Washington State
Transportation Commission

PRELIMINARY ANALYSIS
SR 527 Route Jurisdiction Transfer Request
City of Bothell

February 2010

PURPOSE

To determine if the designation of State Route (SR) 527 from SR 522 (MP 0.00) to I-405 (MP 2.51) is appropriate as a state route in accordance with the state highway designation criteria in RCW 47.17.001.

BACKGROUND

In 2009, the Legislature designated the Washington State Transportation Commission (Commission) to review requests for route jurisdiction transfers from cities, counties or the state and to provide a recommendation to the House and Senate Transportation Committees by November 15 of each year for any recommended transfers.

The Commission adopted WAC 468-710 for the administration of the Route Jurisdiction Transfer (RJT) process. RCW 47.17.001 describes minimum criteria that must be met to be eligible for state route designation.

On November 19, 2009, the city of Bothell submitted an official request to the Commission to transfer 2.51 miles of SR 527, between SR 522 and I-405, to the city. These limits lie entirely within the city of Bothell and, if granted, would result in Bothell acquiring approximately 2.51 miles of SR 527. They also submitted an agency evaluation of whether the route met the transfer criteria as detailed in RCW 47.17.001.

This analysis assists the Commission in establishing a preliminary finding.

CRITERIA SET OUT IN WAC

WAC 468-710-020

Urban highway route - An urban highway route is the portion of a route that is within a federal urban area boundary:

> ANALYSIS: SR 527 within the limits of the requested transfer lies within a federal urban area. **The route meets the requirement of this section of the WAC and is therefore defined as an Urban Highway Route.**

WAC 468-710-030

In considering whether to make additions, deletions, or other changes to the state highway system, the legislature is guided by criteria in RCW 47.17.001. Counties, cities, the department of transportation and the commission will use these same criteria to assess the merits of any proposed changes to the state highway system.

CRITERIA SET OUT IN RCW

RCW 47.17.001

In considering whether to make additions, deletions, or other changes to the state highway system, the Legislature is guided by the following criteria as contained in the Road Jurisdiction Committee Phase 1 report to the legislature dated January 1987:

RCW 47.17.001(1)

A rural highway route should be designated as a state highway if it meets any of the following criteria:

ANALYSIS: SR 527 is not a rural highway. **RCW 47.17.001(1) does not apply.**

RCW 47.17.001(2)

A rural highway route may be designated as a state highway if it is part of an integrated system of roads and:

ANALYSIS: SR 527 is not a rural highway. **RCW 47.17.001(2) does not apply.**

RCW 47.17.001(3)

An urban highway route that meets any of the following criteria should be designated as part of the state highway system:

RCW 47.17.001(3)(a)

Is designated as part of the interstate system;

ANALYSIS: SR 527 is not part of the interstate system. **This supports transfer to the City of Bothell.**

RCW 47.17.001(3)(b)

Is designated as part of the system of numbered United States routes;

ANALYSIS: SR 527 is not part of the numbered United States routes. **This supports transfer to the City of Bothell.**

RCW 47.17.001(3)(c)

Is an urban extension of a rural state highway into or through an urban area and is necessary to form an integrated system of state highways;

ANALYSIS: Neither SR 522 nor I-405 are rural state highways. Therefore SR 527 is not an urban extension of one. **This supports transfer to the City of Bothell.**

RCW 47.17.001(3)(d)

Is a principal arterial that is a connecting link between two state highways and serves regionally oriented through traffic in urbanized areas with a population of fifty thousand or greater, or is a spur that serves regionally oriented traffic in urbanized areas.

ANALYSIS: SR 527 is an urban principal arterial that runs between SR 522 and I-405. A connecting link by WAC 468-710-020 definition generally bypasses the central business district (CBD) and/or the central city to form loops and beltways. SR 527 begins in the heart of downtown Bothell at SR 522 and continues to the north through the CBD. Therefore it should not be classified as a connecting link. SR 522 connects directly to I-405 approximately 3 miles south of the SR 527 interchange. Any regional traffic clearly will take I-405 or SR 522. The population of Bothell is only 33,240 which is significantly

less than the 50,000 mentioned in this WAC. SR 527 begins in a very urbanized area with many businesses and then travels through a less developed section before it intersects with I-405 in a very urban environment once again. The route carries mainly local traffic as opposed to regional traffic. **This supports transfer to the City of Bothell.**

RCW 47.17.001(4)
The following guidelines are intended to be used as a basis for interpreting and applying the criteria to specific routes:

RCW 47.17.001(4)(a)
For any route wholly within one or more contiguous jurisdictions which would be proposed for transfer to the state highway system under these criteria, if local officials prefer, responsibility will remain at the local level.

ANALYSIS: This applies to local roads requesting to transfer to the state highway system which is not the case. **RCW 47.17.001(4)(a) does not apply.**

RCW 47.17.001(4)(b)
State highway routes maintain continuity by being composed of routes that join other state routes at both ends or to arterial routes in the states of Oregon and Idaho and the province of British Columbia.

ANALYSIS: SR 527 connects SR 522 to I-405 and then eventually to I-5 providing continuity in the region. The original intent of SR 527 was to provide a primary north/south connection of the greater Bothell area to SR 99. This primary function has now been replaced by I-405 and I-5. Continuity will be maintained by the direct connection of SR 522 with I-405. Transferring SR 527 to Bothell would introduce discontinuity in the state highway system within the limits of the transfer. However due to the very urbanized environment and a dense system of roads, continuity would be maintained by SR 522, I-405, I-5 and other arterials in the vicinity. **Based on the criteria, it is inconclusive whether SR 527 meets the requirement of a state highway.**

RCW 47.17.001(4)(c)
Public facilities may be considered to be served if they are within approximately two miles of a state highway.

ANALYSIS: There are several public facilities that are indirectly served by SR 527. These include Mary Murphy Park, William Penn Park, Bothell Landing Park, Bothell High School, Shelton View Elementary School, Canyon Park Jr. High School and numerous city facilities. These facilities are better served by other arterial routes in the area. SR 527 would continue to indirectly serve all these facilities as a principal arterial street instead of a state highway if this request is granted. Cascadia Community College and the University of Washington – Bothell are served only by SR 522 and I-405. **This supports transfer to the City of Bothell.**

RCW 47.17.001(4)(d)
Exceptions may be made to include:

RCW 47.17.001(4)(d)(i)
Rural spurs as state highways if they meet the criteria relative to serving population centers of one thousand or greater population or activity centers with

population equivalencies or an aggregated population of one thousand or greater;

ANALYSIS: The route is not classified as rural. **RCW 47.17.001(4)(d)(i) does not apply.**

RCW 47.17.001(4)(d)(ii)
Urban spurs as state highways that provide needed access to Washington state ferry terminals, state parks, major seaports, and trunk airports; and

ANALYSIS: SR 527 does not provide access to any ferry terminals, state parks, seaports or airports. **This supports transfer to the City of Bothell.**

RCW 47.17.001(4)(d)(iii)
Urban connecting links as state highways that function as needed bypass routing of regionally oriented through traffic and benefit truck routing, capacity alternative, business congestion, and geometric deficiencies.

ANALYSIS: SR 527 does provide an alternate route for travelers on I-405 looking to access SR 522 or avoid possible backups on I-405 from the SR 527 interchange to the SR 522 interchange. Most regional traffic uses I-405 as seen by the ADT and regional traffic plans. Regional truck traffic primarily uses I-405 due to the superior geometry and speed limit of the highway. Truck traffic on SR 527 primarily serves the local businesses along the route and would continue to do so if transferred. The criteria in this WAC could be interpreted to support either retention as a state highway or transfer to the City of Bothell. The three-lane geometric cross section of much of SR 527 supports transfer to Bothell. The capacity of this highway is nowhere near the capacity of I-405. However, the fact that SR 527 does provide a bypass route for traffic on I-405 lends support to it remaining a state highway. **Based on the criteria, it is inconclusive whether SR 527 meets the requirement of a state highway.**

RCW 47.17.001(4)(e)
In urban and urbanized area:

RCW 47.17.001(4)(e)(i)
Unless they are significant regional traffic generators, public facilities such as state hospitals, state correction centers, state universities, ferry terminals, and military bases do not constitute a criteria for establishment a state highway; and

ANALYSIS: SR 527 is not a regional traffic generator, nor does it serve major public facilities. The nearby Cascadia Community College and the University of Washington, Bothell are both served directly by SR 522 and I-405. The public facilities served by SR 527 such as Bothell City Hall are not significant regional traffic generators. **This supports transfer to the City of Bothell.**

RCW 47.17.001(4)(e)(ii)
There may be no more than one parallel non-access controlled facility in the same corridor as a freeway or limited access facility as designated by the metropolitan planning organization.

ANALYSIS: There are no other parallel non-access or limited access facilities within the same corridor. **This supports transfer to the City of Bothell.**

RCW 47.17.001(4)(f)
When there is a choice of two or more routes between population centers, the state route designation shall normally be based on the following considerations:

RCW 47.17.001(4)(f)(i)
The ability to handle higher traffic volumes;

ANALYSIS: SR 527 and I-405 are the two routes that access Bothell from the north. I-405 clearly has the ability to handle much higher traffic volumes. For the majority of the limits SR 527 is a two- or three-lane road with a two-way center left-turn lane. There are many driveways that directly access SR 527 as well as many signalized intersections. The highest traffic volume on this piece of roadway is 40,000 vehicles per day (VPD) between 228th Street and I-405. Traffic volumes on the remainder of the road range between 15,000 and 20,000 VPD. I-405 carries over 110,000 VPD in the vicinity of SR 522 and SR 527. I-405 is currently a four lane interstate with full access control and a posted speed of 60 MPH. I-405 clearly has the ability to handle higher traffic volumes. **This supports transfer to the City of Bothell.**

RCW 47.17.001(4)(f)(ii)
The higher ability to accommodate further development or expansion along the existing alignment;

ANALYSIS: SR 527 does not possess a higher ability for development than I-405. Throughout the downtown core of Bothell development exists up to the edge of the current roadway. Right-of-Way (ROW) along much of the route only extends to the edge of the sidewalk, making expansion very difficult. I-405 already consists of a much wider ROW, which would lend to a much easier expansion along the existing alignment. Much of this expansion is already programmed by the WSDOT I-405 Corridor Program. **This supports transfer to the City of Bothell.**

RCW 47.17.001(4)(f)(iii)
The most direct route and the lowest travel time;

ANALYSIS: For regionally oriented traffic I-405 provides a more direct route and a lower travel time than SR 527. I-405 has a posted speed of 60 MPH compared to SR 527 which has a posted speed limit that ranges from 30 - 45 MPH and is directly related to a lower travel time. SR 527 has numerous signalized intersections and multiple private driveways that access the highway which greatly reduces the average travel time. I-405 has no intersections or driveways that access the highway greatly

reducing the impacts on the traffic stream as seen on SR 527. **This supports transfer to the City of Bothell.**

RCW 47.17.001(4)(f)(iv)
The route that serves traffic with the most interstate, statewide, and interregional significance;

ANALYSIS: SR 527 is not designated as a National Highway System (NHS) route or a Highway of Statewide Significance (HSS). It is designated as a T-3 truck route carrying approximately 3 million tons per year. SR 527 is a highway of only interregional significance and primarily serves the businesses and citizens along its route and immediate surrounding areas. It primarily links the city of Bothell together and provides another access point to I-405. I-405, on the other hand, is designated as a NHS route and a T-1 truck route carrying approximately 18 million tons per year. I-405 is the main north-south corridor on the eastside of Lake Washington and is the critical link between the major metropolitan cities of Renton, Kirkland, Bellevue, and Bothell. WSDOT currently has seven funded projects in their I-405 Corridor Program which include a northbound auxiliary lane from NE 195th St to SR 527. I-405 definitely serves traffic with the most interstate, statewide and regional significance. **This supports transfer to the City of Bothell.**

RCW 47.17.001(4)(f)(v)
The route that provides the optimal spacing between other state routes;

ANALYSIS: SR 527 does not provide optimal spacing between other state routes. I-405 and SR 522 handle all regional traffic in the area. There is currently a lack of North-South corridors between I-5 and I-405. Spacing is not optimal and a North-South route somewhere near Kenmore would provide the optimal spacing of state highway routes. While optimal spacing is not currently present between I-5 and I-405, SR 527 does not provide that optimal spacing and therefore, this RCW does not support the current status of a state highway. **This supports transfer to the City of Bothell.**

RCW 47.17.001(4)(f)(vi)
The route that best serves the comprehensive plan for community development in those areas where such a plan has been developed and adopted;

ANALYSIS: The current designation of SR 527 is not consistent with the City of Bothell's Downtown Revitalization and Comprehensive Plans. Bothell intends to keep SR 527 classified as a principle arterial while transforming it into a corridor that supports non-motorized and transit use. Bothell currently has a funded project that will construct a multi-way boulevard on SR 527 in the downtown area that will include extensive promenade sidewalks, curbside parking, transit pullouts, tree-lined medians, and ground floor shop frontage. The City of Bothell's overall goal of promoting a walkable, business friendly arterial, conflict with WSDOT's primary goal of promoting movement of through traffic. Transferring the route would give Bothell more control in design and permitting of the current project and any future projects. Within the

limits of the proposed transfer WSDOT has no future plans for improvements other than an asphalt overlay project in 2010. **This supports transfer to the City of Bothell.**

RCW 47.17.001(g)

A route designated in chapter 47.39 RCW as a scenic and recreational highway may be designated as a state highway in addition to a parallel state highway route;

ANALYSIS: The route is not a scenic or recreational highway. **This supports transfer to the City of Bothell**

PRELIMINARY RECOMMENDATION

The overwhelming majority of the above mentioned RCWs support transfer of SR 527 to the City of Bothell. However RCW 47.17.001(4)(b) and RCW 47.17.001(4)(d)(iii) both lend support for SR 527 to remain a state highway. Using best engineering judgment practices based on a preliminary analysis of the criteria set forth in RCW 47.17.001 and WAC 468-710, suggests that the route does not meet the essential criteria to be designated a state route and should have jurisdiction transferred to the City of Bothell as described in the background section of this analysis.