

# PRELIMINARY DRAFT TRANSPORTATION MASTER PLAN

Goals and Policies version 1.53

Planning Commission September 25, 2014 meeting

*September 18, 2014*

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## 1. Introduction

### Purpose

This Plan has two functions. One is to serve as the Transportation Element of the Comprehensive Plan. This means that it contains certain elements that are required<sup>1</sup> to be in the City's Comprehensive Plan and is presented in a Goals and Policies format.

The other purpose is to expand upon the Comprehensive Plan and give more detail, context and background to the goals and policies. For example, Actions are associated with some of the policies and additional background is provided for some topics.

How the Plan is reviewed and what it must do.

The **Puget Sound Regional Council (PSRC)** is our Region's **Metropolitan Planning Organization (MPO)** and therefore has oversight responsibilities for ensuring the Transportation Element of the Comprehensive Plan meets certain requirements. *(DESCRIBE THESE ELEMENTS)*

*Describe Physical layout (working on this)*

### Relation to other elements of the Comprehensive Plan

In keeping with the rest of the Comprehensive Plan, this a 20 year document with a target year of 2035. To ensure consistency across the plan, the assumptions in other elements of the Comprehensive Plan have been used in the **Transportation Master Plan (TMP)**. For example, the land use forecasts from the Land Use element were used to predict traffic volumes.

### Relationship between the Transportation Master Plan and the Capital Improvement Program

Linkage to priorities and projects. The Transportation Master Plan contains a set of projects that will improve the transportation network across several modes. Programming of these projects for funding in future years is accomplished through the [Capital Improvement Program](#). It also includes priorities that are to be used in deciding the order in which projects are funded.

### Multimodal

A main principle of the Master Plan is the need for the transportation system to be multimodal (meaning it supports multiple *modes* of transportation; Walking, Biking, Transit, Auto) in nature. Through much of the document, material is organized by four modes, walking, bicycling, transit and auto travel.

### Concurrency

A new concurrency method for Kirkland is described in this plan. The concurrency method is multimodal and measures completion of the transportation network against the realization of new trips (from land use development) to determine if the proper balance exists.

### Level of Service

Fundamentally, **Level of Service (LOS)** for various modes is determined by the extent to which the network for that mode is completed. This stems from the assumption that the 20 year Transportation Network is adequate to support the 20 year land use plan at an acceptable level of service.

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<sup>1</sup> Reference RCW

Public involvement

The Transportation Master Plan has been developed with considerable comment from the Public in a variety of settings including workshops and presentations. The Transportation Commission has been instrumental in steering the course of the Plan's development.

## **2. Existing Conditions**

*(Working on this section)*

### 3. The Transportation Concept

In 2010, the Transportation Commission Proposed, and City Council endorsed four principles for transportation in Kirkland in a document titled Transportation Conversation:

Move People	Support a transportation system and related government and private actions that promote all viable forms of transportation.
Link to Land Use	Ensure consistency between land use and transportation planning and implementation.
Be Sustainable	Support a transportation system that can be sustained over the next 50 years.
Be an Active Partner	Actively build and maintain partnerships locally, regionally and nationally, to further our transportation goals.

These themes serve as the foundation of the Transportation Concept for the City of Kirkland.

Livable, vibrant cities like Kirkland offer safe, accessible, well maintained and fully connected alternatives for getting people where they need to go. Because of their safety and approachability, interconnected walking and biking networks offer everyone options for all kinds of trips. Transit is viewed as a good choice; by focusing frequent service on main streets it is efficient, easy to understand and connects popular destinations. Auto congestion is heavy during some of the day; it has been recognized that it is not desirable or financially feasible to build auto capacity sufficient to remove all congestion, nor is this in keeping with the City's land use plan. Efficient deliveries are prioritized to support economic development.

Land use and transportation visions are inextricably linked. This plan tailors a transportation network to a land use vision and the companion land use plan is based on realistic transportation expectations. Economic development is nurtured through a careful Land Use-Transportation balance. Level of Service is established based on the combination of the 20 year Land Use and Transportation networks rather than aspiring to a certain standard of performance.

Sustainability is a multi-dimensional concept. It refers to transportation practices that value the health of the environment, particularly those that affect air quality, water quality and climate change. It also encompasses fiscal prudence –spending within likely revenue, sound maintenance polices –emphasizing repair of what we have and equitable accessibility for all –considering and removing a range of barriers to the transportation system.

Transit providers and the Washington State Department of Transportation immediately come to mind as important partners in implementing Kirkland's Transportation Plan. In order for the Plan's goals to be fully recognized however, entities such as schools, neighboring cities, regional groups and the private sector must also be actively pursued as partners.

Measurement and reporting of progress to accomplishing goals, policies and actions is critical to ensuring that the plan is well understood and effective. A revised concurrency system offers a simpler more multimodal approach to balancing land use changes and network development.

With the expressed purpose of moving people, goods, and services, the City's transportation decisions will generally reflect a hierarchy of modes:

1. Walking
2. Biking

3. Transit

4. Motor vehicles

This hierarchy is intended to help ensure that the needs of each group of users is considered in the City's planning process. This approach does not mean that users at the top of the hierarchy will always receive the most beneficial treatment on every street. It is not possible to provide ideal accommodations for every mode in every location. However, when lower hierarchy modes are prioritized above higher priority modes, the underlying reasons for this approach will be shared and the city will make special efforts to provide reasonable alternative accommodations such as parallel routes.

## **A. GOALS (add page numbers to final version)**

The goals that guide the Transportation Master Plan support the plan vision and are consistent with previous work done by the Transportation Commission. They are also consistent with County wide goals and policies. (NEED FOOTNOTES HERE)

**Goal T-1 Walking** - Form a safe network of sidewalks, trails and crosswalks where walking is comfortable and the first choice for many trips.

**Goal T-2 Biking** – Interconnect bicycle facilities that are safe, nearby, easy to use and popular for people of all ages and abilities.

**Goal T-3 Public Transportation** - Support and promote a transit system that is viable and realistic for many trips.

**Goal T-4 Motor Vehicles** - Efficiently and safely provide for vehicular circulation recognizing congestion is present during parts of most days.

**Goal T-5 Link to Land Use** - Create a transportation system that supports Kirkland’s land use plan.

**Goal T-6 Be Sustainable** – As the transportation system is planned, built and maintained, provide mobility for all using reasonably assured revenue sources while minimizing environmental impacts.

**Goal T-7 Be an Active Partner** - Coordinate with a broad range of groups to help meet Kirkland’s transportation goals.

**Goal T-8 Transportation Measurement** - Measure and report on progress toward achieving goals and actions.

## 4. WALKING

### A. Background

Walking supports a livable community through increased interpersonal interaction, commerce, and health. Pedestrians, including those who use wheelchairs or other mobility aids, take first priority on Kirkland's transportation network because every traveler is a pedestrian at some stage of their trip, regardless of travel mode.

Walking has long been a cornerstone of the transportation system in Kirkland as evidenced by the creation of lakefront walkways, use of innovative crossing treatments and, most recently, through the purchase of the Cross Kirkland Corridor. Because of an emphasis on walking facilities around schools, improvements have been made at almost every school in Kirkland during the past few years.

Despite these efforts there is more to be done. I-405 is a barrier to pedestrians, too many busy streets do not have sidewalks, crosswalks need upgrades and there are still areas around schools, parks and commercial areas that need improvements. Better lighting, separation from traffic, wayfinding, and facilities to help those who rely on curb ramps and other aids are also areas where improvement is needed.

Focusing on what makes a great walking environment –accessibility, safety, comfort, clarity, completeness -and applying these throughout Kirkland is fundamental to this goal. Two places in particular, the shores of Lake Washington and the Cross Kirkland Corridor offer the opportunity to create places that are both transportation facilities and spaces that offer truly remarkable experiences for walking.

***Goal T-1. - Form a safe network of sidewalks, trails and crosswalks where walking is comfortable and the first choice for many trips.***

***Policy T-1.1. Identify and remove barriers to walking***

All the policies associated with goal T-1 in one way or another are associated with removing barriers to walking. This policy serves not only as the basis for the removal of specific barriers but also the policy by which general actions are supported.

The **Active Transportation Plan** (ATP) is a means for coordinating pedestrian needs on a more detailed level than is done here and the ATP should be updated regularly.

Common physical barriers to walking include vegetation that extends into walkways from public and private property. Solid waste receptacles are a common source of obstructed walkways because often there is no place for their storage besides sidewalks. Because of our long fall and winter evenings, lighting is a necessary feature in the pedestrian network.

Making facilities accessible to all users is a large and important undertaking. The City of Kirkland is carefully scrutinizing new construction and maintenance activities to make sure that those projects meet the most current standards for accessibility. There is a large fraction of existing facilities that need comprehensive review and possible mitigation. Those mitigations represent a sizable investment relative to the amount of funding that has traditionally been available for capital projects.

Projects that remove barriers to traditionally underserved populations such as low income and senior populations should be prioritized. Often these communities have relatively low auto-ownership rates and therefore draw substantial benefit from pedestrian improvements. Young people should be considered in the design of the pedestrian network for all types of trips; not just for the journey to school.

Because of it cuts north and south through the length of the City I-405 is an effective barrier to pedestrian travel. This barrier should be made more permeable wherever feasible. This could include new bridges and improved pedestrian facilities at interchanges.

Unless they have proper connections Cul-de-sacs and dead end streets can create barriers to pedestrian travel that don't exist in traditional grid style street systems.

Action T-1.1.1 Update the ATP to cover all of Kirkland's neighborhoods and to provide further guide implementation of the policies in this plan.

Action T-1.1.2 Review, revise and enact regulations or other measures that reduce sidewalk blockages.

Action T-1.1.3 Finalize an **Americans with Disability Act** (ADA) Transition Plan for transportation facilities. Fund improvements that come from the plan in a manner that allows completion of an accessible network in a timely manner.

Action T-1.1.4 Engage Washington State Department of Transportation in discussions about improving existing interchanges with the intention of securing funding to design and construct new interchanges at NE 124<sup>th</sup> Street, NE 85<sup>th</sup> Street and NE 70<sup>th</sup> Street. (See page x partnership section).

*Policy T-1.2. Measure and improve the safety of walking in Kirkland.*

Data necessary for an accurate and cost-effective safety evaluation is critical to improving safety and must be gathered over time. Measures of rate like crashes-per-unit-of-pedestrian-volume are more helpful than simply the number of pedestrian crashes because they help prioritize where crash countermeasures are most needed.

Meaningful increases in pedestrian safety require a multi-disciplinary, multi-agency approach addressing more than the implementation of engineering solutions and more than simply keeping track of the number of crashes involving pedestrians. Washington State's Target Zero Campaign is an example of this approach. Such efforts should be expanded at the City of Kirkland.

Action T-1.2.1 Develop a program to count pedestrian volume in a manner that is meaningful for measuring safety trends. Reporting from "smart" pedestrian pushbuttons can be one means of obtaining this information and such capabilities are part of Intelligent Transportation Systems.

Action T-1.2.2 Integrate efforts between the Public Works and Police Departments to ensure timely reporting and accurate cataloging of crash data.

Action T-1.2.3 Use Washington's Target Zero Initiative as a template for revising and implementing Kirkland's pedestrian safety program.

*Policy T-1.3. Make getting around Kirkland on foot intuitive.*

A complete wayfinding system for pedestrians complements and makes the sidewalk and trail network more functional. Wayfinding systems that move beyond signing only, for example those that coordinate with web-based systems, should be explored. Up to date mapping that is convenient for those traveling by foot is also beneficial to activating neighborhoods where people can walk regularly for daily tasks. Making this information available in multiple formats and across multiple platforms will increase its usefulness.

Action T-1.3.1 Develop and implement a pedestrian scaled wayfinding system (ATP) available in multiple formats and across multiple platforms this will involve identifying destinations, choosing routes, designing and installing infrastructure.

Action T-1.3.2 Update Kirkland's walking map.

Extra Material: Information about past mapping

*Policy T-1.4. Prioritize and design sidewalk construction in a manner that supports other goals in the Plan*

Safe and convenient walkways of the appropriate size are a foundation for pedestrian activity. Kirkland's existing codes call for sidewalks on both sides of almost all streets. Because the magnitude of the cost to construct sidewalks wherever they are missing in Kirkland's system, it is important that clear priorities are used to assign funding to the most worthy projects first: These priorities include:

- Improve safety—based on crash history and indicators of crash risk like adjacent street auto volume, speed and number of lanes.
- Link to Land Use—sidewalks that expand and enhance 10 minute neighborhoods and places where current pedestrian volumes are high such as Totem Lake Urban Center.
- Connect to the Cross Kirkland Corridor—make numerous strong links to the CKC.
- Make Connections—Projects that fill gaps by connecting existing sidewalks.
- Connect to Transit—complete walkways that allow easy access to transit, particularly regional transit.
- Community input—because of the scale of pedestrian projects, the on-the-ground knowledge of community input is particularly important in selecting pedestrian projects.
- Cost/likeliness to receive grant funding – projects that have lower cost or that are good candidates for grant funding should generally have a higher priority. Caution must be used so that high cost, high value projects are funded.

Design of sidewalks should include features that make them safe and comfortable. The need for planter strips and wider sidewalks increases where land use is more intense and where the number of auto lanes and speeds on adjacent streets are greater.

Action T-1.4.1: Develop a sidewalk prioritization method for the Capital Improvement Program.

Action T-1.4.2: Review and revise design requirements for sidewalks.

*Policy T-1.5. Develop world-class walking facilities along the Cross Kirkland Corridor with ample connections to the rest of Kirkland. Consider creating a plan for a Promenade along portions of the shore of Lake Washington.*

Kirkland is fortunate to have two walking environments that distinguish it from many other cities. The first is the 5.75 mile long Cross Kirkland Corridor, part of the 42 mile Eastside Rail Corridor. The corridor Master Plan recognizes that the corridor is at once a place for transportation and recreation, a place to go through and a place of activity in its own right. Realizing the Master Plan vision will result in a corridor of the highest value to the pedestrian network.

The shore of Lake Washington south of downtown Kirkland is a popular spot for recreational walking, but like the CKC, it could be imagined as the site of a richer pedestrian experience; not only a place to walk through, but a lively gathering place that enhances the entire community. A planning study would be a logical first step in evaluating if and how the space along the lake could and should be used.

Action T-1.5.1: Construct the CKC according to the Master Plan vision

Action T-1.5.2: Consider developing a Master Plan for a lake front Promenade

*Policy T-1.6 Make it safer and easier for children to walk to school and other destinations*

Because of walking's many benefits, encouraging children to walk to school is a long standing priority of the Kirkland City Council and a Goal in the current Active Transportation Plan. As a result of this focus, the number of school walk routes with sidewalks has steadily increased. Completion of improved walkways on all school walk routes is an ultimate objective. Within the realm of school walk routes, prioritization should be done based on the items in Policy T-1.4.

The City maintains an adopted set of elementary school walk routes in Kirkland. In order to get substantial numbers of children to walk to school however, more than walk routes with sidewalks are needed. A multi-dimensional approach that identifies and systematically treats barriers to children walking is necessary. Typically, this includes programs within schools that promote walking along with programs like walking school buses that address the safety concerns of parents. The city should encourage, coordinate and be a resource for such programs but should not necessarily be responsible for their implementation.

In addition to School, youth should be encouraged to walk to other activities; for example to friend's houses and to run errands. The same principles that support walking to school should be used to encourage walking for these other purposes.

Action T-1.6.1: Plan and prioritize school walk route projects

Action T-1.6.2: Help school communities develop and implement programs that increase the number of children who walk to school.

Action T-1.6.3: Connect places such as Parks and practice fields to allow youth to be able to walk to activities.

*Policy T-1.7 Improve street crossings*

Street crossings are critical to the success of a pedestrian network. Kirkland has a history of innovation in treatments at uncontrolled (places where vehicles are not required to stop) crossing locations and this should continue. Rapid flashing beacons or other state of the art devices should be used to enhance pedestrian visibility.

The pedestrian flag program should be continued at crosswalks where volunteers are available to help stock and maintain the flags. Program improvements that increase flag usage should be sought.

Prioritization for street crossing improvements should be similar to those used for sidewalk projects:

- Improve safety—crash history and indicators of crash risk such as lack of lighting.
- Link to Land Use—crossings on routes with sidewalks that expand and enhance 10 minute neighborhoods or that otherwise help achieve Kirkland's land use goals. Improvements in the Totem Lake Urban Center should be given priority.
- Connect to the Cross Kirkland Corridor—crossings on routes that lead to or are near the CKC.
- Connect to Transit—crosswalks that allow easy access to transit, particularly regional transit, this could be near stops or at locations where multiple routes converge.

- Community input—the community has proven that it has a substantial interest in where crosswalks are located and involving the community is a long standing Kirkland value.
- Cost/likelihood to receive grant funding – projects that have lower cost or that are good candidates for grant funding should generally have a higher priority. Caution must be used so that high cost, high value projects are included.

Medians have been proven to have high value in improving pedestrian safety, and should be given special consideration at multi-lane locations where vehicle volumes are high. Adequate lighting and accessibility are features that are a basic requirement at any crossing location.

The bulk of pedestrian crashes occur at intersections and turning vehicles are often involved. Features that reduce pedestrian exposure to risks at signalized intersections should be incorporated into the design of all intersections.

Traffic signal operation should regularly implement features that make crossing easier and safer for pedestrians.

Action T-1.7.1: Continue to support the Pedestrian flag program; measure and improve its performance.

Action: T-1.7.2 Develop a prioritization method for crosswalk improvements

Action: T-1.7.3 Review and revise pre-approved plans and other design guidelines that affect pedestrians. Adopt street design guidelines from **National Association of City Transportation Officials** (NACTO) and **American Association of State Highway and Transportation Officials** (AASHTO).

Action: T-1.7.4 Adopt traffic signal operational procedures that include practices such as advance pedestrian phases, generous walk intervals and protected left turn phasing.

## 5. BICYCLING

***Goal T-2 Interconnect bicycle facilities that are safe, nearby, easy to use and popular with people of all ages and abilities.***

### A. Background

Like walking, bicycling is a clean, healthy and efficient way to make many trips in a livable city. Today, many Kirkland residents would like to make more trips by bicycle; one reason they do not is because they find the current network of on-street bicycle lanes do not meet their needs for safety and convenience. In order to unlock the potential of bicycling, the existing network of on-street bicycle lanes should be improved and supplemented by facilities that people of all ages and abilities find safe and welcoming. This can include a variety of treatments such as buffering and or widening bike lanes, physical separation and Greenways.

Cities around the globe, including Portland OR and Vancouver BC have documented the relationship between more facilities and safety. When top notch facilities are available, bicycle ridership increases and safety (for all vehicles) improves. This leads to more ridership, support for more facilities and further safety improvements. Kirkland's terrain means that special treatments should be considered at stairways and steep grades.

For bicycling to be a viable for a wide variety of people making a wide variety of trips, bicycle parking must be widespread and plentiful, not just at commercial locations but at parks and transit facilities. Signing and marking for the bicycle network should be applied generously but in a way that fits with the surrounding neighborhood. Routes need to be supported by carefully chosen wayfinding that is integrated with that of neighboring cities.

### B. Draft Policies

#### *Policy T-2.1 Measure bicycle use and safety*

Bicycle use should be measured to understand trends in usage, where new facilities are needed and the impact of improved facilities on ridership. Volume data is also used to analyze crash rates.

The same principles that apply to safety for other modes apply to bicycling. Increases in safety will require a multi-disciplinary, multi-agency approach addressing more than the implementation of engineering solutions and more than simply keeping track of the number of bicycle crashes. Washington State's Target Zero Campaign is an example of this approach. Such efforts should be expanded at the City of Kirkland.

Action T-2.1.1 Develop a program to gather bicycle volume at key points in the City in a manner that is meaningful for measuring safety and ridership trends. Reporting from bicycle detectors can be one means of obtaining this information. Such capabilities are part of Intelligent Transportation Systems. Data should be collected in a way that allows comparison with data from other cities in our region.

Action T-2.1.2 Integrate efforts between the Public Works and Police Departments to ensure timely reporting and accurate cataloging of crash data.

Action T-2.1.3 Use Washington's Target Zero Initiative as a template for revising and implementing Kirkland's bicycle safety program.

*Policy T-2.2 Create and improve on-street bike facilities.*

A system of on-street bicycle lanes forms the basis of Kirkland's bicycle network and will continue to do so in the future. Most of these bicycle lanes are of minimum width. Research has shown that improving on-street bicycle lanes by widening, separating and/or buffering from auto traffic makes bicycling more attractive. Map x shows a proposed network of bicycle facilities.

Many of Kirkland's existing bicycle facilities can be made wider through changing pavement markings, and, similarly, new bicycle lanes can sometimes be created relatively inexpensively by narrowing auto lanes.

Higher levels of signing and marking could significantly improve the on-street bicycling experience and therefore the viability of bicycling. Improvements at intersections where bicycle facilities are dropped would have similar effects. Methods for making these improvements and others should be detailed in a revised Active Transportation Plan.

Guidelines that illustrate enhanced bicycle facility design are becoming widely available and should be adopted by Kirkland. These facilities should be the focus for improvement projects.

Improvements to bicycle facilities should be prioritized based on their ability to

- Improve safety. Consider safety history and the potential to reduce conflicts
- Link to Land Use. Make connections to local and regional destinations and trails with particular emphasis on the CKC and the Totem Lake Urban Center.
- Fill gaps in the network and evenly fill in the network. Projects that add geographic balance to the network or fill gaps between completed portions of the network should have a higher priority. Consider routes on both sides of I-405 for example.
- Connect to Transit. Give higher priority to bicycle connections to locations on the regional transit network.
- Community support. Projects that have broad community support should be built first.
- Cost/likelihood to receive grant funding – projects that have lower cost or that are good candidates for grant funding should generally have a higher priority. Caution must be used so that high cost, high value projects are included.

Action T-2.2.1: Recognize the NACTO and AASHTO bicycle design guidelines and adopt them into pre-approved plans used by the City of Kirkland.

Action T-2.2.2: Update the Active Transportation Plan to cover all of Kirkland's neighborhoods and to provide further guide implementation of the policies in this plan.

Action T-2.2.3: Study and implement low cost improvements to the system of on-street bicycle lanes.

Action T-2.2.4: Develop a prioritization system for on-street bicycle system improvements.

*Policy T-2.3 Build a network of greenways*

Greenways are bicycle facilities on streets with lower auto volume. Greenways have special signing and marking and may have traffic calming features. Traditionally they are on streets that are parallel to major streets to provide quick access to destinations located on such streets. Greenways can also include trails and paths that are off the street networks. Examples of this could include trails between cul-de-sacs or through parks. Where Greenways cross arterial streets special treatments are usually needed. Ideally, Greenways form a network that supports bike travel but together with the on-street network make an even more comprehensive network.

Priorities for Greenway construction should reflect those in Policy T-2.2

Map X shows a network of bicycle facilities including greenways.

Action T-2.3.1: Develop standards for Greenways in Kirkland

Action T-2.3.2: Prioritize and construct greenway projects.

*Policy T-2.4 Implement elements and programs that make cycling easier*

Secure convenient parking is an important part of most bicycle trips. Policies that affect bicycle parking must accommodate increased bicycle usage and optimize the location of bicycle parking. The City should actively partner with the private sector to facilitate bicycle parking on both public and private property.

Pronto! bike share has launched in Seattle and the City should actively pursue bringing Pronto! to Kirkland. Kirkland should implement policies that remove barriers to the use of bike sharing including facilitating the location of bike share stations throughout the City. Pronto! should complement transit, with stations at transit centers and hubs.

Because of Kirkland's terrain, innovative devices that make climbing hills and using stairs with bikes easier should be pursued. Bike Stations where a range of support items for cyclists are available such as day use lockers, repairs, sales of bike parts, etc. should also be considered.

High-use cycling routes should be given high priority for bicycle friendly signal timing, street sweeping, paving repair and other maintenance activities.

Action T-2.4.1: Establish and regularly review, with input from stakeholders, codes, policies and standards governing the requirements of bicycle parking.

Action T-2.4.2: Create a strategy to increase the supply of public bicycle parking in Kirkland. Adopt clear guidelines that encourage business and property owners to provide bicycle parking on private property.

Action T-2.4.3: Work with Pronto! to create regulations that facilitate bike share such as making stations easy to site/support start up with funding.

Action T-2.4.4: Adopt maintenance policies that emphasize high-use cycling routes.

*Policy T-2.5 Make it easy to navigate the bicycle network*

A system of bicycle wayfinding that is tied into the systems of surrounding cities and that identifies direction and distance to important destinations and routes makes bicycling easier. Advanced wayfinding techniques that incorporate more than signs should also be considered. Maps that provide value to cyclists should be developed. Because of the distance cyclists cover, this may mean providing others with accurate information about the Kirkland system in order to have a regional map that covers Kirkland effectively. Bicycle wayfinding should be coordinated with pedestrian wayfinding and mapping efforts.

Action T-2.5.1: Work with surrounding jurisdictions to establish a set of destinations and routes for wayfinding. These may include techniques that allow information to be obtained across a wide range of platforms.

Action T-2.5.2: Site and install signs and/or other systems.

Action T-2.5.3: Develop mapping as appropriate

Project: Plan and signs.

*Policy T-2.6 Make the Cross Kirkland Corridor an integral part of the bicycle network and connect it to the region.*

The cross Kirkland corridor is uniquely situated to serve as a part of many bicycle trips in Kirkland. The CKC Master plan describes how the corridor itself should be developed to suit this purpose. Links to the CKC have to be constructed and well signed to make the corridor fully connected and integrated to the bicycle network.

Action T-2.6.1: Develop an implementation plan to construct the CKC with the Master Plan vision

Action T-2.6.2: Develop bicycle connections to the CKC

## 6. PUBLIC TRANSPORTATION

***Goal T-3 Support and promote a transit system that is recognized as a high value option for many trips.***

### A. Background

Historically, transit in Kirkland focused on connections oriented to Seattle in the morning and from Seattle in the afternoon. Bus frequencies were sometimes 1 hour especially in off-peak periods. Today, Kirkland is served by a number of routes connecting to a variety of Eastside destinations as well as Seattle. Frequency on some routes is 15 minutes, with most service at 30 minute intervals over most of the system.

Transit with the right characteristics can make an important contribution to Kirkland's transportation system. At its best, transit is

Fast – making long trips competitive and cost effective with driving

Frequent – frequencies of 15 minutes or less with service hours extending from early morning to late night

Reliable – trip times are consistent from day-to-day and riders trust they'll arrive on time

Accessible – facilities and vehicles are designed for all users.

Comfortable – all elements of the system are sized to meet demand and offer amenities that make trips pleasant.

Complete – popular destinations are served and transfers between routes are easy and clear

Transit providers will continue to be faced with limited resources for maintaining existing service hours limiting their ability to add new service. This, combined with the characteristics above, suggest that Kirkland's transit needs will best be served by a focused network of higher frequency service near major concentrations of residential and commercial land uses.

This plan challenges the idea that because Kirkland does not provide Transit service, it has little effect on the quality of that service. Because transit more than any other mode is dependent on land use for success, Kirkland's land use choices will have an important influence on where transit service is deployed. Additionally, Kirkland can make improvements to waiting areas such as improved lighting, more shelters and clearer wayfinding. Parking policy –such as pay parking- that is favorable to transit and projects that increase transit speed and frequency are other ways that Kirkland can support good transit.

In the next 20 years, Sound Transit will have a greater service presence in Kirkland. This is likely to come in the form of bus rapid transit on I-405 and/or Link light rail, both of which will connect to the Totem Lake Urban Center. Additionally, Transit has been assumed as an element throughout the planning of the Cross Kirkland Corridor and Sound Transit holds a transit easement on the Corridor. Regardless of where Sound Transit provides service, walking, biking and local transit connections to the regional transit system are paramount.

The successful aspects of the development of the South Kirkland Park and Ride into a Transit Oriented Development should be explored at the Kingsgate and Houghton Park and Rides. The transit system should be operated so that excess parking is not an impact to neighborhoods.

Other modes of public transportation such as taxis and ridesharing can help fill gaps in transit service that are created when residents have mobility needs that traditional public transit cannot serve. Also, Kirkland

should consider other forms of service provision such as partnering with the private sector, human service agencies and aggressive adoption of new technology that make sharing rides easier.

## **B. Draft Policies**

### *Policy T-3.1 Plan and construct an environment for frequent and reliable service in Kirkland.*

A Kirkland Transit Plan that coordinates and describes in detail actions needed to meet the policies in this goal should be created and maintained.

Transit operates primarily on facilities owned and operated by the City of Kirkland. Kirkland should make improvements that increase the speed and reliability of transit in order to attract service that is more useful. These improvements could include Intelligent Transportation System elements like signal priority or more significant projects like separate lanes for transit. In return for these improvements, transit providers should agree to maintain high quality transit service.

Improvements should be prioritized by their ability to decrease rider hours spent delayed in traffic, and effects on other street traffic.

In areas that do not lend themselves to productive service by standard transit modes, innovative solutions should be examined with the intent of providing coverage at a reasonable costs. In general, Kirkland should look for opportunities to try innovative transit solutions.

Transit riders are likely to continue to drive as a part of their trips. This puts pressure on the parking supply whether at Park and Rides or at on-street locations. Transit riders should not be prohibited from using on-street parking, but there may be cases where impacts of excess parking need to be managed.

Action T-3.1.1: Create Kirkland Transit Plan that supports the policies of this goal.

### *Policy T-3.2 Support safe and comfortable passenger facilities.*

Passenger facilities must be clean, well lit and give a feeling of comfort. Bus arrival information and the ability to obtain fare payment cards are examples of features that should be available. Improvements should be prioritized first to higher ridership stops served by higher frequency, longer span service.

Action T-3.2.1: Develop standards for improvements at transit stops

Action T-3.2.2: Develop a prioritization system for improvements at transit stops

Action T-3.2.3: Working with transit providers, fund and construct improvements at transit stops

Action T-3.2.4: Manage effects of parking from transit users in an appropriate manner.

### *Policy T-3.3 Integrate transit facilities with pedestrian and bicycle networks.*

Ideally people can walk or bike to nearby transit facilities. Making this possible requires the construction of sidewalk and bicycle facilities so that they are close to transit.

Action T-3.3.1: See appropriate ped and bike policies that call for construction of pedestrian and bicycle facilities.

### *Policy T-3.4. Support ridesharing and transit for trips around and through Kirkland.*

*(Working on this section)*

Kirkland has XX employers that fall under the requirements of Washington's Commute Reduction (CTR) Law and has established goals for several measures such as vehicle miles of travel and drive alone trips for these employers. While realizing that the performance of a particular worksite is influenced primarily by the resources provided by the employer, Kirkland should encourage these employers to provide a complete range of services and monitor results. Given the relatively small numbers of vanpools serving Kirkland employers, an opportunity exists to increase their number.

The City Council has designated the Totem Lake Urban Center as a Growth, Technology and Efficiency Center (GTEC) as described in Washington State Law. The Totem Lake GTEC has additional goals for performance, namely a goal for residential travel and additional reduction of non-CTR affected sites.

Transportation Management Plan sites serve employers that are not CTR mandated, but have agreed to meet many of the same requirements as CTR sites. These sites also need monitoring and support if they are to meet performance goals for trip reduction.

<TABLE WITH GOALS>

There is room for innovation in order to significantly improve ridesharing, and innovations should be made; whether it be new ways of helping people find ridesharing partners, or allowing new kinds of taxi-like services.

Kirkland may be able to more easily meet its transit goals if its control over transit funding was broadened. This idea is explored further in Goal X Be an Active Partner. Because the cost of fuel and drivers make up a high fixed cost of the transit system, self driving vehicles and alternative fuels may be helpful in making transit service more affordable and therefore should be pursued.

Programs that support ridesharing should be results focused and cost effective. Grant funding should be pursued for the bulk of program costs and partnering with transit and other agencies should be promoted.

Action T-3.4.1: Monitor and encourage non-SOV travel rates through targeted programs.

Action T-3.4.2: Review codes and policies to ensure they support innovative ridesharing

*Policy T-3.5 Pursue transit on the Cross Kirkland Corridor*

The vision for the Cross Kirkland Corridor includes quiet, low or no emission transit. This could be regional level light rail or more local service that connects to regional service, for example to East link near Overlake Hospital. New types of transit should be considered where they offer advantages to more standard modes. Appropriate transit on the CKC may well be something for which the City must lead the way as opposed to waiting for traditional transit providers to act. Heavy rail is not a mode that meets Kirkland's interests for transit on the CKC.

Action T-3.5.1: Implement transit on the CKC in keeping with the CKC Master Plan.

*Policy T-3.6 Work with Sound Transit to incorporate investments in Kirkland. (see coordination policy T-7.1)*

*Policy T-3.7 Partner with transit providers to coordinate land use and transit service (see Partner policy T-7.2)*

## 7. MOTOR VEHICLES

***Goal T-4 Efficiently and safely provide for vehicular circulation recognizing congestion is present during parts of most days.***

### A. Background

Many Kirkland residents travel by private automobile for a high proportion of their trips. In the peak period there is considerable congestion at many intersections. Both of these phenomena are expected to continue over the next 20 years. At the same time, trends such as decreased motor vehicle ownership, decreased vehicle miles of travel and the increased age at which young people obtain their driver's licenses mark fundamental change from the past 50 years.

Over 20 years ago Kirkland recognized that wide ranging automobile capacity improvements in an attempt to entirely eliminate congestion are neither in keeping with Kirkland's desired urban form nor are they financially sustainable. Because the sole measure of level of service was performance of motor vehicles at signalized intersections, fulfillment of the land use vision may have suffered in favor of providing capacity for motor vehicles.

This plan seeks to maximize the operational efficiency and safety of the existing road network rather than look primarily to expansion. **Intelligent Transportation Systems** (ITS) will play a role in this, but so will the aggressive promotion of technologies. Autonomous vehicles, or vehicles that can change speeds in relationship to the vehicles around them in order to maximize safety and flow are examples of this.

Businesses continue to rely on motor vehicles for deliveries and other needs critical to their operations and these needs must be served. (EXPANDED DISCUSSION OF FREIGHT TO COME)

Totem Lake was developed around the assumption that people are traveling mainly by automobile. The Land Use vision for future Totem Lake is completely different. In order to support this new vision and associated economic development, a finer grid of smaller scale streets and new connections will be needed.

Parking policy is an important factor in determining how vehicles will be used in Kirkland. Totem Lake and Downtown are areas where active refinement of parking policy will continue to be needed. More uniform implementation of a broad set of Transportation Demand Management strategies can be used to increase walking, transit and bicycling.

I-405 and SR 520 are important travel arteries for Kirkland which are under the jurisdiction of the Washington State Department of Transportation. New and revised interchanges will be needed to better fit Kirkland's Transportation and Land Use goals. Operating policies such as tolling and HOT lanes have promising benefits but also have potential downsides for Kirkland that require careful monitoring.

Motor vehicles can have negative impacts on neighborhood streets, where higher speeds and volumes need mitigation to improve livability.

### B. Draft Policies

*Policy T-4.1 Make limited, strategic investments in intersections and street capacity to support existing and proposed land use.*

The vision for the Comprehensive Plan supports walkable, livable communities and this transportation plan makes a change from previous plans by placing less emphasis on intersection performance for cars

as the main measure of the effectiveness of the transportation system. Therefore, there is less emphasis on widening intersections where such projects do not support the surrounding land use vision.

In Totem Lake for example, new streets can help with economic development and general circulation. They should be developed in keeping with neighborhood plans but coordinated with the interests of private development. Other areas, like NE 132<sup>nd</sup> Street for example, may have substantial reductions in congestion from modest intersection improvements that are in keeping with the surrounding land use.

Priorities for street improvements should include:

- Increasing safety
- Minimization of person delay and queuing for motor vehicles
- Linking to land use; focus improvements in Totem Lake Urban Center.
- Supporting economic development
- Improving bicycle and pedestrian connections
- Funding/Cost effectiveness
- Community support

Street design should be guided by modern, urban focused design guidelines such as the NACTO Urban Street Design Guidelines.

(see also Ped Policy 7)

Action T-4.1.1: Review standards and adopt guidelines that are in keeping with current design practices.

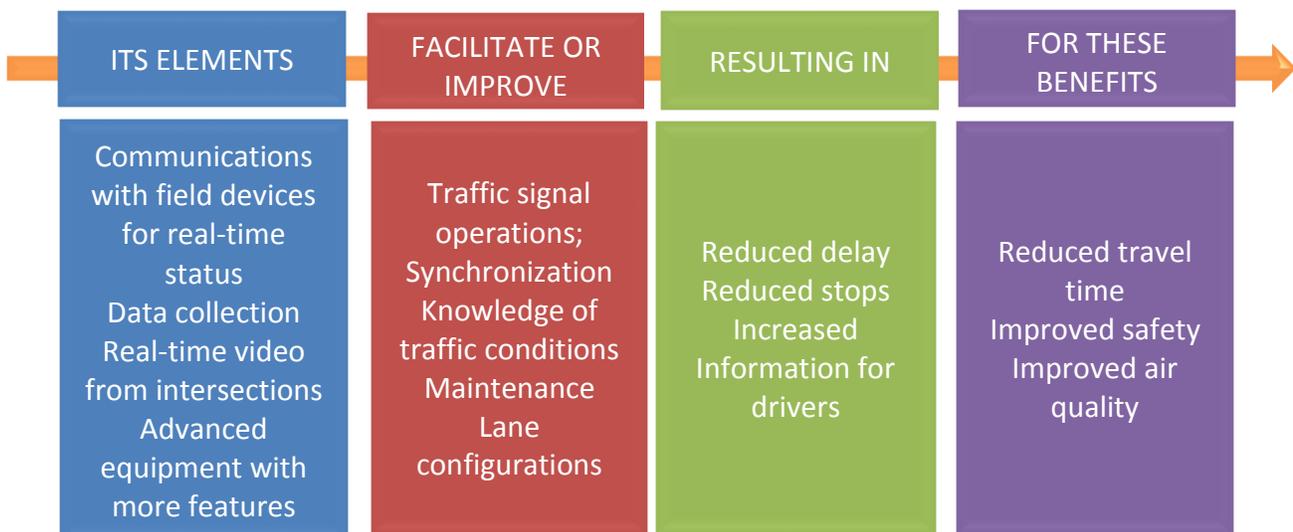
Action T-4.1.2: Prioritize and construct intersection and roadway projects.

Action T-4.1.3: Review and update as necessary, street network concepts for Totem Lake.

Projects:

*Policy T-4.2 Use Intelligent Transportation Systems (ITS) to support optimization of roadway network operations.*

Because there is less emphasis on capacity projects, there is more need for elements like ITS to get the most from existing capacity. ITS exists to make other tasks easier so that the benefits of those tasks can be realized. The City has made sizable investments in ITS, including installation of a Transportation



Management Center. These investments are still being brought on line and their potential has not been fully realized. Once the existing projects have been completed, the current ITS Plan should be revised and updated regularly, beginning with the base of finished projects and emphasizing steps needed to make the system more productive.

Parking management is another area in which ITS projects can be deployed. Connections to devices that take payments and to signs that show the number of available stalls are two examples of this.

ITS projects should be prioritized on their ability to provide the benefits in the chart above and

- Benefit to transit speed and reliability
- Parking management
- Funding opportunities/cost effectiveness.

Changes in technology will result in major changes to the types of ITS projects that are available and the way they are delivered over the next 20 years. Kirkland's ITS system will have to be continually improved to keep up with such changes.

Action T-4.2.1: Complete construction and make operational first ITS phases

Action T-4.2.2: Update ITS Plan

Action T-4.2.3: Prioritize and Construct ITS projects

*Policy T-4.3 Position Kirkland to respond to technological innovations, such as electric vehicles and driverless cars*

It is difficult to predict how changes over the next 20 years will affect the way we currently drive. Over the next few years vehicles with features that can communicate with other cars, the roadway, and avoid hazard are likely to become more common. Kirkland should stay aware of these trends and look for ways to be a leader in innovative transportation. This is likely to mean partnering with other groups to test and deploy pilot projects.

Action T-4.3.1: Work with regional groups such as PSRC to identify trends in vehicle innovation and seek opportunities to implement them in Kirkland. (See Partnership Policy T-7.4)

*Policy T-4.4 Take an active approach to managing on-street and off-street parking.*

Parking policy can have substantial effects on Urban Form. Ideally, parking occupancies are around 85%; at this level, parking spaces are available, but there is not a large vacancy indicating oversupply. Supply and pricing should be managed so that parking occupancies are around 85% most of the time.

Large amounts of new parking supply are often expensive and difficult to site. Therefore, efforts should focus on increasing supply strategically in smaller amounts. Where occupancies are high, pay parking has the potential to decrease demand for the best stalls and generate revenue for other improvements, but it is implementable only when supported by the community. Effective signing and information about available stalls are other ways to get the most from existing supply. How employee parking is provided also has implications that affect Kirkland's downtown parking supply.

Action T-4.4.1: Review and update parking codes to ensure they require appropriate amounts of supply.

Action T-4.4.2: Consider undertaking parking studies that focus on strategic parking issues and that regularly monitor occupancy and other factors.

Action T-4.4.3: Prioritize and construct/implement projects and policies that improve the parking experience in Kirkland.

*Policy T-4.5 Work with WSDOT to improve the way I-405 and SR 520 meet Kirkland's transportation interests. (see Partnership Policy T-7.3)*

*Policy T-4.6 Reduce crash rates for motor vehicles.*

Crash severity, rates and frequency are starting places for prioritizing safety projects. As described in other safety related policies, taking a comprehensive look that involves all aspects of the system is the best approach for reducing crashes.

Like other modes, a sizable fraction of auto crashes occur at signalized intersections and involve turning vehicles so these areas should be a focus of safety efforts.

Factors used to prioritize safety projects should include a given project's ability to:

- Reduce crash severity,
- Reduce the number and rate of crashes
- Address locations with highest risk.

Action T-4.6.1: As described in other policies, monitor and evaluate crash data in a comprehensive way. Use Washington's Target Zero Initiative as a template for revising and implementing Kirkland's auto safety program.

Action T-4.6.2: Prioritize and construct projects that improve safety.

*Policy T-4.7 Mitigate negative impacts of motor vehicles on neighborhood streets*

The livability of neighborhoods is improved when vehicle traffic does not dominate the streetscape.

While the volume on neighborhood streets is relatively low, neighborhood streets make up the vast majority of the City's street network so they require special attention. Excessive speed and volume are the most commonly cited negative effects of motor vehicles on neighborhood streets and should be the focus of the city's neighborhood traffic control program. Traditionally, these effects have been treated with speed humps and traffic circles on a neighborhood-wide basis as opposed to viewing individual streets in isolation. Although the tools may continue to evolve, the practice of looking at projects across neighborhoods should continue.

In 2012, Kirkland voters approved a dedicated source of funding for neighborhood safety projects and this source should be used as appropriate to help fund projects that increase safety.

Many concerns on neighborhood streets stem from issues related to parking, sight distance and other issues that do not require major projects in order to resolve them but the resolution of which contributes greatly to citizen's quality of life.

Action T-4.7.1: Maintain a program focused on helping citizens solve neighborhood traffic concerns.

## 8. Link to Land Use -

**Goal T-5** *Create a transportation system that is united with Kirkland's land use plan.*

### A. Background

The Land Use chapter of the Comprehensive Plan provides a blueprint to complement Kirkland's transportation network. "Transportation improvements" should truly be improvements to the community that help create place and reflect the character of Kirkland, not only improvements to mobility. Because the built environment influences travel behavior in so many ways, it's often said that the best transportation plan is a good land use plan. This is demonstrated by the land use transportation connections illustrated in the following smart growth "Ds:"

**Density:** Higher densities shorten trip lengths, allow for more walking and biking, and support quality transit.

**Diversity:** A diverse neighborhood allows for easier trip linking and shortens distances between trips. It also promotes higher levels of walking and biking and allows for shared parking because of varied demand times amongst the uses.

**Design:** Good design is that which improves connectivity, encourages walking and biking, and reduces travel distance.

**Destinations:** Destination accessibility links travel purposes, shortens trips, and offers transportation options.

**Distance to Transit:** Close proximity to transit encourages its use, along with trip-linking and walking, and often creates accessible walking environments.

**Development Scale:** Appropriate development scale provides critical mass, increases local opportunities, and supports transit investment.

The Land Use-Transportation Connection is not one way. For example increased density should be supported by an emphasis on transit, but at the same time, increased density should be planned in areas that are easy to serve by transit.

The Totem Lake Urban Center is transitioning from an auto oriented district to one that relies on a range of modes to support increased density. In particular, improved access to transit hubs by walking and bicycling access should be a focus.

In neighborhoods where larger areas of single family residences make it difficult to support high quality nearby transit, greenways, on-street bike lanes and sidewalks will offer options that help support a more livable community. Connections should focus on schools, parks and transit and commercial areas.

For employers in Kirkland to be competitive with those in other cities, their employees must be able to get to job sites quickly and easily.

### B. Draft Policies

*Policy T-5.1 Focus on transportation system developments that expand and improve walkable neighborhoods.*

The prioritization of transportation improvements should be weighted toward those projects that expand or enhance connections within 10 minute neighborhoods. These could include building missing sidewalks within such neighborhoods or creating new trails that expand high quality walkable neighborhoods.

These areas should serve as focal points for local and regional transit service and should include high quality passenger environments. (See Policy T-1.4)

Similarly, bicycling should be easy and comfortable for a wide range of users in and between 10 minute neighborhoods. (See Policy T-2.2, T-2.3)

Auto congestion often occurs in areas where a variety of popular land uses are located within close proximity of each other. Based on the vision for the Comprehensive Plan, street improvements to add vehicle capacity within these areas should be designed to facilitate walking, biking and transit as well.

Action T-5.1.1: As described in connection with Goals T-1 through T-4, ensure that walkable neighborhoods are considered in the planning of transportation projects and programs.

*Policy T-5.2 Create a transportation network that supports economic development goals.*

All transportation improvements should be evaluated in terms of their ability to support economic development. Examples of projects that support economic development include bicycle parking improvements that bring bicycle customers to local businesses, transportation demand programs that make it easier for employees to get to work through, creation of loading zones that speed delivery of goods, or major street projects that improve access to business districts. (See Economic Development Chapter of the Comprehensive Plan)

Action T-5.2.1: As described in connection with Goals T-1 through T-4, ensure that economic development goals are considered in the planning of transportation projects and programs.

*Policy T-5.3 Develop transportation improvements tailored to commercial land use districts such as Totem Lake, Downtown and neighborhood business areas.*

Fostering growth in Kirkland will require careful consideration of transportation facilities. This is particularly important in areas where traffic congestion occurs regularly and where increases in growth are planned.

The land use vision must not be lost in a quest to remove traffic congestion. For example, it should not be expected that street or intersection widening will be a primary tool in developing walkable, bikeable, livable neighborhood business areas, because this strategy would contradict the very land use vision it is intended to support. Instead, transportation facilities that allow safe and convenient travel by other modes should be promoted. This is not to suggest that cars will be abandoned, but rather to recognize that over the next 20 years this plan is pursuing a transportation approach consistent with its vision; a path that is different than previous plans.

Totem Lake and Downtown Kirkland should have primary connections to regional transit. Because of the size of the Totem Lake Urban Center it is important to make sure that regional transit effectively serves the entire center. (See Policy T-7.1)

New and reconfigured interchanges with I-405 will improve transportation for all modes and should be pursued. (See Policy T-7.3) As discussed in the sections on walking and biking, the existing freeway interchanges are barriers to walking and biking and, in the case of NE 124<sup>th</sup> Street, severely constrain the ability to move from one side of the Totem Lake Urban Center to the other. The space dedicated to the interchange is substantial and if the interchange were designed more efficiently, valuable space could be freed up for more productive purposes. While reconstructing interchanges has large benefits, it also has high costs and long time frames.

*Policy T-5.4 Adopt requirements and practices for all future development that support planned transportation infrastructure.*

A sizable number of public improvements are built by the private sector as part of new development projects. Therefore, it is critical that policies, guidelines and practices used to plan, design and construct private improvements are consistent with this Plan.

Making sure that bicycle facilities are included, adding trail connections between cul-de-sacs and providing safe and practical access to the street system are areas that require particular emphasis.

Codifying transportation requirements would be helpful in order to make development review easier for the development community, staff and the public.

Kirkland maintains a transportation demand planning model (the BKR model) in cooperation with the Cities of Redmond and Bellevue. This should continue and the model should be improved to recognize advances in regional modeling

Action T-5.4.1: Review, streamline and codify as reasonable, transportation related development review components.

Action T-5.4.2: Develop a plan for connections between street ends.

Action T-5.4.3: Participate in the maintenance and improvements of the BKR model.

## 9. Be Sustainable

***Goal T-6 As the transportation system is planned, designed, built, maintained and operated, provide mobility for all using reasonably assured revenue sources while minimizing environmental impacts.***

### A. Background

Kirkland faces challenges related to both fiscal and environmental sustainability that affect the transportation system.

Fundamental to economic sustainability is the need to keep costs for transportation in line with expected revenue. Some transportation projects will remain as unfunded to allow flexibility for new revenue sources and set the direction for future spending. Transportation Impact fees are a source of revenue that can be used for a variety of transportation projects, including the Cross Kirkland Corridor, that meet certain criteria.

Maintaining existing infrastructure in good condition is a critical requirement of sustainability. Kirkland's residents have continued to show support for maintenance efforts by passing a Street Levy in 2012. The bulk of the funding from the levy goes toward pavement maintenance. There are a number of other systems – sidewalks, traffic signals, lighting systems, that do not currently have robust maintenance programs and this plan proposes remedying that shortcoming.

Because roughly half of greenhouse gas emissions are transportation related, it is virtually impossible to meet adopted climate change goals without changing the way we travel. Electric vehicles may be one way that technology can help meet this challenge. Auto based transportation is also a primary

contributor to water and air pollution. It is increasingly being recognized that active transportation like walking and bicycling can play important roles in promoting public health in a community.

Natural disasters have the potential to severely damage or destroy key links and systems in the transportation network. Sustaining the transportation system requires planning for the prevention of and recovery from such events.

Sustainability also encompasses accessibility of transportation. The transportation system should be accessible and provide benefit to all users throughout Kirkland regardless of mobility, vision, hearing and cognitive capabilities.

In accordance with Federal and State law, care is needed to ensure that low-income, special needs and minority populations are not unduly subject to negative impacts from transportation improvements and that they are fully included in decision making processes.

## **B. Draft Policies**

*Policy T-6.1 Balance overall public capital expenditures and revenues for transportation.*

This plan is developed so that the cost of proposed projects is consistent with revenue forecasts for transportation revenue.

Because certain projects are good candidates for specific types of funding and for other reasons, there is a need to maintain a list of "unfunded" projects, but the cost of all unfunded projects should be a small percentage of the expected revenue over the 20 year plan.

Impact Fees are a means for new development to pay for a fair share of system improvements (projects that benefit the entire transportation system, not just a particular development). Impact fees are not used to pay for existing deficiencies in the transportation system and therefore the implementation of impact fees needs to be closely coordinated with levels of service for various modes. In Kirkland, Transportation Impact fees represent about 15% of the expected revenue over the next 20 years.

<Paragraph here that describes why transportation impact fees can be charged for CKC.>

Action T-6.1.1: Revise the Impact Fee implementation schedule

*Policy T-6.2 Place highest priority for funding on maintenance and operation of existing infrastructure rather construction of new facilities. Identify and perform maintenance to maximize the useful lifetime of the transportation network at optimum lifecycle cost.*

Maintaining what we have before constructing new facilities is a foundation of sustainability. Therefore, when funding decisions are being made, an amount adequate to fund maintenance and operation should be identified before allocating funding to other needs.

In some areas of the transportation system, true maintenance costs and optimum investment levels need to be identified so that accurate information is available.

Action T-6.2.1: Identify and sustain reasonable maintenance funding levels for a complete set of transportation assets.

Action T-6.2.2: Develop and maintain inventories of assets that require maintenance such as pavement markings, traffic signals, sidewalks, etc.

Action T-6.2.3: Develop lifecycle costs for capital and maintenance projects.

*Policy T-6.3 Support modes that are energy efficient and that improve system performance*

Bicycling and walking may be the most efficient transportation modes available and consistent with other policies in this plan, those modes should be supported. Over the next 20 years, energy efficiency of other modes and transportation related elements will be improved, this may include improvements to auto and truck technology, transit alternatives or more energy efficient street lighting systems. Kirkland's Transportation network should support these innovations. Intelligent Transportation Systems can help reduce auto delay and stops thereby reducing energy use and improving system performance.

Action T-6.3.1: <NEED ACTION HERE>

*Policy T-6.4 Minimize the contribution of transportation to air and water pollution; meet or exceed Federal and State air and water quality standards.*

Motorized transportation is the chief contributor to air and water pollution. This comes in many forms from tailpipe emissions to the production of petroleum products used for paving to substances dripping from cars, trucks and buses and eventually finding their way to water sources.

Kirkland has adopted goals for reduced greenhouse gasses (see Environment Chapter of Comprehensive Plan). Because of the role that vehicle emissions play in greenhouse gas production, reducing those emissions will be a requirement if the goal is to be met. Many actions that will reduce greenhouse gases are included in Actions under other goals.

Action T-6.4.1: Coordinate transportation improvements and programs with goals from the Environment Chapter of the Comprehensive Plan to meet the City's greenhouse gas targets.

*Policy T-6.5 Safeguard the Transportation System against disaster*

Because of the risk that natural and other disasters can pose to the transportation system, prevention and recovery should be actively planned for. This should be done in coordination with goals and policies in the Comprehensive Emergency Management Plan.

Action T-6.5.1: Develop and keep current strategies for preventing and recovering from disasters that impact the Transportation System.

*Policy T-6.6 Create an equitable system that provides mobility for all users.*

Our transportation system has many potential barriers. A sustainable transportation system is open to users of all abilities. There may be cost barriers such as tolls or transit fares that prevent some citizens from using public transportation facilities. Language may be a barrier to some users and this should be considered in the design of written materials. Kirkland should be sensitive to the potential barriers and treat them as required by law or by the need to make the transportation system as open as possible to all users. (See Policy T-1.1)

Action T-6.6.1: Periodically review existing procedures and if needed, adopt new procedures to ensure accessibility to the transportation system.

*Policy T-6.7 Implement transportation programs and projects in ways that prevent or minimize impacts to low-income, minority and special needs populations.*

As required by applicable state and federal regulations, Kirkland should continue to make sure that all citizens are involved in decision making about transportation projects and that impacts (such as health, environmental, social and economic effects) do not fall disproportionately on vulnerable populations.

Action T-6.7.1: Periodically review existing procedures and if needed, adopt new procedures to ensure inclusion of vulnerable populations and to ensure that impacts to these populations are not disproportionate.

*Policy T-6.8 Actively pursue grant funding and innovative funding sources*

Kirkland has a history of successfully pursuing a wide range of grant funding opportunities for transportation projects and this should continue. Grant funding is expected to make up more than a quarter of transportation funding over the next 20 years. Projects that are a good candidates for particular grant funding sources should be have a prominent place in the lists of potential projects. Sidewalk projects on School Walk Routes and Safe Routes to School grants are an example of this type of pairing.

Action T-6.8.1: Periodically review procedures to ensure that all applicable grant opportunities are reviewed and competitive grant applications are submitted.

## 10. Be an active Partner

***Goal T-7 Coordinate with a broad range of groups; public and private, to help meet Kirkland's transportation Goals.***

### A. Background

Traffic doesn't stop at city borders. Cars, buses, bicycles and pedestrians all travel between cities. Kirkland is bisected by I-405, a facility which is the responsibility of the **Washington State Department of Transportation** (WSDOT). In many cases, WSDOT is the representative of the Federal Highway Administration. Transit service is provided by King County Metro and Sound Transit both of which are governed by separate boards of elected officials. Regional policy determines, to a large extent, the minimum number of person trips that Kirkland must plan for. For all these reasons, working with other agencies is a requirement for achieving Kirkland's transportation goals.

Kirkland must be proactive in its work with regional partners. Kirkland should come to other partners with a strong sense of our needs rather than reacting to what is offered by others. An example of this can be seen in the work of our City Council and State Legislature, where recent sessions of the have resulted in securing important funding for the Cross Kirkland Corridor.

At the county-wide and regional levels, there are a number of groups that influence funding decisions and transportation policy. These are often structured with staff groups making recommendation to boards of elected officials. Kirkland should have an active role in these groups.

Partnerships should not end with the transportation agencies such as the Washington State Department of Transportation or King County Metro. Partnering with the private sector, schools, advocacy groups and neighboring cities and sub-regional coalitions will inform and build support to achieve Kirkland's transportation goals.

### B. Draft Policies

*Policy T-7.1 Play a major role in development of Sound Transit facilities in Kirkland*

Sound Transit will likely be implementing one or more new phases of transit over the life of this plan. These updates typically require an update to Sound Transit's Long Range Plan, followed by a System Plan revision that describes projects that are on a ballot. A connection between the Totem Lake Urban Center and the regional transit system is Kirkland's primary interest for regional transit. The preferred mode is light rail.

Bus Rapid Transit operating in Express Toll Lanes on I-405 may be the first Regional High Capacity Transit link serving Totem Lake. It is important that such a system also connect to Downtown and consider the Houghton Park and Ride as components. Rebuilding freeway interchanges are ways to accomplish this.

Kirkland can best affect these plans by cultivating productive and ongoing working relationships with Sound Transit and by being active and persistent advocates for our interests, as directed by the City Council, at both the staff and Sound Transit Board level.

Opportunities to increase Sound Transit's Regional Express Bus Service presence in Kirkland should be pursued.

Action T-7.1.1: Advocate for increases in meaningful Sound Transit services in Kirkland.

*Policy T-7.2 Establish commitments from transit providers to provide high quality transit service in exchange for land use and transportation commitments that support transit.*

Final decisions about King County Metro transit service rest with the King County Council and therefore change can happen without the approval of the City of Kirkland. This lack of certainty weakens the foundations of both the land use and transportation plans, both of which rely heavily on high quality transit service.

In order to thrive, transit service needs certain land use and transportation elements and those elements are largely within the control of cities. Therefore, Kirkland should pursue, ideally in cooperation with other jurisdictions, an agreement by which risk for both transit agencies and cities is reduced by agreeing to transit service levels in exchange for items cities can provide.

Action T-7.2.1: Actively pursue agreements with Transit providers that help support Kirkland's land use and transportation plans.

*Policy T-7.3 Work with Washington State Department of Transportation to achieve mutually beneficial decisions on freeway interchanges and other facilities.*

As described elsewhere, decisions made by WSDOT on how facilities are designed and operated have significant bearing on Kirkland's transportation system. Because WSDOT traditionally has viewed the Land Use-Transportation Connection from an auto oriented viewpoint, previous decisions have resulted in facilities that are less than optimal for meeting Kirkland's goals in a modern urban setting. Age of facilities and prioritization of Kirkland's projects in a statewide context are also complicating factors. These issues could potentially be mitigated by working more closely and regularly with WSDOT leadership, inclusion of transportation and land use items on Kirkland's legislative agenda, and advancing Kirkland's interests by funding initial design work for projects like interchange designs.

WSDOT must approve any changes to functional classifications (principal arterials, minor arterials, collector streets, and local streets) on Kirkland's streets to ensure that they meet federal guidelines and are coordinated with neighboring jurisdictions. Functional classifications are a useful surrogate for volume and number of lanes and are used, as described in other policy discussions, as one measure for prioritizing projects.

Action T-7.3.1: Foster a strong working relationship with WSDOT leadership

Action T-7.3.2: Consider actions on legislative agendas that will help advance Kirkland's transportation interests

Action T-7.3.3: Consider funding initial studies that will make it easier to secure funding for construction projects.

Action T-7.3.4: Periodically review and update, when needed, functional classifications.

*Policy T-7.4 Participate in and provide leadership for regional transportation decision making.*

Multiple regional groups impact funding and policy decisions that affect transportation in Kirkland. As an example, Puget Sound Regional Council has a host of boards and groups. Some of these groups are made up of staff members, others are exclusively for elected officials. Kirkland is a member of the King County-Cities Climate Collaboration, a partnership between the County and these cities to coordinate and enhance the effectiveness of local government climate and sustainability efforts.

Action T-7.4.1: Develop a clear plan for being a part of groups to allow for the efficient representation and support of Kirkland's transportation interests.

*Policy T-7.5 Work closely with the Lake Washington School District to encourage more children to use active transportation to travel to school.*

Reducing the number of students who are driven or who drive to school is a multifaceted task. **The Lake Washington School District** (LWSD) is a necessary partner in this effort. Close communications between LWSD and Kirkland staff should be pursued. Contacts at individual schools are usually highly effective and should also be pursued.

Action T-7.5.1: Schedule regular reviews of school walk routes with School District personnel.

Action T-7.5.2: Maintain relationships with schools and the school district in order to advance transportation goals.

*Policy T-7.6 Coordinate multi-modal transportation systems with neighboring jurisdictions.*

Kirkland has strong ties with neighboring jurisdictions. These ties should be reinforced and used to make sure that projects like bike share, wayfinding, traffic signal operation, pavement marking, traffic impacts of new developments and other transportation projects are carefully coordinated so that transportation users can move seamless across jurisdiction borders.

*Policy T-7.7 Partner with the private sector and other "new" partners.*

Kirkland should look for partners outside governmental agencies. Identifying and connecting with other partners could help fund or deliver a range of projects and services including bike share, transit alternatives, traffic data, parking solutions, and a range of improvements on the Cross Kirkland Corridor.

*Policy T-7.8 Engage in a multi-agency, multi-disciplinary Safety program.*

As mentioned elsewhere in this Plan, the most effective approach to safety is a multi-agency, multi-disciplinary approach like the State of Washington's Target Zero program. Implementing this approach requires partnering both within the City and with outside agencies.

Action T-7.8.1: Develop contacts with the State of Washington Target Zero program at the state and county level. Partner with other appropriate agencies to support a safety program.

## 11. Transportation Measurement

### *Goal T-8 Measure and report on progress toward achieving goals and actions.*

#### A. Background

For several years the transportation Commission and City Council have contemplated a revised concurrency system that relieves some of the deficiencies of the existing system. The new system is multi-modal and meets the interest of many stakeholders to be easier to understand.

“Level of service” is a term for the performance of the transportation system. One of the required parts of the Transportation Element of the Comprehensive Plan is a level of service for each mode. The underlying philosophy for Kirkland’s level of service is that an acceptable level of service is, by definition, the level of service resulting from the completed 20 year transportation network and the fulfillment of the Land Use Plan. The reason for this is that the projects selected for the transportation network derive from the goals and policies of the plan –including financial constraints, and were chosen because of the performance they provide as a group given the number of trips forecast for the future.

Mode split is another required element of the Transportation Element of the Comprehensive Plan. Mode split refers to the fraction of trips using various modes; auto, bike, walking transit. In the Totem Lake, the adopted mode split percentages from the Growth and Transportation Efficiency Center should be used.

Successful implementation of the goals and policies in the transportation element is aided by a clear plan of action. This should take the form of a distillation of the actions of this plan over the short term presented in a form that is easy to understand and accessible for a range of stakeholders.

Information about the transportation system should also be summarized in a way that is easy for people to understand and that has clear and regular reporting methods so that progress toward a handful of measures is simple to track over time. Progress toward the goals of this plan should be reported annually.

#### B. Draft Policies

*Policy T-8.1 Use a multi-modal plan based concurrency method to monitor the rate at which land use development and the transportation system are constructed.*

The main function of concurrency is to make sure that the impacts of land use growth are balanced with transportation projects and programs. If growth is far out pacing the rate at which transportation improvements are constructed, then permits for new developments can be halted. Such a halting represents a failure of the system. Ideally concurrency is managed so that development continues.

Concurrency should be no more complicated than is necessary and should consider transit, bicycling and walking along with auto travel. Concurrency should principally monitor the approved land use and transportation plans and insure that they are being completed in relative balance it should help achieve land use and transportation goals, not be an impediment to achieving those goals.

Action T-8.1.1 Develop and implement a multi-modal Concurrency system.

*Policy T-8.2 Establish acceptable level of service for all modes*

The way in which level of service is measured is different for different modes. For example, level of service for walking and bicycling is generally concerned with network coverage while auto level of service is measured more by available capacity.

Action T-8.2.1: Develop level of service standards for each mode.

*Policy T-8.3 Mode split*

Working on this section

*Policy T-8.4 Ensure implementation of the Goals and Policies in the Transportation Element and monitor progress toward those goals..*

(See Implementation section of Comprehensive Plan) An Implementation Plan should include enough information so that people who are not familiar with the Transportation Master Plan can readily understand the key points of the Plan and the actions necessary to accomplish its goals.

A selected few measures that address the key elements of the Plan, presented in a manner that is easily understood by the Public, should be developed. These measures should be coordinated with the Action Plan and tracked by Council and be widely distributed.

Action T-8.4.1: Prepare and maintain a succinct short term Action Plan describing actions necessary to fulfill the goals and policies of this element, including a time line

Action T-8.4.2: Deliver annual transportation report cards