotional, and educational programs about the benefits of using biking and walking as travel modes.

- The Regional Council launched a “Walkable Communities” workshop series. The workshops were developed in conjunction with twelve cities to assist localities in building more pedestrian and bicycle-friendly communities. Selected nationally through a competitive grant process, the Regional Council was one of six metropolitan planning organizations to receive this series of workshops.
- Several host communities have taken steps to turn the recommendations and ideas from the Walkable Communities workshops into actions. Tacoma created an ad hoc citizen task force to develop a program of improvements and design standards for presentation to the City Council. Ideas generated at the Everett workshop are fueling an effort to create better pedestrian connections between a new multimodal transit station near Interstate 5 and the central downtown core a half-mile away. Redmond is incorporating feedback from their workshop into their Master Downtown Plan.

- Through an approach known as context sensitive solutions, WSDOT has started taking steps to deliver transportation projects that fit physical surroundings and preserve scenic, aesthetic, historic, and environmental resources while maintaining safety and mobility by using interdisciplinary techniques involving all partners. In 2002, WSDOT sponsored two forums for context sensitive solutions: a workshop focused on balancing community values with moving regional traffic and an international symposium where several Europeans shared best practices with their American counterparts.
- In 2003, WSDOT introduced Web pages dedicated to walking and bicycling.
- Kicked off on 2003 National Bike to Work Day, the region's first ever bicycle commute challenge attracted 1,700 riders from almost 250 teams. Over one month, participants logged 29,201 trips totaling 262,552 miles. Over 11 percent of those trips were ridden by people new to bike commuting. On Bike to Work Day recorders positioned at commuter stations in Snohomish, King, and Kitsap counties counted 9,200 riders, a 35 percent increase over 2001 totals. The 2004 bicycle commute challenge drew 3,200 riders from almost 400 teams.
- The League of American Bicyclists named Redmond a Bicycle-Friendly Community, following a detailed audit of the community's efforts to provide safe accommodation and facilities for bicyclists and to encourage residents to bike for transportation and recreation. Redmond's Capital Improvement Plan commits \$100,000 per year for bicycle facilities improvements.
- The Regional Council co-sponsored two Footprints and Bike Tracks conferences with staff providing planning support and co-presenting at a breakout session on nonmotorized transportation advisory committees.

County

King County Department of Natural Resources' *2004 Regional Trail Inventory and Implementation Guidelines* provides King County's vision of a connected system of trails, with regional multi-use trails serving as the backbone of a trail system:

It is the County's intent that regional trails should be connected by other trails of an informal and formal nature forming a system not unlike the road system with major arterials (regional trails) being connected by secondary arterials and neighborhood streets (community trails).

The Green River Trail and the Interurban Trail make up the regional trails that currently serve the City of Tukwila, providing multi-use facilities separated from the roadway for exclusive use by pedestrians and bicyclists. Tukwila's system of numbered walking trails provides the basis for a system of informal connections, as described above, through Tukwila's neighborhoods.

Future improvements identified in the *2004 Regional Trail Inventory and Implementation Guidelines* to extend the regional trails network that will improve the system connecting to Tukwila include a connection from the Green River Trail at Fort Dent Park to the

Nonmotorized Transportation Plan

Cedar River Trail, as well as the extension of the Interurban Trail farther south through cities in Pierce County including Milton and Pacific.

Local

City of Tukwila Comprehensive Land Use Plan 1995

The number one objective of the City is to improve and sustain residential neighborhood quality. The hope is to encourage community pride, ownership and stability in households who come to and live in Tukwila.

The City's basic values of supporting residents, families and children, appreciating the City's surroundings, and creating quality opportunities direct our decisions. A first class nonmotorized transportation system and programs that support safety and use of the system are the backbone of these values as they relate to access and mobility for all members of the City.

A Comprehensive Plan summary shows that the land use, public infrastructure design and capital investment policies encourage walking and transit trips through:

- Denser mixed use neighborhoods and a regional center
- A physical framework that advocates connectivity of the street system
- A public recreational amenity adjacent to natural beauty and/or within walking distance of all residential areas

In addition to policies that support and encourage walking and biking, there are policies that specifically address how the nonmotorized transportation and recreational system should be implemented. The Comprehensive Plan details that trails and sidewalks should:

- Be evenly distributed throughout the City
- Link within neighborhoods and then between neighborhoods
- Link significant focal points and areas of high natural amenities
- Link the upland and lowlands at strategic points
- Link commercial areas to residential areas within ¼ mile
- Link parks to households within ¼ mile
- Be coordinated with adjacent cities and regional plans
- Be linked in a network with each other
- Improve employee access to the east side of the river and public access to the west while protecting property rights
- Utilize railroad right of way as trails

The Plan suggests that easements for trails should be negotiated during development of property when appropriate, while preserving privacy and security. In addition, single family development of four or fewer lots should be excluded. Rights-of-way should be required, whenever possible, to provide trail connections between cul-de-sacs and adjacent streets to improve access for bicycles and pedestrians.

Several sections of Tukwila's Comprehensive Plan, including Shoreline, Residential Neighborhoods, Southcenter urban center, Manufacturing/Industrial Center, and Transportation, have policies related to trails and nonmotorized transportation more generally:

Shoreline

(Policy 5.6.6) *“Require subdivisions, multi-family residential uses, and commercial and industrial uses along the shoreline [including shoreline property within the MIC zone] to provide a trail for public access in areas identified for trail connections, consistent with the King County Green River Trail Master Plan.”* Additionally, any properties along the shoreline that are not identified for trail construction in the King County Green River Trail Master Plan are required *“to provide public access or a private natural area in lieu of physical public access”*.

Residential Neighborhoods

(Policy 7.4.1) *“Provide pedestrian and other nonmotorized travel facilities, giving priority to sidewalk improvements that connect public places, such as parks, the river, open space and neighborhood gathering spots.”*

(Policy 7.4.2) *“Emphasize a network of residential local access through streets, minimizing cul-de-sacs.”*

(Policy 7.4.6) *“Incorporate proportionately greater neighborhood-enhancing elements in collector, minor, and principle arterial design. These elements include collector lanes, wider sidewalks, separated sidewalks, and curb line street trees”*.

(Policy 7.5.2) *“Link neighborhood gathering spots with an enhanced nonmotorized trail and sidewalk system before providing linkages with the neighborhoods.”*

(Policy 7.5.4) *“Within one-quarter-mile of residential areas, provide a recreational facility or enhanced trail linkage to a neighborhood park.”*

(Policy 7.6.11) *“Link commercial areas to residential areas within approximately one quarter mile with high quality nonmotorized access facilities.”*

Tukwila Urban Center

(Policy 10.2.2) *“Create a street network that reflects the demand and need for vehicles, transit, pedestrians and bicyclists; provides a safe, convenient, attractive, and comfortable pedestrian and bicycling environment that eliminates potential conflicts and promotes safety for all modes of travel; and reinforces the different functions of streets by creating distinct identities for major rights-of-way.”*

Manufacturing/Industrial Center

(Policy 11.1.9) *“Reduce reliance on the single occupancy vehicle for transportation of employees in and out of the MIC.”*

Transportation

(Goal 13.3) *“Traffic levels of service that provides safe and efficient movement of people, bikes, cars and buses and incorporate evolving land use and traffic patterns.”*

City of Tukwila Parks, Golf and Open Space Plan

The City maintains a six year functional plan for Parks and Open Space that supports the provision of linkages, discusses improving east-west connections, and references

Nonmotorized Transportation Plan

the Tukwila Trail System. East-west trails are on the project list. However, specific locations are not identified.

Implementing the 1995 Comprehensive Plan

Transportation policies and practices in Tukwila create a transportation system that efficiently moves automobiles and trucks, without much thought for bicycles as a mode of transportation. Pedestrians fare better, in large part due to a Tukwila residential street program which was employed in the past to install curbs, gutters, and sidewalks. Additionally, a trails program installed paths on unimproved rights of way in the Tukwila Hill neighborhood. Streets in the Southcenter commercial area, which originally excluded pedestrians, now accommodate them on six foot wide sidewalks

The City's regulations implement policy by requiring most new construction or substantial redevelopment to build frontage improvements that include sidewalks. Exemptions from this requirement are currently allowed if street improvements in the vicinity of the development are not in the foreseeable future.

Additionally, the City may require nonmotorized easements and other dedications where necessary to facilitate pedestrian circulation between neighborhoods, schools, shopping centers and other activity centers, even if the facility is not specifically shown on the City's nonmotorized circulation plan, according to section 11.12.050 of the Tukwila Municipal Code.

The City may accept dedications of sensitive areas that have been identified and are required to be protected as a condition of development. Dedication of such areas to the City are considered when among other things the dedicated area would contribute to the City's overall open space and greenway system and would provide passive recreation opportunities and nonmotorized linkages.

Special provisions are allowed for the developers of four or fewer single family homes. For the most part, developers of four or fewer lots do not install any access improvements other than driveways. Of the short platting that occurred within the last seven years, from 2000 – 2006, over 70% of the new lots were created without the benefit of any pedestrian improvements to City streets, that is 180 new home lots were created without benefit of any nonmotorized infrastructure.

Internal pedestrian circulation systems are required within and between existing, new and redeveloping commercial, multifamily and single-family developments; activity centers; and existing frontage pedestrian systems.

Concrete sidewalks are required on both sides of all arterial streets, on both sides of all non-arterial streets longer than 200 feet, on one side of all non-arterial streets less than 200 feet in length; and on both sides of all public streets that provide access to existing or planned future sidewalks, activity centers, parks, schools, neighborhoods, or public transit facilities.

Exceptions to the requirement for concrete sidewalks occur when the subdivision design provides an acceptably surfaced and maintained public walkway system. A paved path shall be provided in lieu of concrete sidewalk when:

1. The paved path is to be temporary in nature; or

2. The soil or topographic conditions dictate a flexible pavement; or
3. Other similar reasons, such as maintenance of neighborhood character (at the discretion of the Director).

Finally, when street system frontage improvements are required per the City regulations, additional right-of-way and pavement may be required if indicated on a designated bicycle route as identified with this Plan for pedestrian and bicycle transportation.

Southcenter urban center Plan

The Southcenter urban center Plan envisions the southeastern area of Tukwila as a mixed-use employment, retail, and residential center; a high-activity area where people can live, work, and play. The Southcenter Urban Center Plan calls for areas of mixed-use retail, residential, and office that are linked to natural and recreational amenities including Tukwila Pond and the Green River. As the urban center develops, the existing large blocks are envisioned to be broken into smaller sizes, offering a grid street system that is denser and offers increased transportation options for automobiles, pedestrians, and bicyclists. In areas where it is not feasible to break up block sizes with new streets, pedestrian through-ways are recommended to provide connectivity within the urban center for pedestrians and bicyclists.

Shoreline Master Program Update

The Shoreline Master Program Update provides policies, standards, and guidelines for land use that occurs within 200 feet of the Green/Duwamish River. A major component of the Master Program Update is to allow public access to the river. The Green River Trail currently serves to provide continuous public access within the shoreline area from Tukwila's southern boundary to just north of S 102nd Street in northern Tukwila. In most places (including the City's potential annexation areas), the trail only runs along one side of the river. The absence of trail extensions north of S 102nd Street and along both sides of the Green/Duwamish River provide opportunities for future extensions the trail system.

Tukwila Transit Plan

A Transit Plan, conducted by the City, was finalized in April 2005. Of critical importance to transit riders and the success of transit facilities is the ability to walk between destinations and the transit facilities. The draw area for commuter stations is at least 1/2 mile.

Left by the Side of the Road (Cascade Bicycle Club)

From 2001 to 2004, the Cascade Bicycle Club undertook an extensive study of bicycling conditions within the Puget Sound Region, including King, Pierce, Snohomish, and Kitsap Counties. The findings of the study were summarized in a report titled *Left by the Side of the Road*. The purpose of the study was to identify a regional bicycle network. The following is the vision of the regional bicycle network that formed the basis for the study:

A regional bicycle network is a network of principle bicycle routes supported by and integrated with local bicycle routes. Such a network incorporates multi-modal transfer and interchanges facilities (e.g., transit stops and transit centers) and provides bicycle parking and storage facilities at origins and destinations, such as schools and employment

Nonmotorized Transportation Plan

centers. Ideally it favors on-street routes and route segments (over multiple-use trails that exclude motor vehicles) because such on-street routes already exist and serve these destinations (Cascade Bicycle Club, p. 13).

The Cascade Bicycle Club analyzed over 4,000 miles of potential routes throughout the region, and the result was a proposed network of 1,521 miles of “largely existing bicycle routes to serve the needs of all bicyclists—commuters, destination travelers, and recreational bicyclists” (Cascade Bicycle Club, p. 23). Conditions on these routes were evaluated and given either a pass or fail rating based on a set of criteria consisting primarily of road width guidelines.

The area within Tukwila that was rated as one of the highest priority improvements in the *Left by the Side of the Road* report was the connection from South Seattle to Tukwila. The recommendation for improving this connection is construction of paved shoulders or bike lanes on Martin Luther King Way, Boeing Access Road, and Pacific Highway S, connecting South Seattle at S Henderson Street to the Duwamish River Trail in Tukwila.

Specific segments of the proposed regional bicycle route system within Tukwila given a “failed” rating by the *Left by the Side of the Road* report include the following:

- Boeing Access Road
- Tukwila International Blvd from Boeing Access Rd south to the Duwamish River
- Tukwila International Blvd from S 132nd Street to S 139th Street
- Southcenter Blvd from I-5 to SW Grady Way

Additionally, the *Left by the Side of the Road* report identified the Two Rivers Trail, connecting the Lake Washington Loop in Renton with the Interurban and Green River Trails in Fort Dent Park, as a missing link badly needed in the regional trail network.

City of Tukwila staff has coordinated its recommendations for bicycle-friendly routes with the recommendations contained in the *Left by the Side of the Road* report, as well as with additional consultation with members and staff of the Cascade Bicycle Club. A map of Tukwila’s Bicycle-Friendly Routes can be found on page 27. A complete listing of consultation during the Walk & Roll Plan is contained in **Appendix D**.