Adopted: June 10, 2015
Effective: July 2, 2015

SNOHOMISH COUNTY COUNCIL
Snohomish County, Washington

AMENDED ORDINANCE NO. 14-137

AN ORDINANCE RELATING TO THE AMENDMENT OF THE TRANSPORTATION ELEMENT AS PART OF THE MANDATORY UPDATE OF THE SNOHOMISH COUNTY GROWTH MANAGEMENT ACT COMPREHENSIVE PLAN PURSUANT TO RCW 36.70A.070 and 36.70A.130; AMENDING THE STANDARDS FOR EVALUATING LEVEL OF SERVICE ON COUNTY ARTERIALS; AND PRESENTING A PLAN FOR TRANSPORTATION FACILITIES AND SERVICES THROUGH THE YEAR 2035

WHEREAS, this ordinance amends the Transportation Element (TE) of the Snohomish County Growth Management Act Comprehensive Plan (GMACP); and

WHEREAS, Snohomish County adopted the GMACP on June 28, 1995, through passage of Amended Ordinance No. 94-125; and

WHEREAS, Snohomish County has amended the TE several times since its adoption, most recently by Amended Ordinance No. 08-050 on June 3, 2008; and

WHEREAS, the county must conduct a periodic review of its GMACP pursuant to Revised Code of Washington (RCW) 36.70A.130(3), which directs counties planning under the Growth Management Act (GMA) to take legislative action to review and, if needed, revise their comprehensive plans and development regulations to ensure that population and employment growth for the succeeding 20-year period can be accommodated; and

WHEREAS, RCW 36.70A.070 directs the county to revise the TE to be consistent with the Land Use Element of the GMACP; and

WHEREAS, on October 8, 2013, the county conducted a State Environmental Policy Act (SEPA) scoping public meeting to kick off a review of its GMACP including the TE and to seek comments on a scope for an Environmental Impact Statement (EIS); and

WHEREAS, notice of the SEPA scoping public meeting was published in the Everett Herald; mailed to agencies and interested stakeholders as contained in the Planning and Development Services (PDS) SEPA Distribution List; and posted on the Snohomish County website; and

WHEREAS, notice of the SEPA scoping public meeting was also mailed to property owners where potential changes to the property's comprehensive plan designation was being proposed as part of the 2015 update of the GMACP; and

WHEREAS, in the fall of 2013 the county created a website to disseminate information related to the 2015 update of the GMACP and provide opportunities for public participation during the planning process; and

WHEREAS, the county website included information on proposed changes to the TE and a calendar of events identifying briefings and hearings conducted by the Snohomish County Planning Commission ("Planning Commission") and the Snohomish County Council ("County Council"); and

WHEAREAS, the county held meetings on the TE with Snohomish County cities and provided regular briefings on the 2015 update of the GMACP to the Snohomish County Tomorrow (SCT) Planning Advisory Committee, the SCT Steering Committee, the SCT Executive Committee, and the SCT Community Advisory Board, and

WHEREAS, county staff held a public workshop on September 9, 2014, to provide citizens with an opportunity to obtain information about the proposed amendments to the GMACP, including the TE; and

WHEREAS, the Planning Commission was provided information and briefed on the draft environmental impact statement (DEIS) prepared for the 2015 update of the GMACP on September 9, 2014; and

WHEREAS, the Planning Commission was provided information and a briefed on the proposed amendments to the TE on September 16, 2014; and

WHEREAS, the Planning Commission held a public hearing on October 7, 2014, to receive public testimony concerning the proposed amendments contained in this ordinance; and

WHEREAS, the notice of the public workshop and public hearing was mailed to over 30,000 individuals; published in the Everett Herald; and posted to the website developed for the 2015 update of the GMACP; and

WHEREAS, after the conclusion of its public hearing, the Planning Commission deliberated on October 14, October 15, and October 16, 2014, and was unable to reach a consensus and made no recommendation on the adoption of the amendments contained in this ordinance, as shown in its letter dated November 17, 2014; and

WHEREAS, the proposed amendments to the TE are consistent with the growth targets and Future Land Use Map (FLUM) adopted by the County Council as part of this 2015 GMACP update; and

WHEREAS, on May 13,2015 and continued to June 10, 2015, the County Council held a public hearing after proper notice, and considered public comment and the entire record related to the amendments contained in this ordinance; and

WHEREAS, following the public hearing, the County Council deliberated on the amendments contained in this ordinance;

NOW, THEREFORE, BE IT ORDAINED:

Section 1. The County Council makes the following findings:

A. The County Council adopts and incorporates the foregoing recitals as findings as if set forth in full herein.

B. This is a proposal to amend the TE, a component of the GMACP, as required under RCW 36.70A.070(6) and 36.70A.130(3).

C. The proposed amendments to the TE will better achieve, comply with, and implement the GMA.

1. These amendments were developed in consideration of the relevant GMA goals for the development of local comprehensive plans, as codified at RCW 36.70A.020, and reflect a careful balancing of these goals within the local conditions of Snohomish County.

    a. The TE, as proposed by this ordinance, addresses Goal 1 of the GMA (RCW 36.70A.020 (1) - "Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner"), through the identification of necessary future transportation improvement projects and nonmotorized facilities in the urban areas and by recognizing different level of service (LOS) standards for urban and rural areas.

    b. The TE, as proposed by this ordinance, addresses Goal 3 of the GMA (RCW 36.70A.020 (3) - "Encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans") through the identification of needed future transportation improvement projects and nonmotorized facilities as well as measures supportive of transit services in urban areas.

    c. The TE, as proposed by this ordinance, addresses Goal 12 of the GMA (RCW 36.70A.020 (12) – "Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service below locally established minimum standards") through the identification of needed future transportation improvement projects, the setting of appropriate transportation levels of service for both urban and rural roads, and provisions for implementation measures including concurrency management.

2. The proposed TE amendments were developed to implement and be consistent with the Land Use Element of the GMACP and include all of the sub elements required by RCW 36.70A.070(6) including, but not limited to:

    a. land use assumptions used in estimating travel demand;
    b. estimated traffic impacts to state owned transportation facilities;

c. an inventory of transportation facilities and services;
d. regionally coordinated level of service standards for all county arterials and transit routes;
e. level of service standards for state-owned highway facilities;
f. actions for bringing into compliance locally owned transportation facilities or services that are below the established level of service standard;
g. forecasts of traffic for at least ten years;
h. identification of state and local system needs to meet demand;
i. an analysis of funding capabilities to evaluate funding resources;
j. a multi-year financing plan;
k. a discussion of how additional funding will be raised if probable funding falls short of funding identified need;
l. strategies for intergovernmental coordination;
m. strategies for reducing travel demand; and
n. a pedestrian and bicycle component that encourages enhanced community access and promotes healthy lifestyles for the users of the transportation system.

D. The proposed TE amendments will better achieve, comply with, and implement the goals, and policies set forth in the Puget Sound Regional Council's (PSRC) Multicounty Planning Policies (MPP), a part of Vision 2040, adopted by the PSRC General Assembly April 24, 2008, and last amended May 28, 2009.

1. Consistent with MPP-En-3, MPP-En-17, MPP-En-18, MPP-En-19, MPP-En-21, MPP-En-23, MPP-T-5, MPP-T-6, MPP-T-7, MPP-T-14, MPP-T-15, MPP-T-16, MPP-T-23, and MPP-T-24, the proposed TE amendments address the reduction of negative transportation impacts on the environment, including air quality and climate change. The amendments promote non-motorized travel, transit ridership, higher vehicle occupancy, and other transportation demand management strategies.

2. Consistent with MPP-DP-27, MPP-DP-54, and MPP-DP-55, the proposed TE amendments include LOS standards and concurrency management systems that consider the movement of people and goods rather than just vehicles, address nonmotorized and other multimodal types of transportation both in assessment and mitigation, provide for different LOS standards for urban and rural areas to manage the rate of growth in rural areas and resource areas, and help to ensure that adequate public services will be available for new and existing development without decreasing current service below locally established minimum standards.

3. Consistent with MPP-DP-35, MPP-DP-43, and MPP-T-11, the proposed TE amendments support the development of high quality, compact urban communities by encouraging increased transit ridership, higher vehicle occupancy, walking, biking, and other transportation demand management strategies.

4. Consistent with MPP-Ec-4, MPP-Ec-6, MPP-T-13, MPP-T-17, MPP-T-18, MPP-T-19, MPP-T-6, MPP-T-7, MPP-T-26, MPP-T-27, and MPP-T-32, the proposed TE amendments support businesses and trade through infrastructure investments that provide connections for people and freight between local, national, and world markets vital to the regional economy.

5. Consistent with MPP-T-1, MPP-T-2, MPP-T-3, and MPP-T-4, the proposed TE amendments maintain an efficient and safe multimodal transportation system through the provision of roadways, non-motorized facilities, and support for transit at levels adequate to meet county standards.

E. The proposed TE will better achieve, comply with, and implement the transportation goals, objectives, and policies set forth in the Snohomish County Countywide Planning Policies (CPP) adopted by the County Council June 1, 2011, and last amended June 4, 2014, by Ordinance No. 14-031.

1. Consistent with CPP Policy TR-4, the proposed TE includes transportation facilities and services that support the Land Use Element of the GMACP including:

   a. facilities that promote safe and efficient use for all travel modes;
   b. criteria for designating multimodal arterials that will reduce vehicle miles traveled;
   c. the designation of transit emphasis corridors;
   d. the use of land use projections from the Land Use Element of the GMACP and Vision 2040; and
   e. planning future land use in designated transit emphasis corridors in consultation with transit agencies.

2. Consistent with CPP Policy TR-7, the proposed TE amendments include a transportation LOS which was developed using professionally accepted methodologies for determining transportation level of service that considers different development intensities, the availability and adequacy of transit service, and the availability and adequacy of non-motorized transportation facilities. Methodologies used to calculate and monitor LOS, described in the TE, employ consistent data collection and routine monitoring.

3. Consistent with CPP Policy TR-8, the proposed TE recommends concurrency requirements for land development by considering transportation levels of service and available financial resources to make needed transportation improvements including:

   a. requiring higher transportation levels of service in rural areas than in urban areas;
   b. consideration of the impacts of alternate modes of travel when determining the LOS for county arterials;
   c. recognition of transportation services and facilities that are at their ultimate capacity; and
   d. reconsideration of land use designations where transportation facilities and services cannot be financed or provided to maintain concurrency with land development.

4. Consistent with CPP Policy TR-9, the proposed TE establishes common technical procedures for transportation system management (TSM) and transportation demand management (TDM) programs that reduce trip making, vehicle miles traveled, greenhouse gas emissions, and air quality impacts associated with development and improve the efficiency of the transportation system.

5. Consistent with CPP Policy TR-12 and CPP Policy TR-13, the proposed TE maps the general location or possible locations of planned major transit facilities including the possible expansion of Sound Transit's light rail to the Everett Regional Growth Center, the current location and possible expansion of Community Transit's Swift bus rapid transit system, and the designation of transit emphasis corridors.
6. Consistent with CPP TR-15, the proposed TE will ensure that existing transportation systems are maintained, preserved, and operated in a safe and usable state.
7. Consistent with CPP Policy TR-16, the proposed TE integrates the concepts of sustainability and climate change in transportation planning by maximizing the efficiency of the transportation system, promoting less polluting transportation modes, and investing in nonmotorized transportation infrastructure.
8. Consistent with CPP Policy TR-17, the proposed TE designates transit emphasis corridors that allow effective and integrated planning for land use and transportation.
9. Consistent with CPP Policy TR-21, the proposed TE provides a coordinated plan for providing a safe and continuous nonmotorized transportation system.

F. The proposed TE is consistent with and will better achieve, comply with, and implement the transportation goals, objectives, and policies set forth in the Snohomish County General Policy Plan (GPP) last amended by Amended Ordinance No. 13-083, adopted on November 25, 2013.

1. The proposed TE maintains consistency with GPP Goal TR 1 and the associated objectives and policies by planning for transportation systems that serve and complement the land use element, the natural environment element, and economic development element of the GMACP including:
    a. an evaluation of future transportation needs using land use projections from future development intensity adopted in city, county, and transit provider long-range plans;
    b. identification of a countywide network of principal and minor arterials providing multimodal connectivity; and
    c. higher transportation levels of service in rural areas than in urban areas.
2. The proposed TE maintains consistency with GPP Goal TR 2 and the associated objectives and policies through support of the public transportation services that are necessary to implement the land use element, natural environment element, and the economic development element of the comprehensive plan including:
    a. making designated centers as a focus of residential and employment growth;
    b. identifying and designating transit emphasis corridors that are served, or are planned to be served, by public transportation to connect centers;
    c. planning for the possible expansion of Sound Transit's light rail to the Everett Regional Growth Center and Community Transit's bus rapid transit system;
    d. inventorying public transit, private intercity bus, passenger rail, freight rail, ferry facilities and services; and
    e. inventorying HOV lanes and park and ride facilities.

3. The proposed TE maintains consistency with GPP Goal TR 3 and the associated objectives and policies by planning for regionally coordinated nonmotorized transportation facilities and systems.

4. The proposed TE maintains consistency with GPP Goal TR 4 and the associated objectives and policies by planning for health, safety, and welfare of Snohomish County citizens by planning for paths and walkways to provide safe, efficient and attractive pedestrian connections that enhance the mobility of all users.

5. The proposed TE maintains consistency with GPP Goal TR 5 and the associated objectives and policies by planning for transportation facilities adequate to meet the adopted level of service standard including:

    a. the use of different LOS standards for rural and urban areas to encourage more intense development within existing urban areas;
    b. the consideration of the financial resources available to make needed transportation improvements in setting a LOS standard;
    c. the use of professionally accepted measures and methods in determining LOS;
    d. the consideration of multiple transportation modes in the LOS standard;
    e. the participation in statewide, regional, and local TDM programs to reduce peak period traffic congestion and single-occupancy vehicle trips and promote alternative modes of transportation; and
    f. planning for public transportation and high-capacity transit facilities.

6. The proposed TE maintains consistency with GPP Goal TR 6 and the associated objectives and policies by including measures that have a positive impact or minimize adverse impacts on the natural environment, air quality, water quality, climate change, and energy consumption. The proposed TE was developed in a way that:

    a. complies with the requirements of the federal Clean Air Act;
    b. complies with the requirements of the federal Clean Water Act; and
    c. promotes energy efficiency by supporting nonmotorized transportation, transit, and other low-impact alternatives to single-occupancy vehicles that reduce vehicle miles traveled.

7. The proposed TE maintains consistency with GPP Goal TR 7 and the associated objectives and policies by prioritizing and financing transportation improvements for the greatest public benefit including:

    a. giving primary consideration to improvements that enhance the safety and effectiveness of the existing system;
    b. coordinating travel forecasts with regional travel demand models and the Land Use Element of the GMACP;
    c. maintaining consistency with the Land Use Element GMACP;
    d. using cost estimating processes compatible with other transportation agencies; and
    e. establishing a process for reassessing the level of service standards and Land Use Element of the GMACP if transportation funding falls short of meeting the existing and projected need.

8. Consistent with GPP Goal TR 8 and the associated objectives and policies, the proposed TE was developed through coordination with state, regional, and local agencies including coordination meetings held with city, county, transit, regional and agency staff and the use of published plans including six-year transportation improvement plans; six-year transit development plans; city, county, transit, and agency long-range plans; the CPPs; Vision 2040, Transportation 2040, and the regional bicycle plan.

9. The proposed TE includes implementation measures for freight mobility consistent with GPP Goal TR 9 and the associated objectives and policies.

10. The proposed TE was developed in consideration of GPP Goal TR 10 by planning for infrastructure investments that provide connections for people and freight between local, national, and world markets vital to the regional economy.

G. The proposed transportation level of service standards (LOS) in the TE were developed consistent with the following:

1. The GMA (RCW 36.70A.070(6)(a)) requires LOS standards for all locally owned arterials and transit routes to serve as a gauge to judge performance of the system. These standards should be regionally coordinated.

2. The GMA (RCW 36.70A.070 (6)(b)) requires that the county prohibit development that causes the LOS to decline below the standards adopted in the TE unless sufficient transportation improvements are made concurrent with the development to remedy the LOS deficiency.

3. As recognized by Central Puget Sound Growth Management Hearing Board in West *Seattle Defense Fund v. City of Seattle (WSDF I)*, CPSGMHB Case No. 94-3-001c (FDO, April 4, 1995), the GMA does not dictate what is too congested, and that setting the desired LOS standard is a policy decision left to the discretion of local elected officials.

4. Vision 2040 directs local jurisdictions to include in their transportation LOS standards the movement of people and goods instead of only the movement of people. Concurrency programs should address nonmotorized, pedestrian, and other multimodal types of transportation and should encourage development that can be supported by transit.

5. The CPPs direct local jurisdictions to use professionally accepted methodologies for determining LOS and consider different development intensities, the availability and adequacy of transit service, and the availability and adequacy of bicycle and pedestrian facilities. The CPPs also recommend the use of a higher LOS in rural areas than in urban areas.

6. The Transportation Research Board's Highway Capacity Manual recognizes that there are many factors that influence traffic volumes on any given segment of roadway, including time of day, day of week, time of year, weather conditions, and types of vehicles. In addition there are many factors that influence the capacity of an arterial unit including the number of lanes, intersection spacing, types of intersection control, density of adjacent access points, road alignments, road width, topography, sight distance, vehicle mix, driver mix, and travel speed.

7. Jurisdictions in the Puget Sound region have developed a variety of LOS standards based upon local conditions and policy choices.

8. In December of 2013 and January and February of 2014, meetings were held with key stakeholder groups representing the environmental, nonmotorized, development, and transit communities to solicit comments on transportation level of service and concurrency management methodology including the following:
    a. two meetings with Community Transit on December 18, 3013, and February 26, 2014, discussing and seeking input on possible LOS changes and possible designation criteria (including transit frequency and population and employment densities needed to support transit) to ensure consistency with its Long Range Plan for multimodal arterials;
    b. a January 30, 2014, meeting with Futurewise and Transportation Choices discussing and seeking input on possible LOS changes; and
    c. a meeting on February 21, 2014, with building industry representatives discussing and seeking input on possible LOS changes.

H. Procedural requirements.

1. State Environmental Policy Act (SEPA) requirements with respect to this non-project action have been satisfied through the completion of a Draft EIS issued on September 8, 2014, and a Final EIS issued on June 3, 2015.

2. The proposal is a Type 3 legislative action pursuant to SCC 30.73.010.

3. Pursuant to RCW 36.70A.106(1), a notice of intent to adopt this ordinance was transmitted to the Washington State Department of Commerce for distribution to state agencies on December 17, 2014.

4. The public participation process used in the adoption of this ordinance has complied with all applicable requirements of the GMA and the SCC. The general public and interested agencies and parties were notified of the public hearings by means of legal notices, property postings, news releases, the county website, and over 30,000 direct mail notices sent to owners and neighbors of affected properties. Notification was provided in accordance with SCC 30.73.050.

5. The Washington State Attorney General last issued an advisory memorandum, as required by RCW 36.70A.370, in December of 2006 entitled "Advisory Memorandum: Avoiding Unconstitutional Takings of Private Property" to help local governments avoid the unconstitutional taking of private property. The process outlined in the State Attorney General's 2006 advisory memorandum was used by Snohomish County in objectively evaluating the regulatory changes proposed by this ordinance.

I. This ordinance is consistent with the record.

1. Many of the proposed TE amendments are minor or housekeeping in nature that are intended to achieve the following purposes:

a. Address inadvertent errors, omissions and inconsistencies.
b. Delete outdated or inaccurate information.
c. Revise text to ensure internal consistency.
d. Provide consistency in terminology between the TE and other GMACP documents.
e. Update information to reflect the 2035 plan horizon.
f. Improve readability of the chapters.
g. Clarify language to improve consistency between the GMACP, the GMA, and CPPs.
h. Remove language related to facilities in territory no longer under county jurisdiction or projects that have been completed.
i. Clarify intent and support policies in other GMACP chapters.

Amendments to the TE that do not fall under one of these categories are described in more detail in the subsequent findings.

2. Proposed amendments to Chapter I: Introduction and the revised Inventory of Transportation Facilities and Services update the county's inventory of roadways, pedestrian facilities, bicycle facilities, transit routes and intercity bus, passenger and freight rail, ferries, airports, and marine port facilities as required by RCW 36.70A.070(6)(a)(iii)(A).

3. As required by RCW 36.70A.070(6)(a)(i), the proposed amendments to Chapter I: Introduction and Chapter II: Relationship to Planned Land Use to Transportation employ the 2035 growth projections provided by the Washington State Office of Financial Management (OFM) and are consistent with the growth targets and FLUM adopted by the County Council as part of this 2015 GMACP update.

4. Proposed amendments to Chapter II: Relationship of Planned Land Use to Transportation update the summary of travel statistics from the travel demand model to reflect the 2035 horizon year and population, employment, and housing changes.

5. Proposed amendments to Chapter II: Relationship of Planned Land Use to Transportation update the level of service (LOS) standards for state-owned transportation facilities as required by RCW 36.70A.070(6)(a)(iii)(C). The amendments recognize a distinction between Highways of Statewide Significance (HSS) and Regionally Significant State Highways (Non-HSS).

6. Proposed amendments to Chapter II: Relationship of Planned Land Use to Transportation add LOS guidelines for Community Transit's (CT) local transit routes. The amendments are necessary to ensure consistency with CT's Long-Range Transit Plan as required under RCW 36.70A.070(6)(a)(iii)(B).

7. Proposed amendments to Chapter III: Implementation Measures amend the county transportation LOS standard for qualifying multimodal arterials. The proposed change would allow a 5 mph reduction to the minimum peak hour travel speed on multimodal arterials. As mitigation, the proposed amendments also include provisions for increased TDM measures for developments that impact multimodal arterials. The changes are necessary for consistency with changes in regional policy. Vision 2040 (MPP-DP-54, MPP-DP-55, and MPP-DP-56) directs local jurisdictions to adopt LOS standards and concurrency management systems that consider the

movement of people not just vehicles and to address nonmotorized and other multimodal types of transportation both in assessment and mitigation. The use of multiple modes to set a transportation LOS standard is also consistent with RCW 36.70A.108 and with the policy direction contained in the Vision 2040 (MPP-DP-54, MPP-DP-55, and MPP-DP-56), the CPP Policy TR-7, and GPP TR Policy 5.A.7.

8. Proposed amendments to Chapter III: Implementation Measures amend the county transportation LOS standard to set criteria for determining multimodal arterials. The criteria employ metrics to indicate arterials with conditions conducive to transit and nonmotorized modes of travel. To meet the criteria an arterial must have: transit service operating at 15 minute headways or better during the peak period; a continuous bicycle facility meeting county standards; a continuous pedestrian facility meeting county standards; and a gross density of 20 persons and/or employees per acre within ¼ mile of transit facilities. The guidance for developing the criteria used information from professional literature, consultation with transit agencies, CT's Long-Range Transit Plan, information contained in Vision 2040, and the GPP TR Policy 2.C.1.

9. Proposed amendments to Chapter III: Implementation Measures describes the application of the criteria for rural arterials with urban traffic to more accurately describe how the criteria are applied. Changes are consistent with the policy direction in Vision 2040 (MPP-T-28).

10. Proposed amendments to Chapter III: Implementation Measures identify five additional rural arterials with urban traffic and remove one existing rural arterial with urban traffic. The new rural arterials with urban traffic are: Marine Dr NE from I-5 to 64th St SW; 27th Ave NE from Marine Dr NE to the end of the county portion of the road; 84th St NE from SR 9 to SR 92; Machias Rd from 12th St NE to Machias Cutoff; and Bunk Foss/Richey Rd from S Machias Rd to 99 Ave SE. The arterial proposed to be removed from the list of rural arterials with urban traffic is Bickford Ave from the SR 2 ramps to the City of Snohomish's UGA boundary. The rural arterials added to the designation have been determined to have the urban characteristics necessary to consider them urban for the purposes of LOS and concurrency. The arterial removed from the list no longer meets the criteria. These revisions are consistent with the policy direction in Vision 2040 (MPP T-28), CPP Policy TR-7, and GPP Objective TR 5.A.

11. Proposed amendments to Chapter III: Implementation Measures are necessary to include additional county programs that manage transportation demand on the county arterial system consistent with RCW 36.70A.070(6)(a)(vi), Vision 2040 (MPP-T-23), CPP Policy TR-9, and GPP Objectives TR 5.B and TR 5.E.

12. Proposed amendments to Chapter III: Implementation Measures will designate "transit emphasis corridors" consistent with CT's Long-Range Transit Plan and consistent with the policy direction of CPP Policy TR-17 and GPP Objective TR 2.C.

13. Proposed amendments to Chapter III: Implementation Measures revise the nonmotorized implementation measures to add a pedestrian facilities component, provide a reference to the pedestrian facilities map in the revised Inventory of Transportation Facilities and Services, and discuss county provisions for improving

the pedestrian network. Changes have been coordinated with the pedestrian plans of PSRC and adjacent cities and counties. The amendments are required under RCW 36.70A.070 (6)(a)(vii). The amendments are consistent with the policy direction of Vision 2040 (MPP-T-15 and MPP-T-16), CPP Policy TR-4, and GPP Objective TR 3.A.

14. Proposed amendments to Chapter III: Implementation Measures affirm Snohomish County's "complete streets" strategy for future roadways and roadway improvements to address the safety and mobility of all users consistent with the Snohomish County Engineering Design and Development Standards (EDDS). This amendment is consistent with the policy direction of Vision 2040 (MPP-T-14), CPP Policy TR-4, and GPP TR Objective 1.C.

15. Proposed amendments to Chapter III: Implementation Measures revise the nonmotorized implementation measures and the revised Countywide Bicycle Facility System Map, describe and identify proposed bikeways, update the information on completed bikeways, and discuss county requirements for continued implementation of the system. Changes have been coordinated with PSRC and adjacent cities and counties and are consistent with the plans of adjacent jurisdictions, and the regional bicycle system. The amendments are required under RCW 36.70A.070(6)(a)(vii). The amendments are consistent with the policy direction of Vision 2040 (MPP-T-15 and MPP-T-16), CPP Policy TR-4, and GPP Objective TR 3.A.

16. Proposed amendments to Chapter III: Implementation Measures will add language related to mitigation of transportation related greenhouse gas emissions and the adaptation to climate change consistent with Snohomish County Executive Orders 07-48 and 13-48A and information from the National Climate Assessment. This revision also provides consistency with the policy direction of Vision 2040 (MPP-En-3, MPP-En-18, MPP-En-19, MPP-En-23, MPP-T-5, and MPP-T-6), CPP Policy TR-6, and GPP Objective TR 6.D.

17. Proposed amendments to Chapter IV: Recommended Transportation Improvements and the revised Arterial Circulation Map describe and identify the arterial roadway system necessary to serve the future land use plan as required by RCW 36.70A.070(6)(a)(iii)(A) and RCW 36.70A.070(6)(a)(iii)(B). Amendments are also necessary to maintain consistency with the revised federal functional classification system. The amendments are consistent with the policy direction contained in Vision 2040 (MPP-T-14), CPP Policy TR-4, and GPP Objective TR 1.B.

18. Proposed amendments to Chapter IV: Recommended Transportation Improvements revise the description and list of county arterial improvements, and the estimated cost, necessary to serve the forecasted travel demand of the Land Use Element and the FLUM. The revision drops the previous categorization of county arterial improvements in the TE: Critical Arterial System Improvements (CASI), Arterial Level of Service Improvements (ALOSI), and Arterial System Enhancements (ASE), and replaces them with a list that includes widening of existing arterial roads, new arterial road alignments, stand-alone intersection improvements, and stand-alone pedestrian facility improvements. The revised list of county arterial improvements in the proposed amendments uses year of expenditure costs in place of the previous 2005 adjusted costs. The revised categorization reflects how the Snohomish County

Department of Public Works will program arterial improvements over the 20-year planning horizon. The proposed revisions maintain consistency with the requirements of RCW 36.70A.070(6)(a)(iii)(E) and RCW 36.70A.070(6)(a)(iii)(F) and the policy direction of Vision 2040 (MPP-T-26, MPP-T-27), CPP Policy TR-4, and GPP Objective TR 1.B.

19. Proposed amendments to Chapter IV: Recommended Transportation Improvements and Appendix B revise the list of state highway improvements needed to meet current and future demand on the state highway system and provide support for the county roadway network. The revised list was developed in consultation with WSDOT and is consistent with the project list in the constrained portion of PSRC's Transportation 2040. This revision maintains consistency with RCW 36.70A.070(6)(a)(iii)(E) and RCW 36.70A.070(6)(a)(iii)(F).

20. Proposed amendments to Chapter IV: Recommended Transportation Improvements and Appendix C revise the list of city street improvements needed to meet current and future transportation demand on the city street network and provide support for the county roadway network and land use plan. The list of city projects was developed using the most current available transportation improvement program (TIP) and long range transportation plans for each jurisdiction. This revision maintains consistency RCW 36.70A.070(6)(a)(iii)(E) and RCW 36.70A.070(6)(a)(iii)(F).

21. Proposed amendments to Chapter IV: Recommended Transportation Improvements revise the supportive public transportation services and planned improvements to update planned public transportation services and based on information contained in the transit development plans for relevant transit agencies. The revisions also include a table of transit capital improvements from PSRC's Transportation 2040, the regional transportation plan. These revisions are consistent with the policy direction in Vision 2040 (MPP-T-23), CPP Policy TR-4, and GPP Objective TR 1.A.

22. Proposed amendments to Chapter IV: Recommended Transportation Improvements revise the supportive public transportation services and planned improvements to include map and text changes discussing future high-capacity transit (HCT) in Snohomish County. The revisions discuss the planned light rail expansion to Lynnwood consistent with Sound Transit 2: The Regional Transit System Plan for Central Puget Sound, the Sound Transit Regional Transit Long-Range Plan, and PSRC's Transportation 2040. The revisions discuss the possible routes of future light rail to Everett consistent with Sound Transit Regional Transit Long-Range Plan, PSRC's Transportation 2040, and Sound Transit's High Capacity Transit Corridor Study: Lynnwood to Everett. The revisions discuss possible future *Swift* bus rapid transit routes consistent with CT's Long-Range Transit Plan. These revisions are consistent with the policy direction in Vision 2040 (MPP-T-23, MPP-T-29), CPP Policy TR-4, CPP Policy TR-12, CPP Policy TR-13, GPP Policy TR 2.A.3 and GPP Objective TR 2.D.

23. Figure 6: Recommended County Arterial Improvement Projects – South Map in amended Chapter IV: Recommended Transportation Improvements consolidates the information from and replaces previous Map 5: Recommended Road and Street Improvements, TSA "C"; Map 6: Recommended Road and Street Improvements,

TSA "D"; Map 7: Recommended Road and Street Improvements TSA "D" (detail); Map 8: Recommended Road and Street Improvements, TSA "E"; and Map 9: Recommended Road and Street Improvements, TSA "F". These changes were made to show the updated arterial improvement project list needed to support the Land Use Element to 2035.

24. Figure 7: Recommended County Arterial Improvement Projects – North Map in amended Chapter IV: Recommended Transportation Improvements consolidates the information from and replaces previous Map 3: Recommended Road and Street Improvements TSA "A" and Map 4: Recommended Road and Street Improvements, TSA "B". These changes were made to show the updated arterial improvement project list needed to support the Land Use Element to 2035.

25. Proposed amendments to Chapter V. Strategy for Financing County Transportation Improvements revise the financial strategy to include expenditures based on the revised project list and the 20-year revenue forecast to reflect the new plan horizon year and changed revenue assumptions, and the analysis of revenue available for capital improvements as required by RCW 36.70A.070(6)(a)(iv).

26. Proposed amendments to Chapter V. Strategy for Financing County Transportation Improvements revise the summary comparison of expenditures versus available revenue and the analysis of additional revenue sources that could be used to reduce possible future deficits in funding for capital transportation expenditures as required by RCW 36.70A.070(6)(a)(iv)(C).

27. The proposed amendments to the TE Appendices:

    a. Revises Appendix A (Glossary of Acronyms and Definitions) to delete acronyms no longer used in the document and to add new acronyms.

    b. Deletes the previously adopted Appendix B (Summary of Costs for County Road Projects if Built to Standards) and replaces it with a new Appendix B (Summary of State Projects within Snohomish County). Much of the information found in the previously adopted Appendix B (Summary of Costs for County Road Projects if Built to Standards) is no longer necessary because it was specific to the CASI, ALOSI, and ASE categories, which are proposed to be replaced in this update of the TE. Project costing information in the proposed TE update is found in Chapter IV. The state project information in the new Appendix B (Summary of State Projects within Snohomish County) has been moved from Chapter IV for improved readability.

    c. Deletes the previously adopted Appendix C (Summary of Costs for County Road Projects Alternate Design of Arterial Level of Service Improvements) and replaces it with a new Appendix C (Supportive City Street Improvements). The information found in the previously adopted Appendix C (Summary of Costs for County Road Projects Alternate Design of Arterial Level of Service Improvements) pertained to the costing the ALOSI category of roadway projects. Since the revised TE proposes to replace ALOSI category, it is no longer appropriate to include this information in the TE. The local project information

contained in the new Appendix C (Supportive City Street Improvements) has been moved from Chapter IV for improved readability.

d. Amends Appendix D (Transportation Mitigation Fees) to reflect that some information on future impact fee rates cannot be known until a new list of arterial improvement projects and their updated costs have been determined, new TSA boundaries have been established, and a new estimate of trips for each TSA have been calculated. This information will be become available when the land use plan and the TE have been adopted

Section 2. The County Council makes the following conclusions:

A. The proposed amendments to the TE proposed by this ordinance satisfy the requirement of RCW 36.70A.070(6) which directs counties planning under the GMA to include within their comprehensive plans a transportation element that implements and supports the adopted land use element of its comprehensive plan.

B. The amendments are consistent with and comply with the procedural and substantive requirements of the GMA.

C. The proposed amendments to the TE are consistent with PSRC's Vision 2040 and the MPPs.

D. The amendments to the TE are consistent with the CPPs.

E. The proposed amendments to the TE are consistent with the goals, objectives, and policies of the GPP.

F. The proposed transportation LOS in the TE was developed using professional methodologies included in the Transportation Research Board's Highway Capacity Manual and is consistent with the GMA, Vision 2040, the MPPs, the CPPs, and the GPP.

G. The county has complied with all SEPA requirements with respect to this non-project action.

H. The amendments do not result in an unconstitutional taking of private property for a public purpose.

Section 3. The County Council bases its findings and conclusions on the entire record of the Planning Commission and the County Council, including all testimony and exhibits. Any finding that should be deemed a conclusion and any conclusion which should be deemed a finding is hereby adopted as such.

Section 4. Based on the foregoing findings and conclusions, the TE of the GMACP, last amended by Amended Ordinance No. 08-050 adopted on June 3, 2008, is amended as indicated in Exhibit A to this ordinance, which is attached hereto and incorporated by reference into this ordinance as if set forth in full.

Section 5. Based on the foregoing findings and conclusions, the Arterial Circulation Map, a map supporting the TE of the GMACP, last amended by Amended Ordinance No. 05-070 adopted on December 21, 2005, is amended as indicated by Exhibit B to this ordinance, which is attached hereto and incorporated by reference into this ordinance as if set forth in full.

Section 6. Based on the foregoing findings and conclusions, the Bicycle Facility System Map, a map supporting the TE of the GMACP, last amended by Amended Ordinance No. 05-070 adopted on December 21, 2005, is amended as indicated by Exhibit C to this ordinance, which is attached hereto and incorporated by reference into this ordinance as if set forth in full.

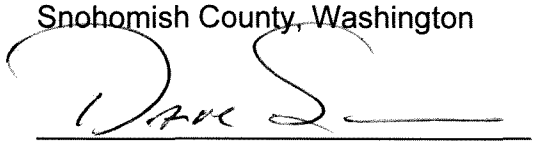
Section 7. Based on the foregoing findings and conclusions, Inventory of Transportation Facilities and Services – Catalog of Maps and Databases, last amended by Amended Ordinance No. 05-070 adopted on December 21, 2005, an attachment to the TE of the GMACP, is amended as indicated by Exhibit D to this ordinance, which is attached hereto and incorporated by reference into this ordinance as if set forth in full.

Section 8. The County Council directs the Code Reviser to update SCC 30.10.060 pursuant to SCC 1.02.020(3).

Section 9. Severability and Savings. If any section, sentence, clause or phrase of this ordinance shall be held to be invalid by the Growth Management Hearings Board (Board), or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause or phrase of this ordinance. Provided, however, that if any section, sentence, clause or phrase of this ordinance is held to be invalid by the Board or court of competent jurisdiction, then the section, sentence, clause or phrase in effect prior to the effective date of this ordinance shall be in full force and effect for that individual section, sentence, clause or phrase as if this ordinance had never been adopted.

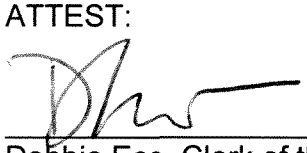
PASSED this 10th day of June, 2015.

SNOHOMISH COUNTY COUNCIL
Snohomish County, Washington



Dave Somers, Council Chair

ATTEST:



Debbie Eco, Clerk of the Council

(X) APPROVED
( ) EMERGENCY
( ) VETOED

DATE: 6/22/15 ~~6/18/15~~

County Executive

ATTEST:

Approved as to form only:

Deputy Prosecuting Attorney

D-14

List of Exhibits to Amended Ordinance 14-137 Amending the Transportation Element:

EXHIBIT A - Transportation Element

EXHIBIT B – Arterial Circulation Map

EXHIBIT C – Countywide Bicycle Facility System Map

EXHIBIT D – Inventory of Transportation Facilities and Services – Catalog of Maps and Data Bases, July 2014

Exhibit A

2015 Update: Amendments to the Transportation Element

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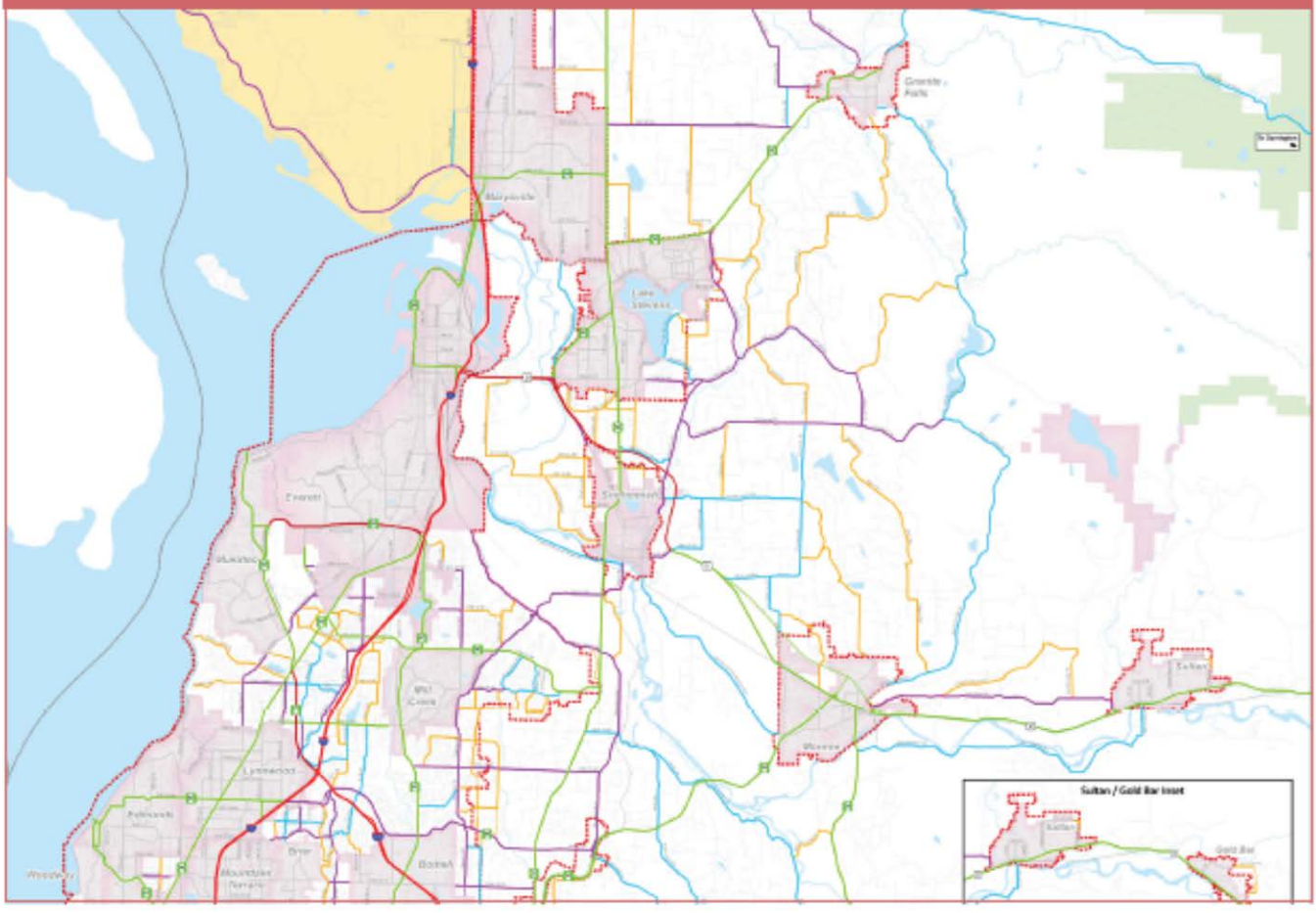
Snohomish County Public Works

Transportation Element

A Component of the GMA Comprehensive Plan



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Transportation Element

A COMPONENT OF THE GMA COMPREHENSIVE PLAN

~~((February 2006~~
~~Revised Effective June 20, 2008))~~

Adopted June 10, 2015

Snohomish County Public Works Department
3000 Rockefeller, M/S 607
Everett, WA 98201

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((PREFACE

This Transportation Element of Snohomish County's GMA Comprehensive Plan is prepared in compliance with the requirements of the State Growth Management Act (GMA), Chapter 36.70A.070 RCW. The specific transportation requirements are itemized here along with where they are addressed within this document or other ancillary documents that comprise the county's comprehensive plan and transportation element. The references cited below are general and the reader should review the entire transportation element, and other documents comprising the comprehensive plan, in order to ascertain how GMA requirements are satisfied.

GMA Transportation Element Requirements RCW 36.70A.070 (6) ☑ **A transportation element that implements, and is consistent with, the land use element.** **(a) The transportation element shall include the following sub elements:**	
Requirement	**Location**
(i) Land use assumptions used in estimating travel;	Transportation Element Chapter II. Relationship of Planned Land Use to Transportation, February 2006, and FEIS, December 2005.
(ii) Estimated traffic impacts to state-owned transportation facilities resulting from land use assumptions..... ;	FEIS Transportation Technical Memorandum 12-15, December 2005.
(iii) Facilities and services needs, including:	
(A) An inventory of air, water, and ground transportation facilities and services	Transportation Element Chapter I. C. Transportation Facilities and Services Inventory, February 2006, and Inventory of Transportation Facilities and Services Catalog, January 2002.
(B) Level of service standards for all locally owned arterials and transit routes	Transportation Element Chapter III. A. Concurrency Management System, February 2006.
(C) For state-owned transportation facilities, level of service standards for highways, ... to gauge the performance of the system....	Transportation Element Chapter II, B. Level of Service Policy Concepts, February 2006, and FEIS Transportation Technical Memorandum 12-15, December 2005.
(D) Specific actions and requirements for bringing into compliance locally owned transportation facilities or services that are below an established level of service standard;	Transportation Element Chapters III. Implementation Measures and IV. Recommended Transportation Improvements, February 2006.
(E) Forecasts of traffic for at least ten years based on the adopted land use plan to provide information on the location, timing, and capacity needs of future growth;	FEIS Transportation Technical Memorandum 12-15, December 2005.
(F) Identification of state and local system needs to meet current and future demands.	Transportation Element Chapter IV. Recommended Transportation Improvements, Tables 17, 19 and 20, February 2006.

GMA Transportation Element Requirements RCW 36.70A.070 (6) ☑ **A transportation element that implements, and is consistent with, the land use element.** **(a) The transportation element shall include the following sub elements:**	
Requirement	**Location**
(iv) Finance, including:	
(A) An analysis of funding capability to judge needs against probable funding resources;	Transportation Element Chapter V. B. County Transportation Revenues, February 2006.
(B) A multiyear financing plan based on the needs identified in the comprehensive plan...	Transportation Element Chapter V. C. Financial Strategy and Revenue Measures, Tables 25, 26, and 27, February 2006.
(C) If probable funding falls short of meeting identified needs, a discussion of how additional funding will be raised, or how land use assumptions will be reassessed to ensure that level of service standards will be met;	Transportation Element Chapter V. D. Process for Reassessment of the Comprehensive Plan and Transportation Element, February 2006.
(v) Intergovernmental coordination efforts, including an assessment of the impacts of the transportation plan and land use assumptions on the transportation systems of adjacent jurisdictions;	Transportation Element Chapter II, C. Intergovernmental Coordination and Impacts on Adjacent Jurisdictions, February 2006, and FEIS Transportation Technical Memorandum 12-15, December 2005.
(vi) Demand-management strategies.	Transportation Element Chapters III. B. Transportation Demand Management, February 2006.

))

TRANSPORTATION ELEMENT

Growth Management Act RCW 36.70A.070 (6).

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I. INTRODUCTION

This Transportation Element (TE) of the Snohomish County Growth Management Act (GMA) Comprehensive Plan is prepared in accordance with the GMA and the county's General Policy Plan. Contained within the TE are projects and implementation measures necessary to effectively serve planned land use throughout Snohomish County. Importantly, this element provides guidance for the design, construction and operation of transportation facilities and services through the year ((~~2025~~)) 2035.

A. Purpose and Background

1. Purpose Statement

The purpose of the TE is to present a plan for transportation facilities and services needed to support the county's ((~~2005-2025~~)) 2015-2035 future land use map. The TE recommends specific arterial roadway projects for the unincorporated county in order to meet roadway safety and capacity needs. However, it also recommends various implementation strategies to guide the county in its participation in regional transportation planning. Implementation strategies provide guidance on such issues as:

- land use-transportation concurrency;
- arterial, ((~~and)~~) highway, and transit level of service;
- transit emphasis corridors
- ~~((transit-compatibility of land use;))~~
- ~~((high-occupancy vehicle lanes;))~~
- access management;
- transportation demand management (TDM);
- regional High-Capacity Transit;
- non((-))motorized transportation;
- air quality conformance; and
- freight and goods mobility.

The county's TE provides an estimate of expenditures and revenues associated with implementing various recommended transportation improvements. It also recommends a financial strategy that would ensure needed transportation improvements are funded. It should be noted that the transportation element can be amended and supplemented by special studies that later provide more detailed policy direction and project recommendations. These special studies would maintain consistency with the countywide transportation element, while also qualifying and refining its recommendations.

2. Description of Historical Growth and Development

Snohomish County has experienced significant growth and suburbanization during the ((~~latter half of the 20th century~~)) last 50 years. For example, the county has grown from a population level of 172,199 in 1960 to ((~~606,024~~)) 713,335 people in the year ((~~2000~~)) 2010. (ref. 1) On an annualized basis, this would be equal to adding 10,000 to 11,000 people to the county per year. Nearly half of the residents of Snohomish County have resided in the unincorporated lands during this period.

((~~As of April 2002, the base year of the most recent county land capacity analysis, the overall~~)) The estimated 2011 total county population was ((~~628,000~~)) 717,000 with ((~~300,460~~)) 304,277 people residing in unincorporated Snohomish County and 412,723 in incorporated cities. ((~~(ref. 2) It is estimated~~)) The 2011 population estimates show that ((~~52~~)) 58 percent of countywide population resides within incorporated cities, ((~~30~~)) 25 percent within unincorporated ((~~UGA land~~)) UGAs (urban growth areas), and ((~~18~~)) 17 percent on unincorporated rural lands. ((~~Within~~)) Of the incorporated cities, ((~~the greatest concentration of population is found within the City of~~)) Everett has the largest population. The Southwest ((~~Urban Growth Area (UGA)~~)) County UGA is the largest and most populated UGA. ((~~In the smaller and individual~~)) Of the Non-S.W. County UGAs, Marysville has the largest population followed by Lake Stevens. (ref. 2)

The Washington State Office of Financial Management (OFM) provides counties and cities in the State of Washington with county-level growth forecasts to accommodate their planning processes under GMA. ((~~In the future, the county can expect a 2025 population in the range of 795,725 to 1,062,903 people. (Ref. 3) Snohomish County Tomorrow, in reviewing the OFM expected growth range of 2025 population, endorsed a population range of 862,500 to 996,200.~~)) OFM's 2012 GMA population projections have a high, medium, and low growth series for each county. The projections of 2035 total population for Snohomish County under these series are:

- High – 1,161,003
- Medium – 955,281
- Low – 802,384

OFM considers the medium series to be the most likely projection (ref. 3). The Snohomish County Council used the medium series — 2035 countywide population of 955,281 — when adopting 2035 initial population targets for Appendix B of the Countywide Planning Policies (ref. 2). The land use assumptions used to estimate future travel demand for this Transportation Element use a 2035 forecast of 955,257 for countywide population.

Employment growth in Snohomish County has traditionally been one of the drivers of population growth. The county's predominant employment sector has been aerospace manufacturing, and it continues to be an important component of the county economy. The economy has been growing more diversified((~~ such as with the county's "technology corridor" in the vicinity of I-5 and I-405)~~). In the year ((~~2000~~)) 2011, estimated employment within Snohomish County equaled about ((~~217,410~~)) 248,990 jobs, not including resource and construction jobs. ((~~(ref. 4)~~)) (ref. 2)

It is estimated that 82 percent of county employment is located within incorporated cities, ((~~15~~)) 12 percent within unincorporated UGAs and ((~~three~~)) six percent within unincorporated rural areas ((~~(Puget Sound Regional Council, 2003)~~)) (ref. 2). The greatest concentration of employment is within the City of Everett and more broadly within the Southwest County UGA. Many residents of Snohomish County commute outside of the county for employment. ((~~The 2000~~)) Based on 2006-2010 data, the US Census Bureau estimated that over ((~~103,000~~)) 116,000 workers commuted from Snohomish County to King County for employment. (ref. 4)

((~~In 2003, the county and cities prepared a preliminary 2025~~)) The Snohomish County Council adopted an 2035 initial employment target for Snohomish County of ((~~about 338,449~~)) 396,273 jobs. (ref. 2) The land use assumptions used to estimate future travel demand for this Transportation Element use a 2035 forecast of 396,373 for countywide employment. Much of

the employment growth is expected to occur within the incorporated cities; however, the county will plan for its share of job growth that will occur in unincorporated UGAs.

B. Growth Management Act Requirements and Policy Foundation

1. Revised Code of Washington (RCW) ((~~and Washington Administrative Code (WAC)~~))

The GMA provides a substantial amount of legal and policy guidance to the county regarding preparation of TEs. The GMA requires a TE ((~~to be~~)) that implements, and is consistent with, the land use element of the comprehensive plan (RCW 36.70A.070(6)). A TE must specifically present:

- land use assumptions used in estimating and forecasting travel;
- estimated traffic impacts to state-owned transportation facilities
- an inventory of air, water, and ground transportation facilities and services;
- level of service (LOS) standards for all locally owned arterial and transit routes and actions necessary to allow transportation facilities and services to meet the standards;
- LOS standards for state highways to gauge system performance;
- forecasts of traffic for at least ten years based on the adopted land use plan
- identification of state and local transportation system needs to meet current and future travel demand;
- an analysis of funding capability to judge identified system needs against probable funding resources;
- a multi-year finance strategy that balances needs against available funding;
- intergovernmental coordination and impact assessment; ((~~and~~))
- strategies for reducing travel demand; and
- a pedestrian and bicycle component.

((~~WAC 365-195-325 provides procedural guidance on two important requirements of the GMA. These are:~~

- ~~consistency of the county's comprehensive plan between its elements and other local comprehensive plans; and~~
- ~~concurrency of land development and the transportation improvements needed to serve the land development.~~))

Consistency between the land use and transportation elements of the comprehensive plan is of particular importance. Planned land use must be reflected in the travel forecasts that are prepared to evaluate the impacts of development. The transportation improvements and implementation measures within the transportation element must adequately support planned land use at adopted level of service (LOS) standards. In addition, consistency between the county's overall transportation element, the cities' comprehensive plans, the state's highway plan, and transit development programs needs to be ensured through intergovernmental coordination.

2. PSRC's Multi-County Planning Policies, Vision ((~~2020~~)) 2040, and ((~~Destination 2030~~)) Transportation 2040 Plans

The GMA provides for preparation and adoption of multi-county planning policies and regional transportation plans. Puget Sound Regional Council (PSRC) is the regional transportation planning

organization for the Central Puget Sound Region (King, Kitsap, Pierce and Snohomish Counties) and has the responsibility to adopt multi-county planning polices (RCW 36.70A). These policies provide guidance on a variety of growth management issues to its member jurisdictions across the four counties. (ref. 5)

Vision 2040

Vision 2040 is a regional land use plan and growth strategy which encourages population growth and economic development to take place within a regional hierarchy of cities, defined by their size and the roles they play in the region, and unincorporated areas, both urban and rural. The county and each city in the county will adopt policies, land use plans, and growth allocations consistent with Vision 2040. Metropolitan Cities and Core Cities are expected to take a greater amount of growth than the other types of cities, and Rural Areas would take the least growth.

In addition to providing a regional land use plan, Vision 2040 provides multicounty planning policies addressing regional growth and development including:

- General Policies—The general policies address coordination of jurisdictions, monitoring of Vision 2040, and fiscal challenges and opportunities including exploring funding sources for services and infrastructure.
- Environment—The region will care for the natural environment by protecting and restoring natural systems, conserving habitat, improving water quality, reducing greenhouse gases (GHG) emissions and air pollutants, and addressing potential climate change impacts.
- Development Patterns—The region will focus growth within areas that are already urbanized to create walkable, compact, and transit-oriented communities that maintain unique local character.
- Housing—The region will preserve, improve, and expand its housing stock to provide a range of affordable, healthy, and safe housing choices to every resident.
- Economy—The region will have a prospering and sustainable regional economy by supporting businesses and job creation, sustaining environmental quality, and creating great central places, diverse communities, and high quality of life.
- Transportation—The region will have a safe, clean, integrated, sustainable, and highly efficient multimodal transportation system that supports the regional growth strategy and promotes economic and environmental vitality and better public health.
- Public Services—The region will support development with adequate public facilities and services in a coordinated, efficient, and cost-effective manner that supports local and regional growth planning objectives. (ref. 5)

Transportation 2040

PSRC's Transportation 2040 supports Vision 2040 planning for a transportation system supporting the growth strategy. Transportation 2040 is built around three key strategies, as stated in the plan's executive summary:

- Congestion and Mobility—The plan improves mobility through a combination of effective land use planning, demand management, efficiency enhancements, and strategic capacity investments.
- Environment—A key focus of the plan is to protect and improve the region's environmental health.
- Funding—The Transportation 2040 financial strategy relies on traditional funding sources in the early years of the plan. Over time the region will transition to a new funding structure based on user fees, which could include high-occupancy toll lanes, facility and bridge tolls, highway system tolls, VMT charges, and other pricing approaches that replace the gas tax and further fund and manage the transportation system. (ref. 6)

Vision 2040 and Transportation 2040 are implemented through PSRC's review of each county and city comprehensive plan and certification of the transportation element.

~~PSRC adopted the Vision 2020 Multi-County Planning Policies in March of 1993. Vision 2020 provides a framework for local jurisdictions to address issues such as:~~

- ~~contiguous and orderly development;~~
- ~~provisions of services;~~
- ~~designation of urban growth areas;~~
- ~~siting essential public facilities;~~
- ~~economic development;~~
- ~~open space;~~
- ~~affordable housing; and~~
- ~~transportation.~~

~~The GMA recognizes the importance of regional transportation planning and requires local governments in the Central Puget Sound Region to prepare local growth management plans and a regional transportation plan that are mutually consistent. Vision 2020 addresses transportation issues and provides guidance on development of a regional transportation plan, multimodal transportation systems serving urban centers, movement of people and freight, air quality high-occupancy vehicle (HOV) lanes, non-motorized transportation, and TDM strategies.~~

~~In May of 2001 PSRC adopted Destination 2030, a long-range plan for transportation in the Central Puget Sound Region. (ref. 6) It serves as the detailed transportation element of the Vision 2020 strategy, and identifies the major transportation investments for the region towards the year 2030 (RCW 47.80.030). The county's planning process and TE must be consistent with Vision 2020 and Destination 2030. The PSRC, under the GMA, certifies that Snohomish County's TE reflects the guidelines and principles developed pursuant to RCW 47.80.026, is consistent with the adopted regional transportation plan (RCW 47.80.023), and is in conformance with the GMA requirements of RCW 36.70A.070 for internal consistency.~~

3. Snohomish County Tomorrow and Countywide Planning Policies

The Snohomish County Council is responsible for adopting countywide planning policies (CWPPs) per RCW 36.70A.210. The CWPPs provide a framework for developing consistent city and county growth management plans. (ref. 7) Snohomish County Tomorrow (SCT) is a forum by

which the county and the cities, in an ongoing and collaborative process, review CWPPs, discuss intergovernmental coordination, and provide for public involvement.

The council adopted the current CWPPs in ((~~February 1993~~)) June 2011. ((~~and since has performed a number of amendments to keep the policies current.~~)) The transportation part of these planning policies are prepared to specifically address the requirements of RCW 36.70A.210(3)(d) and apply to countywide transportation facilities and services. The applicable facilities and services are those that serve travel needs and have impacts beyond the particular jurisdiction(s) within which they are located.

Most importantly, the CWPPs provide procedural guidance to the county and cities to help ensure consistent transportation planning and implementation. Guidance is provided regarding:

- joint procedures for mitigating the traffic impacts of land development;
- consistent design standards;
- transportation service areas as the basis for coordination of transportation plans;
- designation of transit emphasis corridors
- cooperative project programming and prioritization;
- land use supportive transportation services and facilities;
- rules for compatible transportation LOS and concurrency management;
- ensuring mitigation of environmental impacts of transportation;
- coordination in planning and constructing nonmotorized facilities;
- locating regional and essential public transportation facilities; and
- management of travel demand.

This TE, like the other elements of the county's comprehensive plan, is prepared consistent with guidance provided by the CWPPs.

4. Snohomish County's Growth Management Act Comprehensive Plan

This TE is a part of the GMA Comprehensive Plan (GMACP) that provides guidance as to how the county will develop towards the year ((~~2025~~)) 2035. The comprehensive plan consists of the General Policy Plan (GPP) and various supplemental elements that serve as functional plans. (ref. 8) The GPP provides goals, objectives, and policies guiding implementation of the various functional plan elements that include:

- a land use element that establishes UGAs, land use designations and densities, development patterns, community structure, and resource land management;
- a housing element that makes provisions for identifying and meeting housing needs;
- a capital facilities element that identifies capital facilities needed to adequately serve planned land use;
- a utilities element that identifies the various utility service needed to adequately serve planned land use;
- a park and recreation element;
- a transportation element that ensures transportation services and facilities are provided to adequately serve planned land use; and
- an economic development element that makes provisions for the county to encourage and stimulate economic vitality.
- a natural environment element provides a framework for protecting and preserving the natural environment.

- an interjurisdictional coordination element provides general direction for cooperation between the county and cities on issues of mutual concern.

Figure 1 illustrates the comprehensive planning framework within which Snohomish County pursues GMA requirements. This TE, as a supplement to the GPP, is fully consistent with the policy document's goals, objectives, and policies, and will adequately serve planned land use towards ((~~2025~~)) 2035. Implementation measures, long-range projects, and financing strategies are identified that, if implemented in a timely fashion, will ensure transportation services and facilities will remain concurrent with planned land development.

C. Inventory of Transportation Facilities and Services ((~~Inventory~~))

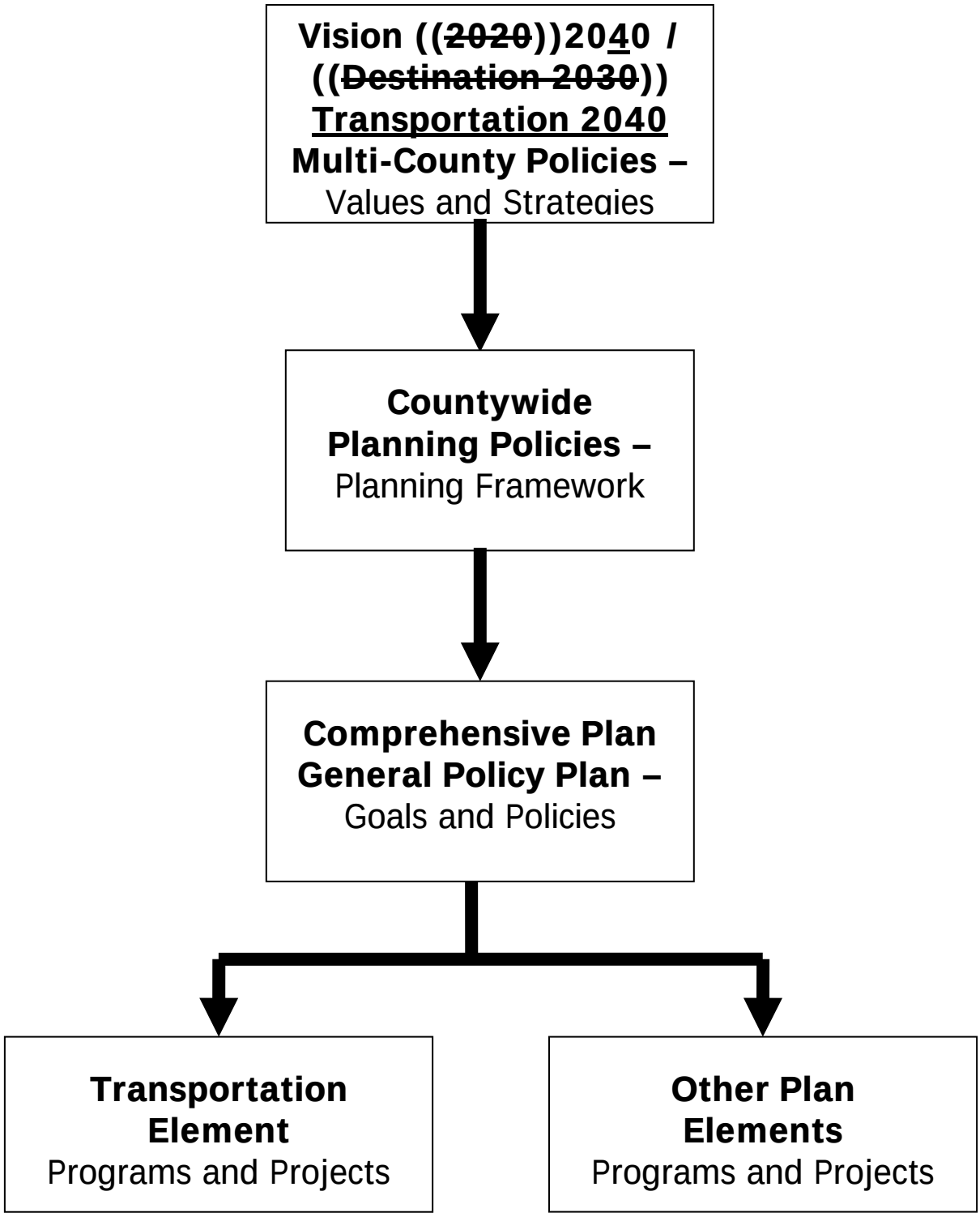
A comprehensive inventory of all transportation facilities and services provides a sound basis for effective planning. The GMA requires the county to perform an inventory of air, water, and ground transportation facilities and services, including transit alignments and general aviation airport facilities, to define existing capital facilities and travel levels as a basis for future planning. This inventory must include state-owned transportation facilities within the city or county's jurisdiction boundaries (RCW 36.70A.070(6)(a)(iii)(A)).

This section of the TE summarizes the transportation facilities and services that exist within Snohomish County. The county, in compliance with the GMA, maintains a detailed digital set of maps and related databases using geographic information system (GIS) software that provide an inventory of transportation facilities and services. The inventory is part of the TE. Although the scope of the comprehensive plan is limited to the unincorporated portions of the county, the scope of the inventory is generally countywide. Consequently, the inventory includes descriptive information on transportation facilities and services in both incorporated and unincorporated areas.

Snohomish County's ((~~transportation facilities and services inventory~~)) Inventory of Transportation Facilities and Services (ref. 9) is maintained in digital map and database form. Maps are produced using the county's ((~~geographic information system (~~))GIS((~~)~~)) software, while descriptive information is maintained with database software. Figure 2 illustrates the various data categories maintained within the county's inventory. ((~~Eight~~))Nine digital inventory maps, shown in Table 1, ((~~have been prepared~~)) are available on request to illustrate the geographic extent of transportation facilities and services throughout the county. The related databases contain descriptive information about the facilities and services that are shown on the maps. The public works department publishes ((~~a~~))an ((~~booklet,~~)) Inventory of Transportation Facilities and Services: Catalog of Maps and Databases, ((~~January 2002~~)) Revised July 14, 2014, which more fully describes the inventory.

FIGURE 1

Comprehensive Planning Framework Policy and Consistency Relationships



In addition, the public works department maintains a development review database, which provides information on each arterial under Snohomish County's jurisdiction. County arterial units are delineated on the Snohomish County Arterial Units map. The database summarizes traffic count data, travel time study results, and roadway geometry for each arterial unit and key intersection. The information is used to monitor and assess existing traffic conditions and as an aid during the land use development review process. The public works department also maintains the ((~~County Road Information System (CRIS)~~))Mobility Program. ((~~CRIS~~)) Mobility provides a detailed and comprehensive inventory and description of county roadway facilities, including data on roadway geometry, intersection approaches, bridges, signs, striping, traffic counts, and accidents.

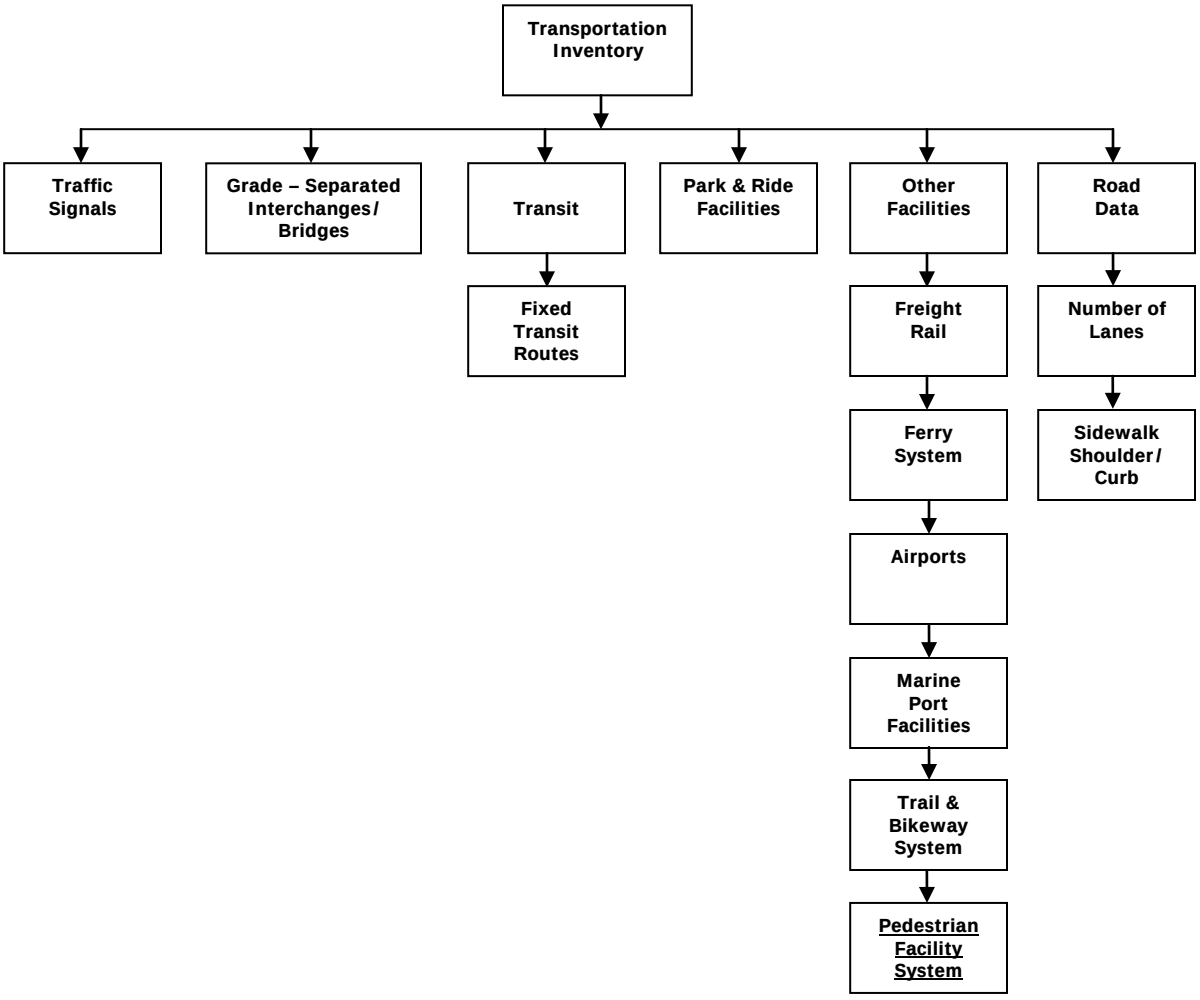
Table 1

Inventory of Transportation ((~~Inventory~~)) ((~~of Services and~~)) Facilities and Services

Map Name	Inventory Description
Arterial Circulation	Arterial functional classification((~~,~~)) and recommended new arterials
Bridges and Grade-Separated Interchanges	County-maintained bridges((~~,~~)) and WSDOT grade-separated interchanges
Signals and Number of Lanes	Countywide traffic signals((~~,~~)) and number of lanes on major arterials
Bikeways, Urban Trails, Railroad Crossings	Existing bikeways and urban trails, railway lines, and railroad crossings((~~,~~))
Countywide Bicycle Facility System	Existing and proposed bikeways/trails
Transit Facilities and High Occupancy Vehicle Lanes	Community Transit, ((~~and~~))Sound Transit, and Everett Transit fixed routes and maintenance facility, transit stations and transfer centers, major park-and-ride facilities, and high occupancy vehicle lanes
Intermodal Facilities	Airports and airfields, WSDOT ferry terminals and routes, interstate bus terminals and routes, railways, and port locations
State Highway Units and Inventory	WSDOT freeways and highways, state highway units((~~,~~)) and WSDOT ferry routes and terminals
Southwest Area Pedestrian Facility System	Existing pedestrian facilities

FIGURE 2

Snohomish County Inventory of Transportation Facilities and Services ((~~Inventory~~))



For the inventory of state-owned transportation facilities within Snohomish County, state highways have been broken down into state highway units. These units, which are sections of highway with similar geometrics and operating characteristics, are shown on the digital inventory map: State Highway Units and Inventory. The inventory contains detailed information on each state highway unit, including length, federal functional class, number of lanes, speed limit, and estimates of Average Annual Daily Traffic and Daily Vehicle Miles of Travel.

Relevant information regarding state highways is also available in databases produced by Washington State Department of Transportation (WSDOT) and PSRC.

As noted above, the ((~~transportation facilities and services inventory~~)) Inventory of Transportation Facilities and Services describes WSDOT grade-separated interchanges within Snohomish County. (ref. 10) In addition, ((~~32~~)) 42 existing and ((~~eight~~)) 8 proposed/conceptual

interchanges are mapped and diagrammed in the Inventory of Existing, Proposed, and Conceptual Interchanges, SCT & ((~~1992~~))WSDOT.

1. Public Highways, Streets, and Roads

A variety of road facilities exist within Snohomish County. The majority of the existing facilities in the southwest part of the county are in an urban environment. The remainder of Snohomish County is more rural in nature with pockets of urban facilities located in and around cities.

The State of Washington, county, and incorporated cities within the county provide the public roadway system within Snohomish County. Major responsibilities include the planning, design, construction, and maintenance of these transportation facilities.

To gain a better understanding of the roadway system, Snohomish County has applied a functional classification system to the public highways ((~~, streets,~~)) and roads (both existing and planned) within the county. This system is shown on the County's Arterial Circulation Map (Map 1). ((~~In urban areas, an arterial~~)) Arterials ((~~can be~~)) are classified as an interstate, freeway/expressway, principal arterial, minor arterial, major collector or minor collector. ((~~arterial. For rural areas, the classifications are freeway, principal arterial, major collector arterial, and minor collector arterial.~~)) Non-arterial roads are classified as local roads. The Arterial Circulation Map is described in greater detail in Chapter IV. Recommended Transportation Improvements.

Snohomish County has a number of state owned facilities including two interstate highways (I-5 and I-405), one U.S. highway (US 2), and 17 state highways. Table 2 provides a summary description of state highways within Snohomish County.

The State of Washington has designated a number of state highways as highways of statewide significance (HSS). HSS are important to the movement of people, goods, and services on a statewide basis and have beneficial effects on the welfare and economy of the state. ((~~Within Snohomish County, highways designated as HSS are I-5, I-405, US 2, SR 104, SR 522, SR 525, SR 526, SR 530, SR 9 from King County line to SR 530, and part of SR 529 from I-5 to Port of Everett/19th Street.~~)) Table 2 shows the state highways in Snohomish County that are designated as HSS.

((~~Washington State, in cooperation with PSRC, has also designated several highways of regional significance. Highways of regional significance)~~)) State highways that are not designated as HSS are regionally significant state highways (also called non-HSS). They have significant, beneficial effects, primarily for the Central Puget Sound region and Snohomish County. ((~~Within Snohomish County, part of SR 9 (between SR 530 and Snohomish/Skagit County line) and part of SR 524 (between I-5 and SR 522) have been designated as highways of regional significance.~~)) Table 2 shows the state highways in Snohomish County that are non-HSS. Some state highways are listed twice in Table 2 because part of the highway is an HSS, while the rest of the highway is a non-HSS.

2. Bicycle and Pedestrian Facility System

Integrated within the public highway, street, and road system are non((-))motorized facilities, including bicycle and pedestrian facilities. The Bicycle Facility System map includes separated multi-use paths such as the Centennial, Interurban, and Whitehorse trails; designated on-street bicycle lanes on some state highways and county and city roads; designated routes on widened county road shoulders; and streets and roads with shared roadway use that do not include special markings or signs. The Southwest Urban Area Pedestrian Facility System Map includes existing sidewalks, shoulders 4 feet or greater, and separated multi-use paths. The Countywide

Bicycle Facility System map (Map 2) and the Southwest Urban Area Pedestrian Facility System map are ((~~is~~)) described in more detail in Chapter III. Implementation Measures, E. Countywide Nonmotorized Transportation.

Table 2

State Highways within Snohomish County

Highway	Limits	Mileage	Significance
I-5	King County Line to Skagit County Line	39.89	((~~Statewide~~)) HSS
I-405	King County Line to I-5	5.30	((~~Statewide~~)) HSS
US-2	King County Line to I-5	40.80	((~~Statewide~~)) HSS
SR-9	SR-522 to SR-530	29.56	((~~Statewide~~)) HSS
SR-9	SR-530 to Skagit County Line	8.08	((~~Regional~~)) non-HSS
SR-92	SR-9 to Mountain Loop Highway	8.25	((~~Regional~~)) non-HSS
SR-96	I-5 to SR-9	6.75	((~~Regional~~)) non-HSS
SR-99	King County Line to SR-104	0.12	((~~Statewide~~)) HSS
SR-99	SR-104 to SR-526/I-5	11.78	((~~Regional~~)) non-HSS
SR-104	Edmonds Ferry Terminal to King County Line	3.70	((~~Statewide~~)) HSS
SR-203	King County Line to SR-2	6.19	((~~Regional~~)) non-HSS
SR-204	SR-2 to SR-9	2.38	((~~Regional~~)) non-HSS
SR-522	King County Line to SR-2	11.23	((~~Statewide~~)) HSS
SR-524	SR-104 to SR-522	14.68	((~~Regional~~)) non-HSS
SR-525	I-5 to Mukilteo Ferry Terminal	8.64	((~~Statewide~~)) HSS
SR-526	I-5 to SR-525	4.52	((~~Statewide~~)) HSS
SR-527	((~~King County Line~~)) I-405 to I-5	((~~10.62~~)) 9.29	((~~Regional~~)) non-HSS
SR-528	I-5 to SR-9	3.46	((~~Regional~~)) non-HSS
SR-529	I-5 to Port of Everett/19th Street	2.20	((~~Statewide~~)) HSS
SR-529	Port of Everett/19th Street to SR-528	5.68	((~~Regional~~)) non-HSS
SR-530	I-5 to SR-9	3.84	((~~Statewide~~)) HSS
SR-530	SR-9 to Skagit County Line	31.72	((~~Regional~~)) non-HSS

SR-531	Wenberg State Park to SR-9	9.88	((~~Regional~~)) non-HSS
SR-532	Island County Line to I-5	7.18	((~~Regional~~)) non-HSS

3. Public Transportation

((~~Five~~)) Six public transportation agencies (Community Transit, Sound Transit, Everett Transit, King County Metro, Skagit Transit, and Island Transit) and tribal Tulalip Transit provide service within Snohomish County.

Community Transit is the primary service provider for most of the County. It also provides transit service to most of the cities within the County. Everett Transit also provides service within the City of Everett. Community Transit operates both local routes (intra-county) ((~~and~~)), commuter routes (inter-county). CT also operates *Swift* bus rapid transit (BRT), a special kind of bus service designed to provide quicker and more convenient trips for riders. Swift employs typical BRT characteristics such as high frequency service, off-board fare payment, dedicated transit lanes, and transit signal priority. Community Transit also operates park-and-ride lots and transit ((~~transfer~~)) centers and provides paratransit service, and vanpool service. ((~~, and a ride-matching service for carpoolers.~~))

Sound Transit, the regional transit authority, provides inter-county bus service between Snohomish, Pierce and King Counties, with regional express buses that connect Everett and Lynnwood with Seattle and Bellevue. Sound Transit also operates commuter rail connecting Seattle, Edmonds, Mukilteo and Everett. Community Transit operates the Sound Transit express routes that serve origins and destinations within the County.

Everett Transit, which is part of the City of Everett government, operates local bus routes and provides paratransit service within Everett, transit service to some unincorporated areas adjacent to the city, and a connection to the ferry terminal in the City of Mukilteo. Everett Transit also operates Everett Station, a multimodal transit station and community center located near downtown Everett.

King County Metro, which is part of King County government, operates primarily in King County. However, it also provides custom/express routes to Boeing's Everett facility, local routes that run into southern Snohomish County, and vanpool service.

Island Transit currently provides fixed route bus service between Stanwood and Camano Island, Stanwood and Mount Vernon, paratransit service for Stanwood, and vanpool service. Skagit Transit provides express bus service from Skagit County to Everett Station during the peak commute times and also provides vanpool service between Skagit and Snohomish Counties.

Tulalip Transit, which is part of the Tulalip Tribes, provides rural public transportation within the unserved transit areas of the Tulalip Tribes Reservation. The service consists of a Tulalip Bay route and a John Sam Lake route designed to provide connections with the main transit line provided by Community Transit.

A more comprehensive description of public transit agencies operating in Snohomish County and the services they provide are found in the Inventory of Transportation Facilities and Services.((~~Chapter IV. Recommended Transportation Improvements.~~))

4. Other Public and Private Transportation Facilities and Services

a. Intercity Bus

Greyhound bus lines provide interstate bus transportation connecting Snohomish County with Bellingham and Vancouver, British Columbia, Spokane and eastward, and Portland and southward. Northwestern Trailways bus lines provide intrastate bus transportation connecting Snohomish County (Everett and Monroe) with Spokane, Wenatchee, Seattle, Tacoma, and cities in between. The Greyhound and Northwest Trailways bus terminal is located at the Everett Station.

b. Passenger Rail

Amtrak currently provides passenger rail service from Seattle through Snohomish County with stops in Edmonds((~~and~~)), Everett, and Stanwood. The service provides connections north to Vancouver, British Columbia and Portland, Oregon southward. Service also runs easterly to Wenatchee and beyond. The Sounder is a commuter rail service owned and operated by Sound Transit that serves residents of Snohomish, King, and Pierce Counties. The current route through Snohomish County consists of stops in Everett (Everett Station), Edmonds (Edmonds Station), Mukilteo, and Seattle (King Street Station).

5. Freight Rail

The Burlington Northern Santa Fe (BNSF) Railroad provides rail freight service. Its major terminal facility within Snohomish County is located near downtown Everett on the waterfront. Snohomish County's eastside rail corridor currently provides freight service with additional potential future uses such as a regional nonmotorized multi-use trail, excursion train, and commuter rail line.

6. Ferry System

Two Washington State Ferries (WSF) routes serve Snohomish County, providing cross-sound travel. The Edmonds-Kingston ferry operates between Edmonds and Kingston, which is in Kitsap County. The Mukilteo-Clinton ferry operates between Mukilteo and Clinton, which is on Whidbey Island in Island County. State-owned ferry terminals are located in both Edmonds and Mukilteo.

7. Airports

Several public and private airports are located in Snohomish County. The Snohomish County Airport at Paine Field, southwest of Everett, is owned and operated by the County. Paine Field has three runways used for general aviation and aircraft-related manufacturing. The City of Arlington owns and operates an airport that has two runways and an adjoining industrial park. A municipal airport in Darrington provides one runway for general aviation use. Privately owned airports are located in Granite Falls, Marysville, Monroe, Snohomish, and Sultan. Each of them has one runway.

8. Marine Port Facilities

The Port of Everett operates eight berths on 100 acres on Everett's waterfront, handling over ((~~one million~~))359,000 tons of cargo annually. Burlington Northern-Santa Fe Railroad serves this port facility. In addition, the Port of Everett owns and operates a ((~~2,050~~))2,300-slip marina on Everett's waterfront. The Port of Edmonds owns and operates a 940-slip marina on Edmonds' waterfront.

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II. RELATIONSHIP OF PLANNED LAND USE TO TRANSPORTATION

A. Land Use Map and Travel Demand

Snohomish County is divided into urban, rural and resource lands as designated by the Future Land Use Map (FLUM). These broad categories of land use are mutually exclusive. Table 3 provides the approximate area and acreage for the categories as well as distinctions between urban and rural uses. (ref. 11) It is important to note that much of western Snohomish County is urban and will continue to urbanize.

Table 3

Area and Acreage of Future Land Use

((

~~Land Use Category~~	~~Area (Sq. Miles)~~	~~Acreage (Acres)~~
~~Tribal Trust Land~~	~~19.0~~	~~12,149~~
~~Urban Lands~~		
~~▪ County Unincorporated~~	~~70.7~~	~~45,279~~
~~▪ City Incorporated~~	~~118.4~~	~~75,776~~
~~Rural Lands~~	~~368.4~~	~~235,783~~
~~Resource Lands (varied)~~	~~496.3~~	~~317,609~~
~~National Forest~~	~~1,027.7~~	~~657,698~~
~~Water/Undefined~~	~~96.9~~	~~62,028~~
~~**Total Land Area**~~	~~**2,197.4**~~	~~**1,406,322**~~

Source: PDS, 2005.

))

Land Use Category	Area (Sq. Miles)	Acreage (Acres)
Tribal Trust Land	20.9	13,400
Urban Lands		
▪ County Unincorporated	53.7	34,408
▪ City Incorporated	151.2	96,786
Rural Lands	365.5	233,954
Resource Lands (varied)	495.9	317,369
National Forest	1,027.6	657,671
Water/Undefined	82.4	52,735
Total Land Area	**2,197.2**	**1,406,323**

Source: PDS, 2013.

1. Land Use Forecasts

Travel demand is directly related to the type and intensity of the land uses that make up the community and region. Snohomish County and city governments are responsible for planning under the GMA to accommodate a fair share of the region's expected growth and development. The county and cities must designate adequate amounts of land for residential and commercial land uses within their comprehensive plans and provide appropriate zoning and special use classifications that guide and regulate development.

Growth and demand for land development emanates from increases in population and employment in the region and county itself. The county receives a forecasted range of population growth that must be planned for from OFM. In a collaborative process, the county and cities establish targets for urban and rural growth in the form of population, ((~~and~~)) employment, and housing growth targets. Table 4 presents the population, ((~~and~~)) employment, and housing growth targets ((~~that the county and cities have agreed to accommodate towards the year 2025. (ref. 12)~~) upon which the land use element of the county's comprehensive plan is based. Information is presented by UGAs and for the total remaining rural area. ((~~The years 2002, 2012 and 2025 are provided to illustrate growth tends.~~))

((~~Table 4~~

~~Population and Employment Growth in Snohomish County~~

~~Growth Area~~	~~2002~~	~~2012~~	~~2025~~	~~% Change 2002 - 2025~~
~~Population~~				
~~Arlington UGA~~	~~13,920~~	~~18,442~~	~~24,320~~	~~75%~~
~~Darrington UGA~~	~~1,468~~	~~1,754~~	~~2,125~~	~~45%~~
~~Gold Bar UGA~~	~~2,817~~	~~3,114~~	~~3,500~~	~~24%~~
~~Granite Falls UGA~~	~~2,909~~	~~4,296~~	~~6,100~~	~~110%~~
~~Index UGA~~	~~160~~	~~173~~	~~190~~	~~19%~~
~~Lake Stevens UGA~~	~~26,828~~	~~35,218~~	~~46,125~~	~~72%~~
~~Marysville UGA~~	~~50,828~~	~~65,033~~	~~83,500~~	~~64%~~
~~Monroe UGA~~	~~16,240~~	~~20,740~~	~~26,590~~	~~64%~~
~~Snohomish UGA~~	~~10,194~~	~~12,081~~	~~14,535~~	~~43%~~
~~Stanwood UGA~~	~~4,479~~	~~6,592~~	~~9,340~~	~~109%~~
~~Sultan UGA~~	~~4,258~~	~~7,120~~	~~10,840~~	~~155%~~
~~SW County UGA~~	~~380,579~~	~~444,358~~	~~527,271~~	~~39%~~
~~Rural Areas~~	~~113,320~~	~~133,013~~	~~158,615~~	~~40%~~
~~FCC Reserve~~	~~N/A~~	~~0~~	~~15,000~~	~~N/A~~
~~TDR Reserve~~	~~N/A~~	~~2,130~~	~~4,900~~	~~N/A~~
~~Total~~	**~~628,000~~**	**~~754,064~~**	**~~932,951~~**	**~~49%~~**

~~Growth Area~~	~~2002~~	~~2012~~	~~2025~~	~~% Change 2002 - 2025~~
~~Employment~~				
~~Arlington UGA~~	~~8,103~~	~~11,258~~	~~15,360~~	~~90%~~
~~Darrington UGA~~	~~371~~	~~442~~	~~535~~	~~44%~~
~~Gold Bar UGA~~	~~175~~	~~190~~	~~210~~	~~20%~~
~~Granite Falls UGA~~	~~802~~	~~1,410~~	~~2,200~~	~~174%~~
~~Index UGA~~	~~44~~	~~55~~	~~70~~	~~59%~~
~~Lake Stevens UGA~~	~~3,799~~	~~5,023~~	~~6,615~~	~~74%~~
~~Maltby UGA~~	~~2,107~~	~~3,347~~	~~4,960~~	~~135%~~
~~Marysville UGA~~	~~11,292~~	~~14,767~~	~~19,285~~	~~71%~~
~~Monroe UGA~~	~~7,627~~	~~9,698~~	~~12,390~~	~~62%~~
~~Snohomish UGA~~	~~4,842~~	~~5,524~~	~~6,410~~	~~32%~~
~~Stanwood UGA~~	~~3,081~~	~~4,154~~	~~5,550~~	~~80%~~
~~Sultan UGA~~	~~860~~	~~1,017~~	~~1,220~~	~~42%~~
~~SW County UGA~~	~~163,204~~	~~201,975~~	~~252,377~~	~~55%~~
~~Rural Areas~~	~~7,566~~	~~12,168~~	~~18,150~~	~~140%~~
~~Total~~	**~~213,875~~**	**~~271,028~~**	**~~345,332~~**	**~~61%~~**

~~Source: PDS, 2005~~))

Table 4

Population, Employment, and Housing Unit Growth in Snohomish County

Growth Area	2011	2035	% Change 2011 - 2035
Population			
Arlington UGA	18,489	26,002	41%
Darrington UGA	1,420	2,161	52%
Gold Bar UGA	2,909	3,319	14%
Granite Falls UGA	3,517	8,517	142%
Index UGA	180	220	22%
Lake Stevens UGA	33,218	46,380	40%
Maltby UGA	NA	NA	NA
Marysville UGA	60,869	87,798	44%
Monroe UGA	18,806	24,754	32%
Snohomish UGA	10,559	14,494	37%
Stanwood UGA	6,353	11,085	74%
Sultan UGA	4,969	8,369	68%
SW County UGA	434,425	582,035	34%
Rural Areas	121,287	140,125	16%
Total	**717,000**	**955,257**	**33%**

Growth Area	2011	2035	% Change 2011 - 2035
Employment			
Arlington UGA	8,660	20,884	141%
Darrington UGA	500	886	77%
Gold Bar UGA	223	666	199%
Granite Falls UGA	760	2,276	199%
Index UGA	20	25	25%
Lake Stevens UGA	4,003	7,821	95%
Maltby UGA	3,190	6,374	100%
Marysville UGA	12,316	28,113	128%
Monroe UGA	7,779	11,781	51%
Snohomish UGA	4,871	6,941	42%
Stanwood UGA	3,456	5,723	66%
Sultan UGA	866	2,081	140%
SW County UGA	187,653	279,479	49%
Rural Areas	14,693	23,323	59%
Total	**248,990**	**396,373**	**59%**

Growth Area	2011	2035	% Change 2011 - 2035
Housing Units			
Arlington UGA	7,128	10,018	41%
Darrington UGA	682	948	39%
Gold Bar UGA	1,205	1,304	8%
Granite Falls UGA	1,412	3,516	149%
Index UGA	117	127	9%
Lake Stevens UGA	12,281	17,311	41%
Maltby UGA	71	71	0%
Marysville UGA	22,709	32,936	45%
Monroe UGA	5,838	7,443	27%
Snohomish UGA	4,545	6,115	35%
Stanwood UGA	2,634	4,577	74%
Sultan UGA	1,887	2,972	57%
SW County UGA	178,958	243,179	36%
Rural Areas	48,973	55,816	14%
Total	**288,440**	**386,333**	**34%**

Source: Amended Ordinance NO. 14-129

Population can be expected to increase from ((~~628,000~~)) 717,000 in ((~~2002~~)) 2011 to ((~~upwards of 932,951~~)) 955,257 by ((~~2025~~)) 2035. This amounts to a ((~~49~~)) 33 percent increase in population. Also, employment as part of the expanding regional economy can be expected to increase from ((~~213,875~~)) 248,990 in ((~~2002~~)) 2011 to ((~~upwards of 345,332~~)) 396,373 by ((~~2025~~)) 2035. This amounts to an increase of approximately ((~~61~~)) 59 percent in employment. Housing units can be expected to increase from 288,440 in 2011 to 386,333 in 2035, a 34 percent increase.((~~(ref. 12)~~))

((~~Focusing a large part of urban growth within compact urban centers has been the county's preferred approach to growth management since early in the Snohomish County Tomorrow planning process started in 1989. This preference reflects a commitment to the Vision 2020 Regional Growth Strategy that is promoted by Puget Sound Regional Council in collaboration with local governments. The county subsequently has committed considerable time and resources to defining criteria for designating centers, allocating growth and planning infrastructure to serve urban centers and the more expansive urban growth areas. Transportation planning for Snohomish County is an integral part of the overall growth management effort and serves to identify and evaluate the need for infrastructure and services.~~))

2. Travel Characteristics

Increases in population, employment and associated land development in turn cause increases in travel demand, congestion and the need for arterial and transit-related improvements. Numerical measures of travel demand have been computed based on the county's land use policies and the resulting growth forecasts. The transportation measures are summarized in

Table 5 Snohomish County Summary of Travel Statistics. These statistics indicate a substantial increase in travel demand towards the year ((~~2025~~)) 2035 that will likely cause additional delay and congestion on the transportation system.

((~~It is important to note that the county recognizes the merits of fully-contained-communities (FCC) and has made policy provisions for eventual inclusion of them within the GMACP. Location decisions for any FCC will be made as part of the county's annual docketed amendment of the GMACP. The travel forecasts and level of service analysis performed for this transportation element do not include the implementation of an FCC; thus additional analysis would be needed to reflect the impacts of a proposed FCC.~~))

3. Planned Land Use and Transportation Services

Different transportation modes can be applied to effectively serve different types and intensities of land use within unincorporated Snohomish County. It is appropriate, and the policy of the county, to vary the plans for transportation modes and infrastructure to reflect the location, type and intensity of particular land uses. Designated land uses in unincorporated county as presented by the county's comprehensive plan can be grouped in ((~~four~~)) three broad categories. These categories are: a) urban centers; b) urban areas outside centers; and c) rural areas~~;~~ and ~~d)~~ resource lands. ((~~Importantly, these categories serve as the basis for organizing transportation services described in the following sections.~~))

~~((Table 5~~

~~Snohomish County~~
~~Summary of Travel Statistics~~

~~Category~~	~~Magnitude~~
~~Miles of County Highways and Arterials~~	~~-~~
~~2000~~	~~1,058~~
~~2025~~	~~1,138~~
~~% Increase~~	~~7.6%~~
~~Daily Vehicle Trips (1)~~	
~~2000~~	~~1,224,900~~
~~2025~~	~~1,927,450~~
~~% Increase~~	~~57.4%~~
~~Daily Vehicle Miles of Travel~~	~~-~~
~~2000~~	~~16,548,800~~
~~2025~~	~~25,827,000~~
~~% Increase~~	~~56.1%~~
~~Daily Rideshare Vehicle Trips (2)~~	~~-~~
~~2000~~	~~43,590~~
~~2025~~	~~67,900~~
~~% Increase~~	~~55.8%~~
~~Daily Transit Boardings (3)~~	~~-~~
~~2000~~	~~17,800~~
~~2025~~	~~41,700~~
~~% Increase~~	~~134.3%~~
~~A.M. Peak Hour Vehicles~~	~~-~~
~~2000~~	~~111,590~~
~~2025~~	~~167,600~~
~~% Increase~~	~~50.2%~~
~~P.M. Peak Hour Vehicles~~	~~-~~
~~2000~~	~~129,300~~
~~2025~~	~~190,700~~
~~% Increase~~	~~47.5%~~

~~(1) ((Does not include 15,000 population in reserve for fully-contained communities.))~~
~~(2) Includes two-person carpools.~~
~~(3) Represents a linked-trip that does not reflect transfer-related boardings.~~

~~Source: Snohomish County Public Works 2005.~~

))

Table 5

Snohomish County
Summary of Travel Statistics

Category	Magnitude
Daily Vehicle Trips	
2012	1,976,000
2035	3,071,000
% Increase	55%
Daily Vehicle Miles of Travel	
2012	18,710,000
2035	23,360,000
% Increase	25%
Daily Rideshare Vehicle Trips (1)	
2012	546,000
2035	758,000
% Increase	39%
Daily Transit Boardings (2)	
2012	48,000
2035	67,000
% Increase	40%
A.M. Peak Hour Vehicles	
2012	119,000
2035	168,000
% Increase	41%
P.M. Peak Hour Vehicles	
2012	172,000
2035	235,000
% Increase	36%

(1) Includes two-person carpools.
(2) Represents a linked-trip that does not reflect transfer-related boardings.

Source: Snohomish County Public Works 2014.

a. ((~~Urban Centers~~))

((~~Urban Centers can be developed in various forms in order to adapt to the county's growth and development needs. Urban Centers are designed to have defined boundaries within which higher residential and employment densities occur. Importantly, the design of an urban center emphasizes multimodal transportation services and site design features which encourage transit use.~~))

((~~As funding allows, transportation services within centers will emphasize pedestrian connections between land uses. Fixed-route transit service should be provided to serve all urban centers. Parking supply and demand would need to be managed in order to foster HOV use and the pedestrian attractiveness of centers. Developments within centers will have transit compatible designs and will encourage reduction in single-occupancy vehicle (SOV) use through transportation demand management strategies. Transit capital facilities are to be located within or adjacent to urban centers (particularly those containing transit/pedestrian villages) and manufacturing centers. The four center concepts for Snohomish County are summarized in Table 6.~~))

- ((~~Manufacturing and Industrial Centers. Characterized by large tracts of land which are reserved for intensive manufacturing and other non-office uses, manufacturing and industrial centers emphasize multimodal transportation service with HOV lanes, transit service provided to major destinations within the center, and pedestrian access within the center to transit stations. Goods access and terminal locations need to be provided for truck, rail, or waterway.~~))

- ((~~Urban Centers. Urban Centers offer higher residential and employment densities than the surrounding urban growth area. Transit stations will be included within or adjacent to the center. While transit compatibility is important to this type of center, there will be accommodation of automobiles as well. Urban Centers can contain at least one Transit/ Pedestrian Village.~~))

- ((~~Urban Villages. Urban Villages are small-scale, pedestrian-oriented urban forms with existing or potential access to public transportation. They may or may not be located adjacent to a High-Capacity Transit (HCT) corridor, and can include a variety of small-scale commercial and office uses, public buildings, high-density residential units, and public open space. Unlike Transit/Pedestrian Villages, the Urban Village can be free-standing outside of an urban center. Generally, an Urban Village would be located along a minor arterial or higher.~~))

- ((~~Transit/Pedestrian Villages. Transit/Pedestrian Villages are core areas within an Urban Center located adjacent to planned regional high capacity transit systems. They are compact, walkable areas that could serve as the focal point for Center redevelopment, and for which the County has prepared a conceptual or master plan showing how the area could accommodate a mix of commercial, office, residential, transit, circulation, and public land uses.~~))

((~~Table 6~~

~~Centers for Unincorporated Snohomish County~~

~~Name/Location~~	~~Center Type~~	~~Dwelling Unit Density (1)~~	~~Employee Density (2)~~	~~Minimum Employees~~
~~Paine Field (3)~~	~~Manufacturing~~	~~n/a~~	~~20~~	~~10,000~~
~~128th Street SW/I-5~~	~~Urban~~	~~12-50~~	~~30~~	~~2,000~~
~~164th Street SW/I-5 (4)~~	~~Urban (with Transit/ Pedestrian Village)~~	~~12-50 (20-50 in T/P Village portion)~~	~~30~~	~~2,000~~
~~SR 99 & SR 525~~	~~Urban~~	~~12-50~~	~~15-20~~	~~2,000~~
~~SR 99 & 152nd Street SW~~	~~Urban~~	~~12-50~~	~~15-20~~	~~2,000~~
~~SR 527 & 196th Street SE~~	~~Urban~~	~~12-50~~	~~15-20~~	~~2,000~~
~~44th Avenue W~~	~~Urban~~	~~12-50~~	~~15-20~~	~~2,000~~
~~SR 99 & Airport Road~~	~~Urban Village~~	~~12-50~~	~~15-20~~	~~2,000~~
~~SR 99 & Center Road~~	~~Urban Village~~	~~12-50~~	~~15-20~~	~~2,000~~
~~112th Street SE & 4th Avenue W~~	~~Urban Village~~	~~12-50~~	~~15-20~~	~~2,000~~
~~164th Street SW & 33rd Avenue W~~	~~Urban Village~~	~~12-50~~	~~15-20~~	~~2,000~~
~~132nd Street SE & 42nd Avenue SE~~	~~Urban Village~~	~~12-50~~	~~15-20~~	~~2,000~~
~~148th Street SE & Seattle Hill Road~~	~~Urban Village~~	~~12-50~~	~~15-20~~	~~2,000~~
~~SR 527 & 185th Street SE~~	~~Urban Village~~	~~12-50~~	~~15-20~~	~~2,000~~
~~Filbert & Maltby Roads~~	~~Urban Village~~	~~12-50~~	~~15-20~~	~~2,000~~
~~Maltby Road & 39th Avenue SE~~	~~Urban Village~~	~~12-50~~	~~15-20~~	~~2,000~~
~~80th Avenue NW & 284th Street NW~~	~~Urban Village~~	~~12-50~~	~~15-20~~	~~2,000~~
~~Cathcart Way & 78th Avenue SE~~	~~Urban Village~~	~~12-50~~	~~15-20~~	~~2,000~~

~~(1) Number of dwelling units per acre.~~
~~(2) Minimum employees recommended per net acre for new development consistent with PSRC Vision 2020 guidance.~~
~~(3) Unincorporated Snohomish County portion.~~
(4) ~~Transit/Pedestrian Village at 164th Street SW and Ash Way.~~))

((~~Goal LU4 of the GPP envisions that master plans would be prepared so that centers would develop in an orderly and consistent manner. The master plan would be prepared by the county or its designee, and will be guided by the goals, objectives, and policies of the GPP and be consistent with the CWPPs. Topics to be covered by the master plan could include: multimodal transportation facilities; capital facilities in addition to transportation facilities; comprehensive land use planning including the establishment of minimum residential and employment densities; and a financial strategy for implementation of the master plan.~~))

a. Centers

Focusing a large part of urban growth within compact centers has long been the county's preferred approach to growth management for the unincorporated county. This preference reflects a commitment to the goals of the GMA. The county subsequently has committed considerable time and resources to defining criteria for designating centers, allocating growth and planning infrastructure to serve centers.

Centers can be developed in various forms to adapt to the unincorporated county's growth and transportation needs. Centers are designed to have defined boundaries within which higher residential and employment densities occur. The design of a center encourages transit use, pedestrian activity, and bicycle connections. Fixed-route transit service and appropriate roadway access should be provided to serve centers. In most cases, centers are connected by transit emphasis corridors which are served by or planned to be served by bus rapid transit (BRT), light rail, or other high-capacity transit (HCT). There are four centers designations on the Future Land Use Map (FLUM).

- Manufacturing and Industrial Centers. An area characterized by large tracts of land which are reserved for intensive manufacturing and other non-office uses. Goods access and terminal locations need to be provided for truck, rail, or waterway. Appropriate road access and transit service is necessary to provide for employee commutes.

- Urban Centers. An area located along existing or planned high capacity transit routes and principal arterials where the highest residential and employment densities can be accommodated. These are pedestrian and transit oriented areas with a mix of high-density residential, office and retail uses, and community facilities.

- Urban Villages. A pedestrian oriented, neighborhood scale, mixed-use area with retail and office uses, public and community facilities, and high-density residential developments. In some cases Urban Villages are served by high capacity transit, but for the most part transit service is provided by core and local transit routes.

- Transit/Pedestrian Villages. An area within designated Urban Centers that surrounds an existing or planned high capacity transit station. Transit Pedestrian Villages feature uses that enhance and support the high capacity transit station. Emphasis shall be placed on a compact walkable area that is integrated with multiple modes of transportation.

b. Urban Areas Outside Centers

Urban growth areas (UGAs) are characterized by a defined geographic boundary within which urban growth is planned to occur and where urban infrastructure such as sewers is to be provided. A variety of land uses and concentrations of growth will occur within these UGAs. The land use element of the comprehensive plan allows for an average net residential density of at least four to six dwelling units per acre while taking into account environmental constraints. Higher density, mixed-use development is also planned to occur throughout the UGAs. The majority of population and employment growth is expected to take place within these urban areas. This, of course, would result in higher densities in the future than have occurred historically within these geographic areas.

Transportation services provided within the urban areas would consist of ((~~local,~~)) fixed-route transit service, roadway access, park-and-ride lots, bicycle facilities, and walkways. ((~~Local fixed~~)) Fixed-route transit service will connect urban centers, circulate within the urban areas, and connect urban areas together ((~~such as Marysville and Lake Stevens. Local-fixed route service will generally operate on headways of between 30 minutes and one hour.~~)). This transit service would consist of BRT on major transit corridors operating every 15 minutes or better, corridor service on other transit emphasis corridors operating between 15 and 20 minutes, and local service operating at frequencies between 20 minutes and one hour. Arterial roadways will continue to be the major transportation service provided within urban areas.

Arterial roadway expansion is planned to occur within urban areas and the majority of the additional transportation facilities are also located within the urban areas. Access to express bus service and other HCT system components is expected to be through park-and-ride lots, ~~and~~ local fixed-route service to transit centers, and along transit emphasis corridors. Some park-and-ride lot capacity would be located within the urban areas to provide connections to express bus service or the regional HCT system.

Urban areas are expected to be served by bicycle and pedestrian facilities, constructed in conjunction with development, as part of roadway improvement projects where applicable, or as stand-alone projects as funding is available. The bicycle system presented within this transportation element is designed to provide both an alternative to other modes of travel and a recreational opportunity. Individuals choosing to use bicycling as a transportation mode should be able to do so within the urban areas.

c. Rural Areas and Resource Lands

Rural areas and resource lands are lands outside the designated urban growth boundaries. These two land use categories include most of the county's forestry, agricultural, and ((~~minerals~~)) mineral lands, as well as low density residential uses. Employment areas are planned to support the needs of rural uses, such as employment relating to resource lands and residential uses. ((~~The industrial lands formerly designated within the Cathcart-Maltby-Clearview area plan are an example of a rural employment area designated by the GPP.~~)) Densities for rural areas are planned to be one dwelling unit per five acres.

Auto travel will continue to be the primary mode of transportation within rural areas and connecting rural areas to urban areas. Public transportation service to and from rural areas is likely to be demand-responsive type service or as part of a fixed-route connection between urban areas. A few roadways will be widened to provide additional capacity within the rural areas and some new rural roadways are planned by the county. Some potential exists to eliminate long dead-end local roads through development review. Transportation improvements within the rural areas will consist mainly of safety projects and minor widening projects such as turn pockets and shoulder improvements. Shoulders will also be used for pedestrian access and as ((~~walkways and~~)) bicycle facilities in addition to the planned trails system within the rural area.

((~~In summary, transportation infrastructure and services connecting the three general areas of the county's land use plan will emphasize a variety of travel modes as presented within Table 7. Transportation service to and from manufacturing and activity centers will emphasize HCT and local fixed-route transit and auto access, while access to and from pedestrian centers will have the additional component of the HCT system. A system of HOV lanes will be an integral part of~~

~~the HCT system connecting urban villages to other centers and providing access to and from urban areas. Transit/pedestrian villages will be connected to Sound Transit's regional transit system which will provide convenient access to other regional centers such as Everett and downtown Seattle.~~))

((~~Table 7~~

~~Transportation Services~~
~~Modal Emphasis Between Origin-Destination Areas~~

~~Areas~~	~~Centers~~	~~Urban~~	~~Rural~~
~~Centers~~	~~• Local Fixed Route~~ ~~• Express Bus~~ ~~• HOV/HCT (1)~~ ~~• Automobile~~	~~• Local Fixed Route~~ ~~• Automobile~~ ~~• Park-and-Ride~~	~~• Automobile~~ ~~• Park-and-Ride~~
~~Urban~~	~~• Local Fixed Route~~ ~~• Automobile~~ ~~• Park-and-Ride (2)~~	~~• Local Fixed Route~~ ~~• Automobile~~	~~• Automobile~~ ~~• Demand-Response Transit~~
~~Rural~~	~~• Automobile~~ ~~• Park-and-Ride~~	~~• Automobile~~ ~~• Park-and-Ride~~ ~~• Demand-Response Transit~~	~~• Automobile~~ ~~• Demand-Response Transit~~

~~(1) HOV=High-Occupancy Vehicles, HCT=High-Capacity Transit.~~
~~(2) Can be served by local and/or express services.~~))

B. Planning Level ((~~of Service Policy Concepts for~~))Transportation Analysis ((~~Planning~~)) for County Arterials and State Highways

((~~LOS standards, adopted within this TE,~~)) Level-of-service (LOS) analysis ((~~provide~~))provides the basic measure by which to make judgments on transportation performance, capital improvement programming and concurrency. The methodology used in this plan to determine the potential need for capital improvements relies on a planning-level analysis in which the peak-hour volume (V) for a section of roadway is compared to the section's maximum service volume (MSV). In the analysis, the MSV functions as the roadway's estimated capacity, thus providing a volume-to-capacity evaluation. Existing and forecasted 2035 traffic volumes for the a.m. and p.m. system peak-hours are compared to MSV, resulting in V/MSV ratios. When the V/MSV ratio indicates there may be a potential LOS deficiency, then potential arterial improvement projects or other strategies are considered to address the potential deficiency. If a potential project that increases capacity on an arterial roadway has been identified and included in the plan, then the future MSV reflects the increased capacity.

This planning-level analysis allows the identification of arterials that potentially are operating or could eventually operate below the county's adopted LOS standard. However, it is important to note that actual LOS determinations are made under the county's concurrency management system (CMS), as discussed in Chapter III. During the planning-level analysis, potential arterial improvements or other strategies for addressing potential LOS deficiencies are also identified. The actual need for an improvement project to maintain LOS standards can be confirmed by detailed operational analysis under the CMS before improvement programming proceeds.

((~~Where land development causes a deterioration of level of service below the adopted standard, the county is obligated to demonstrate that a needed improvement can be funded and constructed within six years. If an improvement cannot be funded and constructed within the six-year time frame, then developments impacting the road with deficient LOS may not be approved and land use assump-tions may be reassessed to ensure that the LOS standard will be met (RCW 36.70A(6)(c)(iii)).~~))

((~~The technical procedure for arterial LOS for "purposes of determining the needed capital improvements in this plan" relies on a comparison of a.m. and p.m. system peak-hour volumes (V) versus the maximum service volumes (MSV) a particular section of roadway can handle under prevailing conditions. This planning-level analysis allows the initial identification of arterials that are potentially below or could eventually be below the adopted LOS standard. The existing and forecasted volumes for peak-hour traffic operations is compared to the MSV conditions, resulting in a V/MSV ratio from which LOS is determined. Initial identification of roadways below LOS standards can be confirmed by detailed operational analysis before improvement programming proceeds.~~))

((~~A level of service standard, adopted for concurrency management, is presented by Chapter III. Implementation Measures. The LOS standard and concurrency management system are implemented through Chapter 30.66B SCC and other development regulations, and are consistent with the countywide planning policies and comprehensive plan by including the following features:~~

- ~~transportation concurrency determinations for land development are made in light of the overall goals, objectives and policies of the county's comprehensive plan;~~
- ~~LOS shall be used in a manner that is consistent with growth management tools that manage the rate of growth in rural areas and encourage more intense development within urban areas;~~
- ~~the travel impacts of development considered in multimodal terms and on a systems basis;~~
- ~~recognize there are rural arterials that carry significant amounts of urban-related traffic; and~~
- ~~recognize there are transportation services and facilities that are at ultimate capacity and alternative mitigation may be considered in making concurrency determinations.~~))

~~For long-range planning, LOS measurement for Snohomish County arterials and state highways involves using three different concepts.~~ Three different agencies have responsibility for promulgating LOS standards for arterials and highways in unincorporated Snohomish County. The LOS standard for locally owned arterials is adopted by Snohomish County, the standard for regionally significant state highways (non-HSS) is adopted by the PSRC, and the standard for state highways of statewide significance (HSS) is adopted by the WSDOT. Table ((~~8~~)) 6 presents a summary of the LOS standards ((~~promulgated~~)) adopted by Snohomish County, PSRC and WSDOT. While somewhat diverse in application, all the standards and methodologies are consistent with the most current version of the Highway Capacity Manual, published by the Transportation Research Board (TRB). (ref. ((~~13~~))12)

1. County-owned Arterials

((~~Actual field measurement for concurrency management purposes is based on the average daily traffic and on the peak hour operating speed of the arterial, while the planning-level~~)) The planning-level LOS evaluation ((~~measurement~~)) for Snohomish County relies on MSV for each LOS grade. MSVs serve as a reasonable and accurate "planning method" for estimating levels of congestion on arterials and crafting effective solutions. ((~~Snohomish County's minimum~~

standard for MSVs and operating speed applies to county arterials within unincorporated areas for the a.m. and p.m. peak hours, typically during the 6:00-9:00 a.m. and 3:30-6:30 p.m. peak commuter time periods.)) As noted above, this planning-level analysis allows the identification of arterials that are potentially below or could eventually be below the county's adopted LOS standard. The county's adopted LOS standard and concurrency management system is discussed in detail in Chapter III.

((Table 8

Summary of Level of Service Standards for Snohomish County Arterials and State Highways

FEATURE	URBAN CENTERS (1)	URBAN AREA	RURAL AREA	SPECIAL CONDITION
Snohomish County (Arterial Roadways)				
LOS Standard (2)	Below "E" (3)	"E"	"C"	Lower Volume Road Provision, Ultimate Capacity and rural arterials with urban traffic
Transit Compatibility Criteria (4)	Yes Below "E" (3)	Yes Below "E" (3)	Yes "D"	Allows observance of lower LOS standard
FEATURE	**INNER URBAN AREA**	**OUTER URBAN AREA**	**RURAL AREA**	**SPECIAL CONDITION**
Puget Sound Regional Council (Highways of Regional Significance)				
LOS Standard (5)	"E" Mitigated	"D"	"C"	"E" Mitigated implies an ultimate capacity observance
Transit Compatibility Criteria	No	No	No	n/a
FEATURE	**URBAN AREA**		**RURAL AREA**	**SPECIAL CONDITION**
Washington State (Highways of Statewide Significance)				
LOS Standard (6)	"D"		"C"	None
Transit Compatibility Criteria	No		No	n/a

(1) Centers are assumed to be transit compatible in design and function.
(2) For p.m. and a.m. peak hours with volume/maximum service volume as planning-level measurement.
(3) V/MSV consistent with 5 mph reduction allowance in operating speed under concurrency LOS standard.
(4) Applicable if specific transit supply and demand conditions exist.
(5) For p.m. peak hour period with field measurement allowed as a local option.
(6) Based on methodologies consistent with the most current edition of the Highway Capacity Manual.))

Table 6

LOS Standard (1) for Local Arterials and State Highways

	Urban Area	Rural Area
County-Owned Arterials (2)	"E"	"C"
Regionally Significant State Highways (non-HSS) Inner Urban Area Outer Urban Area	"E" Mitigated (3) "D"	"C"
Highways of Statewide Significance (HSS)	"D"	"C"

Source: WSDOT, 2010.

(1) Based on methodologies consistent with the most current edition of the Highway Capacity Manual.

(2) See Chapter III for a more detailed description of Snohomish County LOS standard

(3) Congestion should be mitigated when PM peak hour LOS falls below LOS E

~~Application of the County's LOS standard varies depending on whether an arterial is within an urban center, urban area, or rural area. The concept here is that the more intense the land use, the lower the LOS that can be expected and also tolerated. Where an arterial is transit compatible and transit is providing specific amounts of service, a lower LOS is tolerable. The second special condition holds that in some situations an arterial may be at its ultimate capacity and a different LOS standard applies. Mitigation of congestion on ultimate capacity arterials may need to come from adjacent arterials or from programmatic measures that reduce or divert travel demand.~~

((~~See Section III.A. Concurrency Management System for a description of the county's concurrency management system and LOS standard. The concurrency management LOS standard uses a two-step process to determine if an arterial unit is deficient and in need of improvement. The first step uses an average daily traffic (ADT) threshold to determine if enough traffic exists to cause significant delay, while the second step uses a travel speed threshold to determine if the arterial is deficient.~~))

2. State-owned ((~~Highways of Regional Significance~~)) Regionally Significant State Highways (PSRC)

PSRC, in cooperation with WSDOT, has ((~~recently~~)) adopted LOS standards for ((~~state highways of regional significance (HRS)~~))) Regionally Significant State Highways (non-HSS). (ref. ((~~14~~))13) These are highways not deemed to be of statewide significance by the Washington State Transportation Commission. The ((~~HRS~~)) non-HSS LOS ((~~, similar to the county's,~~)) varies depending on the intensity/form of development in an area. "Inner urban areas" are mapped where LOS "E-mitigated" would apply to ((~~HRS~~)) non-HSS, and outer urban areas are mapped where LOS "D" would apply to ((~~HRS~~)) non-HSS. For the remaining rural areas, a LOS "C" would apply. The LOS standards for ((~~HRS~~)) non-HSS are for a p.m. peak hour, with local agencies having the discretion to decide on the appropriate field and planning-level methodology. ((~~There are no provisions for transit compatibility; however, the LOS "E-mitigated" standard for inner urban areas would seem to imply that there would be a limit to capacity expansions for some state highways.~~))

3. State-owned Highways of Statewide Significance (WSDOT)

The Washington State Transportation Commission has adopted LOS standards for use by WSDOT in evaluating the performance of highways of statewide significance (HSS). (ref. ((~~15~~))13) Compliance with HSS LOS standards is measured by WSDOT using a variety of methodologies based on the most current addition of the Highway Capacity Manual((~~, published by the Transportation Research Board (TRB)~~)). The methodologies determine LOS based on volume-to-capacity relationships, travel speed and delay, and duration of congested conditions on a highway segment, intersection, or at an interchange.

((~~4. County's Transit Compatibility Provisions~~))

((~~Transit service is expected to play a much greater role in the county's future transportation system. In order to accommodate and enhance transit LOS, land development and some of the county's arterials within urban areas will need to be compatible with services provided by Community Transit, Everett Transit and Sound Transit. Land use and transit compatibility has three key components: a) land use density; b) on-site compatibility; and c) off-site compatibility.~~))

((~~a. Land Use Density~~))

((~~Areas which have greater than 12 dwelling units per acre can be deemed supportive of HCT and express bus service. Residential densities of 12 dwelling units per acre are planned to be achieved within pedestrian centers. For parts of the urban area that are planned to have residential densities between four and 12 dwelling units per acre, it is likely that fixed-route transit can be supported at the lower densities and HCT supported at the upper densities. The relationship of employment densities to transit service is more difficult to ascertain than the residential densities. At employment densities of 20 employees per acre, commercial and industrial land uses can be supportive of express bus and HCT services.~~))

((~~b. On-site Transit Compatibility~~))

((~~A development's site design is an important factor in achieving compatibility with transit services. On-site compatibility with transit refers to design features such as building orientation, location of parking areas, layout of transit vehicle and pedestrian circulation within the site, access to and from the site involving frontage improvement, pedestrian connections to buildings, and what type of transit access and pedestrian facilities are provided on-site.~~))

((~~c. Off-site Transit Compatibility~~))

((~~In addition to on-site compatibility, there is also the need to achieve off-site compatibility by providing improvements related to off-site facilities and infrastructure. For example, all sites within a designated pedestrian center should have pedestrian access, which is defined as a walkway along at least one side of a roadway, and transit stops with seats and shelters. Transit headways are planned to be no greater than an hour with load factors no greater than 1.2 of the transit vehicle's person capacity. Sites within the rural areas, on the other hand, will be deemed transit compatible if a park-and-ride lot is located within six miles and demand-response transit is available. Transit compatibility criteria are discussed more in Section III.A. Concurrency Management System.~~))

((~~5.~~)) 4. Existing Arterial Level of Service Deficiencies

RCW 82.02.050(4)(a), in conjunction with the GMA (RCW 36.70((~~a~~))A.070), requires the county to identify "deficiencies in public facilities serving existing development and the means by which existing deficiencies will be eliminated within a reasonable time period". ((~~When Snohomish County adopted its TE in July 1995, there were no existing deficiencies on the county's arterial system based on adopted LOS standards.~~))

The county has established technical procedures for determining when an arterial is deficient relative to adopted LOS standards as discussed in Chapter III. Implementation Measures. It formally identifies an arterial deficiency when it declares that an arterial unit is in arrears because its operating speed is below the adopted LOS standard for that particular class of arterial. ((~~Table 9 presents nine arterial units that are identified as being in arrears as~~)) As of the publication date of this transportation element, no arterial units are identified as being in arrears and consequently no existing arterial deficiencies are identified in this TE. ((~~Importantly, Table 9 references project improvements for each of these existing arterial unit deficiencies. Ordinarily it is expected that each arterial unit will be removed from arrears status when a financial strategy is in place that would remedy the LOS problem within six years.~~

~~Table 9~~

~~Existing Arterial Deficiencies at Time of Transportation Element Adoption (Year 2005)~~

~~County Arterial~~	~~Limits~~	~~Proposed Remedy~~
~~20th Street SE~~	~~SR 204 to SR 9~~	~~Operations and capital improvements (see Tables 17 and 19)~~
~~20th Street SE~~	~~SR 9 to South Lake Stevens Road~~	~~Operations and capital improvements (see Tables 17 and 19)~~
~~35th Avenue SE~~	~~168th Street SE to Seattle Hill Road~~	~~Operations and capital improvements (see Table 17)~~
~~79th Avenue SE~~	~~8th Street to 20th Street SE~~	~~Operations and capital improvements (see Table 17)*~~
~~180th Street SE~~	~~Southwest UGA to SR 9~~	~~Operations and capital improvements (see Tables 17 and 19)~~
~~180th Street SE~~	~~SR 9 to Broadway Avenue~~	~~Operations and capital improvements (see Table 19)~~
~~Airport Way~~	~~SR 9 to 99th Avenue SE~~	~~Operations and capital improvements (see Tables 17 and 19)~~
~~Marsh Road~~	~~SR 9 to Lowell-Larimer Road~~	~~Operations and capital improvements (see Tables 17 and 19)~~
~~Seattle Hill Road~~	~~SR 96 to Seattle Hill Road~~	~~Operations and capital improvements (see Table 17)~~

~~* Operations improvements affecting this arterial are at intersection with 20th Street SE.~~

~~It should be noted that Table 17, Snohomish County Full-Design Arterial Improvement Projects, and Table 19, Supportive State Highway Improvement Projects, in Chapter IV present capacity-project improvements or intersection operation improvements to address the existing deficiencies as identified above. The improvements are proposed for county arterials, state highways, or both facility types.~~))

((~~6.~~)) 5. ((~~Inadequate Road Conditions~~)) Road Condition Audits

((~~Inadequate Road Conditions (IRCs) are another basis for identifying arterial deficiencies for planning and field operations purposes. The county employs professionally accepted methods for identifying and resolving arterial capacity needs as discussed above. LOS analysis applied to arterials and intersections is a primary method by which capacity needs come to the attention of the county's public works department. In addition, the public works department relies on a technical and administrative procedure to identify roads which become inadequate to serve expected growth and development because of operational problems.~~

~~IRCs can exist on the current road system, or be caused by a new development's traffic. These conditions can jeopardize the safety of road users, including non-automotive users, due to roadway design features that do not meet applicable county road standards and specifications.~~

~~Examples of substandard design features include: inadequate sight distance; roadway alignment; substandard geometrics (e.g., lane width and shoulders); and traffic control. Roads that do not meet current county design standards are common in all counties and exist in Snohomish County. The public works department relies on a process that is heavily driven by customer complaints and land development review to identify locations of concern.~~

~~Roads that do not meet county road design standards are generally not a safety or operations problem because many roads have low traffic volumes. The public works department routinely funds operations and safety improvements based on countywide priority analysis that addresses safety and operations improvements before they are declared inadequate. Areas of the county experiencing more intensive growth and development can be expected to also experience more occurrences of IRCs.~~

~~Mitigation of impacts on IRCs is required if conditions are found at the time of development application review. The public works department employs a technical evaluation, professional engineer/management review board, and final evaluation by the county engineer to determine when and where IRCs exist. Regulations restrict occupancy of a development until improvements are made. The needed improvements must be under contract prior to issuance of a building permit, and the improvements must be completed and accepted prior to issuance of a certificate of occupancy.~~))

A Road Condition Audit (RCA) is another basis for identifying arterial deficiencies. An RCA determines if deficient conditions exist that would affect the roadways ability to safely serve expected growth and development. Deficient conditions can exist on the current road system or be caused by a new development's traffic. While an RCA may identify deficient conditions anywhere on the arterials system, they are more likely in areas of the county experiencing intensive growth and development.

The RCA process employs a technical evaluation, professional engineer/management review board, and final evaluation by the county engineer to determine when and where deficient conditions exist. Deficiencies identified by an RCA can include but are not limited to: sight distance; alignment; geometrics (e.g., lane width and shoulders); and traffic control. The public works department relies on a process that is informed by citizen comments, operational concerns, and land development review to identify locations of concern.

Deficient conditions can jeopardize the safety of road users, including non-automotive users. Mitigation is required if a new development is found to impact an RCA identified deficiency. Improvements to address the deficient conditions must be under contract prior to issuance of a building permit, and the improvements must be completed and accepted prior to issuance of a certificate of occupancy.

Roads that do not meet current design standards are common in all counties and cities and are generally not safety or operational problems. The public works department routinely funds and constructs operational and safety improvements before a deficient conditions exists.

C. Local Transit Level of Service Guidelines

Transit service is expected to play a much greater role in the county's future transportation system. Transit, roadway infrastructure, and land use patterns interact, each influencing the other's effectiveness. In order to accommodate and enhance transit LOS, land development and some of the county's arterials within urban areas will need to be compatible with services provided by Community Transit, Everett Transit and Sound Transit. Community Transit, the primary supplier of local transit service in unincorporated Snohomish County, has adopted service guidelines in its 2011 *Long-Range Transit Plan* for appropriate transit service levels as it relates to land use, populations and employment density, infrastructure, and travel demand. (ref. 14) Table 7 shows these guidelines. Core service includes the Swift BRT service as well as other frequent routes on transit emphasis corridors. Community-based service feeds the core routes and connects urban, suburban, and rural areas.

Table 7
Community Transit Level of Service Guidelines

	Transit Emphasis Corridors/Core Service		Community-Based Service	
	***Swift* BRT**	**Corridor Service**	**Local Routes**	**Rural Routes**
Travel Time	No more than 30% greater than auto drive time	No more than 50% greater than auto drive time	No guideline	No guideline
Frequency: Peak/Off Peak	5-10 min/10-20 min	10-15 min/15-30 min	20-30 min/30-60 min	60+ minutes
Station/Stop Spacing	0.75 miles or greater	0.10 – 0.75 miles	0.10 – 0.50 miles	0.10 – 1 miles
Directness	Straight on corridor with few direction changes	Straight on corridor with few direction changes	Many direction changes as warranted by demand	Many direction changes as warranted by demand
Transit Priority Infrastructure	Required: Dedicated lane (BAT or better), signal priority, queue jump lanes, consolidated driveways	Desired: Dedicated lane (BAT or better), signal priority, queue jump lanes, consolidated driveways	No guideline	No guideline
Street Type Off-Street Parking	Arterial/Highway Limited Supply	Arterial/Highway Limited Supply	Arterial/Collector No guideline	Arterial/Collector No guideline
Land Use	Mixed-use; Major trip generators within ¼ mile of station.	Mixed-use; Major trip generators within ¼ mile of station.	Residential and lower-density employment	Rural
Density	30+ person or jobs per acre within ½ mile of station	30+ person or jobs per acre within ½ mile of station	15+ persons/jobs per acre within ½ mile of stop	Rural
Pedestrian Connectivity	Complete pedestrian network within ½ mile of route	Complete pedestrian network within ¼ to ½ mile of route	Complete pedestrian network within ¼ mile of bus stop	Complete pedestrian network within ¼ mile of bus stop

((~~G.~~)) D. Intergovernmental Coordination and Impacts on Adjacent Jurisdictions

Intergovernmental coordination among county, city, state and transit agencies is needed to deal with the cross-jurisdictional impacts of the various land use and transportation plans (RCW 36.70A.070(6)(d)). The CWPPs for transportation provide a general framework for coordination that will help to understand and deal with cross-jurisdictional impacts. The CWPPs emphasize use of interlocal or intergovernmental agreements to establish strong and effective coordination among government agencies. CWPPs call for interlocal agreements that:

- define procedures and standards for mitigating traffic impacts;

- encourage sharing of improvement and debt costs for transportation facilities, services and maintenance;
- encourage joint development and plan review teams for major projects having impacts across jurisdictional boundaries;
- promote compatible design and LOS standards;
- allow sharing of development impact mitigation where a project's impacts extend across jurisdictional boundaries;
- Provide for integrated design of transportation facilities in designated urban growth centers to encourage transit-oriented land uses and nonmotorized modes of travel.
- help set priorities and programming for state, regional, and local facilities and services consistent with the GMA and Federal Transportation Legislation; and
- help establish consistent rules and procedures for environmental mitigation.

The General Policy Plan (GPP), consistent with the CWPPs, requires the county to "plan, develop and maintain transportation systems through intergovernmental coordination." The technical process undertaken to produce this TE included travel forecasts and modeling to identify specific roadway projects that support county land use and transportation planning. The intent here is to advise the state and cities where the county's land use and transportation plans had significant impact on their ((~~transit~~)) transportation facilities and services to warrant funding and programming of a particular improvement. Chapter IV. Recommended Transportation Improvements contains sections which itemize state, city and transit provider improvements that support the county's plans, and also provides an indication of the county's priority preferences.

III. IMPLEMENTATION MEASURES

The seven measures presented in this section constitute ((~~the required~~)) a strategy for implementing the recommendations of the Transportation Element of the county's GMA Comprehensive Plan (((~~WAC 365-195-810~~))). These implementation measures are recommended and adopted as part of the GMACP and entail both regulatory and nonregulatory actions. This TE provides more detail on these strategies than is presented within the GPP. Importantly, the development and adoption of these implementation measures is guided by the goals, objectives and policies of the GPP and are consistent with the adopted CWPPs.

A. Concurrency Management System

Maintain a concurrency management system per Chapter 30.66B SCC (Concurrency and Road Impact Mitigation Ordinance) using the integrated arterial and transit level of service provisions as adopted within the transportation element of the comprehensive plan.

1. Background

Where land development causes a deterioration of LOS below the adopted standard, the county is obligated to demonstrate that a needed improvement or strategy can be completed within six years. If the needed improvement or strategy cannot be funded and constructed within the six-year time frame, then developments impacting the road with deficient LOS may not be approved. Where it is evident that transportation facilities and services cannot be funded or provided in sufficient time to maintain concurrency land use designations may be reconsidered. While the planning-level LOS methodology described in Chapter II. Relationship of Planned Land Use to Transportation is used to determine the potential need for capital improvements, the LOS standard used in the concurrency management system and described in this chapter defines the actual need for improvements.

The concurrency provisions of the Growth Management Act (GMA) necessitate a three-way balancing of land use, transportation LOS and capital facility financing. Three key provisions of the GMA (RCW 36.70A.070(6)) help define concurrency management for transportation facilities and require:

- LOS standards for all county arterials and transit routes to serve as a gauge to judge system performance;
- specific actions and requirements for bringing into compliance any facilities or services that are below an established LOS standard; and
- that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years.

The Washington Administrative Code (WAC) ((~~365-195-510~~)) also provides detailed guidance on transportation concurrency regulations and procedures the county can use in order to determine whether transportation facilities have adequate levels of service to accommodate proposed development. The County addresses several key procedural issues when implementing concurrency management. These issues include:

- compliance with applicable environmental protection regulations;

- monitoring level of service for state highways, arterials and transit;
- condition land development approvals based on achievement of transportation concurrency;
- deferral or denial of development approvals subject to the later availability of transportation facilities; and
- integrating SEPA compliance with the project-level process for concurrency management.

In order to comply with the provisions of the RCW ((~~36.70A.070(6)~~)) and WAC ((~~365-195-510~~)) 365-196-840, the County is pursuing both regulatory and non-regulatory actions.

2. Regulatory Actions

The LOS standard and concurrency management system are implemented through Chapter 30.66B SCC and other development regulations, and are consistent with the CWPP and comprehensive plan by including the following features:

- transportation concurrency determinations for land development are made in light of the overall goals, objectives and policies of the county's comprehensive plan;
- LOS shall be used in a manner that is consistent with growth management tools that manage the rate of growth in rural areas and encourage more intense development within urban areas, particularly where transit service and nonmotorized facilities are available;
- the travel impacts of development considered in multimodal terms and on a systems basis;
- recognize there are rural arterials that carry significant amounts of urban-related traffic; and
- recognize there are transportation services and facilities that are at ultimate capacity and alternative mitigation may be considered in making concurrency determinations.

a. Chapter 30.66B SCC Amendments

Chapter 30.66B SCC Concurrency and Road Impact Mitigation addresses the impact of land development on the county road system. It details the obligations and procedures that must be met in order to approve land development and implement administrative procedures for concurrency management. ((~~These procedures ensure that transportation improvements are made concurrent with land development, and would implement LOS standards for county arterials and transit routes consistent with CWPPs and transportation policies contained within the GPP.~~)) The county's concurrency management system provides the basis for monitoring the traffic impacts of land development and determines if needed transportation improvements are keeping pace with the prevailing rate of land development.

The department of planning and development services conducts the transportation-related part of development review and provides technical analyses, concurrency determinations and mitigation recommendations. The requirements of Chapter 30.66B SCC affect land development review by making the issuance of building and other permits contingent on a positive concurrency determination. Where concurrency problems arise, permits for development would be issued after approval of commitments to actions and funding in compliance with adopted LOS standards.

b. Level of Service Provisions

The LOS standard used for concurrency management is adopted in the comprehensive plan and is presented in Tables ((~~10, 11, 12, and 13~~)) 8, 9, and 10. This standard is implemented through the provisions of Chapter 30.66B SCC.

The arterial LOS standard is based on a two-step evaluation process. Step one determines whether or not the ADT on an arterial unit exceeds a predefined threshold. If it does, then step two evaluates whether or not average travel speed falls below predefined minimums. An arterial unit fails the LOS standard when ADT exceeds the threshold and average travel speed is less than the minimum. Table ((~~10~~)) 8 illustrates the application of the county's concurrency LOS standard.

Table ((~~10~~)) 8

Level-of-Service ((~~Standards Based on Urban/Rural Classification and Transit Compatibility~~)) Standard for County Arterials

Snohomish County Level of Service Standard for Arterial Units			
Rural/Urban Arterial Unit Classification	((~~Transit Compatibility~~)) Multimodal Arterial(1) ((~~and~~)) or Qualifying Public Facilities (2)	Roadway Level of Service Standard (3)	
		Step One: ADT Threshold	Step Two: Average Travel Speed Minimum
Rural	No	See Table ((~~11~~)) 9	C (4)
	Yes	See Table ((~~11~~)) 9	D (4)
Urban	No	See Table ((~~11~~)) 9	E (5)
	Yes	See Table ((~~11~~)) 9	Five Miles Per Hour Less than E (6)

(1) ((~~Transit compatibility for roads includes criteria such as specific headway and frequency of service and pedestrian facilities available on an arterial within ¼ mile of transit routes on urban roads. Transit compatibility for development includes criteria such as type of land use, site design, and access to transit routes.~~)) Multimodal arterials meet a specific multimodal standard for bicycle and pedestrian facilities and transit service including frequency of transit service, presence of pedestrian and bicycle facilities, and residential and employment densities within ¼ mile of transit routes. Developments which impact arterials determined to meet the multimodal criteria will be required to provide additional TDM mitigation.

(2) Certain public facilities needed to support residential development may qualify for a lower travel speed standard. The determination of whether or not a proposed development qualifies for the lower travel speed standard will be based upon the following criteria with additional specificity provided by department rules:

a. The development proposed by the public agency is needed to support residential development that is already constructed, approved or deemed concurrent; and

b. the public agency submitting the application for development is directed by a publicly elected official or board; and

c. the location of the agency's facility is constrained by established legal or public districts; and

d. siting the development in the proposed location would provide a legitimate public benefit to the occupants of the residential areas.

Public developments which use the lower travel speed standard to achieve concurrency will be required to provide additional road mitigation in the form of ((~~transit compatibility or~~)) TDM.

(3) The ADT threshold is applied first. If the ADT on an arterial unit exceeds the threshold identified in Table ((~~11~~)) 9, then the average travel speed is reviewed. If the average travel speed on the arterial unit falls below the appropriate minimum travel speed then the LOS on the arterial unit does not meet the County standard.

(4) The letter grades for rural roads correspond to varying actual travel speeds, depending on the free flow speed of the specific arterial unit and the number of controlled intersections. The method used to determine the threshold is established in rules based on the principles of the Highway Capacity Manual published by the Transportation Research Board, Washington, D.C.

(5) The letter grades for urban roads correspond to varying travel speeds as established in the Highway Capacity Manual and depend on characteristics of the arterial.

(6) For urban roads that ((~~are transit compatible~~)) meet the multimodal criteria, Snohomish County applies a 5 mph reduction to the average travel speed minimums for urban arterials. This 5 mph reduction also applies to certain public facilities that qualify as needed to support residential development based on the criteria in footnote (2) above and departmental rules.

i. Average Daily Traffic (ADT) Thresholds

Two-way, weekday, 24-hour volumes are used as the measure of ADT on arterial units, consistent with rules establishing details on the methodology, frequency and validity of counts. Thresholds vary by urban/rural, number of lanes, and whether or not arterial units have been designated as ultimate capacity by the county council. For ultimate capacity arterial units, the thresholds are based upon maximizing the use of the roadway with volumes at or near capacity from early morning to late evening. For arterial units not designated as ultimate capacity, the thresholds are based upon the minimum volumes for which the roads are designed. Typically, roads with volumes below these thresholds have peak-hour average travel speeds reflecting uncongested conditions. Also, volumes below the thresholds typically characterize roads functioning as local roads rather than as arterials.

In some cases, roads with volumes below the thresholds are classified as arterials for purposes of system continuity or to establish a base arterial system in areas of the County that will experience future growth. In aggregate, these arterial roads carry a small percentage of total daily travel demand and therefore do not contribute significantly to travel delay experienced on the arterial system. The ADT thresholds are established in Table ((~~11~~)) 9.

Table ((~~11~~)) 9

Average Daily ((~~Trip~~)) Traffic (ADT) Thresholds

	Road Not Designated as Ultimate Capacity		Road Designated as Ultimate Capacity	
Number of Lanes	Rural Arterial Unit	Urban Arterial Unit	Rural Arterial Unit	Urban Arterial Unit
2	4,000	7,000	18,000	22,000
3	5,000	9,000	27,000	33,000
4	7,000	12,000	36,000	44,000
5	n/a	15,000	45,000	55,000
6	n/a	16,000	54,000	66,000
7	n/a	21,000	63,000	77,000

ii. Average Travel Speed

Existing or forecasted, average, weekday, directional travel speed during the a.m. and p.m. peak hour is used as the measure of average travel speed on arterial units. This method is consistent with rules establishing details on the methodology and validity of evaluations. The Highway Capacity Manual is used as the basis for determining the correspondence between travel speed and LOS letter grades. ((~~In the most recent Highway Capacity Manual, published in 2000, Exhibit 15-2 shows the travel speed thresholds for urban roads for different classes of roads.~~))

((~~Most urban arterial units in the County are categorized as Class II, with free flow speeds typically ranging from 35 to 45 mph. The threshold between "E" and "F" for these roads is 13 mph. The most urbanized arterial units can be categorized as Class III, with free-flow speeds typically ranging from 30 to 35 mph and a threshold between "E" and "F" of 10 mph. The letter~~

~~grades are used as the standard, rather than the corresponding miles per hour, to maintain consistency with the Highway Capacity Manual as it evolves over time.~~))

Letter grades are used as the standard, rather than the corresponding miles per hour, to maintain consistency with the Highway Capacity Manual as it evolves over time. Most urban arterial units in the County have a free flow speed of 35 to 40 miles per hour. The threshold between LOS "E" and "F" for these roads is generally between 10 and 13 mph.

For a rural arterial unit, the threshold between "C" and "D" varies depending on its length's impact on free-flow speed, the off-peak average travel speeds, and the number of controlled intersections. The methodology for determining the rural thresholds, based on average travel speed, are contained in the public works administrative rules.((~~Rule 4224.090~~)). (ref. 15)

iii. Ultimate Capacity Provisions

There are some arterials for which additional improvements would require unwarranted public expenditures and/or would have severe environmental or community impacts. In such cases the Council reserves the option to designate such arterials as being at ultimate capacity, where provisions are made for traffic safety, pedestrian mobility and bicycle circulation as applicable.

The LOS standard for arterials designated as ultimate capacity includes a higher ADT threshold, representing the highest hourly traffic volumes over an extended part of the day. For an ultimate capacity arterial, until ADT threshold is exceeded, developments impacting the arterials would be deemed concurrent, even though average travel speed could drop below the travel-speed minimum during the peak hours and other times during the day. Arterials already widened to the design standard identified in the TE are likely candidates for ultimate capacity, but other arterials could also be designated as ultimate capacity based on criteria established in code and/or rules.

Several measures are proposed to help mitigate the effects of ultimate capacity designation by promoting efficiencies. Developments adding new traffic to arterials designated as being at ultimate capacity would be required to ((~~be transit compatible or~~)) support TDM measures. The County would commit to continued transportation systems management (TSM) and arterial access management measures on ultimate capacity roadways. The County would increase its funding for pedestrian facilities countywide, with an expectation that additional funds would be spent to improve pedestrian access to transit on or adjacent to ultimate ((~~or~~)) capacity arterials. The County would also provide ((~~a higher level of~~)) corridor-level TDM for the purpose of reducing trips on the ((~~support for employer commute trip reduction programs, particularly those adding trips to~~)) ultimate capacity corridors.

Once roads have been designated by the Council as ultimate capacity, developments impacting such roads may be subject to additional design or mitigation requirements, but lower average travel speeds would potentially be tolerated. The basic strategy for ultimate capacity consists of a number of actions, listed below.

- Establishing higher ADT thresholds for arterial units designated as ultimate capacity. The thresholds are set so that higher volumes and potentially lower average travel speeds are tolerated until the ADT threshold is exceeded.
- Adopting code language and/or promulgating administrative rules with criteria for determining a road to be at ultimate capacity. The public works department will use these criteria to make

an engineer's report and recommendation for legislative action to the Executive and Council. Among other things, the report will address the extent to which improvements are needed to improve LOS on the county facility, and whether or not such projects are identified in the TE as likely for construction by the planning horizon year.

- Requiring development impacting ultimate capacity facilities to meet new ((~~TSM requirements (e.g. access control) and either meet revised (more intensive)~~)) TDM requirements((~~, or meet the criteria for transit compatibility~~)).
- Making determinations of ultimate capacity that can include commitments to full-design standards, additional safety and operational improvements, development of access management plans, signal coordination and signal upgrades, and support for corridor-level ((~~employer commute trip reduction~~)) trip-reduction programs.

iv. Rural Arterials with Urban Traffic

Rural arterials with urban traffic represent roadways outside of UGAs that are primarily accommodating higher volumes of traffic between or oriented to urban growth areas (UGA) and rural areas of more intensive commercial development. Table ((~~12~~)) 10 designates and Figure 3 illustrates the location and limits of these arterials. These rural arterials will be evaluated for their LOS using the urban LOS standard. ((~~Arterials~~)) The criteria considered in designating arterials outside of UGAs ((~~are designated~~)) as rural arterials with urban traffic ((~~arterials where they)~~) are:

- provide direct connections between UGAs and/or rural areas of more intensive commercial development;
- provide an opportunity for urban-oriented traffic to feed rural arterials with urban traffic from a UGA, rural areas of more intensive development, or ((~~HSS~~)) Highways of Statewide Significance; and
- exhibit ADT higher than the thresholds for urban arterials not designated as ultimate capacity arterials.

Where rural arterials with urban traffic are the subject of a concurrency evaluation, the applicable LOS standard would be the same as that used for urban arterials.

Table ((~~12~~)) 10

Rural Arterials with Urban Traffic

Arterial Roadway	Limits	Connecting
19th Avenue NE/156th Street NE/ 23rd Avenue NE/ 140th Street NE/ Stimson Road/ 136th Street NE	Marysville C/L on 19th Avenue NE to Marysville C/L at I-5	Marysville to Marysville UGA
34th Avenue NE((~~/116th Street NE~~))	136th Street NE to ((~~I-5~~)) 116th Street NE	Marysville to Marysville UGA
Marine Drive NE/Marine Drive	I-5 to 64th Street NW	I-5/Marysville to Tulalip
27th Avenue NE	Marine Drive NE to end of county road	I-5/Marysville to Quil Ceda Village
67th Avenue NE	108th Street NE to Arlington C/L	Marysville UGA to Arlington UGA
152nd Street NE	67th Avenue NE to Marysville ((~~UGA~~)) C/L	67th Avenue NE to Marysville UGA
132nd Street NE	67th Avenue NE to Marysville ((~~UGA~~)) C/L	67th Avenue NE to Marysville UGA
108th Street NE	67th Avenue NE to SR 9	Marysville UGA to SR 9
84th Street NE	SR 9 to SR 92	Marysville to Granite Falls UGA
Sunnyside Boulevard	SR 204 to Lake Stevens UGA	Lake Stevens to Lake Stevens UGA
Sunnyside Boulevard	Lake Stevens UGA to Soper Hill Road	Lake Stevens UGA to Marysville UGA
Machias Cutoff/South Machias Road	123rd Avenue SE (Lake Stevens UGA) to ((~~Maple Avenue at~~)) Snohomish ((~~C/L~~)) UGA	Lake Stevens UGA to Snohomish UGA
Williams Road	Lake Stevens UGA to Machias Cutoff	Lake Stevens UGA to Machias Cutoff
N/S Machias Road	12th Street NE (Lake Stevens UGA) to Machias Cutoff	12th Street NE (Lake Stevens UGA) to Machias Cutoff
Bunk Foss Road/Ritchey Road	South Machias Road to 99 Avenue SE	South Machias Road to US 2/SR 9
((~~Bickford Avenue~~	~~SR 2 Ramps to Snohomish UGA~~	~~Snohomish UGA to SR 2))~~
Lowell-Snohomish River Road	Everett C/L to Snohomish UGA	Southwest UGA to Snohomish UGA
Marsh Road	Lowell-Larimer Road to SR 9	Southwest UGA to SR 9
88th /92nd Street SE	SR 2 Overpass to Snohomish C/L	Snohomish UGA to SR 2
Broadway Avenue	Maltby UGA to SR 9	Maltby UGA to SR 9
164th Street SE	Broadway Avenue to SR 9	Broadway Avenue to SR 9
180th Street SE	Southwest UGA to SR 9	Southwest UGA to SR 9

Arterial Roadway	Limits	Connecting
180th Street SE	Broadway Avenue to SR 9	Broadway Avenue to SR 9
169th Street SE/ West Interurban Boulevard/ 51st Avenue SE	Southwest UGA to SR 524	Southwest UGA to SR 524
228th Street SE	Southwest UGA to SR 9	Southwest UGA to Maltby UGA
Paradise Lake Road	Maltby UGA to King County Line	Maltby UGA to King County

v. ((~~Transit Compatibility Criteria~~)) Multimodal Arterials

((~~The transit compatibility criteria presented by Table 13 considers LOS relative to the same a.m. and p.m. peak hours as the county's arterial LOS travel speed thresholds. Transit compatibility as applied under concurrency management is described in Rule 4227 and consists of two sets of criteria. The first establishes criteria for determining if an *arterial unit* is transit compatible. The second establishes criteria for determining if a proposed *development* is transit compatible. If a transit compatible development proposal impacts a transit compatible arterial unit, then reduced travel speed may apply.~~))

Included in the LOS standard is a consideration of multiple transportation modes including factors supportive of transit, pedestrians, and bicyclists. Where these characteristics are sufficient to make multimodal transportation a viable mobility choice, a higher amount of traffic congestion will be tolerated. A multimodal arterial has:

- transit service operating at 15 minute headways or better during the peak period;
- a continuous bicycle facility meeting county standards;
- a continuous pedestrian facility meeting county standards; and
- a gross density of 20 persons and/or employees per acre within ¼ mile of transit facilities.

The LOS standard for arterials meeting the multimodal criteria is adopted in Table 8. The standard allows a 5 mph reduction to the minimum peak hour travel speed. The application of the multimodal arterial LOS for concurrency management is described in administrative rule. (ref. 16) If a land use development impacts an arterial determined to meet the multimodal LOS criteria then the development is required as a condition of approval to take measures to increase the efficiency of the existing road system and preserve capacity through increased TDM measures as provided for in Chapter 30.66B SCC.

The consideration of multiple modes in the LOS standard provides incentive for transit-supportive developments and takes advantage of existing investments in services and facilities. Providing additional roadway capacity for automobiles in some urban corridors may undermine investments in public transportation and may ((~~hinder increases in fare-paying ridership~~)) discourage trip-making using pedestrian and bicycle modes. In urban areas, the county can make the most of its transportation investment by focusing on roadways where adequate transit facilities and services, as well as nonmotorized connections can be made available. The aim of this focused investment would be to enhance the overall people-moving capacity of a roadway. ((~~Therefore, transit compatibility is an essential component of the county's LOS methodology.~~))

A multimodal arterial is different than the transit emphasis corridors discussed in Section III.D. Support for Transit, though both are critical to Snohomish County's multimodal strategy. The LOS criteria for a multimodal arterial provides a standard for analyzing traffic operations, project programming, and concurrency management. A transit emphasis corridor designation provides a framework for future land use, transit, and infrastructure planning. Additionally, because the criteria for multimodal arterials is part of the county's LOS standard, it is only applied to county roadways while transit emphasis corridors also include state highways.

vi. Public Facilities Needed to Support Residential Development

The county utilizes a lower LOS travel speed standard for schools and certain other public facilities needed to support residential development. Like all land use developments, schools and other public facilities are subject to the concurrency requirements of the GMA and the county code. In a given area, building of some of these public facilities typically lags behind the residential growth that necessitates them. Residential development may proceed until area roads have reached capacity and further permitting is constrained by concurrency. In these instances, the public facilities may have trouble meeting the concurrency requirements, and may not be available in a timely fashion to serve the residential areas. To avoid this situation, the County provides that certain public facilities needed to support residential development may qualify for a lower travel speed standard.

((~~The LOS provisions of Snohomish County are consistent with directions provided by WAC 365-195-835 for concurrency regulations. The WAC provides that "variations possible in designing a concurrency management system are many" and provides suggestions on some of the features that such systems could include. These include "comparison of available capacity with project impact" and "provisions for reserving capacity". The WAC suggests that a process of prioritizing the allocation of capacity to proposed developments might include~~:))

- ((~~Setting aside a block or blocks of available or anticipated capacity for specified types of development fulfilling an identified public interest.~~))
- ((~~Adopting a preference system giving certain categories or specified types of development preference over others in the allocation of available capacity.~~))

((~~Consistent with the WAC, the~~))The County effectively reserves capacity for certain public facilities needed to support residential development by allowing an average travel speed of 5 mph less for those that meet certain criteria. Those criteria are adopted in Table 8, footnote (2), and in Chapter 30.66B SCC. Examples of public facilities that are likely to qualify for the reduced travel speed standard include, but may not necessarily be limited to: public schools; community parks; fire stations; public hospitals; and local water or sewage treatment facilities.

If a public facility needed to support residential development is deemed concurrent based on the lower travel speed standard, then the development is required as a condition of approval to take measures to increase the efficiency of the existing road system and preserve capacity through increased TDM measures under Chapter 30.66B SCC. ((~~by either~~:))

- ((~~providing sufficient TDM measures under Chapter 30.66B SCC to indicate the potential for removing a minimum of ten percent of the development's peak-hour trips from the road system; or~~))

- ((~~meeting the adopted criteria for a transit compatible development in accordance with public works administrative rules, provided that under this option the impacted arterial unit must meet the adopted criteria for transit supportive design.~~))

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Figure 3
Rural Arterials with Urban Traffic

- Rural Arterial with Urban Traffic
- Highway of Statewide Significance
- Incorporated City
- Tulalip Reservation
- Clearview Rural Commercial Future Land Use Designation
- The Consolidated Borough of Quil Ceda Village
- UGA Boundary
- County Boundary
- Interstate Highway
- Arterial Roadway
- Railroad
- Water

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Table 13 also presents the criteria by which transit compatibility can be determined and by which roadway level of service can be interpreted with respect to transit level of service. Two important measures of transit LOS are headway (frequency of service or minutes between arriving vehicles) and load factor (the ratio or percent of seat capacity being used). Generally speaking, the more intensive the land development, the more frequent will be the need for transit service to handle the higher ridership demand. As demand for transit goes up, the number, frequency or size of vehicles must increase. An important consideration, besides availability of transit service, is pedestrian access to that service. Pedestrian facilities within a quarter-mile of transit routes are critical because the largest percentage of walk-access riders will originate within this distance.

The basic idea of the transit compatibility concept is that a somewhat lower average travel speed is tolerable on roadways within urban centers and urban areas served by appropriate levels of transit service. Land development meeting all the criteria outlined in Table 13 would be transit compatible and would likely have an overall lower impact on roadways than incompatible land developments. It is the intention to provide an incentive to transit compatible land developments and to also take advantage of the investment in transit facilities and services to avoid excessive expenditure on new arterial roadways.

((Table 13

Transit Compatibility Minimum Criteria for Level of Service

Minimum Criteria	**Urban Residential** (1)	**Urban Commercial** (1)	**Rural Residential**	**Rural Commercial**
Site-Related				
Site Location	≤ ¼ mile to route	≤ ¼ mile to route	≤ ¼ mile to route	≤ ¼ mile to route
Density	4+ d.u./ gross acre (2)	15+ employees per gross acre	clustering	15+ employees per gross acre
Design	transit supportive	transit supportive	transit supportive	transit supportive
Land Use	predefined	predefined	predefined	predefined
P&R Capacity Available	≤ 2 miles by car or ½ mile by walk	N/A	≤ 6 miles by car	N/A
Off-Site Roadway-Related				
Bus Stop Condition	seats & shelter	seats & shelter	safe & accessible	safe & accessible
Walkway to Transit Stop	for ¼ mile to stop	for ¼ mile to stop	N/A	N/A
Peak Transit Headway	≤ 2 hours (3)	≤ 2 hours (3)	≤ 3 hours	≤ 3 hours
Transit Load Factor (bus)	1.2 maximum	1.2 maximum	1.0 maximum	1.0 maximum

(1) Designated urban centers would be designed for transit compatibility.
(2) Multifamily residential is allowed under commercial use zoning. Residential criteria would apply.
(3) During peak period designated urban centers should also be ≤ 1 hour.))

3. Nonregulatory Actions

Concurrency management is necessarily pursued in the context of the County's broader transportation planning and programming process. Figure 4 illustrates the relationship of concurrency management with transportation planning and capital improvement programming processes. It is important to note that concurrency management is only one basis for prioritizing and programming transportation improvements.

a. Comprehensive Plan: Transportation ((~~Element~~))Components

The ((~~TE is the portion~~)) transportation components of the comprehensive plan ((~~that, for transportation, consists~~)) consist of the goals, objectives, and policies in the Transportation chapter of the General Policy Plan and the Transportation Element. As is required by RCW 36.70A.070(6), the Transportation Element includes an inventory of transportation facilities and services, adopted LOS standards, an analysis of deficiencies and needs, long-range improvements and management strategies, and a multi-year financial plan. ((~~pursuant to RCW 36.70A.~~))

b. Transportation Needs Report

The Transportation Needs Report (TNR) is a technical compendium prepared by public works that provides detailed information on the county's current and future transportation needs (ref. 17). The TNR includes a prioritized list of improvements needed to meet existing and future travel demand, improvement costs based on a cost-estimating model, a map of designated Transportation Service Areas (TSA), and the technical cost-basis for impact mitigation fees. The TNR provides an administrative method for regularly updating transportation needs and their costs as initially identified in the TE.

c. Priority Programming/Concurrency Management

Priority Programming and Concurrency Management are two coordinated processes conducted by public works that results in the programming of funds for needed transportation improvements, operations and maintenance. Priority programming deals with the annual programming of funds for multimodal project construction (roads, bridges, walkways, bikeways, etc.), public works operations, and road maintenance.

Concurrency management ensures needed transportation facilities and services are provided concurrent with land development. It deals with the monitoring of arterial level of service, evaluation of development proposals for concurrency (including denial of those not concurrent) and the programming of improvement funds necessary to maintain adopted level of service standards. Both the priority programming and concurrency management processes lead to the annual preparation of a six-year transportation improvement program.

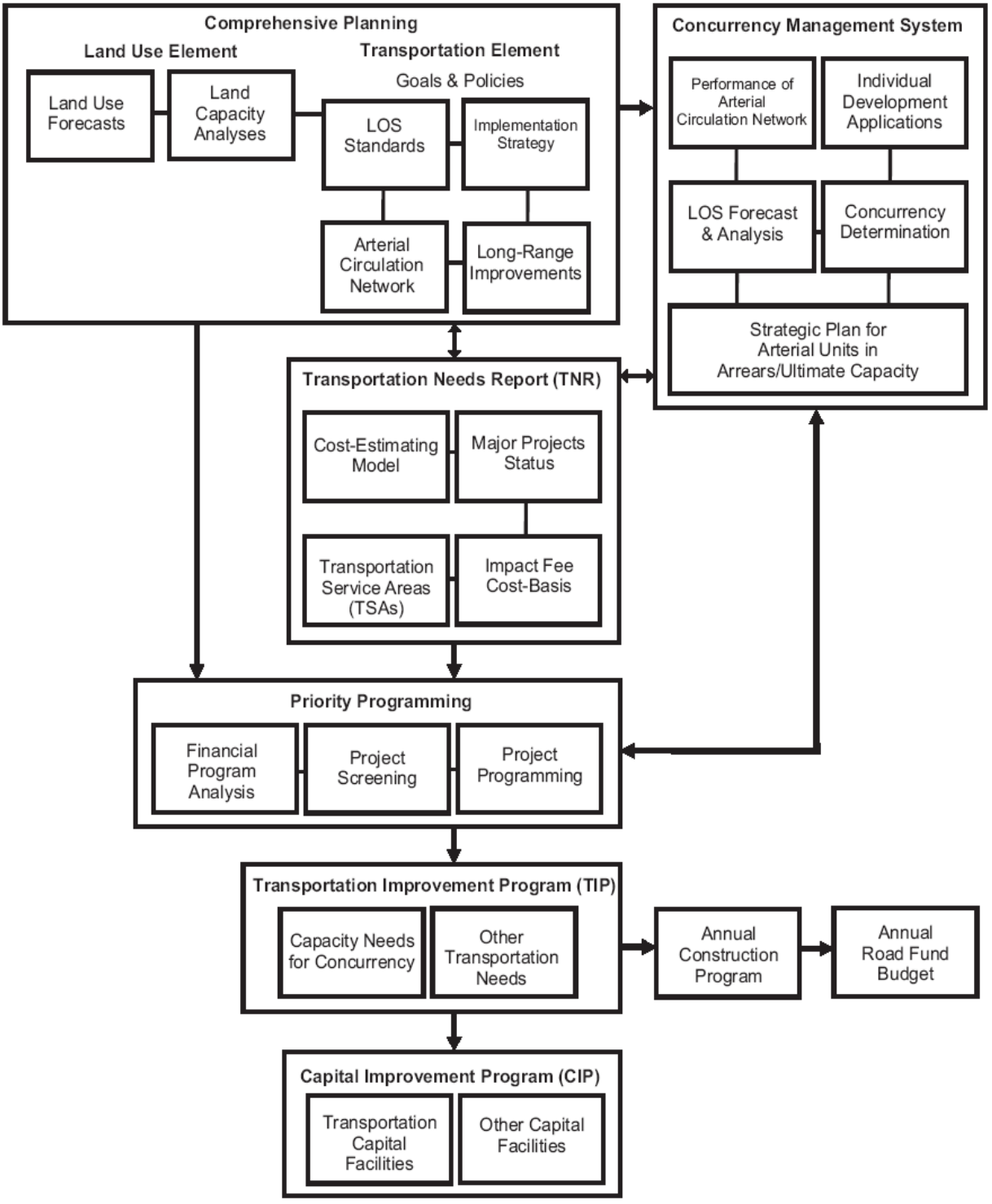
d. Transportation Improvement Program

The Transportation Improvement Program (TIP) is a schedule of transportation capital improvement projects matched to expected revenues that the County anticipates pursuing over the subsequent six years. The TIP is annually updated by public works and is adopted by the Council. The TIP is a state requirement under RCW 36.81.121. It satisfies internal programming

needs as well as state and federal requirements for regional coordination. The TIP is prepared consistent with the TE and the TNR.

FIGURE 4

The Role of Concurrency Management in the Land Use Transportation Planning Process



e. Capital Improvement Program

The Capital Improvement Program (CIP) is a schedule of all capital improvements matched to expected revenues that the County anticipates pursuing over the subsequent six years. The CIP is annually updated by the finance and planning departments, incorporates transportation improvements from the TIP, and is prepared to be consistent with the comprehensive plan.

f. Annual Construction Program for Transportation

The Annual Construction Program (ACP) presents descriptions of capital improvement project expenditures and their funding for the calendar year. The ACP, in tandem with the county road fund budget, authorizes expenditures on projects and is balanced with the annual budget.

4. Process

The concurrency management system is implemented through Chapter 30.66B SCC Concurrency and Road Impact Mitigation and related rules promulgated by the County. Chapter 30.66B SCC is applied through the overall land development review process administered by the departments of Planning & Development Services and Public Works. A concurrency management report is prepared and issued annually. See Chapter VI. County Project Prioritization and Programming Process for additional information.

B. ((~~Commute Trip Reduction and~~)) Transportation Demand Management

Continue administering the County's adopted regulatory and nonregulatory measures aimed at achieving vehicle trip reduction goals. These measures entail: a) the employer trip reduction plan and ordinance (SCC 32.40) required by state law (RCW 70.94.521-551); b) nonregulatory employer and residential based programs; and c) the County's TDM provisions under Chapter 30.66B SCC affecting all new urban developments.

1. Background

Transportation demand management (TDM) refers to a set of strategies aimed at maximizing the efficiency of the transportation system by reducing automobile transportation demand, particularly during the most congested times of the day. Reducing such demand can be achieved in a variety of ways, including:

- Travelers switching from driving alone in a single occupant vehicle (SOV) to carpooling in a high occupancy vehicle (HOV), vanpooling or using transit
- Travelers switching from driving to biking or walking
- Travelers changing the time of day of their trip to avoid the most congested periods
- Travelers eliminating trips through consolidation of trips, flexible work schedules, or telecommuting.

There are many benefits to a TDM strategy including the reduction in vehicle miles traveled (VMT), improving air quality, alleviating traffic congestion, preserving roadway capacity, and reducing greenhouse gas emissions. The County has previously adopted two major regulatory measures aimed at reducing single occupancy vehicular traffic generated by major employers

and developers.((~~, particularly within urban centers.~~)) These measures are the Commute Trip Reduction (CTR) plan and its implementing ordinance ((~~(SCC 32.40) adopted in February 1993 and amended in December 2000,~~)) (Chapter 32.40 SCC) and the developer TDM provisions of Chapter 30.66B SCC. (ref. 18) ((~~originally adopted in December 1993. The CTR plan and ordinance are prepared to be consistent with the State Trip Commute Reduction Law (RCW 70.94.521-551) The developer TDM provisions are a local initiative as part of the County's development impact mitigation efforts. The county is also implementing a variety of nonregulatory programs aimed at assisting employers not affected by CTR with trip reduction efforts, as well as using trip reduction to mitigate the effects of roadway construction and to preserve roadway capacity.~~)) The County has also implemented a non-regulatory residential TDM program focused on reducing trips on some of the County's most congested arterials and highways.

2. Employer Commute Trip Reduction

((~~The intent of CTR is to improve air quality, mitigate traffic congestion, mitigate roadway construction impacts, preserve roadway capacity, and reduce the consumption of petroleum fuels. Implementation of CTR is through both regulatory and nonregulatory efforts that are based on programs at large employment sites. These employer~~))Employer-based programs aim to increase the use of transit, vanpools, carpools, walking, bicycling, telecommuting, and compressed work weeks as a method for employees to get to work. Importantly, these programs reflect a partnership between the public and private sector to find more efficient ways of getting employees to work within the constraints of a congested road system. ((~~The success of CTR depends on the long-term commitment by the public sector to provide adequate staffing and other resources. Success also depends on the support of the private sector, and active and regular communications between the transit agencies, the county, and the employers.~~)) The success of this effort depends on a combination of regulation and incentive. Regulation involves the continuing involvement of local jurisdictions in requiring that the employers implement programs and adjust the programs if necessary. Incentives involve the support offered to employers by the transit agencies in terms of services, technical assistance, marketing, training, recognition, and other support efforts.

((~~a. CTR Plan and Ordinance~~))

The employer CTR plan and ordinance are a continuation of the CTR program which began with the passage of the state CTR law in 1991 and the adoption of local ordinances beginning in 1993. The ((~~program~~)) ordinance applies to employers with 100 or more full-time employees at a work site who are scheduled to begin their work day between 6:00 and 9:00 a.m. during weekdays. The ((~~plan and~~)) ordinance establishes performance objectives for reducing commuter vehicle miles traveled (VMT) and proportion of SOV trips by the employees of affected employers. In 2013, Snohomish County and eight other Snohomish County jurisdictions submitted an alternate CTR plan through the WSDOT pilot rulemaking for implementing the State Commute Trip Reduction Law. WSDOT approved the Snohomish County alternate plan as one of five adopted statewide to run through 2017. The alternate CTR plan focuses on both large and moderately sized employers in the more urban parts of the county where there is a higher level of transit services. In addition to the requirements contained in the CTR ordinance, the plan calls for increased support and incentives for employees at these employment sites.

((~~The success of this effort depends on a combination of regulation and incentive. Regulation involves the continuing involvement of local jurisdictions in requiring that the employers~~

~~implement programs and adjust the programs if no progress is made. Incentives involve the support offered to employers by the transit agencies in terms of services, technical assistance, marketing, training, recognition, and other support efforts.~~))

((~~b. Transportation Management Associations, Voluntary Employer Programs and Other Employer Support Efforts~~))

((~~This initiative builds from the CTR program to focus additional resources, incentives and the coordination of efforts in employment clusters, on major corridors, or with those employers who are not regulated by the County's CTR ordinance. Through this effort, assistance and incentives are provided to employers individually or through county-wide or region-wide Transportation Management Associations (TMAs).~~))

((~~c. Construction Mitigation~~))

((~~This program derives from the disruption to the road system and local congestion caused by major road construction projects. The objective is to effectively communicate to the public the location and timing of construction projects, and to provide information on alternate routes and alternatives to driving alone. On the employment side, this program uses the same communication networks established by the CTR program. It also, however, provides a corridor-level focus and can include communication along the corridor (e.g. signage, windshield surveys) and on the residential end (e.g. local papers, home-owners associations).~~))

((~~d. Capacity Preservation~~))

((~~This program is simply the extension of construction mitigation once road projects have been completed. Historically, addition of new capacity to the road system has frequently not resulted in the expected decreases in congestion because of increases in traffic from latent demand. Thus, CTR can be helpful in preserving capacity. In Snohomish County, TMAs, construction mitigation, and capacity preservation on the corridor level are part of the concurrency management system. Once projects are completed and roads have been constructed to their "ultimate capacity", then preserving capacity is critical to enabling development to continue. This is particularly true in the most urban areas including urban centers.~~))

3. Residential Corridor-based Trip Reduction

Since 2008, Snohomish County has partnered with Community Transit on a corridor-based, residential TDM program. A residential trip reduction program focusses strategies to residential areas where trips originate. The Snohomish County/Community Transit program provides one-on-one individualized support and incentives for those who are interested in using an alternate mode of transportation (transit, carpool, walking, biking). The program began as part of a strategy to address congestion and preserve available vehicle capacity on 164th St SW/SE after it was declared to be at ultimate capacity. The success on that corridor convinced the county and Community Transit to expand to three other congested corridors including 128th St SW, 196th St SW, and State Route 527.

((~~3.~~)) 4. Development Transportation Demand Management

((~~Like CTR, the~~)) The county's developer TDM provisions, contained in Chapter 30.66B SCC, ~~have the intent of improving air quality, reducing traffic congestion and reducing the~~

~~consumption of petroleum fuels. However, the TDM provisions have the additional intent of~~ uses trip reduction as a strategy to address and mitigate the impacts of new development. ((~~mitigating the impact of development upon the future capacity of the road system.~~)) TDM for developers provides incentives for a wide range of measures to increase the use of ridesharing (carpools/ vanpools), transit, and nonmotorized transportation such as bicycling and walking. Examples of programmatic TDM measures include: transportation coordinators; ride-match assistance; preferential parking; flex-time; transit subsidies; increased parking fees; reduced parking supply; provision of shuttle buses for areas lacking parking; and site design features that provide improved pedestrian access.

((~~4~~)) 5. Process

a. Commute Trip Reduction (CTR)

The CTR ordinance is administered by the public works department. Employers prepare and submit these programs for review by the county. After initial review and approval, the county monitors CTR programs and receives an annual report on progress towards the trip reduction performance objectives. Enhancement of programs not achieving the performance objectives can be required. Affected employers will not be penalized for failing to meet trip reduction performance objectives. Civil penalties, however, can be assessed for violations of noncompliance with program requirements. Affected employers can appeal the determination of a violation and/or any penalties assessed to the county hearing examiner and county council.

((~~CTR voluntary employer trip reduction, construction mitigation, and capacity preservation are conducted as joint strategies between the public works department, transit agencies, employer organizations, and regional trip reduction organizations. This process involves organizing TMAs, providing information and assistance in forming vanpools and carpools, and providing marketing materials and promotional opportunities.~~))

b. Transportation Demand Management (TDM)

Developer TDM review and programming is conducted by public works as part of the overall land development review process administered by the Snohomish County Planning & Development Services. This process involves an application for development permits, review and approvals by the public works department, and quasi-judicial hearings conducted by the Hearing Examiner in some cases.

C. Arterial Access Management

Provide ((~~Adopt additional~~)) access management standards and guidelines for arterial roads, within the most current Engineering Design and Development Standards ((~~handbook~~)), to help ((~~identify and prioritize treatments that will~~)) preserve capacity or mitigate congestion related to adjacent land uses.

1. Background

The objective of access management is to minimize the severity and frequency of conflicts between roadway vehicular traffic and vehicles accessing abutting properties. Access management deals with the way vehicles operate on roadways and access land uses with respect to five design features: 1) location and number of driveways; 2) driveway entrance

dimensions; 3) internal circulation of the property; 4) on-street median treatments; and 5) vehicle guidance into and out of the property. ((~~(ref. 16)~~))

Most land developments within unincorporated Snohomish County need access to county roadways, and sometimes state highways. The county has the obligation to ensure that land development has reasonable access to roadways in some form and that access is safe and efficient. The placement, design, and amount of access can have a profound impact on traffic flow and safety. As the number of driveways increases, the potential for traffic congestion and accidents also increases. In general, accident summaries available through the Washington State Patrol show the predominant accident location on county roads is related to intersections and driveways. Limiting the frequency of access points and restricting turning movements along a roadway has shown to reduce traffic congestion and accidents. Access management is an effective way to preserve capacity and maintain overall traffic flow.

2. Regulatory Actions

Over time, access management will need to play an ever-increasing role in maintaining the efficiency of the county's arterial roadways, particularly for arterials designated as being at ultimate capacity or along transit emphasis corridors. Utilizing effective access management treatments can help preserve capacity and improve safety. There are different categories of access management treatments applicable to county roadway projects and developments. Listed below are examples of some broad categories of access management, which should be applied to county ((~~arterial~~)) roadways, where they are determined to be appropriate.

- Shared or consolidated driveways for new development and redevelopment.
- Geometric design and location of driveways.
- Frequency of driveways.
- Spacing of driveways.
- Internal circulation and relationship to access points.
- Median treatments and median barriers or other access restrictions.
- Continuous left-turn lanes.
- Positive vehicle guidance.

All new or improved minor collector, major collector, minor arterial and principal arterials in the county should be designed and built to incorporate access management treatments where applicable. ((~~Several county roadways will be studied and have access management treatments phased in over the 2005 to 2025 timeframe.~~)) Most county roads will operate more efficiently and safely with access management included within their design. Phasing of most access management treatments can be coordinated with the designs of larger improvement projects.

A number of county arterials, located within suburban areas, can be expected to experience urban growth impacts under the county's comprehensive plan. Many roadways have relatively few access points and provide good overall traffic flow. Unfortunately, traffic flow may be degraded significantly if development is allowed without the application of good access management treatments as part of an overall corridor design. A well-conceived access management treatment will provide adequate access to adjacent properties and still maintain the integrity of traffic flow. Access management efforts will likely be in response to arterials with higher accident rates,

arterial ultimate capacity designations, commercial land uses with high driveway volumes, and travel speeds at or below the adopted LOS ((~~"E"~~)) standard.

Access management can be applied to current access problems and those problems anticipated in the future. Lastly, some of the access management treatments may need to be coordinated with other jurisdictions as they cross city-county boundaries or involve state highways.

3. Process

Generally speaking, access management would be implemented through ((~~three~~)) two processes: 1) the overall land development review process administered by the planning and development services department((~~and public works departments~~)); and 2) the roadway design and development process conducted by the public works department((~~; and 3) access management plans developed by public works (including those prepared for arterials designated at ultimate capacity). In some instances the county may want to purchase access rights to ensure effective access management~~)). The county will also work with WSDOT to assist and ensure implementation of access management designs on state highways.

((~~These processes, as conducted now and in the future, lead to the programming of access management treatments within the county's transportation improvement and capital improvement programs. Access management plans would also be pursued in combination with capital improvements that involve widening an arterial or bringing it to standards. The county would also work with WSDOT to assist and ensure implementation of access management designs on state highways (e.g., SR 9).~~))

D. Support for Transit ((~~Support and Compatibility~~))

Enhance the county's efforts to implement transportation facility design and land use development that is supportive of and compatible with public transportation services, facilities, and programs to increase transit use.

1. Background

As the County's population and economic base expands, increased transit usage reduces the growing demand for SOV travel, and that helps alleviate traffic congestion. By providing support and compatibility with public transportation, the county optimizes the public's investment in public transit and integrates transportation with land use as outlined in the transportation goals, objectives and policies of the GPP.

The county promotes increased transit usage by pursuing:

- intergovernmental coordination and transit agency plan review;
- placement of transit compatible land uses and ((~~transportation facility~~)) transit supportive investments by the county ((and ~~through the Urban Centers Demonstration Program~~)) in centers and along transit emphasis corridors;
- higher development densities and mixed-use development;
- reduced parking requirements;
- safe, convenient pedestrian access to transit through development review, ((~~and~~))site design;

- Capital projects to provide pedestrian connectivity to bus stops, transit centers, station areas, park and ride lots and along transit emphasis corridors;
- Commute Trip Reduction and other TDM programs;
- transit oriented on-site and off-site transportation improvement requirements; and
- inclusion of transit facilities in road improvement projects.

In order to establish a more transit-supportive and compatible environment, the county can pursue some specific actions. Actions under this implementation measure include regulatory and nonregulatory actions.

2. Transit Emphasis Corridors

A transit emphasis corridor is an arterial road or highway where high levels of transit service already exists or is likely to exist in the future. Recognizing the strong linkage between land use, transit, and infrastructure, these corridors are intended to serve as a framework for higher density land uses, transit market development, pedestrian and bike-oriented infrastructure, and high-occupancy vehicle roadway improvements.

A transit emphasis corridor is different than the multimodal arterials discussed in Section III.A. Concurrency Management System. Where a transit emphasis corridor designation provides a framework for the future land use, transit, and infrastructure planning, the criteria for a multimodal arterial provides a measurement of existing traffic operations, project programming, and concurrency management. Additionally, the criteria for multimodal arterials is only applied to county roadways while a transit emphasis corridor can also include a state highway.

Community Transit (CT) designated transit emphasis corridors in its 2011 *Long Range Transit Plan* (LRP) (ref. 14) using criteria on community design, transit service, and long-term potential as well as consultation with cities and the county. The highways and arterials that constitute CT's transit emphasis corridors are among Snohomish County's most urban and most congested corridors. These corridors provide access to the county's urban centers and other high-growth urban areas.

Two levels of arterial-based transit emphasis corridors are designated in the CT plan: "Core" corridors have a greater near-term potential with a generally higher-intensity land use patterns and a higher-frequency of current transit service; "Community Based" corridors are those with long-term potential but which currently have a more dispersed land use pattern and lower levels of current transit service or no transit service at all. In addition to corridor listed in CT's LRP, Snohomish County is including Ash Way as a transit emphasis corridor due to its high frequency transit service, the land development pattern along the corridor, and the corridor's role in connecting two important transit destinations, Ash Way Park and Ride with Mariner Park and Ride. Table 11 designates and Figure 5 illustrates the location and limits of the transit emphasis corridors.

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Figure 5
Transit Emphasis Corridors

- Core Corridor
- Community-Based Corridor
- Incorporated City
- Tulalip Reservation
- The Consolidated Borough of Quil Ceda Village
- UGA Boundary
- County Boundary
- Interstate Highway
- Arterial Roadway
- Railroad
- Water

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0 1 2 4

Miles

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Table 11
Transit Emphasis Corridors

Core Corridors	
State Route 99/Evergreen Way/Rucker Ave	Everett to Shoreline
State Route 526/State Route 527	State Route 525 to Bothell
Airport Rd/128th St SW/State Route 96/Cathcart Way	Paine Field to State Route 9
196th St SW/Alderwood Mall Blvd/164th St SW/SE	Edmonds Ferry to Mill Creek
Smokey Point Blvd/State Ave/Broadway Ave	Smokey Point to Everett
State Route 524	Lynnwood to State Route 9
US Highway 2/20th St SE/State Route 9	Everett to Lake Stevens
Ash Way/134th St SW/4th Ave W	164th St SW to 128th St SW
Community-Based Corridors	
Bickford Ave/US Highway 2	Lake Stevens to Monroe
State Route 525	Mukilteo Ferry to I-405
State Route 531	Smokey Point to Arlington
State Route 528/State Route 9	Marysville to Lake Stevens
State Route 104/228th St SW/236th St SW/228th St SE	Edmonds Ferry to Bothell
35th Ave SE	Everett to Bothell

The Snohomish County General Policy Plan (GPP) (ref.8) provides direction on how a transit emphasis corridor strategy will be used. It encourages land uses that support transit, pedestrians, and bicyclists within a quarter-mile to half-mile of a transit emphasis corridor. The GPPs also encourage investment in nonmotorized transportation improvements and infrastructure standards that accommodate and enhance the operation of transit services.

3. Regulatory Actions

a. Include development features ((~~of~~)) that support transit((~~compatibility~~)), such as those identified in Snohomish County Tomorrow's *Transit Oriented Development Guidelines* (ref. ((~~17~~)) 19), in land development review where supported by adopted code and standards. The compatibility between transit and land uses is especially important within centers and along transit-emphasis corridors. ((~~The key~~)) Land use features that support transit ((~~compatibility features~~)) include but are not limited to:

- ((~~land use features that support transit by allowing~~)) higher densities and mixed-use land uses within a quarter-mile to half-mile walking distance of transit stops;
- circulation improvements that maximize access to transit and pedestrian facilities;
- efficient and transit-friendly parking elements that include reduced parking ratios, HOV parking, shared parking arrangements, locating and designing lots to limit pedestrian/ vehicle conflicts, and counting on-street parking as part of site parking requirements;
- site design features that increase access to transit and convenience such as compact development, building orientation and design, and weather protection oriented towards transit system access points; and

- access features that ensure that safe, continuous sidewalks, walkways and arterial crossing are constructed within a quarter-mile walk of bus stops and are directly accessible from developments.

b. As discussed in section III.A, Snohomish County considers the frequency of transit service and transit-supportive land use densities in the LOS measurement for county arterials and as part of the concurrency management system. The consideration of transit provides an incentive for transit-supportive developments, takes advantage of the existing investment in transit facilities, and allows for the use of transit improvements to mitigate transportation deficiencies and impacts.

((~~3.~~)) 4. Nonregulatory Actions

a. Coordination The county would continue working with the transit agencies and cities within the county to coordinate the preparation of land use, circulation, and transit plans, which include:

- future transit routes and proposed route changes including fixed-route bus service, commuter and light-rail corridor alignments, and bus rapid transit (BRT) services;
- identification of capital facilities necessary to support transit such as bus stops, bus pull outs, park-and-ride lots, transit centers, street crossings, walkways, and other roadway design elements;
- transit service and facility planning which reflect the land use designations of the county's comprehensive plan, especially with regard to designated urban centers;
- improved communications with transit agencies, especially with regard to HCT planning and joint review of land use development applications that incorporate transit supportive improvements; and
- work with local and regional transit agencies to identify priority transit corridors where investments in enhanced transit service and transit-oriented development (TOD) can achieve transportation and land use goals.

b. Funding The county would continue to aggressively pursue grants for pedestrian and transit improvements. ((~~Enhanced funding for pedestrian improvements will serve to mitigate reduced investments in arterial standards in some travel corridors.~~))

((~~4.~~)) 5. Process

Transit supportive actions are typically applied through routine county program administration, public works documents such as the six-year TIP, and interagency coordination and planning efforts. These actions are nonregulatory and have only indirect application to land development regulation since they mainly affect public works operations.

Transit compatibility actions, generally viewed as regulatory, are applied through the land development review process administered by the department of planning and development services. Transit compatible actions may affect approval decisions for permits and agreements as to the types and costs of development impact mitigation. The approval process involves an

application for development permits, staff review and, in some cases, quasi-judicial hearings conducted by the Hearing Examiner.

Overall, these transit-supportive and compatible actions will provide support for public transportation through a full range of actions, from land use regulations such as minimum dwelling units per acre to implementation programs such as walkways within a quarter-mile of transit routes. By relating all of these measures to support transit, the county is building relationships between roadway and site design, land use, route planning, capital facility implementation programs and impact mitigation.

E. Countywide Nonmotorized Transportation

Participate with WSDOT, ((~~and~~)) cities and tribes within Snohomish County, Bicycle Pedestrian Advisory Committee (BPAC), Puget Sound Regional Council (PSRC), and interested stakeholder groups to plan and develop a countywide system of ((~~paths, bikeways, walkways, and routes~~)) bike and pedestrian facilities for nonmotorized transportation consistent with the countywide bicycle and pedestrian facilities map.

1. Background

((~~While progress has been made in recent years, there is a lack within the County of continuous bicycle and pedestrian facilities that connect major activity centers and points of interest. This situation discourages walking and bicycling as modes of travel and does little to reduce over-reliance on automobile travel. Snohomish County at present contains the beginnings of a bicycle and walkway facility network; however, improvements are needed to enhance development of such a network.~~))

The continuous development and growth of the nonmotorized network in Snohomish County will reduce impacts to the environment (reduce greenhouse gases and vehicle demand), encourage enhanced community access, and promote healthy lifestyles and exercise. A countywide network of bicycle and pedestrian facilities is needed to allow bicycling and walking for people of all ages and incomes as a practical alternative to automobile travel in some cases. It will also make the broader community more accessible, enjoyable and safer.

It has been Snohomish County policy and practice that future urban roadways and improvements to existing urban roadways will be designed as "complete streets" to enhance the safety and mobility of all users, including pedestrians and bicyclists, consistent with the adopted design standards. Since the original 1995 transportation element was adopted, Snohomish County has included both bicycle and pedestrian facilities on all completed full corridor arterial widening projects, new arterials in urban areas, as well as completing a number of trail projects. Some examples of completed bicycle and pedestrian facility arterial/trail improvement projects include the following:

Corridors

- 112th St SW
- 148th St SW
- 164th St SW
- 52nd Ave West
- Beverly Park Rd/112th St SW
- Cathcart/132nd/128th St SW/Airport Rd

Trails

- Centennial Trail
- Interurban Trail

In addition, the County requires that roadway frontage improvements be provided as properties are developed or redeveloped, including pedestrian and bicycle facilities as is appropriate.

Snohomish County has made significant progress on its bicycle and walkway facility network; however, improvements are still needed to complete the County system. Snohomish County has collaborated with cities and tribes, the state, PSRC, and interested stakeholder groups to designate bikeways and develop planned improvements for bicycle facilities. By reviewing both the planning documents and communicating with the various stakeholders, the county continues to maintain consistency with bicycle and pedestrian facilities that connect with adjacent jurisdictions, residential and employment areas, community and regional destinations, schools, and public transit services. The county has mapped existing pedestrian facilities to better identify gaps in the system. Planning for facilities and improvements to increase safety has been done by reviewing pedestrian and bicycle collision data. Snohomish County has, in collaboration with Community Transit and the Cities of Everett and Mukilteo, identified bicycle and pedestrian access needs in the *Swift* bus rapid transit (BRT) station areas. (ref. 20)

Over the next 20 years Snohomish County will be working to fill identified pedestrian and bicycle connectivity gaps to major transit routes and school facilities. For example, the County is working with school districts to build pedestrian facilities with dedicated funding through the Safe Kids Improved Pathways (SKIP) program. (ref. 21) This funding will also be leveraged as grant match and or bonding to increase program funding. The County will continue to build nonmotorized facilities as part of arterial system improvement projects and require these facilities as part of development as is appropriate.

Bicycle Facilities

Generally speaking there are ((~~three classes of bikeway and walkway~~)) four types of bicycle facilities and five types of pedestrian facilities.

- Shared Use Paths: Located on exclusive right-of-way and physically separated from motorized traffic, these paths serve multiple users including pedestrians, bicyclists, and possibly equestrians. Shared use paths include the Centennial Trail ((~~from the City of Snohomish to near the City of Arlington~~)) and the Interurban Trail ((~~within the Southwest UGA)~~).

- Bicycle (Bike) Lanes: ((~~and/or Walkways~~)) Bicycle lanes are designated for exclusive use by bicyclists and are delineated from traffic lanes by a painted or thermoplastic stripe. They are distinguished from the off-road paths in that they are not separated from motorized traffic. Bicycle lanes can be present with or without walkways. Walkways can be traditional raised sidewalks or extensions of the paved roadway surface and its shoulders with a painted or thermoplastic line serving as delineation.

- Signed Shared Roadway: ((~~or Walkway Routes~~)) Shared roadways are roadways with appropriate widening and striping that have been designated by signs as a suggested route for bicyclists. Roadway shoulders, ((~~where they are present, serve as informal walkways~~))

may also serve as pedestrian facilities. Roadway shoulders are generally suitable for a mix of pedestrian and bicycle use where the volume of pedestrians and bicyclists is low.

- Shared Roadway: All roadways open to both bicycle and motor vehicle traffic. Delineated bicycle facilities are not provided.

Pedestrian Facilities

- Sidewalk separated by curb, gutter, and planter strip
  A dedicated concrete or asphalt facility constructed between the curb line, in the lateral line of a roadway, and adjacent property

- Walkway separated by ditch, gravel, or planter strip
  Walkways are designated for pedestrian and nonmotorized traffic and typically constructed of asphalt and built over existing ground without being raised. Separation from vehicle traffic may be provided by, a ditch, gravel shoulder, planter strip, or open space.

- Raised walkway separated by extruded curb
  Same as "Walkway" described above except raised in elevation.

- At-grade paved shoulder adjacent to travel way
  Paved roadway shoulder typically separated from traffic by striping.

- Shared Use Paths
  See "Shared Use Paths" definition above under Bike Facilities

Considering the different skill level and preferences of pedestrians and bicyclists, a countywide ((~~bikeway and walkway~~)) nonmotorized network that contains a balance of these facility types coordinated between jurisdictions is the most practical philosophy. Relying only on exclusive, non-shared facilities would do little to assist the experienced cyclist who desires a safer but still direct transportation route along existing roadways. Exclusive facilities are rather expensive in terms of right-of-way and development costs; thus a network based solely on these facilities would be very limited in geographic coverage. Conversely, providing too few miles of exclusive or separated facilities would limit the riding opportunities of the less experienced bicyclist.

As part of the pedestrian and bicycle component of the transportation element, Snohomish County has created both bicycle and pedestrian maps to identify designated bikeways for bicycle facilities and corridors and existing facilities for pedestrians. The bicycle facilities system map displays both existing and proposed county bikeways lanes, shared use paths, regional trails, and paved road shoulders. In addition, the map shows the bicycle facilities of the state and local jurisdictions to show how the county's facilities link to those in adjacent jurisdictions. It is also used as a regulatory document indicating where bicycle lanes must be built as capital projects are constructed or developer frontage improvements are required. Planned bicycle facility improvements can be found in Table 14 "Recommended County Arterial Improvement Projects" listed under project description.

The pedestrian facilities map displays existing county sidewalks, pedestrian connectors, and other facilities in areas of high pedestrian use such as designated centers, major transit routes, and school walk routes. The map also shows state and local jurisdiction pedestrian facilities. It can be found in the Inventory of Transportation Facilities and Services. Planned pedestrian facility

improvements can be found in Table 14, "Recommended County Arterial Improvement Projects", listed under project description.

2. ((~~*Nonregulatory))*~~ Regulatory Actions

((~~A network of bicycle and pedestrian facilities needs to be provided on a countywide basis. This will allow bicycling and walking as a practical alternative to automobile travel in some cases. It would also make the broader community more accessible, enjoyable and safer.~~

~~Regulatory measures are needed to implement bicycle supportive designs, plans, and programs. Appropriate bicycle and pedestrian requirements can be included as part of anticipated revisions to zoning, subdivision, short plat, SEPA, and traffic mitigation ordinances. Nonmotorized transportation facilities can be implemented as part of county initiated or development-related road improvements.~~))

Snohomish County regulates bicycle facility requirements, design, plans, and programs via the county's land development codes and the Engineering Design & Development Standards (EDDS) (ref. 22). The Countywide Bicycle Facility System map is used to determine where bike lanes are required in urban areas. Also per EDDS, rural arterials are required to be built with a minimum shoulder width that can be used by bicycles. Snohomish County Unified Development Code regulates pedestrian and nonmotorized facility requirements and EDDS provides design standards for urban and rural pedestrian facilities. Sidewalks are required on both sides in urban areas while rural areas must have either separated walkways or widened shoulders that can used by pedestrians.

a. Design Standards

The County, WSDOT, and the cities work to maintain and use compatible bicycle and pedestrian facility design standards. The County has instituted a set of bicycle and pedestrian facilities standards that include sensitivity to the needs and abilities of the different users and consistency with the countywide bicycle ((~~facilities~~))facility system map. The rural and urban standards for bicycle and pedestrian facilities included in the County's ((~~Engineering Design and Development Standards (EDDS)~~))) EDDS are ((~~compatible~~)) consistent with ((~~nationally-accepted design and maintenance guidelines found in AASHTO Guide for the Development of Bicycle Facilities. (ref. 18)~~)) state and national design guidelines. Design standard issues include:

- drainage grates that are safe for bicyclists and flush to the roadway surface;
- at-grade railroad crossings at right angle to the rails;
- pavement structure and surfaces free of irregularities;
- sight-distance;
- signing and marking;
- geometrics (width, clearance, design speed, grades sight-distance);
- traffic control devices (including signal actuation devices sensitive enough to detect bicycles); and
- intersection design treatments that allow safe bicycle turning.

b. Collaboration on Grants and Funding

The public works and parks departments, along with cities, tribes, and the state, will collaborate in the pursuit of grants from both the public and private sectors to fund the development of bicycle and pedestrian facilities. Such funds could be used for physical facilities or used for realignment. Any principal or minor arterial should include consideration of bicycle safety or other bicycle operational problems that could not be feasibly mitigated.

((c. Information and Guidance

The county, cities, and state will cooperate and continue to provide information to bicyclists, guiding them to the safest and most direct routes. Snohomish County has historically relied on hotel-motel taxes to prepare and update information products for bicyclists.))

3. Process

Bicycle and pedestrian facility design standards can be refined as needed through routine administrative updates of existing design manuals and programming documents by public works. This measure has indirect application to land development regulation since they affect county facility design, operations, and review of the county's CIPs. See Map 2, Countywide Bicycle Facility System, for the coverage and type of existing and proposed bikeways. See the Southwest Area Pedestrian Facility System Map in the Inventory of Transportation Facilities and Services for the coverage and type of existing pedestrian facilities.

The process of how nonmotorized projects are prioritized and funded is covered in section VI. "County Project Prioritization and Programming Process" in the transportation element. This section describes how countywide arterial improvement projects are programmed and funded, which is the same method used for nonmotorized projects.

As stated above in the bicycle and pedestrian component and as per EDDS, road construction, reconstruction, or frontage improvement projects within urban areas are required to have sidewalks and also striped bike lanes if designated as a county bikeway on the Countywide Bicycle Facility System Map. Snohomish County will continue to build pedestrian and bicycle projects as part of arterial widenings and to require full frontage improvements as development occurs.

F. Air Quality Conformity and Climate Change

In order to meet the requirements of the federal Clean Air Act, the air quality provisions of the Federal Transportation Acts, the Clean Air Washington Act, and other relevant legislation, Snohomish County will commit to work with Puget Sound Regional Council, Puget Sound Clean Air Agency, WSDOT, transit agencies, and other jurisdictions in the development of transportation control measures and other transportation and air quality programs where warranted.

1. ((Background)) Air Quality Conformity

The federal Clean Air Act requires states to have state implementation plans (SIPs) to achieve established air quality standards for several different pollutants.

The United States Environmental Protection Agency (EPA) has set National Ambient Air Quality Standards (NAAQS) for the following six common air pollutants (criteria pollutants): Ozone (O3), Particulate Matter (PM2.5, PM10), Carbon Monoxide (CO), Nitrogen Oxides (NO2), Sulfur Dioxide (SO2) and Lead (Pb). These pollutants can harm health and the environment.

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~~Table ((14)) 12 presents the National ambient air quality standards (NAAQS) in parts per million for two of these pollutants for which the southwestern portion of the County has at times been in nonattainment. Notice that for carbon monoxide (CO) and ozone, the national, state, and regional standards are the same for each pollutant.~~

~~The County is currently in attainment for all federally regulated and monitored air pollutants.~~

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Table 12 presents the National ambient air quality standards (NAAQS) in parts per million as adopted by the EPA and the Washington State Department of Ecology (Ecology). The NAAQS consist of primary standards designed to protect public health and secondary standards designed to protect public welfare (e.g. preventing air pollution damage to vegetation). The more stringent secondary standards are used to regulate air quality.

Based on measured ambient air quality data, EPA and Ecology designate all portions of the state as attainment (meeting a NAAQS standard), nonattainment (not meeting a NAAQS standard), or unclassifiable (not enough information to designate). If, as is the case of most of Washington State, the measured concentrations in a nonattainment area improve so they are consistently below the NAAQS standards, Ecology and the EPA can reclassify the nonattainment area to a "maintenance area." In that case, Ecology and the regional planning agencies are required to implement a maintenance plan to ensure ongoing emission reductions and continuous compliance with the NAAQS standards. Snohomish County is not located in a nonattainment area. Currently, the western portion of Snohomish County is a maintenance area for CO.

WSDOT, PSRC, and local governments are required to adopt transportation plans and improvement programs that conform with the SIP for Air Quality in order to continue receiving federal funds. Federal conformity guidance requires PSRC to determine that regional transportation improvements do not increase the frequency or severity of violations of air quality standards.

Transportation control measures (TCM) are an important aspect of air quality conformity from WSDOT and local government standpoints. TCMs can aid in reducing or eliminating violations of air quality standards. TCMs are implemented by WSDOT and local governments and serve to increase the efficiency of existing facilities, reduce travel demand, and lower the amount of pollutant emissions. TCMs include such wide ranging projects and programs as traffic signal improvements, signal priority to transit, improved public transportation, ridesharing programs, arterial HOV lanes, transit compatible facilities, and bikeways. In a nontraditional vein, TCMs could also include land use design and densities that allow higher transit usage and less SOV use, or ((~~employer/developer~~)) trip reduction programs((~~required through local ordinance~~)).

The overall intent of TCMs is to reduce vehicle emissions of CO and ozone air pollutants and other priority pollutants. PSRC will perform the elaborate technical and modeling analysis to confirm conformity of transportation plans and programs with the SIP. The County will include TCMs in the transportation element of its comprehensive plan and the subsequent CIPs.

((Table 14

Ambient Air Quality Standards

Pollutant	National (Primary)	Washington State	Puget Sound
Carbon Monoxide			
8 Hour Average	9 ppm	9 ppm	9 ppm
1 Hour Average	35 ppm	35 ppm	35 ppm
Ozone (1)			
8 Hour Average	0.08 ppm	0.08 ppm	0.08 ppm
1 Hour Average	0.12 ppm	0.12 ppm	0.12 ppm

(1) Standard is attained when expected number of days per year, with an hourly average above 0.12 ppm, is only one day or less.

))

Table 12

Ambient Air Quality Standards in Washington

Pollutant	National (Primary)	Washington State	Puget Sound
Carbon Monoxide			
8 Hour Average	9 ppm	9 ppm	9 ppm
1 Hour Average	35 ppm	35 ppm	35 ppm
Ozone (1)			
8 Hour Average	0.08 ppm	0.08 ppm	0.08 ppm
1 Hour Average	0.12 ppm	0.12 ppm	0.12 ppm
Nitrogen Dioxide(2)			
Annual Mean	0.053 ppm (100 $\mu g/m^3$)	0.05 ppm (100 $\mu g/m^3$)	0.05 ppm (100 $\mu g/m^3$)
Particulate Matter PM_{10}			
24 Hour Average	150 $\mu g/m^3$	150 $\mu g/m^3$	150 $\mu g/m^3$
Particulate Matter $PM_{2.5}$			
Annual Average	15 $\mu g/m^3$	12 $\mu g/m^3$	12 $\mu g/m^3$
24 Hour Average	35 $\mu g/m^3$	35 $\mu g/m^3$	35 $\mu g/m^3$
Lead			
Rolling 3 month Average	0.15 $\mu g/m^3$	0.15 $\mu g/m^3$	0.15 $\mu g/m^3$
Quarterly Average	1.5 $\mu g/m^3$	--	--
Sulfur Dioxide			
Annual Average	0.03 ppm	0.02 ppm	0.02 ppm
24 Hour Average	0.14 ppm	0.14 ppm	0.14 ppm
3 Hour Average	--	0.50 ppm	0.50 ppm
1 Hour Average	75 ppb	75 ppbv	75 ppbv

(1) Standard is attained when expected number of days per year, with an hourly average above 0.12 ppm, is only one day or less.

(2) Not to be above this level in a calendar year.

ppb = parts per billion
ppbv = parts per billion by volume
ppmv = parts per million by volume
PM10 = particles 10 microns or less in size
PM2.5 = particles 2.5 microns or less in size
$\mu g/m^3$ = micrograms per cubic meter

The process for maintaining conformity with the SIP and the Clean Air Act is through local and regional transportation planning and improvement programming. Transportation projects or programs eligible for federal funding will be programmed within the local TIP and submitted to PSRC for conformity analysis and modeling. Projects and programs shown to be in conformance with the SIP, consistent with the regional transportation plan, and successfully competing for federal funds would be programmed within the regional TIP.

2. Climate Change

Climate change is a global issue, influenced by many interrelated factors that have consequences for the Pacific Northwest, including Snohomish County. The U.S. National Climate Assessment (NCA) states that the warming of the past 50 years is primarily due to human-induced emissions of heat-trapping gases and that these emissions come mainly from burning coal, oil and gas. (ref. 23) Limiting climate change will require substantial and sustained reductions in greenhouse gas (GHG) emissions. Climate change represents two distinct challenges for Snohomish County; reducing the emissions of greenhouse gases that contribute to climate change and planning for adaption to the impacts of climate change. The Snohomish County Executive in in 2007 issued an executive order addressing the importance of reducing climate change effects, minimizing the County's impact on the environment, and beginning to adapt to the effects of global warming. (ref. 24) Additionally, a 2013 county executive order addressed the importance of taking actions to reducing climate change effects, County government's impact on climate change, and adaptation to the effects of global warming. The Order also adopts and implements a Sustainable Operations Action Plan (SOAP). (ref. 25)

Transportation planning has an important role in greenhouse gas reductions. According to PSRC's Vision 2040, the transportation sector accounts for nearly half the GHG emissions in the Central Puget Sound Region and represents a significant emission reduction opportunity. (ref. 5) There are variety of measures used for reducing GHG emissions from the transportation sector. The three primary approaches are: 1) use a less polluting fuel, 2) use a more efficient vehicle, 3) reduce vehicle miles traveled (VMT) by walking, biking, ridesharing, or taking transit.

Vision 2040 also encourages local jurisdictions to comply with state initiatives and directives regarding climate change and the reduction of greenhouse gases. One state initiative is RCW 47.01.440 which enacts statewide VMT reduction benchmarks for 2020, 2035, and 2050. These benchmarks are not requirements but were enacted to encourage measurement of VMT as part of an overall greenhouse gas reduction strategy. Analysis conducted by PSRC for Transportation 2040 has demonstrated that VMT per capita in the region is already meeting the state's 2020 benchmark and that regionwide measures contained in the regional transportation plan will provide additional reductions. (ref. 35).

In Snohomish County many measures are planned for the next 20 years that will provide positive results in the reduction in per capita VMT. Specific actions include: the expansion of Sound Transit's light rail system to Lynnwood and eventually to Everett, the designation of Transit Emphasis Corridors and the buildout of Community Transit's *Swift* bus rapid transit system, further development of the bicycle network, and programs to provide pedestrian connectivity. Analysis done for this TE has shown that per capita VMT in Snohomish County will be reduced by 6 percent by 2035.

The NCA points out that the "Northwest's economy, infrastructure, natural systems, public health, and vitally important agriculture sector all face important climate change related risks. Those risks – and possible adaptive responses – will vary significantly across the region."(ref. 23) Possible impacts to the transportation system include road and bridge deterioration, infrastructure damage from sea level rising, flooding and increased stormwater, and more frequent landslides. Examples of adaptation responses to these impacts could include changes to the design or design assumptions of roadways and other facilities, changes in the locations of new and existing facilities, including the impacts of climate change in emergency response or

hazard mitigation plans, the use of alternative materials and construction techniques, and implementation of other "green" road strategies.

3. Nonregulatory Actions

Many of the substantive transportation projects and programs recommended within this TE are implementation measures that have the benefit of improving air quality and reducing greenhouse gas emissions by reducing traffic delay and VMT. Reductions in travel can be expected to reduce negative air quality impacts from CO and reactive hydrocarbons. Implementation measures that will aid in maintaining air quality standards, ((~~and~~)) conform to the SIP and reduce greenhouse gas emissions are:

- transit ((~~compatibility and~~)) supportive land use;
- transit emphasis corridors
- HOV treatments on arterials and freeways;
- signal priority treatments for transit on county arterials;
- access management on county arterials;
- TDM on congested corridors and for major employers and developers;
- ((~~regional HCT~~)) high-capacity transit such as light rail and bus rapid transit;
- ((~~bikeways and walkways~~)) bicycle and pedestrian facilities; and
- roadway operations improvements.

These recommended actions, taken in total, are a move toward balanced investment in various travel modes such as automobile, public transportation, paratransit, pedestrian and bicycle.

((~~3. Process~~))

((~~The process for maintaining conformity with the SIP and the Clean Air Act is through local and regional transportation planning and improvement programming. Transportation projects or programs eligible for federal funding will be programmed within the local TIP and submitted to PSRC for conformity analysis and modeling. Projects and programs shown to be in conformance with the SIP, consistent with the regional transportation plan, and successfully competing for federal funds would be programmed within the regional TIP.~~))

G. Freight Mobility

Snohomish County shall advocate and participate in freight planning and mobility projects in partnership with local jurisdictions, port authorities, state and regional agencies, and the private sector that help sustain a reliable and efficient freight transportation system.

1. Background

Snohomish County's employment opportunities depend in large measure on the continued efficient movement of freight. Freight and goods mobility is critical to local jobs and businesses. Freight mobility–the movement of goods by truck, train, ship, plane, or all of these transportation

modes combined–will be a pivotal factor in our ability to stay economically competitive in the regional and international marketplace.

Transportation costs (e.g. physical distribution costs) are a very important component of business planning. Increasingly, the transportation industry is emphasizing timeliness of delivery, which transportation experts indicate is a trend driven by just-in-time production and consumer demand for prompt deliveries. Traffic congestion in Snohomish County and the greater Central Puget Sound threatens this growing trend in business product delivery.

Monitoring and managing freight and goods movement is a complex task that takes place in both the private and public sectors. Private transportation companies and manufacturing firms that provide goods transport, schedule shipments and select routes for product movement and delivery in order to minimize costs and meet customer expectations. Public sector responsibilities include regulating freight movement; monitoring freight flows to assess impacts; providing for new and improved roads, highways, airports, and other intermodal facilities to meet demands; and working together in partnership with the private sector to help understand and plan for the needs of more specialized freight and goods movement.

At the State level, WSDOT has designated the Washington State Freight and Goods Transportation System to help guide planning and funding improvement programs. The County participated in designation of the FGTS system and assists in periodic system updates.

At the regional level, the highway, arterial, air, rail and water system most crucial to the movement of freight and goods has been designated as part of the Metropolitan Transportation System (MTS) by PSRC. The County participated in designation of the MTS and provides system monitoring of county arterials. The County also maintains a database and digital maps of transportation facilities such as air, rail water and port freight system components.

Determining future freight traffic and necessary facility improvements is a critical component of understanding the impact of future volumes on the transportation system, as well as how the system shapes and impacts economic development. Comprehensive land use, transportation, and economic development planning play a combined role in determining how the transportation system will function in the future.

2. Regulatory Actions

In support of maintaining and improving an effective freight transportation system, regulatory measures that Snohomish County could implement include:

- coordinating with WSDOT and cities regarding uniform regulation on commercial vehicles;
- designating truck routes in cooperation with shippers, cities, ports and WSDOT; and
- protecting ports, airports, ferry terminals, industrial areas, and designated freight transportation corridors (i.e. road, highway, rail and pipeline) from incompatible activities and development.

3. Nonregulatory Actions

Several nonregulatory actions should be pursued by the County in order to better plan for, protect, and improve the freight transportation system. These actions include:

- continue participation in state and regional freight systems designations and updates;
- continue participation in PSRC's Freight Action ((~~Strategy~~))STrategy (FAST Corridor)for the ((~~Tacoma-Everett-Seattle~~))Everett-Seattle-Tacoma Corridor (((~~FAST~~))) ((~~Corridor~~)) Partnership and consistently attend the PSRC Freight Mobility Roundtable;
- continue to maintain an updated Inventory of Transportation Facilities and Services ((~~Inventory~~)) which includes major freight system components and services;
- continue providing freight and goods rating to proposed transportation projects in the county's long range TNR to help direct project prioritization and TIP project programming;
- provide all-weather improvements to county roads and bridges where warranted to minimize seasonal weight restrictions and closures;
- participate in major economic development initiatives, planning and project development where transportation analysis, recommendations and improvements are a component; ((~~and~~))
- aggressively seek funding for freight and goods-related improvements((~~.~~)); and
- develop the county's eastside rail corridor by adding a potential future shared regional nonmotorized multi-use trail, an excursion train, and commuter rail.

4. Process

The county will continue to monitor freight movement on the designated arterial system, participate in regional and state level freight transportation planning initiatives, and pursue arterial system improvements as part of county project design and implementation. The county will apply data and analysis to help gain a greater understanding of freight system needs and incorporate them into the project development and prioritization processes. Improvements will be programmed through the county's TIP and ACP. Joint improvement project development with WSDOT, the cities, and the private sector will be coordinated and funded where practical.

IV. RECOMMENDED TRANSPORTATION IMPROVEMENTS

This TE presents recommended improvement projects within the jurisdiction of the County, WSDOT, various incorporated cities, and three transit operating agencies (Community Transit, Everett Transit and Sound Transit). The array of improvements recommended for the County during the ((~~2005-2025~~)) 2015-2035 timeframe are described in terms of their type of improvement, location, programming category and total project cost where available.

A. County's Approach to Arterial Road Needs and Improvements

The County participates in providing a countywide transportation system along with cities, towns, transit agencies, and WSDOT. This system is multimodal in that it provides facilities supporting automobiles, buses, pedestrians, bicyclists, ferries and rail vehicles. The County's primary transportation responsibilities relate to improving and maintaining county roads. However, county roadways can be designed and maintained to accommodate multiple modes of travel.

The transportation improvement recommendations presented here are consistent with the goals, objectives and ((~~polices~~)) policies of the GPP, particularly those relating to both land use and transportation. These ((~~short-range and long-range~~)) recommendations should enhance the opportunity for an integrated, multimodal transportation system that will adequately serve Snohomish County through the year ((~~2025~~)) 2035. State, regional, and city projects are also identified where they are needed to ensure a consistent and coordinated regional transportation system.

1. Evaluation Process for Identifying Deficiencies

The County's evaluation process for ((~~state highways and~~)) county arterials begins once a traditional travel modeling and forecasting effort provides estimates of ((~~current and~~)) future travel demand based on the FLUM. The evaluation process identifies roadway needs and the corresponding improvement projects aimed at maintaining the adopted LOS standard on county arterials. This is accomplished through ((~~four~~)) three major steps, described below.

Step 1: ((~~State highways and county~~)) County arterials are screened by using modeled vehicular travel forecasts for ((~~2012 and 2025~~)) 2035 to determine which roadways ((~~will~~)) may experience LOS problems during either the a.m. or p.m. system peak hour periods. These traffic forecasts for county arterials are contained in Appendix E, Traffic Forecasts for Snohomish County Arterial Units. ((~~State highways and county~~)) County arterials that present an adequate LOS in ((~~2012 and 2025~~)) 2035 are identified as having no need for capacity improvement. If a potential LOS problem is identified for ((~~2012 or 2025~~)) 2035, the facility is earmarked for an improvement that will enhance capacity and improve LOS. ((~~(ref. 19)~~))

Step 2: All ((~~state highways and~~)) county arterials are additionally reviewed to determine if they need improvements that are critical to highway/arterial system continuity, connections and access to developing areas. ((~~Highways and arterials~~)) Arterials that are not expected to have LOS problems and do not represent critical gaps in the roadway system, are not selected for a major capacity-related improvement, and are

not subject to any further analysis. ((~~Examples of these highways and arterials include I-5 between the Skagit County line and Island Crossing, and Dubuque Road between Machias Road and Storm Lake Road.~~)) In addition, ((~~state highways and~~)) county arterials that are at their final design standard, and not subject to capacity-related improvement, are also set aside in terms of further consideration. ((~~Examples of these final design roadways include SR-527 between 228th Street SE and 164th Street SE, and 164th Street SE between SR-527 and I-5. Over the next 20 years these roadways will receive operational and maintenance improvement.~~))

Step 3: For ((~~state highways and~~)) county arterials that show a potential LOS problem or critical system need for ((~~2012 or 2025~~)) 2035, improvement projects are identified that, as much as practicable, would resolve the identified problem. ((~~LOS analysis is performed for the a.m. and p.m. system peak hour periods for the current, 2012, and 2025 timeframes.~~)) One of the following types of improvement projects is then applied to address the problems.

- ~~**((Arterial Design and Safety Standards (AS)** – project improvements that allow a county arterial to meet the geometric and structural design standards defined in the most current version of the EDDS. The primary intent of these improvements is to enhance traffic flow and make the subject arterial safe for automobiles, pedestrians, and nonmotorized transportation.~~

- ~~**Arterial Operations (AO)** – project improvements that enhance traffic flow and/or safety on a county arterial by providing site-specific operational and safety improvements such as channelization, vehicle storage and turn-lane improvements, vertical and horizontal realignment, traffic control/signalization and other positive-guidance features. The primary intent of these improvements is to resolve more immediate LOS and safety problems.~~

- ~~**Arterial Capacity (AC)** – project improvements that enhance effective capacity and traffic flow on a county arterial by significantly widening lanes, adding through and turn lanes, adding shoulders and walkways, improving positive-guidance, and implementing traffic control revisions. The primary intent of these improvements is to enhance existing capacity in order to safely and efficiently handle existing and future traffic on the subject arterial.~~

- ~~**Arterial Operations and Capacity (AO/C)** – project improvements that enhance effective capacity and traffic operations on a county arterial by adding through and turn lanes, adding shoulders and walkways, introducing channelization and implementing traffic control and signalization. The primary intent of these improvements is to increase arterial lane capacity, enhance traffic safety and efficient traffic operations at key intersections, and have a positive effect on areawide traffic circulation and LOS.~~

- ~~**New Arterial Road Alignments (NR)** – project improvements that entail construction of an arterial roadway or the extension of an existing roadway across a new alignment. The primary intent of these improvements is to increase arterial lane capacity, relieve congestion on existing arterials, serve developing areas of the county, and have a positive effect on areawide traffic circulation and operations.~~

- ~~**Washington State (WS)** – project improvements that involve addition of interchanges, freeway lane capacity and capacity enhancements to various state arterial highways. These projects would have the intent of improving the capacity and operations of HSS and HRS.~~

- ~~**Cities (XX)** – project improvements that could involve arterial standards, arterial capacity, arterial capacity with operations, and new arterial alignments on city arterial streets. These projects would have the broad intent of meeting city standards, enhancing traffic flow, and increasing capacity on city arterials.~~))

- **Widening of an Existing Arterial Road (W)** – project improvements that increase capacity and enhance traffic flow and safety on a county arterial by widening the existing roadway. A widening project includes all or some of the following improvements: widening of existing lanes, adding through and/or turn lanes, adding/widening shoulders, adding walkways, introducing channelization and implementing traffic control and signalization. The primary intent of these improvements is to increase arterial capacity, improve traffic operations and enhance safety in order to adequately and safely serve existing and future vehicular traffic, bicyclists and pedestrians on the arterial; have a positive effect on LOS and area-wide traffic circulation; mitigate congestion on other arterials and serve developing areas of the county.

- **New Arterial Road Alignment (N)** – project improvements that entail construction of an arterial roadway or the extension of an existing roadway across a new alignment. The primary intent of these improvements is to increase arterial capacity, relieve congestion on existing arterials, serve developing areas of the county, and have a positive effect on area-wide traffic circulation.

- **Intersection Improvements (IS)** – project improvements at an arterial roadway intersection that increase intersection capacity and enhance traffic flow and safety. An intersection project includes all or some of the following improvements: adding turn lanes/pockets, widening existing lanes on intersection approaches, constructing roundabouts, adding/widening shoulders, adding walkways, introducing channelization and implementing traffic control and signalization.

((~~**Step 4**~~: ~~This last step involves staging county improvement projects for the 2012 and 2025 timeframes and then placing them within three priority categories. The categories relate to the county programming and implementation since they would be under the County's jurisdiction and responsibility. The three categories are: Critical Arterial System Improvements (CASI); Arterial Level of Service Improvements (ALOSI); and Arterial System Enhancement Improvements (ASE). These priority categories represent different responses to improvement needs and enhancements and are explained in more detail in the next section.~~

~~2. Summary of Recommended County Improvement Categories~~

~~The three categories of county project improvements represent different levels of priority and response to arterial deficiencies as described below.~~

- **Critical Arterial System Improvements (CASI)** improvements needed to complete critical links in the overall county arterial system. They directly serve urban growth and development anticipated by the comprehensive plan, and provide for: access to urban centers and growth areas; completion of missing connections; and operational continuity within an arterial corridor. This category of improvement can involve lane capacity additions necessary to resolve LOS problems; needed frontage improvements (i.e., urban curb, gutter and sidewalks, and rural shoulders); and bikeways where the arterial is on the bicycle facilities system map. They should be pursued at their full-design standard within the timeframes they will be needed (2005-2012 and 2013-2025), with staging of spot operational improvements before capacity improvements as a possibility.

- **Arterial Level of Service Improvements (ALOSI)** improvements needed to allow arterial level of service to remain concurrent with adopted standards assuming growth as anticipated by the comprehensive plan. This category of improvement involves adding additional lane-capacity, where practicable, and resolving LOS problems through operational improvements such as signals, turn lanes and other traffic controls. The staging of operational and intersection improvements would be pursued first to resolve LOS and concurrency problems before additional capacity improvements are determined to be needed, and these additional capacity improvements will likely occur after 2025. Standards-related improvements will continue to be pursued through development review as frontage improvements are provided by new development along an arterial.

- **Arterial System Enhancements (ASE)** improvements that enhance traffic operations, safety, accessibility and circulation. They serve to sustain the long-term viability of the arterial system and support the broader goals of the comprehensive plan. These are projects that are pursued by the county on an as needed basis when additional funds are available beyond that needed for critical arterial and LOS categories. Where enhancement projects are needed related to urban expansion or intensification, they may become primarily the responsibility of the proponent land owners and developers. Standards-related improvements will continue to be pursued through development review as frontage improvements are provided by new development along an arterial.

Criteria and technical consideration that went into creating the above priority categories are presented by Table 15.

Table 15

Criteria and Considerations for Project Improvement Categories

Criteria/Consideration	Explanation
Traffic and LOS	Involves review and interpretation of existing and forecast traffic data and information such as ADT, peak hour traffic, V/MSV, LOS, intersection operations/LOS, and traffic generation/distributions. Project gets critical consideration for early staging if either existing or forecast LOS and operating conditions are below LOS standard.
Safety and Public Welfare	Involves review of IRC reports, vehicular accident rates and type, interaction with high accident corridors on state routes, an arterial's design standard, unique geometric problems, and potential for vehicular/pedestrian conflict. Project gets critical consideration for early staging if accident rates are increasing.

~~Arterial Connections and Circulation~~	~~Involves denoting and testing where improved arterials and new arterials will reduce congestion and conflicts on other areawide roads and/or where new connections and circulation improvement can be achieved. Project gets critical consideration for early staging if it reduces traffic impacts on other roads, eliminates circuitous routing, completes missing connections, improves potential for keeping traffic off local roads, and costs are within a feasible range.~~
~~Transportation System Benefits~~	~~Involves denoting where broader transportation system benefits can be achieved in terms of areawide LOS, reduced VMT, pedestrian/transit compatibility, transit vehicle circulation, and interaction between state highway, county, and city arterial systems. Project gets critical consideration for early staging if it helps multiple modes of travel, has compatible design standards and staging as a state and city project, and provides operational improvement that helps multiple arterials or highways.~~
~~Supports Comprehensive Plan~~	~~Involves reviewing and interpreting land use inventories and forecasts, as well as denoting planned densities, types and character of land uses, community and neighborhood centers, commercial areas, and other plan features. Project gets critical consideration for early staging if it helps to adequately serve or support a provision of the land use plan, particularly urban centers, high-density residential area, and business districts.~~))

To help identify state transportation system needs, the state highways in Snohomish County were evaluated in a manner similar to that described above for county arterials. Forecasted travel demand from the travel model was used to estimate traffic impacts to state-owned transportation facilities and gauge future potential LOS deficiencies and needs on the state system. The state highways were evaluated using modeled vehicular travel forecasts for 2035 and the adopted LOS standards for HSS and non-HSS described earlier to determine which highways may have LOS problems during either the a.m. or p.m. system peak hour periods. Traffic forecasts for state highways in Snohomish County are contained in Appendix F, Traffic Forecasts for State Highways.

The identified needs for the state transportation system and the county arterials differ in an important way. The state highways are under WSDOT's jurisdiction. Consequently, the state highways with future potential LOS deficiencies are not earmarked for improvement projects and subjected to further analysis as the county arterials were in Steps 2 and 3 above.

B. Recommended County Arterial Road Improvements

Snohomish County, after careful study, recommends a number of county arterial improvements ((~~and their staging~~)) over the next 20 years. The County's plan for these improvements, when presented in combination with city, state and transit operating agency plans, shows a balanced investment in the various modes such as automobile, freight, transit, pedestrian, and bicycle. Importantly, the scope of improvements to county roads, state highways and city streets often includes pedestrian, bicycle and transit-supportive features that enhance design and operating conditions for all modes of travel. When the multi-agency and long-range improvements are

combined with the implementation measures presented earlier in Chapter III, this TE satisfies GMA requirements (RCW 36.70A.070(6)(a)(iii)(F)) and achieves consistency with CWPPs.

1. Arterial Circulation Map

The County's arterial improvements are likely to be needed in stages over the next 20 years to adequately serve the county's land use element under the comprehensive plan and support the multimodal transportation system serving Snohomish County. ((~~Map 1 Arterial Circulation))~~ The Arterial Circulation Map (Map 1) presents the recommended roadway circulation network that includes county arterial roadways ((~~, city arterial streets~~)) and state highways. (~~ref. 20~~)) The Arterial Circulation Map shows the expanse and coverage of county roadways and state highways and their functional classes. ((~~Urban and rural distinctions are also shown on the map as well as jurisdictional responsibilities (i.e., city, county, state).~~)) Arterials are classified as an interstate, freeway/expressway, principal arterial, minor arterial, major collector, or minor collector. Non-arterial roads are classified as local roads, These functional classes are described in more detail below.

All roadways maintained by the County have been classified for funding purposes using the federal functional classification system, which reflects the function, traffic levels and composition, roadway and streetscape design, access, and frontage improvements required for development and guides programming of roadway improvements. ((~~The major classifications of county~~)) County roadways are classified as principal arterial, minor arterial, major collector, minor collector ((~~and~~)) or local access ((~~street~~)) road on the Arterial Circulation Map. ((~~These classifications are described in more detail below.~~))

- ((~~**Freeway (FW)**~~ multilane, high-speed, high-capacity roadway intended exclusively for motorized traffic. All access is controlled by interchanges and road crossings are grade-separated. All freeways within Snohomish County are under the jurisdiction of WSDOT.

- ~~**Principal Arterial (PA)**~~ intercommunity roadway that connects major community centers and facilities, and is often constructed with limited direct access to abutting land uses. The primary function of principal arterials is to provide a high degree of vehicular mobility; however, they may play a minor role in providing land access. Principal arterials serve high-volume corridors, carrying the greatest portion of through or long-distance traffic and public transportation within a community.

- ~~**Minor Arterial (MA)**~~ intercommunity roadway, bounded by the principal arterial system, which connects centers and facilities within the community and serves some through-traffic, while providing a greater level of access to abutting properties. Minor arterials connect with other arterial and collector roads extending into the urban area.

- ~~**Collector (CL)**~~ roadway designed to fulfill functions of mobility and land access. Collectors typically serve intra-community trips connecting residential neighborhoods with each other or activity centers, while also providing a high degree of property access within a localized area. These roadways "collect" vehicular trips from local access roads and distribute them to higher classification roads. Collector roadways in the rural area are categorized as major (MaC) or minor (MiC).

- ~~**Local Access Street**~~ roadway designed with a primary function of providing access to residences. Typically they are only a few blocks long and are relatively narrow. All roadways

~~in Snohomish County that are not designated as an arterial or a collector are considered to be local access streets.~~))

- **Interstate:** Limited access, divided highways linking major urban areas.

- **Freeway/Expressway:** Directional travel lanes usually separated by a physical barrier with limited access and egress points (on- and off-ramps or very limited number of at-grade intersections). Abutting land uses are not directly served by freeways/expressways.

- **Principal Arterial:** Roadways serving major centers of metropolitan areas and providing a high degree of mobility. Abutting land uses can be served directly by principal arterials via driveways or at-grade intersections.

- **Minor Arterial:** Roadways providing intra-community continuity and connectivity to the higher arterial system. Minor arterials provide a greater level of access to abutting land uses than principal arterials.

- **Major Collector:** Roadways funneling traffic from local roads to the arterial network and providing a high level of property access. Major collectors are generally longer, have more travel lanes, have lower connecting driveway densities, have higher speed limits, and carry higher traffic volumes than minor collectors.

- **Minor Collector:** Roadways funneling traffic from local roads to the arterial network and providing a high level of property access. Minor collectors are generally shorter, have fewer travel lanes, have higher connecting driveway densities, have lower speed limits, and carry lower traffic volumes than major collectors.

All roads not classified as any of the preceding categories are called local roads. Local roads primarily provide access to abutting land uses and connect traffic to the higher collector and arterial roadway network.

((~~Table 16 summarizes county arterial mileage by functional class for both the prior and current TE. It also shows the differences in arterial mileage between the prior and current TE. In the current TE, total arterial mileage increases by 80.1 miles over the prior TE. Most of this increase occurs in the collector/minor collector functional class. The increase in arterial mileage is primarily due to two factors. First, additional arterials will be needed to effectively serve planned land use and forecasted growth. Second, arterial mileage was added inside cities to provide connectivity to county arterials and reflect updated functional class maps in the transportation elements of cities.~~))

((~~Table 16~~

~~County Arterial Mileage by Functional Classification~~

~~Functional Classification~~	**~~Prior TE Arterial Mileage~~**	**~~Current TE Arterial Mileage~~**	**~~Arterial Mileage Difference~~**
~~Freeway (FW)~~	~~68.2~~	~~68.2~~	~~0~~
~~Principal Arterial (PA)~~	~~233.6~~	~~235.5~~	~~1.9~~
~~Minor Arterial/Major Collector (MA/MaC)~~	~~390.0~~	~~394.9~~	~~4.9~~
~~Collector/Minor Collector (CL/MiC)~~	~~349.0~~	~~409.5~~	~~60.5~~
~~Recommended Principal Arterial~~	~~3.8~~	~~7.6~~	~~3.8~~
~~Recommended Minor Arterial/Major Collector~~	~~4.2~~	~~5.8~~	~~1.6~~
~~Recommended Collector/Minor Collector~~	~~9.4~~	~~16.8~~	~~7.4~~
~~TOTAL~~	**~~1,058.2~~**	**~~1,138.3~~**	**~~80.1~~**

~~Source: Snohomish County 2005.~~

))

Table 13 summarizes county arterial mileage by functional class. Total arterial mileage within Snohomish County, excluding arterials within City boundaries, is approximately 806. The mileage shown in Table 13 only includes state highways and county arterials.

Table 13

County Arterial Mileage by Functional Classification

Functional Classification	Arterial Mileage
Interstate	45
Freeway/Expressway	16
Principal Arterial	214
Minor Arterial	181
Major Collector	153
Minor Collector	184
Recommended Principal Arterial	6
Recommended Minor Arterial	1
Recommended Major Collector	1
Recommended Minor Collector	5
TOTAL	**806**

2. Project Costing Methodology

The expenditure or cost values presented in this TE ((~~for County UGAs~~)) are "planning-level" cost estimates for proposed county arterial improvement projects ((~~and mitigation measures under this UGA Plan~~)). The cost estimates are in ((~~2005 adjusted~~)) year-of-expenditure (YOE) dollars. In other words, a project's current estimated cost is adjusted for inflation by inflating current dollars to the forecasted year of construction. The cost estimates are derived from the County's TNR cost-estimating model ((~~.(ref. 21)~~)), except for certain widening projects and intersection improvement projects. For widening projects programmed for completion in the ACP/TIP, the cost estimates are derived from the ACP/TIP. For intersection improvement projects, the cost estimates are based on analysis of actual costs for this type of project. The ((~~county's~~)) TNR cost-estimating model is based on several attributes of the project under consideration, including such factors as:

- the roadway's functional classification;
- terrain;
- number of traffic signals;
- additional pavement width required;
- the amount of existing curb; gutter and sidewalk;
- wetlands that need to be replaced (1.5 replacement ratio);
- bridges;
- engineering;
- water drainage and detention;
- additional right-of-way required; and
- type of land use on either side of the roadway (i.e., value of land).

3. Recommended County Arterial Improvement Projects

The recommended list of county arterial improvement projects are presented by ((~~Table 17~~)) Table 14. ((~~, with a cost summary provided for each arterial improvement category (CASI, ALOSI and ASE). Maps 3 through 9, enclosed with this TE, illustrate the limits and location of each arterial project improvement described by Table 17. Also illustrated are the locations and limits of each city street and state highway improvement that supports this transportation element.~~)) These projects are shown on Figures 6 and 7. The projects in Table 14 include:

- 18 projects which would widen existing arterial roads,
- four which would construct new arterial roads,
- 21 intersection projects, and
- stand-alone pedestrian projects.

Regarding the intersection projects, seven intersection improvement projects are specifically identified and three "programmatic" line items are included for intersection improvement projects that the county anticipates will be needed by 2021, 2028, and 2035, even though specific intersections are yet to be identified. These intersections (14 in total) will be identified through the county's ongoing CMS and programmed for design and construction within the ACP/TIP.

Three programmatic line items are also included for stand-alone pedestrian improvement projects that the county anticipates will be needed by 2021, 2028, and 2035 to provide connectivity to major transit routes and school facilities. These pedestrian projects will be programmed for design and construction within the ACP/TIP.

In addition to a project's basic attributes, Table 14 shows the YOE cost and the projected year of construction completion used in calculating YOE dollars. For the purpose of calculating YOE costs, all projects were assigned one of the following three completion dates: 2021, 2028, or 2035. The projects in Table 14 are grouped by completion date.

((~~It should be noted that the cost estimates, in this table, represent expenditure levels necessary to bring all improvement projects to the county's full arterial standards. Appendix B provides more specific cost estimates for individual improvement projects that include engineering, right-of-way, and construction costs.~~))

((~~Table 17 includes 39 CASI projects for 33.5 miles of improvement, 46 ALOSI projects along 44.4 miles of arterials, and 92 ASE projects for 73.6 miles of potential improvement. In aggregate there could be up to 177 project improvements spanning 151.5 miles of county arterials. Table 17 presents important information for each project that includes:~~

- ~~the TSA in which a project is located;~~
- ~~a unique identification number that denotes the type of project and location on project maps 3 through 9 included with this TE;~~
- ~~arterial name and limits;~~
- ~~functional classification (FC) and length in miles;~~
- ~~full-design improvement description;~~

- ~~staging of the improvement project (short-range 2005-2012, long-range 2013-2025); and~~
- ~~full-design improvement cost by category in 2005 adjusted dollars (millions).~~

Table 17

Snohomish County

Full-Design Arterial Improvement Projects with Cost
(2005 Adjusted $ Millions)

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
CRITICAL ARTERIAL SYSTEM IMPROVEMENTS (CASI)								
A	AO-3	88th Street NE	Marysville C/L (44th Drive NE) to Marysville C/L (61st Drive NE)	MA	1.11	Urban 3-Lane Standards		X
A	AO/C-1	140th Street NE / Stimson Road	23rd Avenue NE to 34th Avenue NE	MaC	0.85	Rural 4-Lane Standards		X
A	AO/C-4	51st Avenue NE	88th Street NE to 108th Street NE	CL	1.19	Urban 3-Lane Standards		X
A	AO/C-3	51st Avenue NE	108th Street NE to 136th Street NE	CL	1.81	Urban 3-Lane Standards	X	-
A	NR-2	51st Avenue NE	84th Street NE to 88th Street NE	CL	0.25	Urban 3-Lane Standards w/ NB Auxiliary lane		X
A	JP-2	51st Avenue NE	136th Street NE to 152nd Street NE	CL	1.06	Urban 3-Lane Standards		X
A	JP-4	100th Street NE	Shoultes Road to 51st Avenue NE	CL	0.44	Urban 3-Lane Standards		X
A	JP-1	51st Avenue NE	152nd Street NE to SR 531	CL	1.27	Urban 3-Lane Standards		X
B	NR-4	Granite Falls Alternate Route	Mountain Loop Highway to SR 92	PA	2.10	Rural 2-Lane Standards in Urban Area		X
B	AO/C-10	20th Street SE	99th Avenue SE to S. Lake Stevens Road	MA	0.33	Urban 5-Lane Standards	X	-
B	AO/C-9	20th Street SE	91st Avenue SE to 99th Avenue SE	MA	0.48	Urban 5-Lane Standards	X	-
B	AO/C-8	20th Street SE	Cavalero Road to 91st Avenue SE	MA	0.97	Urban 4-Lane Standards w/ turn pockets	X	-
C	AO-15	Airport Way	SR 9 to 99th Avenue SE	MA	0.53	Rural/Urban 2-Lane Standards	X	-
C	AC-8	Airport Way	99th Avenue SE to Bridge #1	MA	0.58	Urban 3-Lane Standards	X	-

Table 17

Snohomish County

Full-Design Arterial Improvement Projects with Cost
(2005 Adjusted $ Millions)

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
D	AC-23	Seattle Hill Road	35th Avenue SE to 132 Street SE (SR 96)	MA	1.60	Urban 3-Lane Standards		X
D	AC-17	36th / 35th Avenue W.	164th Street SW to 156th Street SW	CL	0.52	Urban 3-Lane Standards		X
D	AC-20	North Road	176th Place SW to 164th Street SW	CL	0.80	Urban 3-Lane Standards		X
D	AC-10	112th Street SW/ Beverly Park Road Corridor	SR 525 to Airport Road	MA	1.36	Urban 5-Lane Standards	X	-
D	AC-9	Beverly Park Road	Airport Road to 112th Street SW	MA	0.16	Urban 5-Lane Standards	X	-
D	AO/C-16	180th Street SE	SR 527 to Brook Boulevard	MA	0.27	Urban 5-Lane Standards	X	-
D	AC-25	35th Avenue SE	Seattle Hill Road to 162nd Street SE	MA	0.69	Urban 3-Lane Standards	X	-
D	NR-8	Puget Park Drive Extension	67th Avenue SE to Cathcart Way	CL	0.58	Urban 2-Lane Standards	X	-
D	NR-6	148th Street SW	Jefferson Way to Meadow Road	CL	0.89	Urban 3-Lane Standards		X
D	AO/C-12	Ash Way	Gibson Road to 164th Street SW	CL	2.38	Urban 3-Lane Standards		X
D	AO/C-14	148th Street SW	35th Avenue W. to Jefferson Way	CL	0.86	Urban 3-Lane Standards		X
D/E	AC-27	35th Avenue SE	180 Street SE to 188 Street SE	MA	0.52	Urban 3-Lane Standards		X
D/E	AC-26	35th Avenue SE	162nd Street SE to 180th Street SE	MA	1.13	Urban 3-Lane Standards		X
D/F	AC-21	North Road	SR 524 to 176th Place SW	CL	0.98	Urban 3-Lane Standards		X
E	AS-39a	169th Street SE	35th Avenue SE to Sunset Road SE	CL	0.41	Urban 2-Lane Standards		X

Table 17

Snohomish County

Full-Design Arterial Improvement Projects with Cost
(2005 Adjusted $ Millions)

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
E	AC-38	Snohomish-Woodinville Road	SR 522 to King County Line	MA	0.56	Urban 3-Lane Standards	X	
E/F	AC-30	35th Avenue SE	188th Street SE to 198th Place SE	MA	0.66	Urban 3-Lane Standards		X
E/F	AC-32	39th Avenue SE	228th Street SE to 207th Street SE	MA	1.30	Urban 3-Lane Standards		X
E/F	AC-31	39th Avenue SE (York Road)	204th Street SE (SR 524) to 198th Place SE	MA	0.38	Urban 3-Lane Standards		X
E/F	JP-7	39th Avenue SE	240th Street SE to 228th Street SE	MA	0.75	Urban 3-Lane Standards		X
F	AO-33	Locust Way/Lockwood Road/Carter Road	King County Line to 240th Street SW	MA	0.85	Urban 2-Lane Standards. Realign I/S of Locust Way & Lockwood Road		X
F	AO-32	14th Avenue W./Carter Road	220th Street SW to 240th Street SW	MA	1.30	Urban 2-Lane Standards		X
F	NR-14	14th Avenue W. Extension	Locust Way to 220th Street SW	MA	0.51	Urban 2-Lane Standards		X
F	AC-39	Poplar Way	Lynnwood C/L to Larch Way	CL	0.72	Urban 3-Lane Standards		X
F	AO-31	Locust Way	Larch Way to 14th Avenue W. Extension	MA	0.30	Urban 2-Lane Standards		X
				Miles Subtotal = 33.5		**Subtotal (CASI) = $345.0**		
ARTERIAL LEVEL OF SERVICE IMPROVEMENTS (ALOSI)								
A	AC-2	100th Street NE	51st Avenue NE to 67th Avenue NE	CL	1.03	Urban 3-Lane Standards		X
A	AO/C-2	34th Avenue NE	116th Street NE to 136th Street NE	MiC	1.31	Rural 4-Lane Standards w/ realignment of I-5/116th Street NE I/C	X	

Table 17

Snohomish County

Full-Design Arterial Improvement Projects with Cost
(2005 Adjusted $ Millions)

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
A	AS-11	67th Avenue NE	108th Street NE to 152nd Street NE	MaC	2.88	Rural 2-Lane Standards		X
A	AC-3	67th Avenue NE	Marysville C/L to 108th Street NE	MA	1.12	Urban 3-Lane Standards	X	-
A	AS-13	83rd Avenue NE	Soper Hill Road to SR 528	CL	2.22	Urban 2-Lane Standards		X
A	AS-15	Marine Drive NW	64th Street NW to 83rd Place NW	MaC	2.08	Rural 2-Lane Standards		X
A	AS-16	Marine Drive NW	7th Drive NW to 64th Street NW	MaC	1.48	Rural 2-Lane Standards		X
A	AC-1	Shoultes Road/100th Street NE	State Avenue to 108 Street NE	CL	0.66	Urban 3-Lane Standards		X
A	AO-1	Smokey Point Boulevard	UGA Boundary to SR 530	MaC	1.04	Rural 2-Lane Standards w/ intersection treatments		X
B	AS-17	20th Street NE (Lakeview Drive)	Lundeen Parkway to Lake Stevens C/L	MA	0.48	Urban 2-Lane Standards		X
B	AO/C-7	20th Street SE	US 2 to Cavalero Road	MA	0.27	Urban 4-Lane Standards w/ operations improvements	X	
B	AO/C-5	Lundeen Parkway	SR 9 to 99th Avenue NE	MA	0.61	Urban 4-Lane Standards	X	-
B	AC-6	South Lake Stevens Road	20th Street SE to S. Davies Road	CL	0.34	Urban 3-Lane Standards	X	
B	AO-11	South Lake Stevens Road	S Davies Road to E. Lake Stevens Road	CL	0.73	Urban 2-Lane Standards	-	X
B	AC-5	Vernon Road	Davies Road to SR 9	CL	0.15	Urban 3-Lane Standards		X
C	AS-31	Broadway Avenue	164th Street SE to SR 9	MiC	2.31	Rural 2-Lane Standards	-	X
C	AO-14	Marsh Road	Lowell-Larimer Road to SR 9	MiC	2.00	Rural 2-Lane Standards	X	-

Table 17

Snohomish County

Full-Design Arterial Improvement Projects with Cost
(2005 Adjusted $ Millions)

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
C	AO-16	Springhetti Road	Broadway Avenue to Airport Way	MiC	1.97	Rural 2-Lane Standards	-	X
D	AC-22	116th Street SE	Everett C/L to 35th Avenue SE	CL	0.60	Urban 3-Lane Standards		X
D	AO/C-15	148th Street SE	Seattle Hill Rd to Power Line Easement	MA	0.42	Urban 3-Lane Standards		X
D	AC-29	180th Street SE	25th Avenue SE to 35th Avenue SE	MA	0.61	Urban 5-Lane Standards	X	-
D	AC-28	180th Street SE	Brook Boulevard to 25th Avenue SE	MA	0.29	Urban 5-Lane Standards	X	-
D	AC-19	28th Avenue W.	164th Street SW to SR 525 Off-Ramp	MA	0.56	Urban 5-Lane Standards	X	-
D	AC-16	36th / 35th Avenue W.	156th Street SW to 148th Street SW	CL	0.47	Urban 3-Lane Standards		X
D	AC-11	4th Avenue W.	112th Street SW to Everett C/L	MA	0.47	Urban 5-Lane Standards	X	-
D	AC-15	52nd Avenue W.	Lynnwood C/L to Beverly Park Road	MA	1.24	Urban 3-Lane Standards		X
D	AO/C-13	Ash Way	164th Street SW to Maple Road	CL	1.15	Urban 3-Lane Standards		X
D	AC-14	Beverly Park Road	52nd Avenue W. to Picnic Point Road/ Shelby Road	MA	0.49	Urban 3-Lane Standards		X
D	AC-12	E. Gibson Road	Ash Way to Airport Road/128th Street SW	CL	0.17	Urban 3-Lane Standards		X
D	AC-13	Gibson Road	SR 99 to Ash Way	CL	0.59	Urban 3-Lane Standards		X
D	AS-33	Manor Way	Jefferson Way to 148th Street SW	CL	0.77	Urban 2-Lane Standards w/ intersection treatments	-	X
D	AO-18	Manor Way	SR 99 to Jefferson Way	CL	0.57	Urban 2-Lane Standards w/ intersection treatments		X

~~Table 17~~

~~Snohomish County~~

~~Full-Design Arterial Improvement Projects with Cost~~
~~(2005 Adjusted $ Millions)~~

~~TSA~~	~~TE Project Number~~	~~Name~~	~~Limits~~	~~FC~~	~~Miles~~	~~Improvements~~	~~Short-Range~~	~~Long-Range~~
~~D~~	~~AO-22~~	~~Meridian Avenue S/130th Street SE/3rd Avenue SE~~	~~Meadow Place SW to SR 96 (128th Street SE)~~	~~CL~~	~~0.56~~	~~Urban 2-Lane Standards w/ intersection improvements~~		~~X~~
~~D/F~~	~~AS-34~~	~~178th Street SW/Maple Road~~	~~Larch Way to Ash Way~~	~~CL~~	~~1.20~~	~~Urban 2-Lane Standards~~		~~X~~
~~E~~	~~AC-33~~	~~180th Street SE~~	~~35th Avenue SE to 51st Avenue SE~~	~~MA~~	~~1.02~~	~~Urban 3-Lane Standards~~		~~X~~
~~E~~	~~AC-34~~	~~180th Street SE~~	~~51st Avenue SE to Snohomish Avenue~~	~~MaC~~	~~1.43~~	~~Rural 3-Lane Standards~~	~~X~~	~~-~~
~~E~~	~~AS-40~~	~~180th Street SE~~	~~83rd Avenue SE to Broadway Avenue~~	~~MaC~~	~~0.56~~	~~Rural 2-Lane Standards~~		~~X~~
~~E~~	~~AO/C-17~~	~~180th Street SE~~	~~Snohomish Avenue SE to 83rd Avenue SE~~	~~MaC~~	~~0.58~~	~~Urban 5-Lane Standards w/ Signal~~		~~X~~
~~E~~	~~AC-36~~	~~228th Street SE~~	~~39th Avenue SE to 45th Avenue SE~~	~~MA~~	~~0.38~~	~~Urban 4-Lane Standards~~	~~X~~	
~~E~~	~~AC-37~~	~~228th Street SE~~	~~45th Avenue SE to SR 9~~	~~MaC~~	~~1.40~~	~~Rural 3/5-Lane Standards~~	~~X~~	
~~E~~	~~AO-25~~	~~Bostian Road/224th Street SE/75th Avenue SE~~	~~Paradise Lake Road to King County Line~~	~~CL/MiC~~	~~2.63~~	~~Urban/Rural 2-Lane Standards~~		~~X~~
~~E~~	~~AC-35~~	~~Paradise Lake Road~~	~~SR 522 to UGA Boundary~~	~~CL~~	~~0.35~~	~~Urban 3-Lane Standards~~	~~-~~	~~X~~
~~F~~	~~AO-27~~	~~Damson Road/N. Damson Road~~	~~SR 524 to Logan Road~~	~~CL~~	~~1.12~~	~~Urban 2-Lane Standards~~	~~-~~	~~X~~
~~F~~	~~AO-28~~	~~Larch Way~~	~~212th Street SW to Cypress Way~~	~~MA~~	~~1.27~~	~~Urban 2-Lane Standards~~		~~X~~
~~F~~	~~AO-29~~	~~Larch Way~~	~~Cypress Way to Locust Way~~	~~MA~~	~~0.26~~	~~Urban 2-Lane Standards~~		~~X~~
~~F~~	~~AO-30~~	~~Logan Road~~	~~Locust Way to Damson Road~~	~~CL~~	~~0.56~~	~~Urban 2-Lane Standards~~		~~X~~
					~~**Miles Subtotal = 44.4**~~		~~**Subtotal (ALOSI) = $367.8**~~	

Table 17

Snohomish County

Full-Design Arterial Improvement Projects with Cost
(2005 Adjusted $ Millions)

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
ARTERIAL SYSTEM ENHANCEMENTS (ASE)								
A	AO-2	108th Street NE	67th Avenue NE to SR-9	MiC	1.34	Rural 2-Lane Standards	-	X
A	AS-12	108th Street NE	Shoultes Road to 67th Avenue NE	CL	1.04	Urban 2-Lane Standards	-	X
A	AS-10	152nd Street NE	Marysville C/L to 67th Avenue NE	CL/MiC	1.04	Urban/Rural 2-Lane Standards	-	X
A	AS-7	156th Street NE	19th Avenue NE to 23rd Avenue NE	MiC	0.25	Rural 2-Lane Standards	-	X
A	AS-6	19th Avenue NE	SR 531 to 156th Street NE	CL/MiC	1.04	Urban/Rural 2-Lane Standards	-	X
A	AS-3	212th Street NE/Tveit Road	Arlington C/L to 95th Avenue NE Extension	CL	0.22	Urban 2-Lane Standards	-	X
A	AS-8	23rd Avenue NE	156th Street NE to 140th Street NE	MiC	1.00	Rural 2-Lane Standards	-	X
A	NR-18	35th Street NE	SR 9/SR 92 intersection to 83rd Avenue NE	CL	0.43	Urban 2-Lane Standards	-	X
A	AS-49	44th Street NE	Marysville C/L to 83rd Avenue NE	CL	0.50	Urban 2-Lane Standards	-	X
A	JP-3	67th Avenue NE	152nd Street NE to SR-531	MA/MaC	1.27	Urban 3-Lane/Rural 2-Lane Standards w/ bikeway treatments	-	X
A	NR-1	68th Avenue NW Extension	280th Street NW to Woodland Road	CL	0.30	Urban 2-Lane Standards	-	X
A	AS-48	71st Avenue NE	Sunnyside Boulevard/Soper Hill Road to 44th Street NE	MA	0.99	Urban 2-Lane Standards	-	X
A	AS-2	80th Avenue NW	Stanwood C/L (284th Street NW) to UGA Line	CL	0.50	Urban 2-Lane Standards	-	X

Table 17

Snohomish County

Full-Design Arterial Improvement Projects with Cost
(2005 Adjusted $ Millions)

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
A	AS-47	95th Avenue NE	Burn Road to 200th Street NE	CL/MiC	0.49	Urban/Rural 2-Lane Standards	-	X
A	NR-15	95th Avenue NE Extension	200th Street NE to 212th Street NE/Tveit Road	CL	0.82	Urban 2-Lane Standards	-	X
A	AS-50	E. Sunnyside School Road	83rd Avenue NE to SR 9	CL	0.54	Urban 2-Lane Standards	-	X
A	AS-5	Forty Five Road	SR 531 to 23rd Avenue NE	MiC	2.49	Rural 2-Lane Standards	-	X
A	AS-1	Old Pacific Highway	Stanwood C/L to Pioneer Highway	MaC	2.07	Rural 2-Lane Standards	-	X
A	AS-14	Sunnyside Boulevard	Marysville C/L to 71st Avenue NE	CL	1.12	Urban 2-Lane Standards	-	X
A	AS-4	Woodland Road/64th Avenue NW	SR 532 to Stanwood C/L	CL	0.71	Urban 2-Lane Standards	-	X
B	AS-25	103rd Avenue SE	S. Lake Stevens Road to 32nd Street SE	CL/MiC	0.69	Urban/Rural 2-Lane Standards	-	X
B	NR-20	12th Street SE	79th Avenue SE to 83rd Avenue SE	CL	0.25	Urban 2-Lane Standards	-	X
B	AO/C-11	20th Street SE	S. Lake Stevens Road to Williams Road	MA	1.13	Urban 3-Lane Standards	-	X
B	NR-24	24th Street SE Extension	79th Avenue SE to SR 9	CL	1.01	Urban 2-Lane Standards	-	X
B	AS-28	4th Street SE	81st Avenue SE to 83rd Avenue SE	CL	0.12	Urban 2-Lane Standards	-	X
B	NR-19	4th Street SE Extension	easterly terminus to 91st Avenue SE	CL	0.22	Urban 2-Lane Standards	-	X
B	AS-20	4th Street NE	92nd Avenue NE to 99th Avenue NE	CL	0.32	Urban 2-Lane Standards	-	X
B	AS-22	4th Street SE	SR 9 to 99th Avenue SE	CL	0.30	Urban 2-Lane Standards	-	X

Table 17

Snohomish County

Full-Design Arterial Improvement Projects with Cost
(2005 Adjusted $ Millions)

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
B	NR-21	79th Avenue SE Extension	20th Street SE to 24th Street SE Extension	CL	0.25	Urban 2-Lane Standards	-	X
B	AO-9	79th Avenue SE	20th Street SE to 8th Street SE	CL	0.76	Urban 2-Lane Standards	-	X
B	NR-3	79th Avenue SE/4th Street SE/81st Avenue SE	8th Street SE to SR 204	CL	0.42	Urban 2-Lane Standards	-	X
B	NR-22	83rd Avenue SE Extension	20th Street SE to 24th Street SE Extension	CL	0.25	Urban 2-Lane Standards	-	X
B	AS-26	83rd Avenue SE	20th Street SE to 4th Street SE	CL	1.00	Urban 2-Lane Standards	-	X
B	AS-27	8th Street SE	79th Avenue SE to 91st Avenue SE	CL	0.73	Urban 2-Lane Standards	-	X
B	AO-8	91st Avenue SE	20th Street SE to Market Place	CL	1.38	Urban 2-Lane Standards	-	X
B	AO/C-6	91st Avenue NE/SE	Market Place to Vernon Road	CL	0.40	Urban 3-Lane Standards	-	X
B	NR-23	91st Avenue SE Extension	20th Street SE to S Lake Stevens Road	CL/MiC	0.65	Urban/Rural 2-Lane Standards	-	X
B	AS-19	92nd Avenue NE	SR 204 to 4th Street NE	CL	0.22	Urban 2-Lane Standards	-	X
B	AO-13	99th Avenue NE	4th Street NE to Chapel Hill Road	CL	0.26	Urban 2-Lane Standards	-	X
B	AO-12	99th Avenue SE	20th St SE to Chapel Hill Road	CL	1.25	Urban 2-Lane Standards	-	X
B	AO-6	Callow Road	SR 92 to Lake View Drive	CL	0.81	Urban 2-Lane Standards	-	X
B	AS-21	Chapel Hill Road	Davies Road to 99th Avenue SE	CL	0.48	Urban 2-Lane Standards	-	X
B	AS-23	Machias Cut-off	S. Lake Stevens Road to 123rd Avenue SE	CL	0.59	Urban 2-Lane Standards	-	X

Table 17

Snohomish County

Full-Design Arterial Improvement Projects with Cost
(2005 Adjusted $ Millions)

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
B	AO-4	Soper Hill Road	SR 9 to 71st Avenue NE	MA	1.27	Urban 2-Lane Standards	-	X
B	AO-5	Soper Hill Road	SR 9 to Lundeen Parkway	MA	0.65	Urban 2-Lane Standards	-	X
B	AO-10	South Lake Stevens Road	SR 9 to 20th Street SE	CL	0.61	Urban 2-Lane Standards	-	X
B	AS-18	Vernon Road	Lundeen Park Way to Davies Road	CL	0.89	Urban 2-Lane Standards	-	X
B	AO-7	Vernon Road	SR 9 to Lundeen Park Way	CL	0.56	Urban 2-Lane Standards	-	X
B	AS-24	Williams Road	20th Street SE to Machias Cutoff	MA/ MaC	0.45	Urban/Rural 2-Lane Standards	-	X
C	AS-29	107th Avenue SE (Park Avenue)	56th Street SE to Snohomish C/L	CL	0.25	Urban 2-Lane Standards	-	X
C	AS-54	164th Street SE/419th Avenue SE	Gold Bar C/L (415th Avenue SE) to northern terminus of 419th Avenue SE	MiC	0.50	Rural 2-Lane Standards	-	X
C	AS-32	179th Avenue SE/Robinhood Lane	SR 2 to Trombley Road	CL	1.82	Urban 2-Lane Standards	-	X
C	AS-53	339th Avenue SE	Sultan C/L to 132nd Street SE	MiC/ CL	0.25	Urban/Rural 2-Lane Standards	-	X
C	NR-25	419th Avenue SE Extension	northern terminus to May Creek Road	MiC	0.50	Rural 2-Lane Standards	-	X
C	JP-6	56th Street SE	Bickford Avenue to 107th Avenue SE (Park Avenue)	CL	1.05	Urban 2-Lane Standards	-	X
C	AS-30	88th Street SE/92nd Street SE	EB SR 2 On/Off Ramps to Snohomish C/L	MaC	0.56	Rural 2-Lane Standards	-	X
C	AC-7	Bickford Avenue	US 2 to Snohomish C/L	MA	1.08	Urban 3-Lane Standards	-	X
C	AS-55	May Creek Road	Gold Bar C/L to 419th Avenue SE Extension	MiC	0.64	Rural 2-Lane Standards	-	X

Table 17

Snohomish County

Full-Design Arterial Improvement Projects with Cost
(2005 Adjusted $ Millions)

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
C	JP-5	Old Owen Road	US 2 to Calhoun Road	MA	0.33	Urban 3-Lane Standards	-	X
C	AS-9	Roosevelt Road	Monroe C/L to Trombley Road	MA/ MaC	1.03	Urban/Rural 2-Lane Standards	-	X
D	AS-36	146th Street SE/SW	Meadow Road to Cascadian Way	CL	0.57	Urban 2-Lane Standards	-	X
D	NR-26	156th Street SE Extension	terminus of 156th Street SE to Silver Firs Drive	CL	0.35	Urban 2-Lane Standards	-	X
D	AS-37	156th Street SE	35th Avenue SE to easterly terminus	CL	1.29	Urban 2-Lane Standards	-	X
D	AC-24	41st Avenue SE	148th Street SE to 156th Street SE	CL	0.51	Urban 3-Lane Standards	-	X
D	NR-7	50th Drive SE	156th Street SE to 152nd Place SE	CL	0.20	Urban 2-Lane Standards	-	X
D	AO-17	Admiralty Way	Manor Way to Airport Road	CL	0.63	Urban 2-Lane Standards	-	X
D	AO-21	Elgin Way/10th Drive SE/Silver Lake Road	SR 96 to Everett C/L	CL	0.85	Urban 2-Lane Standards	-	X
D	NR-5	Lincoln Way	Admiralty Way to Manor Way	CL	0.15	Urban 2-Lane Standards	-	X
D	AO-19	Lincoln Way	Beverly Park Road to Admiralty Way	CL	1.01	Urban 2-Lane Standards	-	X
D	AC-18	Manor Way	156th Street SW to 164th Street SW	CL	0.51	Urban 3-Lane Standards	-	X
D	AO-20	Manor Way	156th Street SW to 148th Street SW	CL	0.50	Urban 2-Lane Standards w/ intersection treatments	-	X
D	AS-35	Meadow Place SE/ Cascadian Way/155th Street SE/2nd Place W./ North Road	Meridian Avenue S. to 164th Street SE	CL	2.26	Urban 2-Lane Standards	-	X

~~Table 17~~

~~Snohomish County~~

~~Full-Design Arterial Improvement Projects with Cost~~
~~(2005 Adjusted $ Millions)~~

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
D	AO-23	Meadow Road/Meadow Place SW	164th Street SW to Meridian Avenue S.	CL	2.20	Urban 2-Lane Standards w/ intersection treatments		X
D	NR-27	SR 9/Lowell-Larimer Connector	SR 9 to East Lowell-Larimer Road	MiC	0.99	Rural 2-Lane Standards		X
D/E	AS-38	Sunset Road	180th Street SE to 156th Street SE	CL	1.54	Urban 2-Lane Standards	-	X
D/F	AS-56	196th Street SE/Crannis Road	SR 527 to 35th Avenue SE	CL	1.25	Urban 2-Lane Standards	-	X
E	AS-39b	169th Street SE/W. Interurban Boulevard	Sunset Road SE to 51st Avenue SE	CL/MiC	0.65	Urban/Rural 2-Lane Standards		X
E	NR-11	188th Street SE	125 feet west of 37th Drive SE to 51st Avenue SE	CL/MiC	0.88	Urban/Rural 2-Lane Standards	-	X
E	NR-12	194th Street SE	35th Avenue SE to 51st Avenue SE	CL/MiC	1.01	Urban/Rural 2-Lane Standards	-	X
E	AS-43	212th Street SE	39th Avenue SE to 45th Avenue SE	CL	0.38	Urban 2-Lane Standards	-	X
E	AO-24	240th Street SE	Snohomish-Woodinville Road to 75th Avenue SE	CL/MiC	0.72	Urban/Rural 2-Lane Standards	-	X
E	AS-45	240th Street SE/47th Avenue SE	45th Avenue SE to King County Line	CL/MiC	0.39	Urban/Rural 2-Lane Standards	-	X
E	AS-41	43rd Avenue SE	188th Street SE to 196th Street SE	CL	0.50	Urban 2-Lane Standards	-	X
E	NR-10	43rd Avenue SE	196th Street SE to 200th Street SE	CL	0.26	Urban 2-Lane Standards	-	X
E	AS-42	43rd Avenue SE	200th Street SE to SR 524	CL	0.32	Urban 2-Lane Standards	-	X
E	NR-9	43rd Avenue SE Extension	180th Street SE to 188th Street SE	CL	0.55	Urban 2-Lane Standards	-	X
E	AS-44	45th Avenue SE	212th Street SE to 240th Street SE	CL	1.75	Urban 2-Lane Standards	-	X

Table 17

Snohomish County

Full-Design Arterial Improvement Projects with Cost
(2005 Adjusted $ Millions)

TSA	TE Project Number	Name	Limits	FC	Miles	Improvements	Short-Range	Long-Range
E	AS-57	51st Avenue SE	W. Interurban Boulevard to 196th Street SE	MiC	1.57	Rural 2-Lane Standards		X
E	NR-28	51st Avenue SE Extension	196th Street SE to SR 524	MiC	0.78	Rural 2-Lane Standards		X
E	AS-46	Echo Lake Road/131st Avenue SE	SR 522 to King County Line	MiC	2.86	Rural 2-Lane Standards	-	X
F	AC-40	Cypress Way	Larch Way to SR 524	CL	0.87	Urban 3-Lane Standards	-	X
F	AO-26	Locust Way	SR 524 to Larch Way	MA	1.26	Urban 2-Lane Standards	-	X
Miles Subtotal = 73.6						**Subtotal (ASE) = $616.3**		
Miles Total = 151.5						**Total All Categories = $1,329.1))**		

Table 14
Recommended County Arterial Improvement Projects

Completion Date	TSA	ID	Road Name	From	To	Description	YOE Cost ($1,000)
2021							
	A	W-17	88 St NE (City of Marysville)	44 Dr NE	61 Dr NE	Joint project with Marysville (lead) - Urban 3-Lane Standards	2,855
	A	IS-6	140 St NE/23 Ave NE intersection			Full intersection improvements	3,498
	C/E	IS-5	Broadway Ave/164 St SE/Elliot Rd intersections			Full intersection improvements	3,498
	D	W-5	180 St SE	SR 527	Brook Blvd	Urban 5-Lane Standards with Bicycle & Pedestrian Facilities	6,089
	D	W-12	Ash Wy	164 St SW	Gibson Rd	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	32,646
	D	W-1	Seattle Hill Rd	35 Ave SE	132 St SE (SR 96)	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	13,325
	D/E	W-2	35 Ave SE	180 St SE	Seattle Hill Rd	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	20,682
	D/E/F	W-3	35 Ave SE/39 Ave SE/York Rd	SR 524 (Maltby Rd)	180 St SE	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	21,878
	F	IS-3	Larch Wy/Locust Wy/Logan Rd intersection			Full intersection improvements	3,498
	F	IS-1	Lockwood Rd/Carter Rd roundabout			Install roundabout	3,498
	N/A	IS-2021	To be determined programmatically			Full intersection improvements @ 3 intersections	10,494
	N/A	PED-2021	To be determined programmatically			Stand-alone pedestrian projects to provide connectivity to major transit routes and school facilities	7,200
						2021 Subtotal	**129,161**

Table 14 Continued

Completion Date	TSA	ID	Road Name	From	To	Description	YOE Cost ($1,000)
2028							
	A	IS-7	67 Ave NE/152 St NE intersection			Full intersection improvements	4,371
	D	W-9	36 Ave W/35 Ave W	164 St SW	SR 99	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	14,686
	D	N-3	148 St SW	Jefferson Wy	Ash Way	New Road - Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	21,579
	D	W-8	148 St SW	35 Ave W	Jefferson Wy	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	14,075
	D	W-6	180 St SE	Brook Blvd	35 Ave SE	Urban 5-Lane Standards with Bicycle & Pedestrian Facilities	18,277
	E	N-5	43 Ave SE	196 St SE	200 St SE	New Road - Rural 2-Lane Standards	3,876
	E	N-4	Sunset Rd/43 Ave SE Connector	End of Sunset Rd (Rd # 21755)	43 Ave SE at 184 St SE	New Road - Urban 2-Lane Standards with Pedestrian Facilities	3,320
	E/F	W-4	39 Ave SE	228 St SE	207 St SE	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	22,442
	F	W-21	228 St SE	35 Ave SE	39 Ave SE	Urban 4 or 5-Lane Standards with Bicycle & Pedestrian Facilities & intersection improvements at 35 & 39 Ave SE	10,352
	F	IS-2	Lockwood Rd/Locust Wy intersection			Full intersection improvements	4,371
	F	IS-4	Logan Rd/Damson Rd intersection (SW of Hubbard Rd)			Full intersection improvements	4,371
	F	W-15	Poplar Wy	Lynnwood C/L	Larch Wy	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	12,189

Table 14 Continued

Completion Date	TSA	ID	Road Name	From	To	Description	YOE Cost ($1,000)
2028							
	N/A	IS-2028	To be determined programmatically			Full intersection improvements @ 4 intersections	17,484
	N/A	PED-2028	To be determined programmatically			Stand-alone pedestrian projects to provide connectivity to major transit routes and school facilities	9,000
						2028 Subtotal	**160,393**

Table 14 Continued

Completion Date	TSA	ID	Road Name	From	To	Description	YOE Cost ($1,000)
2035							
	D	W-10	Alderwood Mall Parkway	164 St SW	SR 525 SB On/Off Ramps	Urban 5-Lane Standards with Bicycle & Pedestrian Facilities from 164th St to SR 525 NB on/off ramps & signal at SR 525 SB on/off ramps	13,375
	D	W-13	Gibson Rd	Ash Wy	SR 99	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	13,788
	D	W-16	Manor Wy	148 St SW	SR 99	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	28,836
	D	W-11	Manor Wy	164 St SW	148 St SW	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	23,323
	E	W-7	180 St SE	35 Ave SE	51 Ave SE	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	24,019
	F	N-1	14 Ave W	Locust Wy	220 St SW	New Road - Urban 2-Lane Standards with Bicycle & Pedestrian Facilities	11,360
	F	W-14	Larch Wy	212 St SW	Cypress Wy	Urban 3-Lane Standards with Bicycle & Pedestrian Facilities	27,564
	N/A	IS-2035	To be determined programmatically			Full intersection improvements @ 7 intersections	38,682
	N/A	PED-2035	To be determined programmatically			Stand-alone pedestrian projects to provide connectivity to major transit routes and school facilities	10,800
						2035 Subtotal	**191,747**
						TOTAL	**481,301**

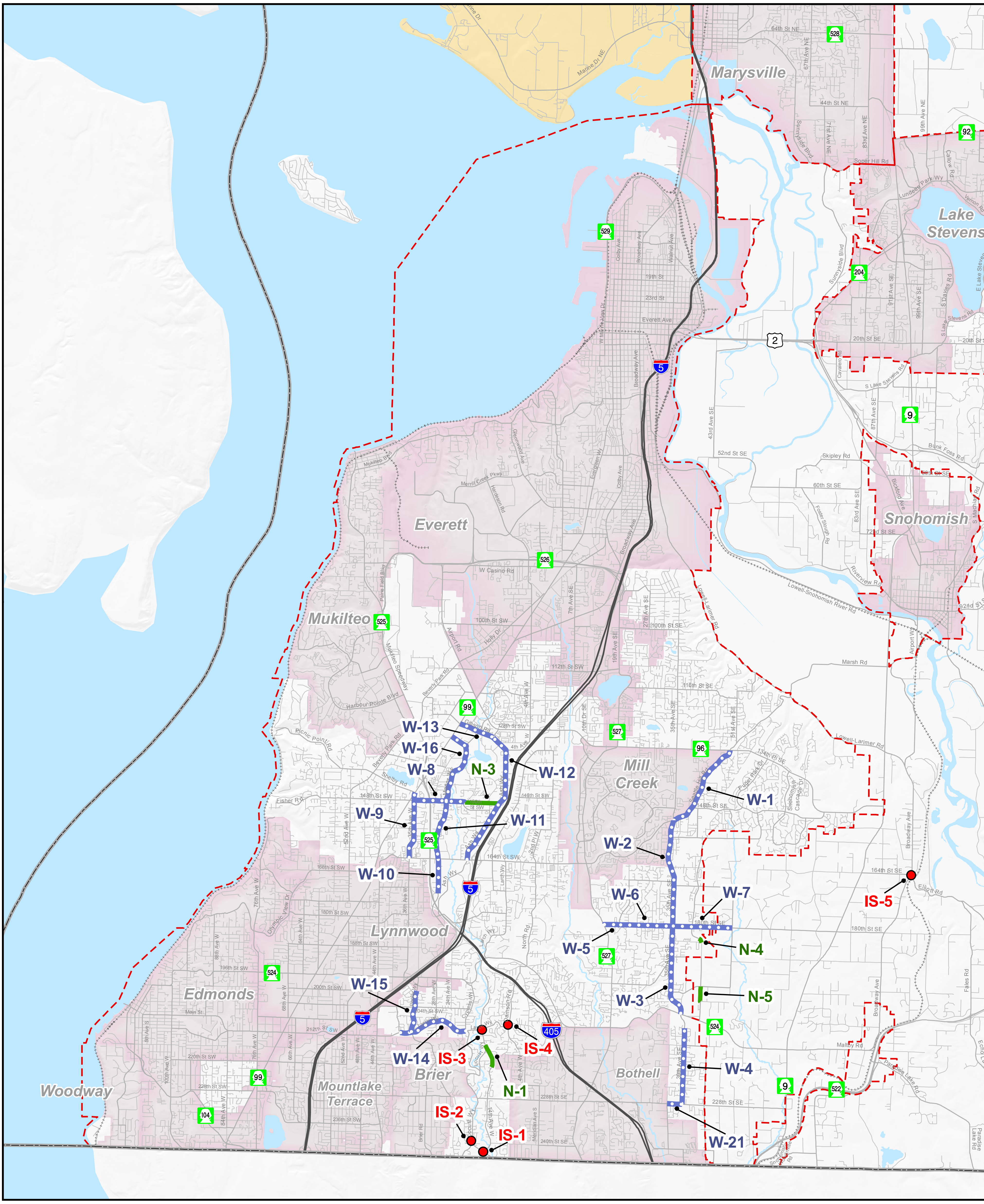


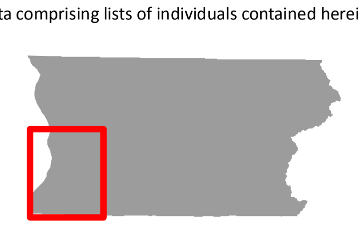
Figure 6
Recommended County Arterial Improvement Projects - South Map

New Alignment		Interstate Highway	
Road Widening		Arterial Roadway	
Intersection Improvement		Local Road	
Incorporated City		Railroad	
Tulalip Reservation		Water	
UGA Boundary			
County Boundary			

N

0 0.5 1 2
Miles

All maps, data, and information set forth herein ("Data"), are for illustrative purposes only and are not to be considered an official citation to, or representation of, the Snohomish County Code. Amendments and updates to the Data, together with other applicable County Code provisions, may apply which are not depicted herein. Snohomish County makes no representation or warranty concerning the content, accuracy, currency, completeness or quality of the Data contained herein and expressly disclaims any warranty of merchantability or fitness for any particular purpose. All persons accessing or otherwise using this Data assume all responsibility for use thereof and agree to hold Snohomish County harmless from and against any damages, loss, claim or liability arising out of any error, defect or omission contained within said Data. Washington State Law, Ch. 42.56 RCW, prohibits state and local agencies from providing access to lists of individuals intended for use for commercial purposes and, thus, no commercial use may be made of any Data comprising lists of individuals contained herein.



SNOHOMISH COUNTY 2015 GMA COMPREHENSIVE PLAN UPDATE

2015 UPDATE

IS-6

IS-7

W-17

Arlington

Marysville

Everett

Lake Stevens

Larson Rd
Pioneer Hwy
220th St NW
Happy Hollow Rd
Pioneer Hwy E
Happy Valley Rd
Sill Rd
Frank Waters Rd
32nd Ave NW
40th Ave NW
Lakewood Rd
3rd Ave NE
Smokey Point Blvd
188th St NE
47th Ave NE
228th St NE
Jordan Rd
Burn Rd
172nd St NW
McRae Rd NW
W Lake Goodwin Rd
E Lake Goodwin Rd
Forty Five Rd
19th Ave NE
23rd Ave NE
51st Ave NE
67th Ave NE
152nd St NE
140th St NW
16th Ave NW
140th St NE
34th Ave NE
116th St NE
132nd St NE
108th St NE
100th St NE
99th Ave NE
State Ave
18th Dr NE
88th St NE
84th St NE
27th Ave NE
Marine Dr
Marine Dr NE
64th St NE
123rd Ave NE
44th St NE
71st Ave NE
83rd Ave NE
Sunnyside Blvd
Soper Hill Rd
Callow Rd
N Machias Rd
Lundeen Park Wy
Vernon Rd
16th St NE
E Lake Stevens Rd
S Davies Rd
91st Ave SE
99th Ave SE
S Lake Stevens Rd
Machias Cutoff
20th St SE
S Machias Rd
Colby Ave
Broadway Ave
Walnut Ave
19th St
23rd St
Everett Ave
W Marine View Dr

Figure 7
Recommended County Arterial Improvement Projects - North Map

SNOHOMISH COUNTY 2015 GMA COMPREHENSIVE PLAN UPDATE

- Road Widening
- Intersection Improvement
- Incorporated City
- Tulalip Reservation
- UGA Boundary
- The Consolidated Borough of Quil Ceda Village
- County Boundary
- Interstate Highway
- Arterial Roadway
- Local Road
- Railroad
- Water

N

0 0.5 1 2

Miles

2015 UPDATE

((~~The summary of expenditures presented by Table 18 represents the total costs for full-design standards. Included within the costs figures for each project that make up the CASI and ALOSI categories are construction, engineering and right-of-way purchase. An alternative design improvement will be pursued for the ALOSI projects because the county intends to pursue intersection and localized operation improvements as the first phase of these projects and defer the full-design standard until a time when such a design is warranted. This could amount to deferral of a full-design until beyond the 2025 timeframe of the comprehensive plan. The county would only be obliged to make expenditures to maintain the basic LOS standard related to traffic flow.~~

~~Appendix C provides a description of the cost methodology employed to determine the ALOSI project-level costs for an alternative design. Each alternative design for ALOSI projects is described in terms of its key intersection and spot-type improvements with a lower cost when compared to the full-design improvement presented within Appendix B. This brings the sum of the costs for the ALOSI category to about $127 million for an array of intersection and spot improvements. An additional cost for two-way, left-turn lanes on some ALOSI projects adds about $38 million for a total of $165 million. Approximately $47 million of the ALOSI improvement costs, under an alternative design, will be covered by the county's traffic operations and safety program expenditures, thus the resulting ALOSI costs amount to a net of $118 million as shown by Table 18.~~

~~Sections of ALOSIs, between improved intersections and other localized improvements, may not be brought to design standards by 2025, and frontage improvements would be built over a longer period of time as development occurs.~~

~~This approach to ALOSIs would allow the county to reduce its expenditures for arterial improvement projects by about $250 million, within the planning horizon as presented by Table 18.~~

~~Table 18~~

~~Cost Summary for Alternative Arterial Improvement Projects (2005 Adjusted $ Millions)~~

~~Arterial Improvement Category~~	~~Full Design Cost~~	~~Alternative Design Cost~~
~~CASI~~	~~$345~~	~~$345~~
~~ALOSI~~	~~$368~~	~~$118~~
~~Total~~	~~$713~~	~~$463~~

~~Note: Cost for ASE not part of Cost Summary for Transportation Element.~~))

Table 15 summarizes YOE costs at each of the assigned completion dates (2021, 2028, and 2035). All costs shown are in millions of dollars ($1,000,000).

Table 15

Summary of YOE Costs by Completion Date for Recommended County Arterial Improvement Projects

Completion Date	YOE Cost ($Millions)
2021	129
2028	160
2035	192
Total	**481**

The arterial improvement recommendations presented by Table ((~~17~~)) 14 are intended to address LOS and concurrency problems that will likely arise during the 20-year timeframe of the GMA comprehensive plan. The arterial road improvements are part of the county's contribution toward a much larger set of transportation improvements planned by other governmental agencies, which will serve and accommodate forecasted growth. Capital and operations-related contributions toward the greater transportation system by other governmental agencies will serve to support the county's adopted land use plan and aid in efforts to plan for growth. The next section presents the major transportation capital and operations improvements that WSDOT, cities, Community Transit, and Sound Transit will be pursuing during the life of this TE.

C. Supportive State Highway Improvements

Snohomish County is served by a network of freeway and principal arterials planned and operated by WSDOT. These highways extend throughout the county and provide the continuity necessary to support the entire county roadway system. Table 2, back in Chapter I, provides a listing of state highways within the County and identifies which highways are designated HSS (statewide significance) and which are ((~~designated HRS (regional significance)~~)) non-HSS (regionally significant).

The regional mobility and local access enjoyed within Snohomish County depends to a large extent on the existence and performance of state highways. It would be difficult to maintain a tolerable LOS on county roads and city streets, if delay and congestion deteriorates to unacceptable levels on the state highway network, as traffic would shift from the state system to the local system to avoid delay. Community Transit and Sound Transit maintain local and express bus routes that travel extensively on state highways. Congestion and delay on state highways also means longer travel times for transit and thus the potential for lost passengers and revenue.

((~~Table 19~~)) Appendix B presents various improvements to state highways within Snohomish County that are supportive of the county's comprehensive plan. ((~~These state highway projects are recommended in terms of their type of improvement and in context of their staging in time. They represent numerous lane-capacity expansions, six HOV enhancements, various arterial operational improvements, and 13 interchange upgrades that are needed by 2012 and 2025 to serve the county's planned land use.~~ The list of state highway improvement projects shown in Appendix B was developed in consultation with WSDOT and it is consistent with Transportation 2040. This list includes only those state highway projects that are included in Transportation 2040's financially constrained plan (forecasted expenditures and revenues are in balance). (ref. 6)

~~Five of the projects are from the state's transportation plan and are to be funded by a five-cent fuel-tax increase imposed by the state legislature in 2003. (ref. 22) Most other proposed projects are anticipated to be funded through a Regional Transportation Improvement District (RTID) with voter-approved taxing authority. All costs are shown in 2005 dollars as estimated by WSDOT.~~

~~It is recognized that not all the needed project improvements will be funded and constructed by 2012 or possibly by 2025, thus the recommended staging is flexible. Like the staging of county projects, successful implementation of state highway projects will depend on the availability of adequate funding and rates of traffic growth not in excess of highway capacity.~~))

Snohomish County will cooperate with WSDOT and cities to ensure the functional integrity of state highways is maintained as growth occurs throughout the county. The county will also provide assistance and support to WSDOT's efforts at employing access management techniques on state highways (i.e., SR 9 and SR 527). Techniques employed ((~~would~~)) could include but are not limited to: adequate signal spacing; limits on new intersection and driveway accesses; use of channelization and raised medians; and construction of frontage roads.

((~~Table 19~~

~~Supportive State Highway Improvement Projects~~

~~Project Number~~	~~Name~~	~~Limits~~	~~Miles~~	~~Improvements~~	~~Funding Source~~	~~Cost ($K)~~	~~State Staging~~
~~WS-IC-1~~	~~Interstate 5 @ SR 531~~	~~@ Interchange~~	~~0.00~~	~~Widen Overpass to 5/6 lanes~~	~~RTID~~	~~$26,792~~	~~2012~~
~~WS-4~~	~~SR 531~~	~~43rd Avenue NE to 67th Avenue NE~~	~~1.47~~	~~Widen to 5 lanes~~	~~RTID~~	~~$25,460~~	~~2025~~
~~WS-2~~	~~SR 9~~	~~Scholman Road to 256th Street NE~~	~~1.98~~	~~Widen to provide 12-foot lanes and 4-foot shoulders. Realign 2 existing curves.~~	~~Nickel~~	~~$12,200~~	~~2012~~
~~WS-8~~	~~Interstate 5~~	~~Marine View Drive to SR 528~~	~~4.77~~	~~Add HOV Lanes~~	~~Other~~	~~$141,120~~	~~2025~~
~~WS-12~~	~~SR 522~~	~~Snohomish River to US 2~~	~~4.18~~	~~Widen to 4 lane divided highway. New bridge over Snohomish River.~~	~~Nickel~~	~~$96,233~~	~~2025~~
~~WS-11~~	~~US 2~~	~~I-5 to SR 204~~	~~2.71~~	~~Widen to 3 lanes in eastbound direction. Modify I/C at I-5/US 2 & US 2/SR 204~~	~~RTID (partial)~~	~~$256,929~~	~~2025 EB Only~~
~~WS-14~~	~~Interstate 5~~	~~Marine View Dr to SR 526~~	~~5.51~~	~~Construct HOV lanes from SR 526 to Marine View Dr. & auxiliary lanes between 41st St & US 2. Move Broadway off-ramp to right side.~~	~~Nickel~~	~~$216,711~~	~~2012~~
~~WS-IC-3~~	~~Interstate 5 @ 41st Street SE~~	~~@ Interchange~~	~~0.00~~	~~Interchange Reconstruction including widening I-5 overpass to 5 lanes~~	~~RTID~~	~~$33,840~~	~~2012~~
~~WS-IC-2~~	~~Interstate 5 @ US 2~~	~~@ Interchange~~	~~0.00~~	~~Interchange Improvement including Everett Arterial Access Improvements. Part of WS-11 above.~~	~~RTID~~	~~$44,500~~	~~2025~~
~~WS-IC-7~~	~~SR 525 @ 164th Street SW undercrossing~~	~~@ Interchange~~	~~0.00~~	~~HOV direct access ramp at 164th St. SW~~	~~Other~~	~~$16,740~~	~~2012~~
~~WS-19~~	~~SR 527~~	~~132nd Street SE to 112th Street SE~~	~~1.47~~	~~Widen to 5 Lanes~~	~~Nickel~~	~~$25,500~~	~~2012~~
~~WS-18~~	~~SR 96~~	~~I-5 to Seattle Hill Road~~	~~3.28~~	~~Transit Enhancements.~~	~~Other~~	~~$4,300~~	~~2025~~
~~WS-22~~	~~SR 522~~	~~Paradise Lake Road to Snohomish River~~	~~3.90~~	~~Widen to 4 lane divided highway, w/ 2 interchanges. Provide third WB auxiliary lane on uphill grades.~~	~~RTID~~	~~$115,814~~	~~2012~~

((~~Table 19~~

~~Supportive State Highway Improvement Projects~~

~~Project Number~~	~~Name~~	~~Limits~~	~~Miles~~	~~Improvements~~	~~Funding Source~~	~~Cost ($K)~~	~~State Staging~~
~~WS-21~~	~~SR 9~~	~~SR 522 to 176th Street SE~~	~~4.03~~	~~Widen to 5 lanes with access management provisions that include: limiting signal spacing to 1 mile or greater, no new signalized intersections, raised median treatments and limitations on driveway and private road access.~~	~~Nickel~~	~~$93,484~~	~~2025~~
~~WS-IC-6~~	~~Interstate 5 @ State Route 524~~	~~@ Interchange~~	~~1.38~~	~~Interchange improvement. Construct NB & SB collector/distributor lanes along I-5.~~	~~RTID~~	~~$88,115~~	~~2025~~
~~WS-IC-5~~	~~Interstate 5 @ State Route 525~~	~~@ Interchange~~	~~0.00~~	~~Construct missing ramp connection from SB I-5 to WB SR 525~~	~~RTID~~	~~$16,223~~	~~2012~~
~~WS-23~~	~~SR 104~~	~~Ferry Terminal to Pine Street I/S~~	~~0.63~~	~~Align SR 104 to proposed ferry terminal location.~~	~~RTID~~	~~$15,240~~	~~2012~~
~~JP-8a~~	~~SR 524~~	~~24th Avenue W to 9th Avenue SE~~	~~2.93~~	~~Urban 5-Lane Standards~~	~~RTID~~	~~see below~~	~~2025~~
~~JP-8b~~	~~SR 524~~	~~9th Avenue SE to SR 527~~	~~0.60~~	~~Urban 5-Lane Standards~~	~~RTID~~	~~$54,764~~	~~2012~~
~~WS-24~~	~~SR 99~~	~~244th Street SW to SR 104 I/C~~	~~0.17~~	~~Widen SR 99 bridge over SR 104 to 7 Lanes.~~	~~RTID~~	~~$32,549~~	~~2012~~
~~WS-10~~	~~SR 204~~	~~US 2 to SR 9~~	~~2.35~~	~~WB peak period HOV lane~~	~~Other~~	~~$9,260~~	~~2025~~
~~WS-9~~	~~SR 9~~	~~176th Street SE to SR 92~~	~~13.46~~	~~Widen to 4/5 lanes with access control as needed. Intersection improvements at 132nd St SE, Marsh Rd, US 2, 20th St SE, SR 204, Lundeen Park Way, SR 96, & SR 92. Use other access management provisions that include: limiting signal spacing to 1 mile or greater, no new signalized intersections, raised median treatments and limitations on driveway and private road access.~~	~~RTID~~	~~$364,424~~	~~2025~~
~~WS-IC-4~~	~~Interstate 5 @ 128th Street SW~~	~~@ Interchange~~	~~0.00~~	~~WB SR 96 to SB I-5 fly-over ramp & NB I-5 to WB 128th St fly-over ramp~~	~~RTID~~	~~$33,368~~	~~2025~~

((~~Table 19~~

~~Supportive State Highway Improvement Projects~~

~~Project Number~~	~~Name~~	~~Limits~~	~~Miles~~	~~Improvements~~	~~Funding Source~~	~~Cost ($K)~~	~~State Staging~~
~~WS-17~~	~~SR 99~~	~~148th Street SW to Airport Road (Everett C/L)~~	~~2.06~~	~~Widen to 6/7 lanes for HOV. Access management. Signal coordination~~	~~Other~~	~~$28,540~~	~~2025~~
~~WS-26~~	~~SR 527~~	~~228th Street SE to 240th Street SE~~	~~0.72~~	~~Widen remaining portion to 5 Lanes~~	~~RTID~~	~~$9,330~~	~~2012~~
~~WS-7~~	~~SR 529~~	~~Interstate 5 to 1st Street NW (Marysville)~~	~~0.70~~	~~Widen to 4 with HOV lanes, including 4 lane bridge over Ebey Slough~~	~~Other~~	~~$30,530~~	~~2025~~
~~WS-5~~	~~SR 531~~	~~67th Avenue NE to SR 9~~	~~1.29~~	~~Widen to 5 lanes~~	~~Other~~	~~n/a~~	~~2025~~
~~WS-1~~	~~SR 532~~	~~Island County Line to Interstate 5~~	~~7.18~~	~~Improve & consolidate access points, improve channelization at various intersections, new signals & signal timing, bridge retrofit, & expansion of I-5 park & ride lot~~	~~RTID~~	~~$53,125~~	~~2025~~
~~WS-6~~	~~SR 9~~	~~Intersections from SR 92 to SR 530~~	~~0.0~~	~~Improve three intersections at SR 528, 84th Street NE and SR 531 to eliminate choke points. Additional turn lanes and channelization will be added at each intersection.~~	~~RTID~~	~~$22,147~~	~~2012~~
~~WS-3~~	~~US 2~~	~~City of Sultan (WCL) to City of Sultan (ECL)~~	~~3.02~~	~~Widen to 5 lanes through Sultan city limits. Replace bridges over Sultan River and Sultan Mill pond.~~	~~RTID~~	~~$64,431~~	~~2025~~
~~WS-13~~	~~US 2~~	~~City of Gold Bar (WCL) to City of Gold Bar (ECL)~~	~~2.88~~	~~Capacity and operations improvements.~~	~~Other~~	~~n/a~~	~~2025~~))

D. Supportive City Street Improvements

Various cities ((~~within the County~~)) are proposing to enhance capacity and traffic flow on city streets by significantly widening lanes, adding through and/or turn lanes, ((~~adding shoulders,~~)) adding walkways, improving positive guidance and implementing traffic control revisions. The primary intent of these improvements is to enhance existing street capacity in order to safely and efficiently handle existing and future traffic on city streets. A secondary benefit to Snohomish County is that many of these city street improvements will help handle traffic generated by the county's planned land use and the associated growth.

((~~Table 20~~)) Appendix C presents various improvements to city streets to serve the city's planned land use and that((~~improvements that~~)) are supportive of the county's comprehensive plan. ((~~These arterial street projects are recommended in terms of their type of improvement and in context of their staging in time.~~)) The list of city projects was developed by selecting projects from the most currently available Transportation Improvement Program (TIP) and long range transportation plans for each jurisdiction. The projects had to meet the criteria of having lane capacity expansions, new roads, or street extensions to be placed on the list. ((~~They represent lane-capacity expansions, intersection operational improvements, and ((a few)) street extensions that are needed by 2012 and 2025 to serve the city's planned land use.~~)) Appendix C also includes four tribal road improvement projects.

((~~It is recognized that not all of the identified arterial street improvements will be funded and constructed by 2012 or possibly by 2025, thus the recommended staging is flexible. Like the staging of state highway projects, successful implementation of street projects will depend on the availability of adequate funding and rates of traffic growth not in excess of the street capacity.~~))

E. Supportive Public Transportation Improvements

Public transportation services and facilities provide support to the county's plans for land use by offering the public additional choices for travel. Use of public transportation tends to reduce the demand for travel by automobile, thereby mitigating traffic congestion in some of the county's major corridors. ((~~A number of public transportation agencies operate services and maintain facilities within the County.~~)) Transit facilities and services are expected to change significantly with the arrival of Sound Transit's (ST) *Link* light rail and the expansion of Community Transit's (CT) *Swift* BRT. ((~~Figure 5 illustrates key transit routes serving Snohomish County.~~))

1. Operating Agencies and Services

((~~A number of major public transportation service improvements are expected to be complete or substantially complete by the year 2025.~~)) The ((~~three~~)) primary ((~~service~~)) providers of public ((~~transit~~))transportation services in the County are ((~~Community Transit (~~))CT((~~)~~)),Everett Transit (ET), ((~~Sound Transit (~~))ST((~~)~~), and Everett Transit (ET)~~~~)) and Washington State Ferries (WSF). King County Metro, Skagit Transit, and Island Transit also provide limited service within the County. Tulalip Transit provides rural public transportation within the Tulalip Tribes Reservation. Along with providing transit services, these public transit agencies provide transit planning and construction of transit facilities within the county in cooperation with Snohomish County, PSRC, WSDOT, local cities, and, to a limited extent, the port authorities. Transit agencies are required to annually adopt a six-year transit development

plan (TDP) that include capital improvements, significant changes in service and operations, and funding for program needs. A map of the transit services in Snohomish County is provided in the *Inventory of Transportation Facilities and Services.*

The County participates on an ongoing basis in coordinated planning with the transit agencies in a variety of ways, including guidance in route planning, advice on transit service compatibility with land use, and providing input to transit capital planning. Importantly, the County seeks input on proposed roadway improvements and seeks CT's review of medium to large-scale land use development proposals where impacts to transit are determined.

((~~Table 20~~

~~Supportive City Street Improvement Projects~~

~~Project Number~~	~~TSA~~	~~Jurisdiction~~	~~Name~~	~~Limits~~	~~FC~~	~~Miles~~	~~Improvements~~	~~City Staging~~
~~AR-1~~	~~A~~	~~Arlington~~	~~Smokey Point Boulevard~~	~~174th Place NE to UGA Boundary~~	~~MA~~	~~1.72~~	~~Urban 4-lane Standard~~	~~2025~~
~~AR-2~~	~~A~~	~~Arlington~~	~~67th Avenue NE~~	~~172nd Street NE to Olympic Avenue~~	~~MA~~	~~2.90~~	~~Urban 4-lane Standard~~	~~2025~~
~~AR-3~~	~~A~~	~~Arlington~~	~~188th Street NE~~	~~47th Avenue NE to Smokey Point Boulevard~~	~~CL~~	~~0.90~~	~~Urban 5-lane Standard~~	~~2012~~
~~AR-4~~	~~A~~	~~Arlington~~	~~47th Avenue NE~~	~~188th Street NE to Cemetery Road~~	~~CL~~	~~0.70~~	~~Urban 3-lane Standard~~	~~2012~~
~~AR-5~~	~~A~~	~~Arlington~~	~~Cemetery Road Extension~~	~~47th Avenue NE to 67th Avenue NE~~	~~CL~~	~~1.22~~	~~Urban 5-lane Standard~~	~~2012~~
~~AR-6~~	~~A~~	~~Arlington~~	~~211th Place NE~~	~~SR 530 to 67th Avenue NE~~	~~CL~~	~~0.39~~	~~Urban 3-lane Standard~~	~~2012~~
~~AR-7~~	~~A~~	~~Arlington~~	~~Olympic Avenue NE Extension~~	~~Division Street to Maple Street~~	~~MA~~	~~0.25~~	~~Urban 3-lane Standard~~	~~2012~~
~~BO-2~~	~~F~~	~~Bothell~~	~~228th Street SE~~	~~8th Avenue W (Bothell C/L) to 9th Avenue SE~~	~~MA~~	~~1.06~~	~~Urban 5-Lane Standards~~	~~2025~~
~~BO-3~~	~~F~~	~~Bothell~~	~~228th Street SE~~	~~I-405 (19th Avenue SE) to 35th Avenue SE~~	~~MA~~	~~0.96~~	~~Urban 5-Lane Standards~~	~~2012~~
~~BO-4~~	~~F~~	~~Bothell~~	~~Fitzgerald Road~~	~~228th Street SE to 240th Street SE~~	~~CL~~	~~0.85~~	~~Urban 3-Lane Standards~~	~~2012~~
~~BO-1~~	~~F~~	~~Bothell~~	~~240th Street SE~~	~~Fitzgerald Road to 39th Avenue SE~~	~~CL~~	~~0.50~~	~~Urban 3-Lane Standards~~	~~2025~~
~~ED-1~~	~~F~~	~~Edmonds~~	~~220th Street SW~~	~~9th Avenue S to 84th Avenue W~~	~~CL~~	~~0.97~~	~~Urban 3-Lane Standards~~	~~2012~~
~~ED-2~~	~~F~~	~~Edmonds~~	~~238th Street SW~~	~~84th Avenue W to SR 104~~	~~MA~~	~~0.27~~	~~Urban 3-Lane Standards~~	~~2012~~
~~ED-3~~	~~F~~	~~Edmonds~~	~~84th Avenue W~~	~~212th Street SW to 238th Street SW~~	~~CL~~	~~1.63~~	~~Urban 3-Lane Standards~~	~~2012~~
~~ED-4~~	~~F~~	~~Edmonds~~	~~76th Avenue W~~	~~SR 524 to Olympic View Drive~~	~~MA~~	~~0.72~~	~~Urban 4-Lane Standards~~	~~2025~~
~~EV-10~~	~~D~~	~~Everett~~	~~100th Street SW~~	~~Evergreen Way to 23rd Avenue W~~	~~CL~~	~~1.07~~	~~Widen to 3 lanes~~	~~2012~~
~~EV-11~~	~~D~~	~~Everett~~	~~East Everett Avenue Extension~~	~~E Grand Avenue to Railway Avenue~~	~~CL~~	~~0.20~~	~~Construct BNSF Overcrossing~~	~~2012~~

((~~Table 20~~

~~Supportive City Street Improvement Projects~~

~~Project Number~~	~~TSA~~	~~Jurisdiction~~	~~Name~~	~~Limits~~	~~FC~~	~~Miles~~	~~Improvements~~	~~City Staging~~
~~EV-12~~	~~D~~	~~Everett~~	~~Hardeson Rd/5th Ave W~~	~~Casino Road to Merrill Creek Parkway~~	~~MA/ CL~~	~~1.70~~	~~Widen to 5 lanes~~	~~2025~~
~~EV-13~~	~~D~~	~~Everett~~	~~41st Street SE~~	~~I-5 to Rucker Avenue~~	~~PA~~	~~0.58~~	~~Widen to 7 lanes~~	~~2025~~
~~EV-15~~	~~D~~	~~Everett~~	~~7th Avenue SE~~	~~93rd Street SE to Everett Mall Way~~	~~CL~~	~~0.10~~	~~Widen to 3 lanes~~	~~2025~~
~~EV-17~~	~~D~~	~~Everett~~	~~Pacific Avenue~~	~~W Marine View Drive to Broadway~~	~~PA~~	~~0.58~~	~~Add 1 eastbound travel lane~~	~~2025~~
~~EV-18~~	~~D~~	~~Everett~~	~~SR 529 (Everett Avenue)~~	~~W Marine View Drive to Broadway~~	~~PA~~	~~0.58~~	~~Add 1 eastbound travel lane~~	~~2025~~
~~EV-19~~	~~D~~	~~Everett~~	~~Mukilteo Boulevard~~	~~Mukilteo C/L to Rucker Avenue~~	~~PA~~	~~4.13~~	~~Widen to 3 lanes~~	~~2025~~
~~EV-2~~	~~D~~	~~WSDOT/ Everett~~	~~SR 99 (Evergreen Way)~~	~~112th Street SW to Airport Road~~	~~PA~~	~~0.55~~	~~Widen to 7 lane w/ HOV emphasis~~	~~2025~~
~~EV-20~~	~~D~~	~~Everett~~	~~Madison Street~~	~~Glenwood Avenue to Evergreen Way~~	~~MA~~	~~0.85~~	~~Widen to 5 lanes~~	~~2025~~
~~EV-14~~	~~D~~	~~Everett~~	~~Madison Street~~	~~Evergreen Way to Beverly Boulevard~~	~~MA~~	~~0.38~~	~~Widen to 3/4 lanes~~	~~2025~~
~~EV-16~~	~~D~~	~~Everett~~	~~Madison Street~~	~~Beverly Boulevard to Broadway~~	~~MA~~	~~0.51~~	~~Widen to 3 lanes~~	~~2025~~
~~EV-1~~	~~D~~	~~Everett~~	~~100th Street SE~~	~~7th Avenue SE to I-5 undercrossing~~	~~CL~~	~~0.51~~	~~Widen to 3 lanes & connect to 100th St SE undercrossing of I-5~~	~~2025~~
~~EV-3~~	~~D~~	~~Everett~~	~~112th Street SE~~	~~3rd Avenue SE to SR 527 (19th Avenue SE)~~	~~MA~~	~~1.00~~	~~Widen to 5 lanes~~	~~2012~~
~~EV-4~~	~~D~~	~~WSDOT/ Everett~~	~~100th Street SE/SE Everett Mall Way @ I-5~~	~~19th Avenue SE to Everett Mall~~	~~MA~~	~~0.15~~	~~Build crossing under I-5 at 100th St SE between 19th Ave SE & Everett Mall, w/HOV only access to I-5 NB & HOV only access from I-5 SB. Build on-ramp to SB I-5 from SE Everett Mall Way.~~	~~2025~~

((~~Table 20~~

~~Supportive City Street Improvement Projects~~

~~Project Number~~	~~TSA~~	~~Jurisdiction~~	~~Name~~	~~Limits~~	~~FC~~	~~Miles~~	~~Improvements~~	~~City Staging~~
~~EV-5~~	~~D~~	~~Everett~~	~~116th Street SE~~	~~SR 527 to Everett C/L~~	~~CL~~	~~0.29~~	~~Widen to 3 lanes~~	~~2012~~
~~EV-6~~	~~D~~	~~Everett~~	~~East Marine View Drive~~	~~I-5 to N Broadway/SR 529~~	~~PA~~	~~1.50~~	~~Widen to 3/4 lanes~~	~~2012~~
~~EV-7~~	~~D~~	~~Everett~~	~~41st Street SE Overcrossing~~	~~I-5 I/C to landfill site~~	~~MA~~	~~0.30~~	~~Extend 41st St SE to riverfront/industrial properties including bridge over RR lines.~~	~~2012~~
~~EV-8~~	~~D~~	~~Everett~~	~~Riverfront Parkway~~	~~41st Street SE Overcrossing to Lowell-Snohomish River Road~~	~~MA~~	~~1.10~~	~~New connector between 41st St SE Over-crossing & Lowell-Snohomish River Rd.~~	~~2025~~
~~EV-9~~	~~D~~	~~Everett~~	~~South Broadway~~	~~41st Street SE to SR 526~~	~~PA~~	~~3.03~~	~~Widen to 4/5 lanes~~	~~2012~~
~~GB-1~~	~~C~~	~~Gold Bar~~	~~415th Avenue SE~~	~~US 2 to 164th Street SE~~	~~CL~~	~~0.40~~	~~Urban 2-lane Standard~~	~~2025~~
~~LS-1~~	~~B~~	~~Lake Stevens~~	~~20th Street NE~~	~~116th Avenue NE to West C/L~~	~~MA~~	~~0.35~~	~~Urban 2-lane Standard~~	~~2012~~
~~LS-10~~	~~B~~	~~Lake Stevens~~	~~Grade Road~~	~~20th Street NE to 22nd Street NE~~	~~MA~~	~~0.06~~	~~Urban 2-lane Standard~~	~~2012~~
~~LS-5~~	~~B~~	~~Lake Stevens~~	~~Hartford Drive~~	~~Grade Road to Old Hartford Road~~	~~CL~~	~~0.61~~	~~Urban 2-lane Standard~~	~~2012~~
~~LS-2~~	~~B~~	~~Lake Stevens~~	~~20th Street NE~~	~~Hartford Drive to 116th Avenue NE~~	~~CL~~	~~0.50~~	~~Urban 2-lane Standard~~	~~2012~~
~~LS-3~~	~~B~~	~~Lake Stevens~~	~~20th Street NE~~	~~Main Street to East C/L~~	~~MA~~	~~0.62~~	~~Urban 2-lane Standard~~	~~2012~~
~~LS-4~~	~~B~~	~~Lake Stevens~~	~~North Lakeshore Drive~~	~~West C/L to Main Street~~	~~CL~~	~~1.01~~	~~Urban 2-lane Standard~~	~~2012~~
~~LS-6~~	~~B~~	~~Lake Stevens~~	~~East Lakeshore Drive~~	~~Main Street to 12th Street NE~~	~~CL~~	~~0.32~~	~~Urban 2-lane Standard~~	~~2012~~
~~LS-7~~	~~B~~	~~Lake Stevens~~	~~East Lakeshore Drive~~	~~12th Street NE to South C/L~~	~~CL~~	~~0.69~~	~~Urban 2-lane Standard~~	~~2012~~
~~LS-8~~	~~B~~	~~Lake Stevens~~	~~16th Street NE~~	~~Main Street to East C/L~~	~~CL~~	~~0.66~~	~~Urban 2-lane Standard~~	~~2012~~

((~~Table 20~~

~~Supportive City Street Improvement Projects~~

~~Project Number~~	~~TSA~~	~~Jurisdiction~~	~~Name~~	~~Limits~~	~~FC~~	~~Miles~~	~~Improvements~~	~~City Staging~~
~~LS-9~~	~~B~~	~~Lake Stevens~~	~~Grade Road~~	~~22nd Street NE to North C/L~~	~~MA~~	~~1.21~~	~~Urban 2-lane Standard~~	~~2012~~
~~LY-1~~	~~F~~	~~Lynnwood~~	~~44th Avenue West~~	~~194th Street SW to I-5~~	~~PA~~	~~0.61~~	~~Widen to 7 Lanes~~	~~2012~~
~~LY-2~~	~~F~~	~~Lynnwood~~	~~200th Street SW~~	~~48th Avenue W to SR 99~~	~~MA~~	~~0.95~~	~~Widen to 5 Lanes~~	~~2012~~
~~LY-3~~	~~F~~	~~WSDOT/ Lynnwood~~	~~SR 524/196th Street SW~~	~~48th Avenue W to 37th Avenue W~~	~~PA~~	~~0.69~~	~~Widen to 7 Lanes~~	~~2012~~
~~LY-4~~	~~F~~	~~Lynnwood~~	~~179th Street SW/Maple Road~~	~~36th Avenue W to Alderwood Mall Parkway~~	~~CL~~	~~0.42~~	~~New 2-Lane Extension~~	~~2012~~
~~LY-5~~	~~F~~	~~Lynnwood~~	~~36th Avenue W~~	~~179th Street SW to 164th Street SW~~	~~MA~~	~~0.97~~	~~Widen to 4/5 Lanes~~	~~2012~~
~~LY-6~~	~~F~~	~~Lynnwood~~	~~36th Avenue W~~	~~179th Street SW to Alderwood Mall Way~~	~~MA~~	~~1.14~~	~~Widen to 4/5 Lanes~~	~~2025~~
~~MA-1~~	~~A~~	~~Marysville~~	~~State Avenue~~	~~136th Street NE to 152nd Street NE~~	~~MA~~	~~1.09~~	~~Urban 5-lane Standards~~	~~2012~~
~~MA-10~~	~~A~~	~~Marysville~~	~~83rd Avenue NE~~	~~SR 528 to 84th Street NE~~	~~CL~~	~~1.28~~	~~Urban 3-lane Standards~~	~~2025~~
~~MA-11~~	~~A~~	~~Marysville~~	~~116th Street NE~~	~~I-5 to State Avenue~~	~~MA~~	~~0.43~~	~~Urban 5-lane Standards~~	~~2012~~
~~MA-12~~	~~A~~	~~Marysville~~	~~88th Street NE~~	~~State Avenue to 44th Drive NE~~	~~MA~~	~~0.19~~	~~Urban 3-lane Standards~~	~~2012~~
~~MA-13~~	~~A~~	~~Marysville~~	~~88th Street NE~~	~~61st Drive NE to 67th Avenue NE~~	~~MA~~	~~0.35~~	~~Urban 3-lane Standards~~	~~2012~~
~~MA-14~~	~~A~~	~~Marysville~~	~~88th Street NE Extension~~	~~67th Avenue NE to 84th Street NE~~	~~MA~~	~~1.46~~	~~Urban 3-lane Standards~~	~~2012~~
~~MA-5~~	~~A~~	~~Marysville~~	~~47th Avenue NE/ Armar Road~~	~~4th Street to Grove Street~~	~~MA~~	~~0.77~~	~~Urban 3-lane Standards~~	~~2025~~
~~MA-8~~	~~A~~	~~Marysville~~	~~152nd Street NE~~	~~Smokey Point Boulevard to Marysville C/L~~	~~CL~~	~~0.74~~	~~Urban 3-lane Standards~~	~~2025~~
~~MA-2~~	~~A~~	~~Marysville~~	~~State Avenue~~	~~116th St. NE to 136th Street NE~~	~~MA~~	~~1.34~~	~~Urban 5-lane Standards~~	~~2012~~
~~MA-3~~	~~A~~	~~Marysville~~	~~State Avenue~~	~~100th Street NE to 116th Street NE~~	~~MA~~	~~1.04~~	~~Urban 5-lane Standards~~	~~2012~~

((~~Table 20~~

~~Supportive City Street Improvement Projects~~

~~Project Number~~	~~TSA~~	~~Jurisdiction~~	~~Name~~	~~Limits~~	~~FC~~	~~Miles~~	~~Improvements~~	~~City Staging~~
~~MA-4~~	~~A~~	~~Marysville~~	~~SR 528~~	~~47th Avenue NE to 67th Avenue NE~~	~~PA~~	~~1.27~~	~~Re-stripe to 2 EB & 2 WB lanes. Remove parking on N side.~~	~~2012~~
~~MA-6~~	~~A~~	~~Marysville~~	~~51st Avenue NE~~	~~Grove Street to 84th Street NE~~	~~CL~~	~~0.73~~	~~Urban 3-lane Standards~~	~~2012~~
~~MA-7~~	~~A~~	~~Marysville~~	~~Sunnyside Boulevard~~	~~47th Avenue NE to Marysville C/L~~	~~MA~~	~~2.03~~	~~Urban 3-lane Standards~~	~~2012~~
~~MA-9~~	~~A~~	~~Marysville~~	~~67th Avenue NE~~	~~44th Street NE to Grove Street~~	~~MA~~	~~1.98~~	~~Urban 3-lane Standards~~	~~2012~~
~~MA-15~~	~~A~~	~~Marysville~~	~~84th Street NE~~	~~83rd Avenue NE to SR 9~~	~~MA~~	~~0.26~~	~~Urban 3-lane Standards~~	~~2012~~
~~MC-1~~	~~D~~	~~Mill Creek~~	~~Town Center Blvd. (New)~~	~~Dumas Road to Mill Creek Boulevard~~	~~MA~~	~~1.49~~	~~Urban 2-lane Standard~~	~~2025~~
~~MC-2~~	~~D~~	~~Mill Creek~~	~~Dumas Road~~	~~SR 96 to SR 527~~	~~CL~~	~~0.53~~	~~Widen to 3 Lanes~~	~~2012~~
~~MO-1~~	~~C~~	~~Monroe~~	~~Woods Creek Rd~~	~~US 2 to Monroe C/L~~	~~MA~~	~~1.01~~	~~Urban 3-Lane Standards~~	~~2012~~
~~MO-2~~	~~C~~	~~Monroe~~	~~Chain Lake Rd~~	~~US 2 to UGA Boundary~~	~~CL~~	~~1.58~~	~~Urban 2/3-Lane Standards~~	~~2012~~
~~MO-3~~	~~C~~	~~Monroe~~	~~164th Street SE/162nd Street SE/W Main Street~~	~~161st Ave SE to SR 203~~	~~MA~~	~~2.15~~	~~Urban 2/3-Lane Standards~~	~~2012~~
~~MU-1~~	~~D~~	~~Mukilteo~~	~~Harbour Pt. Blvd S/121st Street SW Extension~~	~~Harbour Point Boulevard S to 121st Street SW~~	~~CL~~	~~0.50~~	~~Realign 121st Street SW/Harbour Pt. Blvd S to intersect with new alignment east of SR 525~~	~~2012~~
~~MU-2~~	~~D~~	~~Mukilteo~~	~~Harbour Point Blvd~~	~~SR 525 to 47th Place W~~	~~CL~~	~~0.18~~	~~Urban 5-Lane Standards~~	~~2012~~
~~MU-3~~	~~D~~	~~Mukilteo~~	~~Harbour Pt. Blvd/Harbour Point Blvd S~~	~~47th Place W to Harbour Reach Drive~~	~~CL~~	~~2.37~~	~~Urban 3-Lane Standards~~	~~2012~~
~~MU-4~~	~~D~~	~~Mukilteo~~	~~Harbour Point Blvd S~~	~~Harbour Reach Drive to SR 525~~	~~CL~~	~~0.47~~	~~Urban 5-Lane Standards~~	~~2012~~
~~MU-5~~	~~D~~	~~Mukilteo~~	~~Russell Rd/Cyrus Way/Evergreen Dr~~	~~SR 525/Russell Road to SR 525/Evergreen Drive~~	~~CL~~	~~1.00~~	~~Widen to 3 Lanes~~	~~2012~~

((~~Table 20~~

~~Supportive City Street Improvement Projects~~

~~Project Number~~	~~TSA~~	~~Jurisdiction~~	~~Name~~	~~Limits~~	~~FC~~	~~Miles~~	~~Improvements~~	~~City Staging~~
~~MU-6~~	~~D~~	~~Mukilteo~~	~~Chennault Beach Rd~~	~~SR 525 to 47th Avenue W~~	~~CL~~	~~0.30~~	~~Widen to 3 Lanes~~	~~2012~~
~~MU-7~~	~~D~~	~~Mukilteo~~	~~Harbour Reach Dr Extension~~	~~Harbour Point Boulevard S to Beverly Park Road~~	~~CL~~	~~1.00~~	~~New alignment connecting Beverly Park Rd & Harbour Pt. Blvd. S from Harbour Reach Dr to 132nd St SW~~	~~2012~~
~~MU-8~~	~~D~~	~~Mukilteo~~	~~Picnic Pt. Connection~~	~~Harbour Point Boulevard S to Picnic Point Road~~	~~CL~~	~~0.80~~	~~New alignment connecting Harbour Pt Blvd S & Picnic Pt Rd~~	~~2012~~
~~SN-1~~	~~C~~	~~Snohomish~~	~~Bickford Avenue~~	~~SR 9 to Snohomish C/L~~	~~MA~~	~~1.30~~	~~Urban 3-Lane Standards~~	~~2025~~
~~SN-2~~	~~C~~	~~Snohomish~~	~~Avenue D~~	~~SR 9 to 7th Street SE~~	~~PA~~	~~0.89~~	~~Urban 3-Lane Standards~~	~~2012~~
~~SN-3~~	~~C~~	~~Snohomish~~	~~2nd Street SE~~	~~Avenue D to Snohomish C/L~~	~~PA~~	~~0.70~~	~~Urban 3-Lane Standards~~	~~2012~~
~~SU-1~~	~~C~~	~~Sultan~~	~~Sultan Basin Road~~	~~US 2 to top of Sultan Basin Hill~~	~~-~~	~~0.32~~	~~Widen to 3 lanes. Urban 3-lane Standards.~~	~~2025~~
~~SU-2~~	~~C~~	~~Sultan~~	~~Rice Road~~	~~US 2~~	~~PA~~	~~0.00~~	~~Traffic signal & channelization at US 2/Rice Rd I/S~~	~~2012~~
~~SU-3~~	~~C~~	~~Sultan~~	~~5th Street SE~~	~~US 2~~	~~PA~~	~~0.00~~	~~Traffic signal & channelization at US 2/ 5th Street I/S~~	~~2012~~
~~SU-4~~	~~C~~	~~Sultan~~	~~339th Avenue SE~~	~~US 2 to Sultan North City Limits~~	~~CL~~	~~0.49~~	~~Urban 2-lane Standards~~	~~2025~~
~~TU-1~~	~~A~~	~~Tulalip~~	~~116th Street NE~~	~~I-5 to 27th Avenue NE~~	~~MA~~	~~0.47~~	~~Urban 5-lane Standards~~	~~2012~~))

((~~Insert Figure 5~~))

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Snohomish County also participates in major planning activities with the transit agencies including: development of CT's transit development plan and Long Range Transit Plan; review of the other transit agencies' transit development plans and planning documents; continued implementation of *Swift* BRT on SR 99; planning for future ((~~bus rapid transit (~~))BRT((~~)~~)) service((~~along SR 99~~)); and ongoing participation in ((~~updating ST's long-range plans~~)) ST's planning and feasibility studies including the planning of *Link* light rail into Snohomish County. From this work, future transit service improvements that support the County's preferred ((~~2025~~))2035 land use and transportation strategies are derived.

a. Community Transit

((~~There are a number of bus service changes proposed by CT's 2004–2009 transit development plan that would support existing and forecasted population and employment growth patterns.~~ (ref. 23) ~~These service changes are shown in Table 22. In addition, CT's transit development plan recommends a number of other service improvements subject to additional funding that would also serve to support planned land use.~~))

((~~CT is exploring the feasibility of providing BRT service along SR 99 to provide higher capacity service in a corridor with heavy transit ridership. BRT can provide faster, more reliable, and more comfortable service which can be implemented incrementally. CT's transit development plan recommends completing studies to determine estimated ridership, conceptual station designs, cost estimates, and possible revenue sources associated with implementing BRT.~~))

CT provides fixed-route bus, paratransit (Dart), vanpool, and transportation demand management (TDM) services to most of Snohomish County. The current 2014-2019 Transit Development Plan (TDP) forecasts a 20 percent increase in bus service hours through 2019. The TDP anticipates the planning and development of a second *Swift* BRT line along a possible alignment running from Paine Field to Canyon Park via Airport Rd, 128th St, SR 96, and SR 527. The TDP also discusses integration of CT bus service with ST's *Link* light rail when it begins operation in Mountlake Terrace and Lynnwood in 2023. Some CT express routes currently serving downtown Seattle will be duplicated by the new light rail service. The transit service hours from these redundant routes will be reallocated to meet the increased demand on local routes serving the new *Link* stations. (ref. 27)

CT has also adopted a Long Range Transit Plan (LRTP) that articulates the agency's 20 year vision built around a corridor-based system. (ref. 14) In developing the plan, Community Transit worked with Snohomish County and the cities to identify transit emphasis corridors. Transit emphasis corridors provide a linkage between transit-supportive land use, transit service, and transportation infrastructure by serving as a framework for planning. Transit emphasis corridors are discussed in more detail in Chapter III. Implementation Measures. In addition, the LRTP identifies five corridors as possibilities for future BRT level of service. The location of these corridors is shown on the HCT map in Figure 8.

b. Everett Transit

ET, which is part of the City of Everett government, operates local bus routes and provides paratransit service within Everett. ET provides some limited service outside of the city boundaries, including a connection to the ferry terminal in the City of Mukilteo, and transit service on key arterials in unincorporated areas adjacent to the city. ET also operates Everett Station, a multimodal transit center located near downtown Everett providing connections

between *Sounder* commuter rail, *Swift* BRT, regional express bus service, local transit routes, intercity bus lines, and AMTRAK trains. No major system improvements are identified in ET's most recent ((~~2002–2008~~)) 2014-2019 transit development plan beyond minor route adjustments.(ref. 28) ((~~These adjustments will provide better system integration with ST and CT services. Providing long-range system planning, the Everett Transit Comprehensive Plan Update, April 2003, examines transit demand based on land use and ridership trends out to year 2013. Three alternative system scenarios are examined which include analysis of ET fixed-route and paratransit services, operating programs, and capital facility elements. Evaluation criteria are used to evaluate three alternatives and consider mobility enhancement, cost characteristics, environmental impacts, ridership, service integration and service characteristics.~~))

((~~An enhanced service alternative is selected by the City Council. It provides for expanded programs and services to cover areas outside the City limits where additional markets and destinations for City residents are identified as not being served by other transit providers. Service improve-ments could include increased frequency or span of service, new routes, or the development of new classes of service to destinations within and outside the City of Everett. Transfer connections would be permitted to other transit agency systems even outside the City.~~))

((~~ET is investigating designation of "major transit streets" within the City so a map can be adopted as part of the City's comprehensive plan along with objectives and strategies to encourage transit demand and pedestrian movement.~~))

~~((Table 21~~

~~Community Transit Planned Bus Route Improvements~~

~~Route~~	~~From~~	~~To~~	~~Improvement Description~~
~~New~~	~~Lynnwood park-and-ride~~	~~Mill Creek~~	~~New local route along Filbert Road SE; 60 min. service 6am-9pm~~
~~New~~	~~Marysville~~	~~UW Seattle~~	~~New commuter express route starting with 8 daily trips~~
~~101~~	~~Aurora Village~~	~~Mariner park-and-ride~~	~~Increase weekend frequencies; extend night hours~~
~~102~~	~~Mariner park-and-ride~~	~~Silver Firs~~	~~Increase weekday & Saturday frequencies~~
~~112~~	~~Mukilteo~~	~~Edmonds CC~~	~~Increase weekday & Sunday frequencies; extend night hours~~
~~115~~	~~Edmonds~~	~~Mill Creek~~	~~Increase Sunday frequencies~~
~~116~~	~~Edmonds~~	~~Mill Creek~~	~~Extend weekday & weekend night hours~~
~~118~~	~~Aurora Village~~	~~Ash Way park-and-ride~~	~~Increase Sunday frequencies; extend weekday & weekend night hours~~
~~201~~	~~Smokey Point~~	~~Arlington~~	~~Extend peak service east along 172nd Street NE through Arlington~~
~~201/ 202~~	~~Arlington/Smokey Point~~	~~Lynnwood park-and-ride~~	~~Extend weekday & weekend night hours~~
~~400's~~	~~Various park-and-rides~~	~~Downtown Seattle~~	~~Temporarily add running time during Seattle bus tunnel closure for light rail retrofit 2005-2007; reinvest when tunnel is re-opened~~
~~407~~	~~Mtlake Terrace park-and-ride~~	~~Downtown Seattle~~	~~Add trips when park-and-ride expansion is complete~~
~~425~~	~~Lake Stevens park-and-ride~~	~~Downtown Seattle~~	~~Add trips as ridership demand increases~~
~~630~~	~~Edmonds CC~~	~~Lynnwood park-and-ride~~	~~Increase Saturday frequencies~~
~~880~~	~~Mukilteo~~	~~UW Seattle~~	~~Add earlier & later trips as ridership demand increases~~
~~New~~	~~Stanwood~~	~~Everett CBD~~	~~New peak period express route~~
~~New~~	~~Arlington~~	~~Woodville~~	~~New local all-day route via SR 9~~
~~New~~	~~Ash Way~~	~~Lynnwood~~	~~New local all-day route~~
~~New~~	~~Lynnwood~~	~~Kenmore~~	~~New local all-day route~~
~~New~~	~~Lynnwood~~	~~Ballinger Terrace~~	~~New local all-day route~~
~~New~~	~~Mariner park-and-ride~~	~~Eastmont~~	~~New local all-day route~~
~~New~~	~~Stanwood~~	~~North County~~	~~New local all-day route~~
~~New~~	~~Downtown Seattle~~	~~SODO Area~~	~~Extend 400 series commuter trips south to industrial area~~

((Table 21

Community Transit Planned Bus Route Improvements

Route	From	To	Improvement Description
New	Downtown Seattle	Canyon Park	New Midday park & ride connector
New	Monroe	Bothell	New peak period commuter route
New	Monroe	Bellevue	New peak period commuter route
New	Monroe	Overlake	New peak period commuter route
New	Mukilteo park-and-ride	Downtown Seattle	New peak period commuter route
New	Lynnwood	SLU/Queen Anne	New peak period commuter route
New	Lynnwood	First Hill	New peak period commuter route
New	Marysville	Bellevue	New peak period commuter route
New	Silver Firs	U District	New peak period commuter route
New	Lake Stevens	U District	New peak period commuter route
New	S. Marysville	Boeing-Everett	New peak period commuter route
New	Arlington	Boeing-Everett	New peak period commuter route
New	Marysville/116th Street NE	Downtown Seattle	New peak period commuter route
New	Marysville/172nd Street NE	Downtown Seattle	New peak period commuter route

Source: CT Transit, Transit Development Plan 2004-2009, April 2004))

c. Sound Transit

((ST provides HCT services and facilities within the Central Puget Sound Region. In 1996 voters approved Sound Move, a ten-year plan of HCT services and facilities that included new HOV lanes and direct access ramps, commuter and light rail, regional express bus service, transit centers, and park and ride lots. (ref. 24)

As part of Sound Move, the Sounder commuter rail service between Everett and Seattle will be increased to eight directional peak period trips per day – four in the morning, and four in the afternoon. The Sounder will also run special event sport game trains to all regular weekend Mariners and Seahawk games.))

ST provides High Capacity Transit (HCT) services and facilities within the central Puget Sound region. ST operates *Sounder* commuter rail connecting Seattle, Edmonds, Mukilteo and Everett and *Link* light rail currently only operating in Seattle and south King County. ST also operates six regional express bus routes serving Snohomish County, providing service between ((downtown)) Everett, Lynnwood, Bothell, and the downtown areas of Seattle and Bellevue. ((ST intends to examine the feasibility of adding another commuter route between south Everett and the Canyon Park park-and-ride via SR 527. Figure 6 illustrates existing and currently planned ST HCT services and facilities within Snohomish County.))

The 1993 long-range vision and 2005 long-range regional transit plan identified broadly defined corridors for commuter rail, light rail, BRT and regional express bus service, thus creating a vision for transit in the central Puget Sound Region. (ref. 29) Sound Move in 1996 and Sound Transit 2 (ST2) in 2008 created service plans, more refined blueprint for specific projects and services, for which voters approved funding. (ref. 30) Sound Transit has been in the process of building these projects in a phased manner.

For Snohomish County, the ST2 plan includes an extension of *Link* light rail service along I-5 to Mountlake Terrace and the Lynnwood Transit Center with scheduled completion in 2023. An extension of light rail from Lynnwood to Everett is also in ST's Long Range Transit Plan as well as in PSRC's Vision 2040. The alignment for this segment has not yet been determined. A 2014 ST high-capacity transit corridor study contains possible light rail corridors which include I-5, 128th St SW/Airport Rd, SR 526, and SR 99. The potential light rail corridors are shown on the HCT map in Figure 8. (ref. 31) These light rail extensions together with CT's BRT corridors provide a HCT framework that will allow future employment and population growth in southwest Snohomish County.

Many changes have occurred since the adoption for the 2005 plan and ST is currently working to update the long-range plan vision. The regional bus, light rail, passenger rail, and other transit improvements are being reexamined in light of changes to land use, transportation strategies and environmental regulations in the region. The resulting analysis could lead to introducing a phase three package of additional transit and HOV improvements to voters.

((~~d. King County Metro~~

~~Metro's 2002-2007 transit development plan presents a redesign of its commuter express service from King County to the Everett Boeing facility. Several Metro express bus routes provide commuter service to the Boeing facilities near Paine Field.~~))

((~~e. Island Transit~~

~~No service changes are planned for the Camano to Stanwood service routes. An improved park-and-ride lot at Terry's Corner on Camano Island could attract CT connecting service at some future point. Another opportunity for connecting service is at the park-and-ride lot at the I-5 interchange with SR 532 when lot upgrades occur.~~))

d. Washington State Ferries

Two WSF routes serve Snohomish County, providing cross-sound travel. The Edmonds-Kingston ferry operates between Edmonds and Kingston in Kitsap County. The Mukilteo-Clinton ferry operates between Mukilteo and Clinton on Whidbey Island. State-owned ferry terminals are located in both Edmonds and Mukilteo. Community Transit buses and *Sounder* commuter rail provide connections to both terminals. The Mukilteo terminal is also served by Everett Transit. The 2009 Washington State Ferries (WSF) Long-Range Plan presents a vision for the future that maintains current levels of service with limited improvements. (ref. 32)

2. Capital Facilities

The extension of light rail to Everett and the expansion of BRT represent a significant capital investment in the county's transit infrastructure. Other important transit capital facility improvements will improve parking access to transit and create better ((~~Planned transit capital facility improvements within Snohomish County are primarily oriented to creating better access and~~)) transfers between existing Sounder rail, regional bus, local bus, and WSF services. ((~~Funding is secured or partially secured for many projects within the county, with completion expected within the next 4-5 years. Projects with unsecured funding may take longer to complete. Some of the major planned projects include:~~))

a. Near-Term Projects

Some of the major transit capital projects included in the ST2 service plan and the transit agencies' TDPs to be completed in the next ten years include:

- a *Link* light rail extension from Northgate to Lynnwood Transit Center with a station at Mountlake Terrace that will provide a much needed HCT connection to Seattle and the region;
- a Mukilteo ((~~and Edmonds~~))Multimodal Ferry Terminal project((~~s~~)) providing improved connection between Whidbey Island and Snohomish County with safer access for pedestrians, vehicles, and bicycles. The new facility also ensures reliable connections to other transportation modes such as *Sounder* rail service and transit; and
- a new park-and-ride lot((~~s~~)) near SR-525/Harbour Pointe, a transit center near Smokey Point, additional parking at the Mukilteo Multimodal terminal, and improvement projects at the Swamp Creek and Ash Way park and rides ((~~South Everett at 112th Street SW and I-5, easing~~)) that will ease parking shortages and ((~~creating~~)) create additional transit system access points.((~~; and~~))
- ((~~planned construction of direct HOV I-5 transit access to I-5 at 112th Street SW, 164th Street SW and 236th Street SW enhancing mobility for both transit and auto by reducing transit travel times and removing buses off nearby arterials.~~))

b. Transportation 2040 Projects

The PSRC's *Transportation 2040* provides a long range multi-modal transportation plan projected to be completed by the year 2040. Projects that are in the "constrained" portion of the plan are those the region reasonably expects to be able to fund by 2040. Table 16 provides a list of those major transit capital projects included in the *Transportation 2040* constrained plan. (ref. 6)

((~~A complete list of projects likely to be pursued during the next 20 years is included in Table 22 and illustrated by Figure 6.~~))

((~~Snohomish County includes arterial improvements in its six-year TIP to help support public transportation use. This includes: building sidewalks and walkways near bus stops; providing for bus pullouts; constructing HOV lanes on county arterials; making intersection improvements; and installing transit signal priority equipment. These improvements increase the transit compatibility of county arterials, decrease transit vehicle travel times, and facilitate pedestrian-transit system access. Many of these improvements will be combined together at designated Urban Centers.~~))

Table ((~~22~~))16

((~~Planned~~)) Transit Capital Improvements for Snohomish County in the Constrained Portion of PSRC's *Transportation 2040* Plan

Project	Agency	Description	Expected Completion
Link Light Rail extension to Lynnwood	ST	Link Light Rail extension from the Northgate station to the Lynnwood Transit Center with stations at Jackson Park and Shoreline in King County, and Montlake Terrace and Lynnwood in Snohomish County.	2023
Link Light Rail extension from Lynnwood to Everett	ST	Link Light Rail extension from the Lynnwood Transit Center to Everett	2040
Swift Bus Rapid Transit on Smokey Point Corridor	CT and unidentified agency	BRT and transit priority infrastructure from Everett Station to Smokey Point via Broadway, SR 529, State Ave, and Smokey Point Blvd.	2030
Swift Bus Rapid Transit on Airport Way/128th St/SR 96 Corridor	CT and unidentified agency	BRT and transit priority infrastructure from Paine Field to SR 9 via Airport Rd, 128th St SW, SR 96, and Cathcart Way.	2030
Swift Bus Rapid Transit on the SR 524 Corridor	CT and unidentified agency	BRT and transit priority infrastructure on SR 524 (196th SW and Filbert Rd) from the Edmonds Ferry Terminal to SR 527.	2030
Swift Bus Rapid Transit on 164th St SW/SE	CT and unidentified agency	BRT and transit priority infrastructure on 164th St SW/SE from SR 99 to SR 527.	2030
Swift Bus Rapid Transit on SR 527	CT and unidentified agency	BRT and transit priority infrastructure on SR 527 from downtown Bothell to I-5	2030
Parking Garage at Lynnwood Transit Center	ST	Construct parking structure with 500 parking stalls	2023
Parking Garage at Mukilteo Sounder Station	ST	Development of 130 additional structured parking spaces for the use of *Sounder* riders in a joint-use parking garage developed as part of the Mukilteo Multimodal Terminal with WSDOT	2023
Mukilteo Multimodal Terminal	WSDOT	Develop new multimodal terminal for ferry, rail, bus, pedestrian, and bicycle. Expand/relocate the current terminal.	2017

Source: PSRC 2012

((~~3. Other Improvement Plans~~))

((~~Included in the 1996 approval of Sound Move is a "Regional Transit Long Range Vision", a general outline for improving HCT options. The long-range vision is the result of over a decade of planning and environmental studies. Many changes have occurred since its adoption and ST~~

~~is working to update the long-range plan vision with participation from the public, business interests, local governments, other transit agencies, WSDOT, and PSRC. Snohomish County will also play an active role in updating ST's long range transit plan.~~))

((~~The regional bus, passenger rail, HOV, and other transit improvements proposed as part of ST's original long-range plan will be reexamined in light of changes to land use, transportation strategies and environmental regulations in the region. The resulting analysis could lead to introducing a Phase II package of additional transit and HOV improvements to voters to try to secure additional funds.~~))

((~~In 2003, after years of careful study, the I-405 Corridor Master Plan was approved by the project's Executive Committee.~~ ~~(ref. 25)~~ ~~The study was conducted with significant participation by Snohomish County. The $4.7 billion I-405 Master Plan provides for short-range and long-range improvements throughout an enhanced multimodal I-405 corridor.~~))

((~~Phase I, approved by the Legislature, provided for improvements within King County. Unfunded long-range Phase II and III transit improvements within Snohomish County include:~~))

((~~Phase II~~
- ~~transit center and park-and-ride improvements at Canyon Park;~~
- ~~construct/implement a BRT line serving destinations along the corridor; and~~
- ~~expand transit agencies, vanpool programs;~~))

((~~Phase III~~
- ~~construct transit center and BRT stations near Alderwood Mall w/direct HOV freeway access;~~
- ~~expand transit facilities at Canyon Park w/direct HOV freeway access;~~
- ~~HOV lanes added in SW County on SR 524, SR 522, SR 527, and select County arterials; and~~
- ~~double existing transit agency vanpool fleet sizes.~~))

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Figure 8
High Capacity Transit

- State Ferry Route

Sound Transit Light Rail - ST 2
- Planned Light Rail Station & Route
- Potential Light Rail Route in Future Service Plan

Community Transit SWIFT Bus
- Existing SWIFT Route & Stop
- Proposed SWIFT Route

Sound Transit Sounder Train
- Sounder Station
- Sounder Train Route

- Incorporated City
- Tulalip Reservation
- UGA Boundary
- County Boundary
- The Consolidated Borough of Quil Ceda Village
- Interstate Highway
- Arterial Roadway
- Railroad
- Water

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V. STRATEGY FOR FINANCING COUNTY TRANSPORTATION IMPROVEMENTS

This chapter of the TE provides a forecast of expenditures and revenue for the period ((~~2005-2025~~)) 2015-2035. The purpose is to show how Snohomish County will support the land uses identified by the FLUM.

Most public expenditure for transportation will be related to preservation and maintenance of existing infrastructure, improving some existing arterials to design standards, and finishing the major arterial projects to which the county is already committed. It is probable that new revenues will need to be authorized in order to fund new transportation projects directly related to more intensive development within the county's UGAs. The county will need a financial strategy to accomplish needed improvements.

A. County Transportation Improvement Expenditures

1. Snohomish County's Transportation Expenditure Programs

Expenditure on transportation service and facility improvements by Snohomish County over the ((~~2005-2025~~)) 2015-2035 timeframe will ((~~likely~~)) exceed $2 billion. This will be in addition to operating and capital expenditures made by the state, cities and public transportation agencies. Future expenditures on transportation-related improvements within the county will depend on the availability of funding and also on the timing and intensity of land development. ((~~Table 23~~)) Table 17 provides a summary of future transportation expenditures by major programs expected to be made by the county during the ((~~2005-2025~~)) 2015-2035 timeframe. The expenditures in Table 17 are in YOE dollars. Expenditures are first projected in current dollars (2015 dollars) and then adjusted for inflation by inflating current dollars to the year of expenditure.

((

~~**Table 23**~~

~~**Summary of Transportation Expenditures – 2005 through 2025**~~
~~**(2005 Adjusted Dollars)**~~

~~**Expenditures Programs**~~	~~**2005 -2012 ($ Millions)**~~	~~**2013-2025 ($ Millions)**~~	~~**Total ($ Millions)**~~
~~Operations & Maintenance~~	~~$409~~	~~$698~~	~~$1,107~~
~~Non-Capacity Capital~~	~~158~~	~~255~~	~~413~~
~~Capacity-related Capital~~	~~128~~	~~335~~	~~463~~
~~Mitigation Strategies~~	~~8~~	~~14~~	~~22~~
~~**Total**~~	~~**$ 703**~~	~~**$1,302**~~	~~**$2,005**~~

~~Source: Public Works 2005.~~

))

Table 17

Summary of Transportation Expenditures – 2015 through 2035
YOE Dollars

Expenditures Programs	2015 -2021 ($ Millions)	2022-2028 ($ Millions)	2029-2035 ($ Millions)	Total ($ Millions)
Operations & Maintenance	$513	$549	$596	$1,658
Non Capacity Capital	114	115	128	357
Capacity-related Capital	129	160	192	481
Total	**$ 756**	**$824**	**$916**	**$2,496**

Source: Public Works 2015.

((~~The implications of the county's expected expenditures on capacity-related capital improvements over the next 20 years are explained in Chapter IV. Recommended Transportation Improvements, B. County Arterial Improvements. The methodology for forecasting expenditures follows. Initially, all cost estimates for county road projects are made under the assumption that all arterial roadways would be brought to county urban/rural design standards, including curb, gutter and sidewalks or shoulders. In some cases, additional pavement width is included for bicycle lanes as part of the roadway and street design.~~

~~Snohomish County, under a full-design standard approach, would need to expend at least $713 million by the year 2025 to serve planned land use and avoid level of service problems (see Table 17). Since 1995, Snohomish County has lost access to revenues related to a six percent annual increase in property taxes for the road fund, a substantial amount of motor-vehicle excise taxes, and supplemental revenues from a $15 vehicle-license fee. This lost potential in available revenues will require the county to seek replacement revenues from other sources in order to construct the needed critical arterial system (CASI) and arterial level of service improvements (ALOSI) within the 2005-2025 timeframe of this TE. Enhancements to further support planned development of the county will depend on the availability of additional public funds and significant private funding contributions.~~
))

The implications of the county's expected expenditures on capacity-related capital improvements over the next 20 years are explained in Chapter IV. Recommended Transportation Improvements, B. County Arterial Improvements. The methodology for forecasting non-capital expenditures are based on historical analysis and trends. Activities included in each are as follows:

- Operations – transportation planning, modeling & forecasting; code development; contract & interlocal agreement development and administration; training; public involvement/communications; fiscal analysis & forecasting; budget development & monitoring; central services for the entire Public Works department such as human resources, technology, payroll and public disclosure; accounts payables & receivables; transfers to other county departments for services; and general county overhead charges such as indirect costs, insurance, information services, security & payroll expenses.

- Maintenance – general roadway maintenance/preservation activities such as asphalt patching, BST overlay, striping, ditching/drainage maintenance, roadway shoulder pulling, mowing/brushcutting, weed control, sign maintenance, signal maintenance, bridge maintenance, and facility maintenance
- Non-Capacity – this category includes all of the elements of the Annual Construction Program which do not add capacity expansion of the road network: miscellaneous engineering, project scoping and studies; pavement preservation and rehabilitation; nonmotorized pedestrian facilities, sidewalks, walkways, shoulders, transit & HOV improvements; traffic safety & intersection improvements, slide repair & bank stabilization, traffic calming & guardrails; bridge replacement & rehabilitation; drainage improvements, culvert replacement & rehabilitation; and Brightwater mitigation projects.

((~~The mitigation strategies item in Table 23 is an attempt to address some of the impacts through the strategic use of funds in two programs. The enhanced pedestrian facilities program addresses the need for pedestrian facilities in areas serving schools, parks, neighborhood commercial areas, and transit where planned improvement projects are in the ALOSI category and do not include pedestrian facilities. The second program in this category is enhanced employer support for commute trip reduction (CTR). This program assists employers and employees in areas where alternative commute options have become necessary because of road construction or severe congestion. This program will also help to preserve capacity on roadways that have already been improved. The expenditure for these programs will be $22 million over the 20 year life of the plan.~~

~~2. Summary of Capacity-related Capital Expenditures~~

~~Table 24 presents the county's expenditure forecasts, in adjusted 2005 dollars, for its capacity-related capital program during the next 20 years. Three subcategories of capital improvements are identified, which include: critical arterial system improvements (CASI); arterial level of service improvements (ALOSI); and arterial system enhancements (ASE). These forecasts represent a level of expenditure intended to adequately serve proposed land development and maintain the county's adopted LOS standards where practicable.~~

~~Alternative design costs for ALOSI are not based on standard cross-sections, but are for focused operational improvements at key intersections and at delay bottlenecks. The expenditures for the ALOSI projects are reduced from the full-design standard costs presented in Chapter IV. Recommended Transportation Improvements. Please see Appendix C for details on intersection-related improvement cost methodology and results. Also note that expenditures for mitigation strategies are included within the expenditure summary; however, expenditures for ASE are not part of the cost summary for this TE, presented within this chapter. This approach to presenting capacity-related capital expenditures reflects the "priority-response" to each of the arterial improvement categories. The priority-response entails:~~

- ~~CASI being pursued as full-design standard, multimodal corridors facilities;~~
- ~~ALOSI pursued as localized, operational corrections to forestall LOS and concurrency problems; and~~

- ~~ASE pursued if a need arises and where additional funds or developer contributions are available.~~

~~The dollars presented within Table 24 represent two distinct stages of expenditure aimed at completing arterial improvement projects prior to or no later than six years after an arterial LOS problem becomes evident. The staging timeframes entail short-range (2005–2012) and long-range (2013–2025)~~

~~It is important to note that the 2005 expenditures presented by Table 24 are adjusted to account for differing rates of inflation. Arterial improvement costs are inflating at a higher rate than the traditional rate of inflation measured by the consumer price index. This is particularly important when expenditures or costs are compared with expected and forecast revenues. The results presented by Table 24 show that the county will need to expend approximately $463 million on capacity-related improvements in an effort to maintain its level of service standard on the CASI and ALOSI arterials.~~

))

((

~~Table 24~~

~~County Arterial Improvement Expenditures (Adjusted 2005 Dollars)~~ ~~(1)~~

~~Improvement Expenditure Category (2)~~	**~~Short-Range 2005 – 2012~~** ~~($ Millions)~~	**~~Long-Range 2013 – 2025~~** ~~($ Millions)~~	**~~Total 2005 - 2025~~** ~~($ Millions)~~
~~Critical Arterial System Improvements~~	~~$ 88~~	~~$ 257~~	~~$ 345~~
~~Arterial LOS Improvements~~	~~$ 40~~	~~$ 78~~	~~$ 118~~
~~Total~~	**~~$ 128~~**	**~~$ 335~~**	**~~$ 463~~**
~~Arterial System Enhancements~~	~~$ 0~~	~~$ 616~~	~~$ 616~~
~~Total with Arterial Enhancements~~	~~$ 128~~	~~$ 951~~	~~$ 1,079~~

~~(1) Costs are adjusted upward to account for a higher rate of inflation for road construction costs than the overall rate of inflation (CPI).~~

~~(2) Represents costs at full design standards except for ALOSI project category.~~

))

B. County Transportation Revenues

The revenue forecasts presented here are based on primary sources of revenue that the county can reasonably expect to receive from ((~~2005-2025~~)) 2015-2035. The purpose of this analysis is to assess whether the needed improvements will be "affordable" given the county's forecast of available revenue. The process for using and programming these revenues is described later in this chapter. The actual allocation of fiscal resources to the various geographic areas of the county can vary depending on how any given area develops and the resulting infrastructure needs relative to priorities throughout the county.

1. Snohomish County's Sources of Transportation Revenue

Snohomish County relies on a number of revenue sources (federal, state, and local) in order to design, build and operate transportation facilities and services within the unincorporated areas of Snohomish County. Descriptions of the primary revenue sources follow and Table 18 provides a summary of the revenue forecast for these primary sources.

a. Property Taxes

Property taxes are levied for many state and local purposes and are arranged in a complex hierarchy. The basic limits of the senior county levies are $1.80 per $1,000 assessed valuation for general government (current expense) and $2.25 per $1,000 assessed valuation for roads. The sum of the two senior county levies cannot exceed $4.05 per $1,000 assessed valuation. The authority to levy property tax is codified in RCW 84.52.043; the road fund levy is specifically expanded upon in RCW 36.82.040. State law limits the county council to a one percent annual increase in the property tax levy. ((~~A one percent increase was adopted by the council for 2005, but an annual budget action for each year towards 2025 would be needed to realize more revenues~~)). A one percent increase is proposed for 2015, but an annual budget action for each year towards 2035 would be needed to realize more revenues.

b. Reimbursable Services

The county is reimbursed for various expenditures and services it provides to other agencies per interlocal agreements and/or contacts.

c. Fuel Taxes

The county receives an allocation of the state fuel tax by several categories that it can apply to local operations and maintenance and capital projects.

The State Motor Vehicle Fuel Tax (commonly called the gas tax) is one of the primary sources of road fund revenue for counties. The state gas tax is an excise tax on the sale of motor vehicle fuel. The rates, processes, exemptions, etc. are set by statute (RCW 82.36). Collection and distribution are by the Department of Licensing and the Treasurer. Washington State counties receive about a half-cent allocation under the 9.5 cent fuel tax that was enacted in 2005. These funds "...shall be for the use of the state, and through state agencies, for the use of counties, cities, and towns for proper road, street and highway purposes, including the purposes of RCW 47.30.030." (Non-motorized traffic). In addition to the regular distribution to each county, it also provides the funding for various state grant funding programs.

d. Real Estate Excise Taxes

Real Estate Excise Taxes (REET) are collected on the sale of residential and commercial real property in Washington State. ((~~Snohomish County collects one-half percent REET for local capital projects. The 2005–2010 TIP contains a $10 million allocation of REET for transportation. REET beyond 2010 is not reflected in the revenue forecast out to 2025 in Table 25.~~)) Snohomish County collects one-half percent REET for local capital projects. The 2015–2020 TIP contains a $2.4 million allocation of REET for transportation. REET beyond 2020 is projected at $400 thousand annually in the 2035 revenue forecast in Table 18.

e. Transportation Impact Fees

The ((~~County~~)) county collects impact mitigation fees based on daily vehicle trips generated by new residential and commercial developments. These fees vary depending on the TSA they lie within. These fees are used to fund selected arterial capacity improvements that form the cost basis to provide the improvements within each TSA. The fee schedule is adopted and amended as appropriate in SCC 30.66B.330.

The ((~~2005-2025~~)) 2015-2035 revenue forecast summary shown in ((~~Table 25~~)) Table 18 includes estimated transportation impact fees from new development. Payment of a transportation impact fee is a requirement of almost all development proposals within unincorporated county and is used to help pay for the cost of capacity improvements necessitated by new development. ((~~The estimated revenues assume that the impact fee rates continue at their current level, with the exception of TSA "C" as described below.~~)) The estimated impact-fee revenues in Table 18 are based on a historical analysis of fees collected and expended on impact-fee projects in the ACP/TIP, but an assumption that these revenues will decline over the TE's 20-year planning horizon was also factored into the revenue estimates. Additional revenues that might be generated by rate increases are discussed in this chapter, in section C. County's Financial Strategy.

The impact fee revenues also include estimates of payments by development proposals located inside cities for those cities with which the county has reciprocal traffic mitigation agreements.

This TE identifies a set of arterial capacity improvements needed to accommodate planned ((~~2005-2025~~)) 2015-2035 land use. These capacity improvements will be the basis for the continued impact fee program. ((~~Based on the estimated costs of these identified arterial capacity improvements, and based on the number of new vehicle trips expected to be generated by 2025 by the planned land use, it appears that the impact fee rates could remain substantially the same. Based on these numbers, public works calculates the maximum possible impact fee that could be charged in each TSA. Based on this calculation, increases would be legally possible in every TSA except TSA "C", and could be considered by elected officials.~~)) After the adoption of the 2015 TE, as part of implementing the updated TE, the impact fee schedule in SCC 30.66B.330 will likely need to be amended. Based on the estimated costs of the identified arterial capacity improvements needed to accommodate planned 2015-2035 land use, the number of forecasted new vehicle trips expected to be generated by 2035 by the planned land use in the adopted 2015-2035 land use element, and any proposed changes to TSA boundaries; the public works department will need to calculate the maximum possible impact fee that could be charged in each TSA. Revisions to the fee schedule in SCC 30.66B.330 would be needed where a current fee in an TSA exceeds the maximum possible impact fee that could be charged in that TSA. Current fees that are greater than the maximum possible fee would need to be reduced to an amount that is equal to or less than the maximum possible fee. Conversely, elected officials could consider increasing fees in TSAs where current fees are lower than the maximum possible fee. Appendix D provides more detail on transportation impact fees.

f. State and Federal Grants

The county receives a variety of state and federal grants that are awarded for specific projects. These projects generally are capital ((~~improvements that provide operational~~)) in nature which provide operational or capacity improvements. State and federal revenues are expected to remain relatively stable and yield up ((~~to $176 million towards 2025~~)) to $233 million towards 2035.

((~~g. Developer Contributions~~))

((~~This de facto revenue source entails dedicated right-of-way and construction that proponents of development contribute to arterial system improvement. See credits for certain improvements by developers in Appendix D Transportation Impact Fees.~~))

((~~h. Other Revenues~~))
g. Other Revenues

The County receives other revenues in any given year that include private timber-harvest tax, federal forest-yield, leasehold excise tax, inter-departmental service fees, interest income, and miscellaneous review fees.

The various sources of revenue described above make up the county road fund, from which funds are drawn for operations, maintenance, and capital programs as described under the prior section on county expenditures.

2. Summary of Revenues

The forecast of county revenues presented by ((~~Table 25~~)) Table 18 identifies a capability to fund about ((~~$277 million~~)) $380 million of the capacity-related project improvements identified for the planning time frame. The expected expenditures to fund ((~~critical arterial system and arterial LOS improvements~~)) capacity-related capital improvements (i.e. the recommended county arterial improvement projects) are estimated at ((~~$463 million.~~)) $481 million. Like project costs and expenditures, revenues are in YOE (inflated) dollars. Revenues have been adjusted for inflation to the year of receipt. The county will rely on a definitive financial strategy in order to close the gap in available funding and expected ((~~expenditure for needs.~~)) expenditures.

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Table 25

Primary Revenue Forecast Summary
(2005 Dollars)

Revenue Category	Short-Range 2005–2012 ($ Millions)	Long-Range 2013 – 2025 ($ Millions)	Total 2005-2025 ($ Millions)
Property Tax (w/1% increase in 2006 only)	$351	$592	$943
Reimbursable Services	74	128	202
Fuel Tax	83	143	226
Real Estate Excise Tax	10	0	10
Impact Fees	52	61	113
State/Federal Grants (1)	39	137	176
Developer Contributions	18	22	40
Other Revenue (2)	40	69	109
Subtotal	$667	$1,152	$1,819
Less Maintenance and Operations (3)	($417)	($712)	($1,129)
Non-Capacity Capital (4)	($158)	($255)	($413)
Available Revenue for Critical Arterial and LOS Improvements	**$92**	**$185**	**$277**

1. Includes State Gas Tax (CAPP Grants).
2. Other Revenues include private harvest tax, federal forest yield, interdepartmental service fees, interest income and miscellaneous review fees.
3. Includes enhanced pedestrian and transportation demand management enhancements.
4. Includes bridges, overlays, traffic/intersections, nonmotorized/transit/HOV, drainage, etc.

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Table 18
Primary Revenue Forecast Summary
(YOE Dollars)

Revenue Category	Short-Range 2015–2021 ($ Millions)	Mid-Range 2022 – 2028 ($ Millions)	Long-Range 2029 – 2035 ($ Millions	Total 2015-2035 ($ Millions)
Property Tax (w/1% increase in 2015 only)	$421	$476	$537	$1,434
Reimbursable Services	72	77	83	232
Fuel Tax	66	71	76	213
Real Estate Excise Tax	7	3	3	13
Impact Fees	45	28	25	98
State/Federal Grants (1)	74	77	82	233
Other Revenue (2)	54	57	61	172
Subtotal	$739	$789	867	$2,395
Less Maintenance and Operations (3)	($513)	($549)	($596)	($1,658)
Less Non-Capacity Capital (4)	($114)	($115)	($128)	($357)
Available Revenue for Capacity-related Capital Improvements	**$112**	**$125**	**$143**	**$380**

1. Includes State Gas Tax (CAPP Grants).
2. Other Revenues include private harvest tax, federal forest yield, interdepartmental service fees, interest income and miscellaneous review fees.
3. Includes enhanced pedestrian and transportation demand management enhancements.
4. Includes bridges, overlays, traffic/intersections, nonmotorized/transit/HOV, drainage, etc.

C. County's Financial Strategy

The ((~~1990~~)) GMA provides guidance to the county regarding how to balance expenditures and revenues for transportation to adequately serve planned land use. The GMA requires:

- an analysis of funding capability to judge needs against probable funding resources (RCW 36.70A);
- a multi-year financing plan based on the needs identified in the comprehensive plan, the appropriate parts of which serve as the basis for the six-year .... road .... program required by .... RCW 36.81.121 for counties .... (RCW 36.70A); and
- if probable funding falls short of meeting identified needs, a discussion of how additional funding will be raised, or how land use assumptions will be reassessed to ensure level of service standards will be met (RCW 36.70A).

These requirements of the GMA are the fundamental basis for the county's financial strategy described in the next section of this TE.

1. Financial Strategy Statement

The financial strategy pursued by Snohomish County, in order to meet requirements of the GMA, recognizes the limitations of traditional revenues and seeks additional revenues to fund transportation improvements that benefit the entire county.

The intent of this financial strategy is to ensure that adequate funding is available for the transportation improvements needed to serve planned land use, while at the same time maintaining the ((~~County's~~)) county's adopted LOS standard and the public's safety. ((~~Table 26~~)) Table 19 presents a comparison of the capacity-related capital improvement expenditures versus traditional transportation-related revenues. ((~~Table 26 shows a $186 million shortfall towards the year 2025~~)) Table 19 shows a $101 million shortfall towards the year 2035.

((

~~Table 26~~

~~Summary of Expenditures Versus Primary Revenues~~
~~(2005 Adjusted $ Millions)~~

~~Revenue-Cost Comparison~~	**~~Short-Range (2005-2012)~~**	**~~Long-Range (2013-2025)~~**	**~~Combined (2005-2025)~~**
~~Available Revenue: Critical Arterial and LOS Improvements~~	~~$92~~	~~$185~~	~~$277~~
~~Costs: Critical Arterial, LOS Improvements *(excludes Arterial System Enhancements)*~~	~~$128~~	~~$335~~	~~$463~~
~~Revenue Surplus/(Shortfall)~~	**~~($36)~~**	**~~($150)~~**	**~~($186)~~**
~~Total Revenue Surplus/(Shortfall) if include Arterial System Enhancements~~	**~~($36)~~**	**~~($766)~~**	**~~($802)~~**

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Table 19

Summary of Expenditures Vs Primary Revenues
($ Millions)

Revenue-Cost Comparison	Short-Range (2015-2021)	Mid-Range (2022-2028)	Long-Range (2029-2035)	Combined (2015-2035)
Available Revenue:	$112	$125	$143	$380
Capacity-related Capital Costs:	$129	$160	$192	$481
Revenue Surplus/(Shortfall)	**($17)**	**($35)**	**($49)**	**($101)**

2. Additional Revenue Measures

Snohomish County's financial strategy for funding needed transportation improvements within the unincorporated county will be to pursue revenue measures beyond those traditionally available. There are ((~~five~~)) seven supplemental revenue measures that have potential to provide additional revenues for transportation improvements. These measures, taken in whole or in part, could reduce or eliminate potential deficits in transportation funding towards the year ((~~2025~~)) 2035. Table 20 summarizes the range of additional revenues these measures could potentially provide.

a. County One Percent Annual Property Tax Increase ((~~(2006–2025)~~)) (2015–2035)

This revenue measure would presume annual approval by the ((~~Council~~)) county council of a one percent increase in the road levy portion of the property tax for the county road fund. This change would be at the discretion of the ((~~Council~~)) council and could be pursued as part of annual preparation of the capital facilities program and county's road fund budget. The revenues generated would substantially supplement the county's ((~~capacity-related~~)) capital programs.

b. Extend REET Allocation to Transportation ((~~(2010–2025))~~) (2020–2035)

REET are collected on the sale of residential and commercial real property in Washington State. Traditionally, Snohomish County REET has been allocated to fund capital improvements for parks, surface water, and non-departmental debt service. The ((~~2005–2010~~)) 2015–2020 TIP contains a ((~~$10 million~~)) $2.4 million reallocation of REET for transportation. This measure would continue this allocation beyond the ((~~2010 timeframe, through 2025~~)) 2020 timeframe, through

2035. This change would be at the discretion of the ((~~Council~~)) council and could be pursued as part of annual preparation of the capital facilities program and county budget.

c. Increase in County Impact Mitigation Fees ((~~(2006–2025)~~)) (2015–2035)

This revenue measure would entail increasing the mitigation fees paid by development. In ((~~most geographic areas~~)) some TSAs, there ((~~is~~)) may be potential to substantially increase current impact fee collections. This measure would require adoption of an ordinance amending the fee schedule under Chapter 30.66B.330 SCC.

((
~~d. Regional Transportation Improvement District (2007–2025)~~

~~The County would continue to participate in the RTID or any other regional effort to finalize and seek voter approval of a funding package which would solicit approval of new or increased revenues to fund state and local improvement projects. The recommended package of improvements would be subject to approval by King, Pierce, and Snohomish Counties voters by 2007. A number of the county arterial improvements would be eligible for funding under RTID. The revenue generated would substantially supplement the county's capacity-related capital programs.~~
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d. Bonding

The County could issue bonds in order to generate funds sooner for transportation improvements. Bonding is not new revenue, though it accelerates the ability to fund needed improvements. In a nutshell, bonds are certificates of debt that promise payment of original investment and interest. While bonding funds are received sooner, long-term costs are increased because bond debt incurs interest

The road fund has the capacity to potentially issue $5-15 million in capital project bonds over the course of the time horizon. Current debt service for the road fund is approximately 5% of operating revenues which is at the low end of financial guidelines. In addition, the road fund will be relieving a sizable portion of current debt service by 2020.

e. Public Works Trust Fund Loan (PWTFL)

The PWTFL loans have been unavailable the past several years due to state budget constraints. However, the state has announced new loan availability for the 2015-2017 biennium. PWTFL for transportation capital projects are at extremely competitive interest rates and would greatly enhance funding capability.

((~~e. Increase in State Fuel Tax (2016-2025)~~))
f. Increase in State Fuel Tax (2015-2035)

This revenue measure would involve action by the Legislature that would result in at least an increased allocation to counties of a half-cent state fuel tax for the second decade of this TE. ((~~For the first decade of this TE, Washington State counties will receive about a half-cent~~

~~allocation under the 9.5 cent fuel tax that was enacted in 2005. A half-cent per decade increase in state fuel tax allocations to counties has been the historical trend for the past several decades.~~)) A large portion of the resulting revenue of a future fuel tax allocation would be applied to the county's capacity-related capital program.

((~~f. Local Option Vehicle License Fee (2006-2025)~~

~~This revenue measure would require action by the Legislature to authorize the County to enact an annual vehicle license fee which would be used for transportation purposes. Until 2003, counties had the authority to impose an up to $15 annual vehicle license fee. This local option was repealed with the passage of Initiative 776 in 2002. The revenue range has been calculated based on $20 per vehicle in 2006-2010, $25 per vehicle in 2010-2015 and $30 per vehicle in 2015-2025.~~))

g. Local Option Vehicle License Fee (2015-2035)

This revenue measure would require action by the county council to authorize the county to enact an annual vehicle license fee within the county's established Transportation Benefit District which would be used for transportation purposes. The revenue range has been calculated based on $20 per vehicle in 2015-2021, $25 per vehicle in 2012-2028 and $30 per vehicle in 2029-2035.

((~~3. Other Miscellaneous Revenue or Cost Reduction Measures~~

~~There are seven miscellaneous revenue or cost reduction measures that the county could pursue, in addition to the primary revenue measures discussed above. These have potential to generate a minor but significant amount of financial benefit if pursued. Increase in revenue or reductions in capital or operating costs are difficult to predict; however, these measures are worth citing as part of the county's overall financial strategy. Table 27 provides a summary of the range of potential funds that may be generated if the county were to pursue the revenue measures identified under the strategies presented herein.~~
))

((

~~Table 27~~

~~Additional Transportation Revenues under the County's Financial Strategy~~

~~Revenue Measure~~	**~~Range of Revenue towards 2025~~**	**~~Remarks~~**
~~a.~~ ~~Property Tax Increase (1% each year 2006–2025)~~	~~Up to $102 million~~	~~Council would need to take affirmative budget action each year starting in 2005.~~
~~b.~~ ~~Extend REET Allocation (2011–2025)~~	~~Up to $17 million~~	~~Would extend the current 2005-2010 TIP allocation through 2025.~~
~~c.~~ ~~Increase County Impact Mitigation Fees (2006–2025)~~	~~Up to $132 million~~	~~Would require Council action to amend Chapter 30.66B SCC.~~
~~d~~~~. RTID or RTID-like (2007–2025)~~	~~Up to $150 million~~	~~Based on current assumptions for allocation to participating governments.~~

~~**e.** Increase in State Fuel Tax (2016-2025)~~	~~Up to $15 million~~	~~Upper range assumes another ½ cent to counties during the second decade of this TE.~~
~~**f**. Motor-vehicle License Fee (2006–2025)~~	~~Up to $80 million~~	~~Would require action by the Legislature enabling Council or voter-approval.~~
~~Other Miscellaneous~~	~~Unknown~~	~~Could provide a small but significant additional level of financial relief.~~
~~**Total Range**~~	~~**Up to $496 million**~~	~~**Measures taken as a whole have potential to cover deficit.**~~

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Table 20

Additional Transportation Revenues under the County's Financial Strategy

Revenue Measure	Range of Revenue towards 2035	Remarks
a. Property Tax Increase (1% each year 2015–2035)	Up to $160 million	Council would need to take affirmative budget action each year starting in 2015.
b. Enhance REET Allocation (2021–2035)	Up to $6 million	Would enhance the current 2015-2020 TIP allocation through 2035.
c. Increase County Impact Mitigation Fees (2015–2035)	Unknown	Would require Council action to amend Chapter 30.66B SCC.
d. Bonding (2021–2035)	Up to $15 million	Up to three bond issues over planning time frame.
e. Public Work Trust Fund Loan – PWTFL (2021-2035)	Up to $15 million	Potentially seven state funding cycles over timeframe.
f. Increase in State Fuel Tax – (2015-2035)	Up to $21 million	One-half (1/2) cent increase.
g. TBD Motor-vehicle License Fee (2015–2035)	Up to $60 million	Would require action by the county council enabling council or voter-approval.
Other Miscellaneous	Unknown	Could provide a small but significant additional level of financial relief.
Total Range	**Up to $277 million**	

3. Other Miscellaneous Revenue or Cost Reduction Measures

There are four miscellaneous revenue or cost reduction measures that the county could pursue, in addition to the primary revenue measures discussed above. These have potential to generate a minor but significant amount of financial benefit if pursued. Increase in revenue or reductions in capital or operating costs are difficult to predict; however, these measures are worth citing as part of the county's overall financial strategy. Table 20 provides a summary of the range of potential funds that may be generated if the county were to pursue the revenue measures identified under the strategies presented herein.

a. Joint Funding with Cities

The county, under this measure, would collaborate with the appropriate cities to achieve joint funding where a project substantially benefits a given city, and the area served is likely to be annexed within the subsequent six years. The city's funding contribution would serve to ensure equitable sharing of the financial burden. Importantly, this measure would also allow the city to fund specific design features on a roadway soon to be within its jurisdiction.

b. Encourage Mutually Beneficial Annexation by Cities

This cost reduction measure could go hand-in-hand with joint-funding efforts. This measure would be aimed at reducing the county's road expenditures by having the appropriate city assume all or part of the responsibility for a particular arterial road improvement serving an area to be annexed. Incentives to encourage city annexation could include: participation in and deference to city extra-territorial planning efforts; commercial rezones aimed at tax base enhancement; and county in-kind and/or funding participation in arterial road projects. Annexation interlocal agreements would need to be broadened in scope, commitment and effect.

c. Private-Sector Partnerships

This measure would allow private-sector entities (corporations, developers, and individuals) to participate in funding transportation improvements that allow economic benefit to the private-sector partners, while at the same time allowing the county to share the costs of transportation with the private partners. The candidate transportation improvements for private-sector partnerships would likely be capital projects or operations-related programs that are not fully funded from governmental revenue sources.

d. Road Improvement Districts

A Road Improvement District (RID) is a special assessment district that can be formed by the county, adjacent cities, and/or landowners. The purpose for forming an RID would be to generate funding for transportation improvements that would benefit the landowners within the district. Funding for RIDs usually includes the issuing of bonds to finance road improvements that serve and benefit specified properties. The bonds are paid off by assessments against the benefited properties over a period of time, usually ten years.

((
e. Transportation Bonding

The County could issue bonds in order to generate funds sooner for transportation improvements. Bonding is not new revenue, though it accelerates the ability to fund needed improvements. In a nutshell, bonds are certificates of debt that promise payment of original investment and interest. While bonding funds are received sooner, long-term costs are increased because bond debt incurs interest. Bonding for transportation improvements could involve two approaches:

- the county/city could use revenues from developer impact fees and/or any other new fund source to issue revenue bonds for major transportation improvements during the 2005-2012 time frame, while extending the debt service out to the year 2025 (i.e., debt service 2005-2025); and/or
- the county/city could also opt to issue general obligation bonds to accomplish the same purpose as described above for revenue bonding, however; there wouldn't necessarily be reliance on the approval of another new revenue source or formation of RIDs. General obligation bonds can be retired or paid off in several ways. Each has advantages and disadvantages and may require voter approval.

This measure would have the advantage of making more funding available to the county for transportation improvements over the short-term, but has the burden of retiring debt as a disadvantage. Bonding, however, has one significant advantage for the County, particularly in

~~parts of the county likely to be annexed by cities in the near-term. Part or all of the debt, incurred through bonding to fund transportation improvements in an unincorporated area, may transfer to the City with an area's annexation.~~

~~f. Transfer of Road Jurisdiction to State~~

~~The Transportation Improvement Board (TIB) has responsibility for reviewing and making recommendations on route jurisdiction changes. The TIB is directed to receive petitions from cities, counties, or the state requesting any addition or deletion to the state highway system.~~

~~Using criteria established in RCW 47.17.001, the TIB provides recommendations to the Legislative Transportation Committee. The Legislature makes the final decision on adding or deleting routes from the state highway system. The Route Jurisdiction Transfer process is on an annual cycle. The deadline for receiving transfer requests is February 1. The County could pursue a route jurisdiction study with WSDOT to identify county roads that are operating as default HRS, and petition for transfer of jurisdiction and improvement funding to WSDOT.~~

~~g. Local Option Fuel Tax~~

~~This measure, under RCW 82.80.010, would have the County propose a local option fuel tax of up to 2.8 cents per gallon to countywide voters, as an alternative to RTID, to finance recommended transportation improvements for the entire county, including the cities. Concurrence from cities within the County would be needed, as well as a vigorous public information and involvement effort. Passage of a revenue package under RTID would preclude use of this revenue measure.~~
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4. Summary and Conclusions

Primary revenues generated during the ((~~2005-2025~~)) 2015-2035 timeframe of this TE are not likely to be sufficient to allow all arterial improvement projects to be programmed in the annually adopted TIP, and thereby meet current commitments and complete improvements that resolve all LOS problems and ((~~IRCs~~)) deficient conditions identified through RCAs.

It is evident from the results presented by ((~~Table 26~~)) Table 19 that the county will experience a funding shortfall if it must only rely on primary revenue sources. An additional ((~~$186 million~~)) $101 million will likely be needed from supplemental sources to eliminate a funding shortfall for ((~~CASI and ALOSI~~)) capacity-related capital improvements. ((~~It is also unlikely there will be funds available to pursue ASE projects, unless there is approval of additional revenues. ASE projects would improve the quality of transportation for pedestrian, bicycle, as well as motor vehicle uses. However, the list of enhancement projects is substantial and costly. A number of these projects could become a higher priority if portions of the County undergo fuller development sooner than anticipated by this plan. Private sector funding would be critical to ensuring that needed transportation improvements were made along with land development.~~))

It can be seen, from the ranges of revenues that can be generated from some realistic revenue measures described in ((~~Table 27~~)) Table 20, that the ((~~County~~)) county has the ability to close the funding gap for needed capacity-related arterial improvements. As noted previously, no county arterial units are identified as being in arrears as of the publication date of this TE and consequently no existing arterial deficiencies are identified in this TE. In addition, revenues and expenditures are in balance in the currently adopted six-year Transportation Improvement

Program (TIP) and the Annual Construction Program (ACP). If the projected funding gap for needed capacity-related arterial improvements materializes as the 20-year planning period of this plan unfolds, then the county council could consider implementing one or more of the additional revenue measures in Table 20. For example, the first revenue measure in Table 20, a one percent increase in the road levy portion of the property tax, would be considered annually by the council during the adoption of the annual budget and ACP/TIP. This measure, if adopted annually, has the ability to more than cover the projected 20-year funding shortfall. The seventh measure in Table 20, the enactment of an annual vehicle license fee within the Transportation Benefit District (TBD), also has the potential to generate significant revenue. The TBD has already been established, and if needed, the TBD Board could authorize the collection of an annual vehicle license fee to fund capacity-related arterial improvements. In the event the ((~~County~~)) county cannot close the funding shortfall for transportation needs, it has the option to reconsider policies and elements of the comprehensive plan by conducting a reassessment of land use, LOS, and capital funding.

D. Process for Reassessment of the Comprehensive Plan and Transportation Element

1. Reassessment Strategy and Options

The *Capital Facilities Requirements* adopted in support of the GPP sets forth a reassessment strategy when the public revenue capacity of the ((~~County~~)) county cannot fund the full inventory of potentially needed projects within the planning period. (ref. 33) The reassessment strategy includes the following possible options:

- reduce the standard of service, which will reduce the cost; or
- increase revenues to pay for the proposed standard of service; or
- reduce the average cost of the capital facility (i.e., alternative technology or alternative ownership and financing); or
- reduce the demand by restricting population; or
- reduce the demand by reducing consumption; or
- use any combination of ((~~[the options listed above]~~)) the options listed above.

2. Reassessment Process

Applying these options produces the following overall strategy for financing public transportation services and facilities needed to support the land use plan.

The first step of the reassessment strategy sets an appropriate, yet affordable minimum LOS for transportation systems to support the planned land uses. The full inventory of projects involves a wide range of LOS considerations. Out of the range of LOS options, the TE establishes a specific minimum LOS against which to measure the adequacy of transportation services to support development.

The second component of this financial strategy is to identify additional public resources that ((~~, with voter approval,~~)) could be used to increase revenues to pursue improvement projects. ((~~Measures could include voter approved bond issues and a local option fuel tax.~~))

The third step considers deferring potential demand for arterial improvements by reducing the intensity of allowable land development in some areas where existing land use patterns and constraints may limit the suitability for higher intensity uses. One typical constraint is the expense and, in some cases, physical infeasibility of making the street improvements that would be necessary to adequately serve high-intensity uses. In these areas future development will be largely infill consistent with existing land use patterns and the existing roadway system. Generally, the existing road system should be able to support this planned pattern of uses at a tolerable LOS.

One last step in the strategy could involve restrictions to the land use element through development phasing in order to control the timing of development, and to match the adequacy of public facilities to support the development. While not proposed under this TE, development phasing could be part of a reassessment process. Phasing changes the way that developer installed improvements are provided as a way of furnishing additional revenue to finance appropriate facilities prior to development. The development phasing strategy can be successful as long as the transportation needs in areas not covered by phasing are adequately provided at the time of development. Increased intensity of development in these areas could adversely impact the provision of these facilities.

Phasing not only controls the demand for road improvements by slowing new development, but also potentially adds revenue by better coordinating required developer contributions to the system. Under phasing, largely undeveloped areas will be subject to phasing restrictions. These areas are now served by a rural system of roads that are inadequate and inappropriate to support higher intensity urban uses and densities.

While the ((~~County~~)) county EDDS do require new development to provide an appropriate road standard, these requirements generally apply only to the frontage improvements and internal roads on the property. (ref. 22) Without phasing, such frontage improvements are usually made parcel-by-parcel. This case-by-case approach limits the effectiveness of these standards to achieve the level of adequate infrastructure envisioned. Phasing restricts further development until adequate streets are provided. This requirement encourages adjacent developers to work together to find financing for the street that includes the required frontage improvements. RIDs, latecomer programs, and developer agreements are some of the ways this improved coordination and funding can be achieved.

The intent of this reassessment strategy is to ensure that adequate funding is available for the transportation improvements needed to serve planned land use, while at the same time maintaining county LOS standards and public safety. Where land development causes deterioration of LOS below adopted standards, the ((~~County~~)) county needs to demonstrate that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years.

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VI. COUNTY PROJECT PRIORITIZATION AND PROGRAMMING PROCESS

This Transportation Element is based on an analysis of transportation deficiencies and future needs within unincorporated Snohomish County. Consistent with the GMA (RCW 36.70A), it recommends ((~~short-range, mid-range and long-range~~)) arterial projects to resolve deficiencies and meet identified future needs. Importantly, it provides a financial strategy and plan to guide the County in financing the recommended arterial improvement projects.

Snohomish County will use the TE as an important input to its countywide project programming and funding process. This process, administered by the department of public works, involves:

- identifying transportation needs and prioritizing categories of improvement projects within a Transportation Needs Report;
- acquiring or identifying funding for priority projects, with the County Council adopting these within a six-year Transportation Improvement Program; and
- selecting construction projects for implementation each year within a County Council adopted Annual Construction Program.

A. Transportation Needs Report

The TNR is a technical document, prepared by the department of public works, which provides detailed information on county transportation needs ((~~through the year 2025~~)). The TNR includes an arterial unit inventory, illustration of TSAs, a prioritized list of county-wide projects needed to meet existing and future demand, the cost basis for the improvement projects, and the technical basis for impact mitigation fees. The TNR provides a flexible basis for regularly updating the county's transportation needs and improvement descriptions initially defined within this TE. It documents the information and process used to set funding priorities for various categories of improvements the county will pursue towards the year ((~~2025~~)) 2035 and beyond.

The TNR document and priority setting process is adapted to the entire county. Categories of improvement projects within the TNR or other public works' documents that undergo priority evaluation include:

- major road improvements to maintain concurrency with planned land use;
- major road safety improvements;
- major new alignment improvements;
- minor spot safety and operations improvements;
- minor intersection signal or roundabout improvements;
- minor guardrail improvements;
- pedestrian facilities;
- bicycle/nonmotorized facilities;
- pavement preservation;
- Transportation Demand Management; and
- rehabilitation or replacement of bridges.

Projects recommended by this TE and included in the TNR undergo priority evaluation with all other county projects. Individual projects are evaluated against other county projects only within the appropriate category. Criteria for evaluating projects and setting priorities vary by category, but generally include consideration of traffic impacts, operations and safety, growth management objectives, and county standards.

The results of the priority evaluation exercise are lists of projects by category, with each category list grouped by low, medium, and high priority. Typically, the transportation projects listed as high priority are advanced for inclusion within the County's most current TIP, and funding commitments are pursued to implement the projects.

B. Transportation Improvement Program

The TIP is a schedule of transportation projects, operations, and maintenance improvements matched to expected revenues that the County anticipates pursuing over the subsequent six years. It is a requirement of state law (RCW 36.81.121) that it is updated annually by the public works department and adopted by the Council. The TIP satisfies internal programming needs, as well as meeting federal and state requirements for regional coordination. The TIP is prepared consistent with the GMA-required TE and TNR. Projects from these documents eventually are programmed in the TIP as they rise in priority and relevant funding becomes available.

Importantly, the TIP serves as the multi-year funding program required under GMA that is part of the basis for administering transportation/land use concurrency requirements. It is used to determine if transportation improvements needed to serve planned land use are funded along with the land development they serve. The annual element of the six-year TIP is the basis for an adopted ACP.

C. Annual Construction Program

The ACP presents descriptions and funding levels for capital improvement projects that the public works department intends to work on during the calendar year. This document is also required by state law and is adopted by the county council. Transportation and non-transportation capital improvement projects are included with the ACP. In tandem with the county road budget, the ACP authorizes expenditures on projects and is balanced with the annual county budget.

The County's financial strategy, described within this TE, and countywide project programming efforts should promote effective implementation of the recommended county transportation projects. This process could be adapted, in cooperation with the cities and WSDOT, to apply to all jurisdictions and all transportation projects throughout the UGA. The policy and project recommendations of this TE are a first step towards multi-jurisdiction programming and implementation of transportation improvements.

REFERENCES

1. Washington State Office of Financial Management, ((~~2003. Summary of U.S. Census 2000 Data~~)) Decennial Census Counts of Population for Counties 1890-2010.

2. ((~~Snohomish County Tomorrow, 2003. The 2002 Growth Monitoring/Buildable Lands Report~~)). Snohomish County Council, 2014. Ordinance NO. 14-006.

3. Office of Financial Management, ((~~2002~~)) 2012. ((~~County Population Target Allocations~~)) 2012 Projections - County Growth Management Population Projections by Age and Sex: 2010-2040.

4. ~~Washington State Office of Employment Security, 2001. Covered Employment Statistics.~~ U.S. Census Bureau, 2013. CB13-R.12 News Release.

5. Puget Sound Regional Council, ((~~1990. Vision 2020: Growth and Transportation Strategy for the Central Puget Sound Region, with Multi-County Planning Policies adopted in 1993.~~)) 2009. Vision 2040: The Growth Management, Environmental, Economic, and Transportation Strategy for the Central Puget Sound Region.

6. Puget Sound Regional Council, ((~~2001. Destination 2030: Metropolitan Transportation Plan for the Central Puget Sound Region.~~)) 2010. Transportation 2040: toward a sustainable transportation system.

7. Snohomish County. Countywide Planning Policies for Snohomish County. Adopted ((~~February 3, 1993~~)) June 1, 2011, and as amended through ((~~September 2005~~))June 8, 2011.

8. Snohomish County, ((~~2005~~))2013. Snohomish County GMA Comprehensive Plan, General Policy Plan, Snohomish County, Washington.

9. Snohomish County, ((~~2002~~)) 2014. Inventory of Transportation Facilities and Services – Catalog of Maps and Data Bases, and any subsequent updates.

10. Snohomish County, ((~~1992~~)) 2014. Inventory of Existing, Proposed and Conceptual Interchanges.

11. Planning and Development Services, ((~~2004. Draft Environmental Impact Statement for Snohomish County GMA Comprehensive Plan: 10-Year Update.~~)) 2013.

12. ~~Planning and Development Services, 2005. Preferred Alternative Population and Employment Forecasts.~~)) Transportation Research Board, 2010. Highway Capacity Manual. National Research Council. Washington, D.C.

13. ((~~Transportation Research Board, 2000 updates. Highway Capacity Manual, Special Report 209. National Research Council. Washington, D.C.~~)) Washington State Department of Transportation, 2010. Level of Service Standards for Washington State Highways.

14. ((~~Puget Sound Regional Council, 2004. Level of Service Methodology for Regionally Significant State Highways of the Central Puget Sound Region.~~)) Community Transit, 2011.

Long Range Transit Plan: Thinking Transit First.

15. ((~~Washington State Department of Transportation, 2000. Washington State Transportation Plan: Travel Delay Methodology.~~)) Snohomish County, 2013. Public Works Administrative Rule 4224.

16. ((~~Snohomish County, 1991. Manual of Standards and Guidelines for Access Management.~~)) Snohomish County 2015. Public Works Administrative Rule 4227.

17. ((~~Snohomish County Tomorrow, 1995. Transit-Oriented Development Guidelines.~~)) Snohomish County, 2014. Transportation Needs Report

18. ~~((American Association of State Highway and Transportation Officials (AASHTO), 1999. Guide for Development of Bicycle Facilities, 3rd Edition, Snohomish County, 2005.~~)) Snohomish County, 2009. Commute Trip Reduction Plan for Unincorporated Snohomish County.

19. ((~~Final Environmental Impact Statement, 2005. Technical Memorandum 12-15: Transportation Forecasts and Level of Service Analysis for Snohomish County's Transportation Element.~~)) Snohomish County Tomorrow, 1995. Transit-Oriented Development Guidelines.

20. ((~~Snohomish County, 2005. Arterial Circulation Map.~~)) MAKERS Architecture and Urban Design, 2012, Evergreen Way/SR 99 Corridor Revitalization.

21. ((~~Snohomish County, 2005. Transportation Needs Report.~~)) Snohomish County, 2014 *Safe Kids, Improved Pathways (SKIP)*. Web. 22 July 2014. http://snohomishcountywa.gov/572/Safe-Kids-Improved-Pathways-SKIP>.

22. ((~~Washington State Department of Transportation, Planning Office, February, 2002. Washington State Highway System Plan: 2003–2022.~~)) Snohomish County, 2012. Engineering Design and Development Standards.

23. ((~~Community Transit, 2004. Transit Development Program.~~)) National Climate Assessment (NCA), 2014, *Climate Change Impacts in the United States: The Third National Climate Assessment*.

24. ((~~Sound Transit, 1996. Sound Move: 10-Year Plan.~~)) Snohomish County, 2007, Snohomish County Executive Order 07-48

25. ((~~Washington State Department of Transportation, 2004. I-405 Master Development Plan.~~)) Snohomish County, 2013, Snohomish County Executive Order 13-48A

26. *Comprehensive Plan 2015 Update Draft EIS. Volume II: Transportation.* 2014. Prepared for Snohomish County by Fehr & Peers.

27. ((~~Snohomish County, 2005. Capital Facilities Plan.~~)) Community Transit, 2014. Transit Development Plan 2014-2019.

28. ((~~Snohomish County, 2004. Engineering Design and Development Standards.~~)) Everett

Transit, 2014. Transit Development Plan 2014-2019.

29. Sound Transit, 2005. Regional Transit Long-Range Plan.

30. Sound Transit, 2008. Sound Transit 2: The Regional Transit System Plan for Central Puget Sound.

31. Sound Transit 2014. High Capacity Transit Corridor Study Lynnwood to Everett Final Report.

32. Washington State Department of Transportation Ferries Division, 2009. Final Long-Range Plan.

33. Snohomish County, 2009. Capital Facilities Plan.

34. *Comprehensive Plan 2015 Update Final EIS. Volume II: Transportation.* 2015. Prepared for Snohomish County by Fehr & Peers.

35. Puget Sound Regional Council, 2012, Transportation 2040: Final Environmental Impact Statement.

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APPENDICES

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APPENDIX A

Glossary of Acronyms and Definitions

Acronyms

ACP	Annual Construction Program
ADT	Average Daily Traffic
((~~ALOSI~~	~~Arterial Level of Service Improvements~~
~~ASE~~	~~Arterial System Enhancements~~))
ARL3	Arlington Docket Proposal
BAT	Business Access Transit
BNSF	Burlington Northern Santa Fe
BRT	Bus Rapid Transit
((~~CASI~~	~~Critical Arterial System Improvements~~))
C/L	City Limit
CAPP	County Arterial Preservation Program
CIP	Capital Improvement Program
CMS	Concurrency Management System
CO	Carbon Monoxide
CPI	Consumer Price Index
CT	Community Transit
CTR	Commute Trip Reduction
CWPP	Countywide Planning Policy
DART	Dial-A-Ride-Transit
DEIS	Draft Environmental Impact Statement
DPW	Department of Public Works
E/W	East/West
EA	Environmental Assessment
EDDS	Engineering Design and Development Standards
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
ET	Everett Transit
FAR	Floor Area Ratio
FAST	Freight Action Strategy
FAZ	Forecast Analysis Zone
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FLUM	Future Land Use Map
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GIS	Geographic Information System
GMA	Growth Management Act
GMACP	Growth Management Act Comprehensive Plan
GP	General Purpose (lane)
GPP	General Policy Plan
HCT	High Capacity Transit
HOT	High Occupancy Toll
HOV	High Occupancy Vehicle
((~~HRS~~	~~Highway of Regional Significance~~))
HSS	Highway of State Significance
I/C	Interchange
((~~IRC~~	~~Inadequate Road Condition~~))
LID	Local Improvement District
LOS	Level of Service
LRP	Long Range Plan
LRT	Light Rail Transit
LRTP	Long Range Transportation Plan
MAZ	Micro-Analysis Zone
MSV	Maximum Service Volume
MTS	Metropolitan Transportation System
NAAQS	National Ambient Air Quality Standards
NCA	National Climate Assessment
NO2	Nitrogen Dioxide
Non-HSS	Regionally Significant State Highway
OFM	Washington State Office of Financial Management
PB	Lead (Mineral)
PDS	Planning Development Services
PE	Preliminary Engineering
PM	Particulate Matter
PPB	Parts Per Billion
PPM	Parts Per Million

PSRC	Puget Sound Regional Council
PTBA	Public Transportation Benefit Area
R/W	Right-Of-Way
RCA	Road Condition Audit
RCW	Revised Code of Washington
REET	Real Estate Excise Taxes
RID	Road Improvement District
RTID	Regional Transportation Improvement District
SCC	Snohomish County Code
SCT	Snohomish County Tomorrow
SEPA	State Environmental Policy Act
SIP	State Implementation Plan
SKIP	Safe Kids Improved Pathways
SO2	Sulfur Dioxide
SOAP	Sustainable Operations Action Plan
SOV	Single Occupant Vehicle
SR	State Route
ST	Sound Transit
ST2	Sound Transit 2
TAZ	Traffic Analysis Zone
TCM	Transportation Control Measure
TDM	Transportation Demand Management
TDP	Transit Development Plan
TE	Transportation Element
TIB	Transportation Improvement Board
TIP	Transportation Improvement Program
((~~TMA~~	~~Transportation Management Association~~))
TNR	Transportation Needs Report
TOD	Transit-Oriented Development
TRB	Transportation Research Board
TSA	Transportation Service Area
TSM	Transportation Systems Management
µg	Micrograms
UGA	Urban Growth Area
USDOT	US Department of Transportation
V	Volume
V/MSV	Volume/Maximum Service Volume
VIC	Vicinity
VMT	Vehicle Miles Traveled
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation
WSF	Washington State Ferries
YOE	Year-Of-Expenditure

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Definitions

Adequate public facilities: Facilities that have the capacity to serve development without decreasing levels of service below locally-established minimums. (WAC 365-195-210)

~~**((Arterial Level of Service Improvements (ALOSI):** Project improvements needed to allow arterial capacity and LOS to remain concurrent with adopted LOS standards and growth as anticipated by the comprehensive plan. This category of improvement involves making arterials consistent with adopted roadway design standards and/or adding additional lane-capacity, where practicable.~~))

Arterial roadways: A class of roadway serving major movements of traffic ((~~not served by freeways~~)). Arterial roadways are functionally classed depending on the degree to which they serve through traffic movements versus access to land.

((

~~Principal arterials are primarily for traffic movement and secondarily for access to abutting properties. Intersections are ordinarily at-grade with traffic control and geometric design features that expedite safely through traffic movement. This class of roadway tends to carry heavier traffic loads and therefore has four to seven lanes and extends for substantial distances (i.e., 164th Street SW/SE; Airport Road SW).~~

~~Minor arterials offer a balance between through traffic movement and direct access to abutting properties. Intersections are at-grade with traffic control and geometric design features, like principal arterials, which emphasize movement of traffic over access to lane. This class of roadway tends to carry substantial traffic loads on two to five lanes and extend for significant distances (i.e., 180th Street SE; 228th Street SE).~~

~~Collector arterials serve to collect/distribute traffic from/to neighborhoods and commercial areas and connect it to minor and major arterials. Direct land access is also part of this roadway's function with lower speeds and more driveways. Traffic loads are ordinarily lower compared to principal and minor arterials; therefore, these roadways tend to be two lanes and cover extended distances (i.e., North Road; South Lake Stevens Road).~~

))

Interstate: Limited access, divided highways linking major urban areas.

Freeway/Expressway: Directional travel lanes usually separated by a physical barrier with access and egress points limited to on- and off-ramps or very limited number of at-grade intersections. Abutting land uses are not directly served by freeways/expressways.

Principal Arterial: Roadways serving major centers of metropolitan areas and providing a high degree of mobility. Abutting land uses can be served directly by principal arterials via driveways or at-grade intersections.

Minor Arterial: Roadways providing intra-community continuity and connectivity to the higher arterial system. Minor arterials provide a greater level of access to abutting land uses than principal arterials.

Major Collector: Roadways funneling traffic from local roads to the arterial network and providing a high level of property access. Major collectors are generally longer, may have more travel lanes, have lower connecting driveway densities, have higher speed limits, and carry higher traffic volumes than minor collectors.

Minor Collector: Roadways funneling traffic from local roads to the arterial network and providing a high level of property access. Minor collectors are generally shorter, may have fewer travel lanes, have higher connecting driveway densities, have lower speed limits, and carry lower traffic volumes than major collectors.

~~((**Arterial System Enhancements (ASE):** Project improvements that enhance traffic operations, safety, accessibility and circulation. They serve to sustain the long-term viability of the arterial system and support the broader goals of the comprehensive plan. There are projects that are pursued by the County on an as needed basis when additional funds are available beyond that needed for critical arterial and level of service categories. Where enhancement projects are needed related to urban expansion or intensification, they may become the primary responsibility of the proponent land owners and developers.))~~

Articulated bus: Generally refers to a bus with two body sections connected by a flexible joint. Often, articulated buses contain about 72 seats and are about 60 feet in length.

Available public facilities: Facilities or services that are in place or a financial commitment is in place to provide the facilities or services within a specified time. In the case of transportation, the specified time is six years from the time of development. (WAC 365-195-210)

Average Daily Traffic (ADT): The average number of vehicles passing a specified point on a roadway during a 24-hour period. This number can be averaged over several days or over an entire year.

Berth (Port of Everett): The term used in ports and harbors for a designated location where a vessel may be moored, usually for the purposes of loading and unloading.

Bikeway: Any road, path, or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

Busway: A right-of-way for express bus operations completely separated from general purpose lanes.

Calibration: The procedure used to adjust travel models to simulate base year travel.

Capacity: The maximum number of vehicles that can pass over a given section of a lane or roadway in one direction (or in both directions for a two or three lane facility) during a given time period under prevailing roadway and traffic conditions. It is the maximum rate of flow that has a reasonable expectation of occurring.

Capital cost: Costs of transportation systems such as purchase of land, construction of roadways, and acquisition of vehicles. Distinguished from operating costs.

Capital facilities: As a general definition, public structures, improvements, pieces of equipment or other major assets, including land, that have a useful life of at least ten years. Capital facilities are provided by and for public purposes and services. For the purposes of the capital facilities element, capital facilities are surface water management, solid waste disposal, law and justice, general government, parks and recreation, airport, transportation, education, fire protection, sanitary sewer, and public water supply systems.

Capital Improvement Program (CIP): A plan which matches the costs of capital improvements to anticipated revenues and a timeline. CIPs are usually prepared for six or more years, updated annually, and coordinated with the comprehensive planning process.

Carpool: A motor vehicle occupied by two to six people traveling together for their commute trip. Also refers to the group of people in such an arrangement.

Census tract: A specific geographic unit of area with relatively permanent boundaries, officially recognized by the U.S. Bureau of the Census as a small area for purposes of reporting various statistics.

Centroid: An assumed point in a zone that represents the origin or destination of all trips to or from the zone.

Charter service: Transportation service provided in vehicles licensed to provide that service and engaged at a specific price for a specific period of time, usually on a contractual basis. Public transit agencies are generally not allowed to provide charter services if they would be competing with a private company.

Cold start: Refers to the starting of an internal combustion engine in an automobile that has been off for at least four hours. Cold starts and the first several miles of operation thereafter result in a significantly higher amount of emissions than when an engine is at normal operating temperature.

Commute Trip Reduction (CTR): The use of measures which reduce VMT and the proportion of SOVs used for commuter travel while promoting and marketing travel by alternative modes. See also Transportation Demand Management.

Commuter rail: A rail service typically using heavy rail vehicles pulled by diesel-powered engines over conventional railroad tracks that connect outlying suburbs with a central business district. Service is generally limited to distances of 15 miles or greater and to peak-period, home-based work trips.

Commuter service: Peak-period bus or rail transportation provided on a regularly scheduled basis for work and school trips. Commuter service is often provided as express service.

Comprehensive plan: A generalized coordinated land use policy statement of the governing body of a county or city adopted pursuant to the Growth Management Act (RCW 36.70A.030). Snohomish County's comprehensive plan includes the General Policy Plan, several detailed UGA plans, and the Rural/Resource Plan.

Concurrency: Means that adequate public improvements or strategies are in place at the time of development. For transportation, concurrency means that a financial commitment is in place to complete the improvements or strategies within six years (WAC 365-195-210).

Congestion management: A process whereby multi-modal solutions to critical traffic congestion problems are identified, coordinated among affected jurisdictions, and programmed for funding or implementation. Solutions are wide-ranging and could involve physical improvements to the arterial network, traffic signalization, transit service enhancements, programs to reduce commuter travel, and travel information systems. The affected jurisdictions would be the county, cities, and state.

Congestion pricing: Various forms of proposals that entail vehicles or people being charged a special toll for entering a congested facility.

Contraflow lane: A highway or street lane on which, during certain hours of the day, designated vehicles or general traffic operates in the direction opposite to the direction of traffic on that lane during the rest of the day, while vehicles in adjacent lanes continue in the original direction of flow. The I-5 express lanes are contraflow lanes, but are completely separate from the adjacent lanes.

Countywide planning policies: Written policy statements used solely for establishing a countywide framework from which county and city comprehensive plans are developed and adopted. (RCW 36.70A.210)

((~~**Critical Arterial System Improvements (CASI):** Project improvements needed to complete critical links in the overall county arterial system. They directly serve growth anticipated by the comprehensive plan and provide for: access to urban centers and growth areas; completion of missing connections; and operational continuity within an arterial corridor. This category of improvement can involve lane-capacity additions necessary to resolve LOS problems. They should be pursued at their full-design standard within the timeframes they will be needed (2006-2011, 2012-2017 and 2018-2025), with staging of operational before capacity improvements as a possibility.~~))

Delay: At traffic signals, the stopped time delay per approach vehicle, in seconds.

Demand-response service: Transportation service designed to carry passengers from their origins to specific destinations (often door-to-door) by immediate request or by prior reservation. Also referred to as dial-a-ride.

Density: The number of families, persons, or housing units per acre or square mile.

Distribution: The process by which the movement of trips between zones is estimated.

Essential public facilities: Facilities that are typically difficult to site, such as airports, state education facilities, and state or regional transportation facilities, state and local correctional facilities, solid waste handling facilities, and in-patient facilities including substance abuse facilities, mental health facilities, and group homes. (RCW 36.70A.200)

Express service: Higher speed transit service designed to make a limited number of stops along a route and generally provided during peak hours by express buses or trains.

Facilities: The physical structure or structures in which a service is provided.

Federal Highway Administration: A division of the U.S. Department of Transportation.

Federal Transit Administration: A division of the U.S. Department of Transportation responsible for the funding and regulation of public transportation.

Feeder service: A service providing connections with other transit services. Often, feeder service refers to bus service that "feeds" park and ride lots and high capacity transit stations with passengers from residential areas surrounding the lots or stations.

Fixed-route service: Transportation service operated over a set route on a regular schedule.

Floor Area Ratio (FAR): The ratio of gross floor area of a building (the total enclosed area of all floors of a building, excluding parking or loading areas) to the area of the building lot.

Forecast Analysis Zone (FAZ): the basic geographic unit for the data and forecasts analyzed and prepared by the Puget Sound Regional Council.

Geographic Information System (GIS): Software that lets you visualize, question, analyze, and interpret data to understand relationships, patterns, and trends. It is also used to create maps.

Goal: A result or achievement that reflects societal values or broad public purposes.

Grade-separated: Rights-of-way that are separated from general purpose rights-of-way by a change in elevation, often on an elevated structure or in a tunnel.

Gravity model: A mathematical model of trip distribution based on the premise that trips produced in any given area will distribute themselves in accordance with the accessibility of other areas and the opportunities they offer.

Growth factor: A ratio of future trip ends (or traffic volumes) divided by present trip ends (or traffic volumes).

Headway: Frequency of service in terms of the period of time between arriving vehicles.

Heavy rail: An electric rail system that operates on a completely separated or exclusive right-of-way. Generally, heavy rail trains operate longer distances, with limited stops, and in heavily-populated urban corridors. Also referred to as rail rapid transit.

High Capacity Transit (HCT): Any transit technology that operates on separated right-of-way and functions to move large numbers of riders, such as buses, light rail, commuter rail, and passenger-only ferries.

High Occupancy Vehicle (HOV): A vehicle containing more than a single occupant such as an automobile with several passengers (carpool), a bus, vanpool, or a train. An HOV lane is a freeway or arterial lane dedicated for the exclusive use of HOVs and transit vehicles.

Home-based trip: A trip with either its origin or destination at home. Both the trip from home to work and the trip from work to home are considered home-based.

Impact fee: Charges levied by the county against new developments for a pro-rata share of the capital costs of facilities necessitated by the development. The GMA authorizes imposition of impact fees on new development and sets the conditions under which they may be imposed.

Implementation measure: Regulatory and nonregulatory measures used to carry out the plan.

Infrastructure: Facilities and services needed to sustain the functioning of an urban area.

Level of Service (LOS): A qualitative measure describing operational conditions within a traffic stream in terms of speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. LOS "A" denotes the best traffic conditions, while LOS "F" indicates the worst.

Light Rail Transit (LRT): An electric rail system that can operate on a variety of rights-of-way, ranging from on-street to grade-separated. Vehicles consist of shorter train units than heavy rail.

Link: A section of the highway network defined by a node at each end. A link may be one-way or two-way.

Load factor: The ration or percentage of seat capacity being used. Load factor is traditionally used to determine the LOS of transit facilities.

Local Improvement District (LID): A quasi-governmental organization formed by land-owners to finance and construct a variety of physical infrastructure improvements beneficial to its members. A Road Improvement District is a specific type of LID that is formed to finance road improvements.

Local road: A class of roadway with the primary function of providing access to abutting properties. Traffic control is usually limited, with slow speeds and numerous driveways. This roadway class typically carries low traffic loads and is usually one to two lanes. They can be paved or gravel and don't often extend over much distance (i.e., 156th Street SW; 103rd Street SE).

Mass transit: The general term used to identify bus, rail, or other types of transportation which move large numbers of people at one time.

Metered/Bypass ramp: Entrance ramps metered to control traffic merging onto the freeway, but designed to allow HOVs to bypass the ramp meters.

Micro-Analysis Zone (MAZ): The smallest geographic unit used in the process of developing traffic forecasts from Puget Sound Regional Council's regional trip tables. A Traffic Analysis Zone is comprised of at least one MAZ. MAZs provide for more accurate modeling of trip-making patterns and travel demand in Snohomish County.

Mini bus: Busses smaller than the standard 40-foot long coach with varying seating capacities.

Modal split: The proportion of total person trips on various types of modes.

Mode: The types of transportation available for use such as rail, bus, vanpool, bicycle, pedestrian, or single-occupant vehicle.

Model: A mathematical formula that expresses the actions and interactions of the elements of a system in such a manner that the system may be evaluated under any given set of conditions (e.g., land use, economic, socioeconomic, and travel characteristics).

Multi-modal: Two or more modes or methods of transportation.

Net density: Refers to the density of development excluding roads, environmentally sensitive areas (ESAs), and areas required for public use. Gross density includes roads, ESAs, and areas required for public use.

Network: A system of links and nodes describing a transportation system for analysis.

Node: A number point representing an intersection or zone centroid.

Non((-))motorized transportation: Forms of transportation powered by humans or animals. Examples include bicycling, walking, and horseback riding. Wheelchairs powered by an electric motor are also considered a form of non((-))motorized transportation.

Objective: A desired result of public action that is specific, measurable, and leads to the achievement of a goal.

Operating costs: Those recurring costs in a transportation system such as salaries and wages, maintenance, energy, taxes, insurance, and supplies. Distinguished from capital cost.

Paratransit: Flexible transportation services which are operated publicly or privately, and generally are distinct from conventional transit and outside the conventional fixed-route, fixed-schedule systems. Vans and mini-buses are typical paratransit vehicles used. Demand-response transportation services are a form of paratransit.

Park-and-ride: A system in which commuters individually drive to a common location, park their vehicles and continue travel to their final destination via public transit.

Parking management: Actions taken to alter the supply, operation, and/or parking demand in an area.

Peak period traffic: The higher-than-average portion of daily vehicular traffic that occurs during distinct times of day. Peaks in daily traffic volumes usually occur during the morning (6:30-9:30 a.m.) and evening (3:30-6:30 p.m.) commuter periods. The one-hour peaks during these three hour periods are referred to as a.m. or p.m. peak hour traffic.

Pedestrian friendly development: Development designs that encourage walking by providing site amenities for pedestrians. Pedestrian friendly environments may reduce auto dependence and encourage the use of public transportation.

Preferential parking: Parking spaces reserved exclusively for car/vanpools in parking lots. These parking spaces are generally located closer to building entrances or have other positive features which make them very desirable. Such parking spaces may be used as an incentive to encourage ridesharing.

Preferential signals: Traffic signals designed to give an advantage to HOVs through shorter wait times. Also referred to as signal prioritization and queue bypasses.

Policy: Action-oriented procedure, activity or decision-making that defines the process by which an objective is achieved.

Primary corridor: Denotes principal arterial roadways that serve designated centers and would have additional design features to accommodate several modes of travel (i.e., transit, auto, bicycle and pedestrian). These design features could include HOV lanes, bus pull-outs, walkways and bikeways, and signal priority for HOV carpools, vanpools, and buses (i.e., 128th Street SW; 164th Street SW).

Public facilities: Includes streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, domestic water systems, storm and sanitary sewer systems, parks and recreational facilities, and schools. (RCW 36.70A.030)

Public transportation: A wide variety of passenger transportation services available to the public including buses, ferries, rideshare, and rail transit.

Public Transportation Benefit Area (PTBA): A portion of one or more counties that is created following the approval of voters within the area. A public transportation provider is then authorized by state law (RCW 36.57A) to collect an additional sales tax and provide public transportation within that area.

Rail transit: Any of a variety of passenger rail modes used for multi-purpose trips. Rail transit usually operates all day and serves more than the commuter market.

Reverse commute: Travel during the peak period that flows in the direction opposite the peak direction.

Ridership: The number of persons using a transportation system. Also referred to as boardings.

Ridesharing: Any type of travel where more than one rider occupies or "shares" the same vehicle, such as a carpool, vanpool, or transit vehicle.

Ridesharing programs: Any programs sponsored by public agencies or the private sector to promote the use of carpools, vanpools, and other forms of transit.

Right-of-way: Land owned by a government or an easement for a certain purpose over the land of another, used for a road, ditch, electrical transmission line, pipeline, or public facilities such as utility or transportation corridors.

Roadway: An open, generally public way for the passage of vehicles, persons, and animals. Limits include the outside edge of sidewalks, curbs & gutters, or side ditches.

Route: An established geographical course of travel followed by a vehicle from start to finish for a given trip.

Shoulder: That portion of the roadway contiguous with but outside of the traveled way.

Single Occupant Vehicle (SOV): A vehicle containing only a single occupant. Lanes on roadways that permit SOVs are also referred to as general purpose lanes.

Slip (Marina): A body of water with a pier on each side and a place to moor a boat.

Snohomish County Tomorrow (SCT): A joint planning process of the county, its cities and towns, and the Tulalip Tribes to guide effective growth management and to meet the requirements of the GMA for coordination and consistency between local comprehensive plans.

Telecommuting: The use of telephones, computers, or other similar technology to permit an employee to work from home or to work from a work site other than the employee's normal work site that is closer to home.

Time transfer concept: A set of bus routes and schedules coordinated so that transfers between all lines destined for a particular transit center are synchronized to save passengers time.

Traffic Analysis Zone (TAZ): The geographic unit from which regional trip tables are developed by Puget Sound Regional Council. A Forecast Analysis Zone is comprised of at least one TAZ. Snohomish County Planning converts the TAZs into MAZs prior to preparing traffic forecasts.

Traffic assignment: The process of determining routes of travel and allocating the zone-to-zone trips to these routes.

Transit: A general term applied to passenger rail and bus service available for the use by the public and generally operated on fixed routes with fixed schedules.

Transit center: A facility providing connections between buses serving different routes or between transportation modes such as between ferries and buses.

Transit compatible/supportive land use: A general term applying to higher density and/or intensity land uses and activities, usually urban, that are designed and located to encourage and facilitate ridership on public transportation.

Transit dependent: Refers to people for whom public transit is the only motorized transportation mode available.

Transportation centers: Facilities providing connections between various modes of travel, particularly transit, serving different origins/destinations or routes. Examples of transportation centers are the current ferry terminals, Everett's proposed downtown transit center, or High-Capacity Transit stations along I-5.

Transportation Demand Management (TDM): The concept of changing travel behavior rather than expanding the transportation network to meet travel demand. Such strategies can include the promotion of work hour changes, ridesharing options, parking policies, telecommuting. See also Commute Trip Reduction.

Transportation Improvement Board (TIB): A board created by state law, consisting of members appointed by the governor, which oversees planning, funding, and the coordination of transportation projects between jurisdictions.

Transportation Improvement Program (TIP): A staged six-year program of transportation improvement projects.

Transportation Service Area (TSA): A subarea of the county with boundaries drawn to include transportation facilities primarily serving that TSA. Roadway and other transportation improvements needed to serve each TSA are identified and prioritized. This allows each TSA to receive a share of expenditure on transportation. Impact mitigation or fees to handle growth would also be administered by TSA, allowing them to be reasonably related to growth impacts and needed transportation improvements.

Transportation Systems Management (TSM): The concept of improving the efficiency of a transportation system through non-capital-intensive modifications to increase capacity or facilitate traffic flow. Capacity increases under TSM would generally exclude the addition of lanes or other capital-intensive improvements.

Travel time: The time required to travel between two points, including the terminal time at both ends of the trip.

Trip: A one-direction movement which begins at the origin at the start time, ends at the destination at the arrival time, and is conducted for a specific purpose.

Trip generation: A general term describing the analysis and application of the relationships between the trip makers, the urban area, and the trip making.

Trip table: A table showing trips between zones – either directionally or total two-way. The trips may be separated by mode, purpose, time period, vehicle type, or other classification.

Ultimate Capacity Arterial: An arterial for which additional improvements to gain vehicle capacity (e.g., lane widening or additions) would require unwarranted public expenditure and/or would have severe or environmental or community impacts. In such cases it would be appropriate for the county council to designate such arterials as being at ultimate capacity and alternative mitigation would be pursued.

Vanpool: A vehicle occupied by 7–15 people traveling together for their commute trip. Typically, vanpools are organized or facilitated by corporations, agencies, or institutions that in some way support their operation or provide the vehicle.

Vehicle Miles Traveled: The aggregate number of miles traveled by specified vehicles, typically automobiles, in a specific area in a specific time period. VMT may be calculated by summing data on a link basis or by multiplying average trip length (in miles) by the total number of vehicle trips.

Walkway: A continuous way designated for pedestrians and separated from the through lanes for motor vehicles by a physical barrier or space. Walkways may be sidewalks, pedestrian grade separations (e.g., pedestrian overcrossings), hiking trails, or walking trails. Snohomish County contains walkways along many rural roadway shoulders separated from the travel lanes by raised diagonal polyester markings referred to as “rumble bars”. Most walkways are intended for the exclusive use of pedestrians.

Washington State Department of Transportation (WSDOT): The state agency responsible for planning, building, and maintaining the state highways and the ferry system.

Washington State Ferries (WSF): The division of WSDOT responsible for the planning and operation of the state ferry fleet. Also called the Marine Division of WSDOT.

Zone: A geographical area, intended to be relatively homogeneous in land use or activity that makes up a study area.

((~~APPENDIX B~~

~~Summary of Costs for County Road Projects if Built to Standards~~

~~Appendix B summarizes estimated costs for recommended road improvement projects within the jurisdiction of Snohomish County. The costs presented within Appendix B represent "planning-level" cost estimates for proposed projects. The cost estimates were derived using the county's cost estimating model, which is described under Section IV.B.2 Project Costing Methodology. Project cost estimates are not based on detailed engineering designs. Project cost estimates within Appendix B represent costs for full-design standards. Costs are in 2005 adjusted dollars, and are expressed in thousands of dollars. Estimated costs for the alternative design of the ALOSI projects are summarized in Appendix C.~~

~~Within Appendix B, projects are grouped by the three county improvement categories: Critical Arterial System Improvements; Arterial Level of Service Improvements; and Arterial System Enhancements.~~

~~These categories are described in detail under Section IV.A.2 Summary of County Improvement Categories. Appendix B has separate sections for each improvement category. Under each improvement category, projects are grouped first by TSA, and then by road name. At the end of each section, total costs for the relevant category and cumulative totals are shown.~~

~~For each project Appendix B shows the TSA; project number; road name; project limits (beginning and end of project); costs of engineering, right-of-way, and construction; and total costs. Engineering costs include preliminary and construction engineering, and contractor mobilization. Right-of-way costs include acquisition of additional right-of-way needed for road construction, drainage detention, and wetland mitigation. Construction costs include all "hard costs" such as road widening, edge treatments (e.g. curb, gutter, and sidewalk), retaining walls, drainage and detention, bridges, and traffic signals. Total cost is the sum of engineering, right-of-way, and construction costs.~~

~~Appendix B can be used in conjunction with Maps 3 through 9 of the TE, which show road and street improvements in TSA "A" through "F". The projects are mapped by TSA, with the project numbers shown on the map.~~

~~As shown in Appendix B, the total cost for Critical Arterial System Improvements is $345 million. The total cost for Arterial Level of Service Improvements (full-design costs) is $368 million. For Arterial System Enhancements, the total cost is $616 million. The total for all three improvement categories is $1.3 billion.~~

~~The abbreviations used in Appendix B are shown below, except for commonly used abbreviations, which are not shown. Abbreviations used for project numbers are grouped together.~~

~~Project Number Abbreviations~~

~~AC – Arterial Capacity~~
~~AO/C – Arterial Operations and Capacity~~
~~AO – Arterial Operations~~
~~AS – Arterial Design and Safety Standards~~
~~JP – Joint Project~~
~~NR – New Arterial Road Alignments~~

~~Other Abbreviations:~~

~~C/L – City Limit~~
~~Proj # – Project Number~~
~~R/W – Right-of-Way~~
~~SR – State Route~~
~~UGA – Urban Growth Area~~

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Appendix B – Transportation Element

Summary of County Road Project Costs

2005 Adjusted Dollars (thousands)

Critical Arterial System Improvements

TSA	Proj #	Road Name	Project Limits (From-To)	Engineering	+ R/W	+ Construction	= Total Cost
A	JP-4	100th St. NE	Shoultes Rd. to 51st Av. NE	305	748	771	1,825
A	AO/C-1	140th St. NE/Stimson Rd.	23rd Av. NE to 34th Av. NE	2,335	3,598	5,905	11,838
A	AO/C-3	51st Av. NE	108th St. NE to 136th St NE	3,038	4,221	7,682	14,941
A	JP-2	51st Av. NE	136th St NE to 152nd St NE	1,508	1,936	3,814	7,259
A	NR-2	51st Av. NE	84th St. NE to 88th St. NE	458	1,482	1,158	3,098
A	AO/C-4	51st Av. NE	88th St NE to 108th St NE	1,973	3,530	4,989	10,493
A	JP-1	51st Ave NE	152nd St NE to SR 531	1,989	2,423	5,028	9,439
A	AO-3	88th St. NE	Marysville C/L (44th Dr. NE) to Marysville C/L (61st Dr. NE)	1,641	4,304	4,150	10,094
B	AO/C-9	20th St. SE	91st Ave SE to 99th Ave SE	3,201	4,540	8,093	15,834
B	AO/C-10	20th St. SE	99th Ave SE to S. Lake Stevens Rd	1,014	1,397	2,565	4,976
B	AO/C-8	20th St. SE	Cavalero Rd to 91st Ave SE	2,835	1,729	7,169	11,733
B	NR-4	Granite Falls Alternate Route	Mountain Loop Hwy to SR 92	2,031	4,841	5,134	12,006
C	AO-15	Airport Way	SR 9 to 99th Ave SE	1,066	1,055	2,696	4,817
C	AC-8	Airport Way	99th Ave SE to Bridge #1	804	2,000	2,034	4,838
D	AC-10	112th St. SW/ Beverly Park Rd Corridor	SR 525 to Airport Rd	2,939	3,636	7,432	14,008

Critical Arterial System Improvements

TSA	Proj #	Road Name	Project Limits (From-To)	Engineering	+ R/W	+ Construction	= Total Cost
D	AO/C-14	148th St SW	35th Ave W to Jefferson Way	1,624	2,381	4,106	8,112
D	NR-6	148th Street SW	Jefferson Way to Meadow Rd	9,360	6,173	23,668	39,201
D	AO/C-16	180th Street SE	SR 527 to Brook Blvd.	624	1,651	1,578	3,853
D	AC-25	35th Ave. SE	Seattle Hill Rd to 162nd St. SE	346	474	876	1,697
D	AC-17	36th / 35th Av. West	164th St. SW to 156th St. SW	843	1,426	2,131	4,400
D	AO/C-12	Ash Way	Gibson Rd to 164th St SW	4,921	9,883	12,443	27,247
D	AC-9	Beverly Park Road	Airport Rd. to 112th St. SW	315	357	795	1,467
D	AC-20	North Road	176th Pl. SW to 164th St. SW	1,442	441	3,645	5,528
D	NR-8	Puget Park Dr. Extension	67th Ave SE to Cathcart Way	1,051	950	2,657	4,658
D	AC-23	Seattle Hill Road	35th Av. SE to 132nd St. SE (SR 96)	2,877	3,615	7,276	13,768
D/E	AC-26	35th Ave. SE	162nd St. SE to 180th St SE	2,214	3,371	5,597	11,181
D/E	AC-27	35th Ave. SE	180th St. SE to 188th St. SE	1,040	907	2,631	4,578
D/F	AC-21	North Rd	SR 524 to 176th Pl. SW	1,754	2,139	4,434	8,327
E	AS-39a	169th St. SE	35th Ave SE to Sunset Rd	684	568	1,730	2,982
E	AC-38	Snohomish-Woodinville Rd.	SR 522 to King County Line	837	1,828	2,118	4,783
E/F	AC-30	35th Ave. SE	188th St SE to 198th Pl. SE	1,132	2,126	2,861	6,119
E/F	AC-32	39th Ave. SE	228th St. SE to 207th St. SE	2,747	4,378	6,945	14,069
E/F	JP-7	39th Ave. SE	240th St. SE to 228th St. SE	819	1,457	2,071	4,346
E/F	AC-31	39th Ave. SE (York Rd.)	204th St. SE (SR 524) to 198th Pl. SE	750	1,494	1,895	4,139
F	AO-32	14th Ave. W/Carter Rd	220th St SW to 240th St SW	1,944	4,878	4,916	11,738

Critical Arterial System Improvements

TSA	Proj #	Road Name	Project Limits (From-To)	Engineering	+ R/W	+ Construction	= Total Cost
F	NR-14	14th Avenue W Extension	Locust Way to 220th St SW	897	1,379	2,268	4,544
F	AO-31	Locust Way	Larch Way to 14th Ave W Extension	465	1,185	1,176	2,826
F	AO-33	Locust Way/Lockwood Rd/ Carter Rd	King County Line to 240th St SW	1,718	4,528	4,344	10,589
F	AC-39	Poplar Way	Lynnwood C/L to Larch Way	1,485	2,365	3,755	7,605
			Improvement Category Total	**69,027**	**101,393**	**174,538**	**344,958**
			Cumulative Total	**69,027**	**101,393**	**174,538**	**344,958**

Arterial Level of Service Improvements

TSA	Proj #	Road Name	Project Limits (From-To)	Engineering	+ R/W	+ Construction	= Total Cost
A	AC-2	100th St. NE	51st Av. NE to 67th Av. NE	1,810	2,495	4,577	8,883
A	AO/C-2	34th Ave NE	116th St NE to 136th St NE	2,099	1,173	5,306	8,577
A	AS-11	67th Av. NE	108th St. NE to 152nd St NE	7,648	4,375	19,337	31,360
A	AC-3	67th Ave NE	Marysville C/L to 108th St. NE	1,739	2,596	4,397	8,731
A	AS-13	83rd Av NE	Soper Hill Rd to SR 528	3,238	4,256	8,187	15,680
A	AS-15	Marine Dr. NW	64th St. NW to 83rd Pl. NW	2,598	2,082	6,568	11,248
A	AS-16	Marine Dr. NW	7th Dr. NW to 64th St. NW	1,598	968	4,040	6,606
A	AC-1	Shoultes Road/100th St NE	State Av. to 108th St. NE	1,151	3,180	2,912	7,243
A	AO-1	Smokey Point Blvd.	UGA Boundary to SR 530	2,277	1,251	5,757	9,284
B	AS-17	20th St. NE (Lakeview Drive)	Lundeen Parkway to Lake Stevens C/L	803	2,044	2,031	4,878
B	AO/C-7	20th St. SE	US 2 to Cavalero Rd	813	440	2,056	3,309

Arterial Level of Service Improvements

TSA	Proj #	Road Name	Project Limits (From-To)	Engineering	+ R/W	+ Construction	= Total Cost
B	AO/C-5	Lundeen Parkway	SR-9 to 99th Ave. NE	1,653	914	4,179	6,746
B	AC-6	South Lake Stevens Road	20th St. SE to S Davies Rd	920	954	2,327	4,201
B	AO-11	South Lake Stevens Road	S Davies Rd to E Lake Stevens Rd	1,233	1,406	3,118	5,758
B	AC-5	Vernon Road	Davies Rd to SR-9	524	1,265	1,326	3,115
C	AS-31	Broadway Ave	164th St SE to SR-9	2,972	2,083	7,516	12,571
C	AO-14	Marsh Rd	Lowell-Larimer Rd. to SR-9	2,672	1,973	6,757	11,402
C	AO-16	Springhetti Road	Broadway Ave to Airport Way	2,804	2,136	7,090	12,030
D	AC-22	116th Street SE	Everett C/L to 35th Avenue SE	1,165	2,954	2,946	7,065
D	AO/C-15	148th Street SE	Seattle Hill Rd to Power Line Easmt	970	1,431	2,453	4,854
D	AC-29	180th Street SE	25th to 35th Avenue SE	1,293	1,466	3,269	6,028
D	AC-28	180th Street SE	Brook Blvd. to 25th Avenue SE	659	647	1,667	2,973
D	AC-19	28th Ave. W	164th St. SW to SR 525 Off-Ramp	1,148	2,119	2,902	6,168
D	AC-16	36th / 35th Av. West	156th St SW to 148th St SW	648	1,146	1,640	3,434
D	AC-11	4th Avenue W.	112th Street SW to Everett C/L	785	2,197	1,984	4,966
D	AC-15	52nd Avenue W.	Lynnwood C/L to Beverly Park Rd	1,888	4,582	4,775	11,245
D	AO/C-13	Ash Way	164th St SW to Maple Rd	3,311	3,622	8,373	15,307
D	AC-14	Beverly Park Road	52nd Av.W to Picnic Pt Rd./ Shelby Rd.	890	1,573	2,249	4,712
D	AC-12	E Gibson Rd	Ash Way to Airport Rd/128th St SW	372	98	939	1,409
D	AC-13	Gibson Rd	SR-99 to Ash Way	1,370	1,758	3,463	6,591
D	AS-33	Manor Way	Jefferson Way to 148th St SW	1,495	3,104	3,781	8,379

Arterial Level of Service Improvements

TSA	Proj #	Road Name	Project Limits (From-To)	Engineering	+ R/W	+ Construction	= Total Cost
D	AO-18	Manor Way	SR 99 to Jefferson Way	1,034	3,640	2,614	7,288
D	AO-22	Meridian Ave S/130th St SE/ 3rd Ave SE	Meadow Pl SW to SR 96 (128th St)	1,073	1,884	2,712	5,668
D/F	AS-34	178th St SW/Maple Rd	Larch Way to Ash Way	2,487	3,139	6,288	11,914
E	AC-33	180th Street SE	35th Ave. SE to 51st Ave. SE	2,321	2,756	5,870	10,947
E	AC-34	180th Street SE	51st Ave. SE to Snohomish Ave.	2,254	1,831	5,700	9,785
E	AS-40	180th Street SE	83rd Ave. SE to Broadway Ave.	750	498	1,898	3,146
E	AO/C-17	180th Street SE	Snohomish Ave. to 83rd Ave. SE	1,383	1,340	3,497	6,220
E	AC-36	228th Street SE	39th to 45th Avenue SE	661	202	1,671	2,533
E	AC-37	228th Street SE	45th Avenue SE to SR 9	1,977	917	4,999	7,893
E	AO-25	Bostian Rd/224th St SE/75th Ave SE	Paradise Lake Rd to King County Line	3,242	3,888	8,196	15,326
E	AC-35	Paradise Lake Rd	SR 522 to UGA Boundary	630	152	1,592	2,374
F	AO-27	Damson Rd/N Damson Rd	SR 524 to Logan Rd	1,917	3,559	4,847	10,323
F	AO-28	Larch Way	212th St SW to Cypress Way	2,384	4,122	6,027	12,533
F	AO-29	Larch Way	Cypress Way to Locust Way	416	674	1,052	2,142
F	AO-30	Logan Rd	Locust Way to Damson Rd	747	2,339	1,888	4,974
			Improvement Category Total	**77,820**	**93,227**	**196,772**	**367,819**
			Cumulative Total	**146,847**	**194,620**	**371,309**	**712,776**

Arterial System Enhancements

TSA	Proj #	Road Name	Project Limits (From-To)	Engineering	+ R/W	+ Construction	= Total Cost
A	AO-2	108th St. NE	67th Av. NE to SR 9	1,994	1,386	5,042	8,421
A	AS-12	108th St. NE	Shoultes Rd to 67th Ave NE	1,892	3,591	4,783	10,265
A	AS-10	152nd St NE	Marysville C/L to 67th Ave NE	2,520	3,511	6,371	12,402
A	AS-7	156th St NE	19th Av NE to 23rd Av NE	277	262	701	1,240
A	AS-6	19th Av. NE	SR 531 to 156th St NE	1,211	1,345	3,061	5,616
A	AS-3	212th St NE/Tveit Rd	Arlington C/L to 95th Ave NE Extension	386	461	977	1,825
A	AS-8	23rd Av. NE	156th St NE to 140th St NE	1,762	1,247	4,456	7,465
A	NR-18	35th St NE	SR 9/SR 92 intersection to 83rd Ave NE	930	2,859	2,353	6,142
A	AS-49	44th St NE	Marysville C/L to 83rd Ave NE	818	1,076	2,069	3,964
A	JP-3	67th Av. NE	152nd St NE to SR-531	1,944	1,536	4,917	8,397
A	NR-1	68th Ave NW Extension	280th St NW to Woodland Rd	729	1,530	1,844	4,104
A	AS-48	71st Av. NE	Sunnyside Blvd/Soper Hill Rd. to 44th St. NE	1,338	1,973	3,384	6,695
A	AS-2	80th Av NW	Stanwood C/L (284th St NW) to UGA Line	827	1,715	2,092	4,633
A	AS-47	95th Ave NE	Burn Rd to 200th St NE	705	654	1,782	3,140
A	NR-15	95th Ave NE Extension	200th St NE to 212th St NE/ Tveit Rd	1,466	2,328	3,708	7,503
A	AS-50	E Sunnyside School Rd	83rd Ave NE to SR 9	1,015	789	2,566	4,369
A	AS-5	Forty Five Rd	SR 531 to 23rd Av NE	3,313	2,928	8,377	14,618
A	AS-1	Old Pacific Highway	Stanwood C/L to Pioneer Highway	3,353	3,349	8,479	15,181
A	AS-14	Sunnyside Boulevard	Marysville C/L to 71st Ave. NE	1,670	1,707	4,223	7,600

Arterial System Enhancements

TSA	Proj #	Road Name	Project Limits (From-To)	Engineering	+ R/W	+ Construction	= Total Cost
A	AS-4	Woodland Road/64th Ave NW	SR 532 to Stanwood C/L	1,508	2,004	3,813	7,325
B	AS-25	103rd Ave. SE	S. Lake Stevens Rd. to 32nd St.SE	1,016	1,935	2,569	5,519
B	NR-20	12th St. SE	79th to 83rd Ave. SE	487	879	1,232	2,598
B	AO/C-11	20th St SE	S. Lake Stevens Rd. to Williams Rd	2,365	3,977	5,981	12,323
B	NR-24	24th St SE Extension	79th Ave SE to SR 9	1,912	2,792	4,835	9,539
B	AS-28	4th St. SE	81st to 83rd Ave. SE	146	375	369	890
B	NR-19	4th St. SE Extension	easterly terminus to 91st Ave. SE	543	1,257	1,374	3,174
B	AS-20	4th Street NE	92nd Av. NE to 99th Av. NE	375	1,523	947	2,845
B	AS-22	4th Street SE	SR 9 to 99th Av. SE	404	789	1,021	2,213
B	NR-21	79th Ave SE Extension	20th St SE to 24th St SE Extension	447	727	1,130	2,305
B	AO-9	79th Ave. SE	20th St. SE to 8th St. SE	1,338	2,045	3,384	6,768
B	NR-3	79th Ave. SE/4th St SE/81st Ave. SE	8th St. SE to SR 204	811	2,326	2,051	5,188
B	NR-22	83rd Ave SE Extension	20th St SE to 24th St SE Extension	447	709	1,130	2,287
B	AS-26	83rd Ave. SE	20th St.SE to 4th St. SE	1,501	2,404	3,795	7,700
B	AS-27	8th St. SE	79th Ave. SE to 91st Ave. SE	1,185	1,794	2,996	5,974
B	AO-8	91st Av. SE	20th St. SE to Market Pl.	2,200	3,968	5,564	11,732
B	AO/C-6	91st Ave. NE/SE	Market Place to Vernon Rd	624	2,025	1,579	4,228
B	NR-23	91st Ave. SE Extension	20th St SE to S Lake Stevens Rd	1,242	1,633	3,141	6,016
B	AS-19	92nd Av. NE	SR 204 to 4th St. NE	439	404	1,110	1,954

Arterial System Enhancements

TSA	Proj #	Road Name	Project Limits (From-To)	Engineering	+ R/W	+ Construction	= Total Cost
B	AO-13	99th Av. NE	4th St. NE to Chapel Hill Rd	680	1,076	1,719	3,475
B	AO-12	99th Ave SE	20th St SE to Chapel Hill Rd	2,200	3,207	5,564	10,971
B	AO-6	Callow Road	SR 92 to Lake View Drive	1,205	3,186	3,047	7,438
B	AS-21	Chapel Hill Road	Davies Rd. to 99th Av. SE	953	1,617	2,409	4,979
B	AS-23	Machias Cut-off	S. Lake Stevens Rd to 123rd Ave. SE	955	1,052	2,415	4,422
B	AO-4	Soper Hill Rd	SR 9 to 71st Ave. NE	2,302	2,024	5,820	10,145
B	AO-5	Soper Hill Road	SR 9 to Lundeen Parkway	1,008	2,457	2,549	6,014
B	AO-10	South Lake Stevens Road	SR 9 to 20th St. SE	997	1,463	2,520	4,980
B	AS-18	Vernon Road	Lundeen Park Way to Davies Rd.	1,409	4,580	3,563	9,551
B	AO-7	Vernon Road	SR 9 to Lundeen Parkway	1,166	2,543	2,948	6,658
B	AS-24	Williams Road	20th St SE to Machias Cutoff	779	1,054	1,970	3,804
C	AS-29	107th Av SE (Park Av)	56th St SE to Snohomish C/L	300	489	757	1,546
C	AS-54	164th St SE/419th Ave SE	Gold Bar C/L (415th Ave SE) to northern terminus of 419th Ave SE	767	973	1,939	3,678
C	AS-32	179th Av SE/ Robinhood Lane	SR 2 to Trombley Rd	2,614	4,061	6,610	13,284
C	AS-53	339th Ave SE	Sultan C/L to 132nd St SE	517	624	1,308	2,449
C	NR-25	419th Ave SE Extension	northern terminus to May Creek Rd	974	1,324	2,463	4,761
C	JP-6	56th St SE	Bickford Av to 107th Av SE (Park Av)	1,017	3,071	2,572	6,660
C	AS-30	88th St. SE/92nd St. SE	EB SR 2 On/Off Ramps to Snohomish C/L	735	1,029	1,859	3,623
C	AC-7	Bickford Avenue	US 2 to Snohomish C/L	1,501	1,180	3,795	6,475

Arterial System Enhancements

TSA	Proj #	Road Name	Project Limits (From-To)	Engineering	+ R/W	+ Construction	= Total Cost
C	AS-55	May Creek Rd	Gold Bar C/L to 419th Ave SE Extension	921	741	2,328	3,990
C	JP-5	Old Owen Road	US 2 to Calhoun Rd	432	910	1,093	2,436
C	AS-9	Roosevelt Road	Monroe C/L to Trombley Rd	2,089	2,343	5,283	9,715
D	AS-36	146th Street SE/SW	Meadow Rd to Cascadian Way	683	1,366	1,727	3,777
D	NR-26	156th St SE Extension	terminus of 156th St SE to Silver Firs Dr	678	1,124	1,713	3,515
D	AS-37	156th Street SE	35th Avenue SE to easterly terminus	2,022	3,216	5,113	10,352
D	AC-24	41st Avenue SE	148th to 156th Street SE	959	2,374	2,425	5,759
D	NR-7	50th Drive SE	156th St. SE to 152nd Place SE	395	238	999	1,632
D	AO-17	Admiralty Way	Manor Way to Airport Rd	928	1,920	2,346	5,194
D	AO-21	Elgin Way/10th Dr SE/Silver Lk Rd	SR 96 to Everett C/L	1,348	2,571	3,408	7,327
D	AO-19	Lincoln Way	Beverly Park Rd to Admiralty Way	1,602	4,892	4,050	10,543
D	NR-5	Lincoln Way	Admiralty Way to Manor Way	254	1,723	643	2,621
D	AO-20	Manor Way	156th St. SW to 148th St. SW	833	2,813	2,106	5,752
D	AC-18	Manor Way	156th St SW to 164th St SW	999	2,493	2,527	6,019
D	AS-35	Meadow Pl SE/ Cascadian Way/ 155th St SE/2nd Pl W/North Rd	Meridian Ave S to 164th St SE	3,271	6,863	8,270	18,404
D	AO-23	Meadow Rd/Meadow Pl. SW	164th St. SW to Meridian Av. S	2,844	6,433	7,192	16,469
D	NR-27	SR 9/East Lowell-Larimer Connector	SR 9 to East Lowell-Larimer Road	1,770	3,408	4,477	9,655
D/E	AS-38	Sunset Road	180th Street SE to 156th Street SE	2,442	2,784	6,175	11,401
D/F	AS-56	196th St SE/Grannis Rd	SR 527 to 35th Av SE	1,889	4,353	4,776	11,017

Arterial System Enhancements

TSA	Proj #	Road Name	Project Limits (From-To)	Engineering	+ R/W	+ Construction	= Total Cost
E	AS-39b	169th St. SE/W Interurban Blvd	Sunset Road to 51st Ave SE	1,085	900	2,743	4,728
E	NR-11	188th St SE	125 feet west of 37th Dr SE to 51st Ave SE	1,574	2,626	3,979	8,179
E	NR-12	194th St SE	35th Ave SE to 51st Ave SE	2,045	6,925	5,171	14,141
E	AS-43	212th St SE	39th Ave SE to 45th Ave SE	547	761	1,382	2,689
E	AO-24	240th St SE	Snohomish-Woodinville Rd to 75th Ave SE	2,061	1,519	5,211	8,790
E	AS-45	240th St. SE/47th Ave SE	45th Ave SE to King County Line	534	557	1,349	2,440
E	AS-41	43rd Ave SE	188th St SE to 196th St SE	719	560	1,818	3,097
E	AS-42	43rd Ave SE	200th St SE to SR 524	539	281	1,363	2,183
E	NR-10	43rd Ave SE	196th St SE to 200th St SE	465	285	1,176	1,926
E	NR-9	43rd Ave SE Extension	180th St SE to 188th St SE	1,094	1,247	2,765	5,106
E	AS-44	45th Ave. SE	212th St SE to 240th St SE	2,531	4,068	6,400	12,999
E	AS-57	51st Ave SE	W Interurban Blvd to 196th St SE	2,673	1,290	6,759	10,722
E	NR-28	51st Ave SE Extension	196th St SE to SR 524	1,546	1,510	3,908	6,964
E	AS-46	Echo Lake Rd/131st Ave SE	SR 522 to King County Line	3,923	2,681	9,920	16,524
F	AC-40	Cypress Way	Larch Way to SR 524	1,359	3,612	3,436	8,406
F	AO-26	Locust Way	SR 524 to Larch Way	2,213	4,938	5,596	12,748
			Improvement Category Total	**120,488**	**191,145**	**304,658**	**616,291**
			Cumulative Total	**267,335**	**385,765**	**675,968**	**1,329,067**

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APPENDIX B

Summary of State Projects within Snohomish County

Appendix B details projects that are consistent with the constrained plan component of the Transportation 2040 investments project list and are used in support of the county's comprehensive plan. These projects seek to provide roadway improvements that involve the addition of interchanges, freeway lane capacity and capacity enhancements to state highways within Snohomish County. The projects presented in Appendix B would improve the capacity and operations for highways designated as HSS (highways of statewide significance) and non-HSS (regionally significant state highways).

Key to project listing columns

COLUMN	DESCRIPTION
Title	Investment title, usually with the facility name first.
Project Limits (From - To)	The starting location for a project to the ending location of a project
Description	Description of the project outcomes
Sponsor	Agency that will take the lead in implementation
T2040 Status	The Planning Status of the project
T2040 Completion Date	The year in which the sponsor expects the project to be completed.

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Appendix B – Transportation 2040 - State Route Investments

Summary of State Projects Within Snohomish County

State Projects

Title	Project Limits (From-To)	Description	Sponsor	T2040 Status	T2040 Completion Date
US 2: Trestle Widening - Stage 1	I-5 to SR 204	Build a new westbound US-2 structure over Ebey Slough for the future configuration of 2 general purpose lanes and 1 HOV lane. Realign the westbound SR 204 to westbound US-2 on-ramp utilizing the new westbound structure, improving the weaving conditions for the interchange.	WSDOT	Candidate	2020
US 2: Monroe Bypass - phase 1	North of the SR 522 I/C- to	Construct a two lane SR 522 extension to the north and terminate at Chain Lake Road that connects to the local street system	WSDOT	Candidate	2020
US 2: Monroe Bypass - phase 2 & 3	(West of) SR 522 to Monroe east City limits	Construct a four- lane, limited access bypass around Monroe on new alignment to the north of the city. This project could be constructed in two stages.	WSDOT	Candidate	2020
I-5 HOV to HOT lane Conversion: I-405 to US 2	I-405 to US 2	Convert HOV lanes to HOT lanes. Assume existing HOV conversion and shoulder for dual HOT lanes. Cost does not include shoulder prep.	WSDOT	Candidate	2015

State Projects

Title	Project Limits (From-To)	Description	Sponsor	T2040 Status	T2040 Completion Date
I-5: 220th St. SW to 44th Ave W	220th St SW to 44th Ave W	Construct a northbound auxiliary lane.	WSDOT	Candidate	2025
I-5/44th Avenue Interchange improvements	196th St SW to 220th St W	Completion of existing half diamond interchange by adding access to the north. Project includes two braided ramps.	Lynnwood	Candidate	2020
I-5 @ 196th St (SR 524) interchange Nortbound Braided Ramp project	I-5 @ 196th St	This project adds a braided ramp NB at the I-5/ 196th St I/C	WSDOT	Candidate	2030
I-5 @ SR 96 /128th St SW	SR 96/128th St. SW I/C	Reconstruct interchange. Current concept is for a SPUI	WSDOT	Candidate	2035
I-5 @ 100th and Everett Mall: South Everett interchange improvement	SR 527/South Broadway I/C to SB I-5; 7th Avenue SE	Construct a new crossing under I-5 at 100th St and provide NB and SB HOV access south of SR 526/SR527/South Broadway interchange. This entails a new on-ramp from NB ever mall way to SB I-5 Undercrossing at 100th St. SE which terminates at E side of freeway. This involves an arterial under I-5 then surface on W side of I-5. Those arterial improvements extend on that side up to 7th. NB Everett mall way to SB I-5 (on collector distributor on W side of I-5) starts from 526 to SB I-5 - on ramp traffic will connect	WSDOT	Candidate	2030

State Projects

Title	Project Limits (From-To)	Description	Sponsor	T2040 Status	T2040 Completion Date
I-5 @ 41st Street I/C access improvement	Colby to 3rd Ave	41st St Interchange improvement, improvement of arterial approaches and connections	Everett	Candidate	2009
I-5 @ 88th St. N interchange	I-5 @ 88th Street NE I/C	Reconstruct interchange to a SPUI configuration	WSDOT	Candidate	2015
I-5 @ 116th ST NE interchange improvements	5429 I-5 (at 116th ST NE Interchange)	Reconstructs an existing diamond interchange into a Single Point Urban Interchange with greater capacity (more lanes on the ramps and on 116th ST NE across I-5) and less delay for improved mobility and increased safety	Tulalip Tribes	Candidate	2015
SR 9 Widening: 212th St. SE to 176th St. SE	212 St SE to 176th St SE	Widen SR 9 to 4/5 lanes	WSDOT	Approved	2015
SR 9 Widening: SR 522 to 212th st SE	SR 522 to 212th	Widen SR 9 to 4/5 lanes	WSDOT	Approved	2011
SR 9	176th St SE to SR 96	Widen to four/ five lanes.	WSDOT	Candidate	2030
SR 9	Marsh Rd to Sno River bridge	Widen to 4 lanes and intersection improvements at Marsh Road	WSDOT	Candidate	2030
SR 9 Snohomish River Bridge	Sno River bridge	Replace bridge with new 4-lane bridge across river. Also, new 4-lane overflow bridge south of Snohomish River with ramp and interchange improvements.	WSDOT	Candidate	2030
SR 9	Sno bridge to US 2	Widen to 4 lanes and intersection improvements	WSDOT	Candidate	2030

State Projects

Title	Project Limits (From-To)	Description	Sponsor	T2040 Status	T2040 Completion Date
SR 9/US 2 interchange	SR 9 @ US 2	Reconstruct the SR 9/US 2 I/C	WSDOT	Candidate	2030
SR 9	US 2 to Market PL	Widen to 4/5 lanes from US-2 to Lake Stevens Road	WSDOT	Candidate	2035
SR 9/ SR 204 intersection improvement	SR 9 / SR 204 Intersection	Widen SR 9 for both northbound and southbound to provide one additional through lane at the SR 9/SR 204 intersection. A grade separated option is also being evaluated.	WSDOT	Candidate	2020
SR 9	Market PL to Lundeen	Add third NB and third SB through lanes	WSDOT	Candidate	2015
SR 9: Lundeen Pkwy to SR 92	Lundeen Parkway to SR 92	This project adds new northbound and southbound SR-9 through lanes, improves or adds the left and right turn lanes on northbound and southbound SR-9 as needed, adds a left turn lane and extends the right turn lane on SR 92, and upgrades illumination and signal systems at Lundeen Parkway, Soper Hill Rd and SR 92 intersections. The project will treat and detain new impervious stormwater runoff.	WSDOT	Approved	2013
SR 99/Evergreen Way. 148th st sw to airport rd	148th Street SW to Airport Road	Construct BAT lanes on Evergreen Way / Highway 99 from 148th Street SW to airport Road.		Candidate	2020
SR 99/Evergreen Way	115th Street to Airport Road	Widen Evergreen Way from 5 to 7 lanes, with curb, gutters and sidewalks and drainage improvements.	WSDOT	Candidate	2012

State Projects

Title	Project Limits (From-To)	Description	Sponsor	T2040 Status	T2040 Completion Date
I-405 Corridor: SR 522 to I-5 (widening between NE 195th St to SR 527)	NE 195th to SR 527	(a) Add 2 lanes NB and SB, except 1 lane NB between NE 195th St. and SR 527 where NB lane previously built, resulting in 5 lanes (1 HOV & 4 GP or 2 HOV & 3 GP) in each direction. Includes the 4 ft. managed lane buffer.	WSDOT	Candidate	2030
SR 522 @ Paradise Lake Road Interchange	Paradise Lake Road	Construct a new grade separated diamond interchange.	WSDOT	Candidate	2020
SR 522 @ Paradise Lake Road to Snohomish River - Widening	Paradise Lake Road to Snohomish River	Add two lanes converting a two lane highway to a four lane divided highway. Complete construction of the Fales/Echo Lake Interchange.	WSDOT	Candidate	2020
SR 522 (Nickel)	Snohomish River bridge to US 2	This project will widen SR 522 from the existing two lanes to four lanes with median separation from the Cathcart Road vicinity (Snohomish River Bridge) to US 2. The proposed action evaluated in this EA includes a new bridge across the Snohomish River, a wildlife crossing near milepost 22, improvements to the 164th St. SE (W Main St) interchange, and a new ramp connection and improvements to the US 2 interchange.	WSDOT	Approved	2020

State Projects

Title	Project Limits (From-To)	Description	Sponsor	T2040 Status	T2040 Completion Date
SR 524 (196th St SW) Widening	48th Ave W to 37th Ave W	Increase capacity of existing major east-west 5 lane arterial by increasing roadway section to 7 lanes, curb, gutter and sidewalk (12 feet). The City of Lynnwood is proposing BAT lanes on this corridor but this is still subject to public process.	Lynnwood	Candidate	2012
SR 524	24th Ave to SR 527	Widen to five lanes adding two general purpose lanes and a wo-way-left-turn-lane.	WSDOT	Approved	2015
SR 529 - Ebey Slough Bridge 529/25 Replacement	MP 6.21 to MP 6.35	This project will replace the existing Ebey Slough Bridge, 529/25, with a new fixed span structure and remove the existing bridge structure. The bridge will be widened from two to four lanes to match the four-lane roadway sections immediately before and after the bridge.	WSDOT	Approved	2010
SR 529 Interchange	SR 529 to I-5	Complete the current half interchange by constructing a new Interstate 5 northbound off-ramp onto SR 529 and new southbound on-ramps from SR 529 to Interstate 5	Marysville	Candidate	2018
SR 531	43rd Ave to SR 9	Four-lane widening with intersection improvements	WSDOT	Candidate	2030

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((~~APPENDIX C~~

~~Summary of Costs for County Road Projects~~

~~Alternative Design of~~
~~Arterial Level of Service Improvements~~

~~Appendix C summarizes estimated costs for the alternative design of the recommended ALOSI projects. As noted in Chapter IV, alternative design implies intersection and localized operation improvements to maintain LOS. Costs for improvement to full-design standards are presented in Appendix B.~~

~~The costs presented within Appendix C represent "planning-level" cost estimates for proposed projects. Project cost estimates are not based on detailed engineering designs. Costs are in 2005 adjusted dollars.~~

~~A separate intersection cost model from that described previously under Section IV.B.2 was developed to estimate the cost of stand-alone intersection projects (i.e. alternative design). Items considered in the intersection cost model include traffic signals; major intersection realignment (if needed); turn pockets; drainage/detention; acquisition of additional right of way; preliminary and construction engineering; and contractor mobilization. Key intersections were identified for each ALOSI project and a determination was made whether the intersection will likely need a major, minor, or very minor improvement. Based on a generalization of the intersection cost model, costs for major, minor, and very minor intersection improvements were estimated at $2 million, $1 million, and $500,000, respectively. Where key-intersection improvements were not relevant, improvement costs were estimated at $500,000. Improvement costs were then converted into 2005 adjusted dollars.~~

~~For each project Appendix C shows the road name, project limits, key intersections (intersecting roadways), improvement category, staging, and cost in 2005 adjusted dollars. Improvement categories include major, minor, and very minor intersection improvements and non-key-intersection improvements. Staging dates include short-range (S), medium-range (M), and long-range (L); which imply improvements could be in place by 2012, 2018, and 2025, respectively. Costs are shown for each key intersection and the entire arterial project. Short-range costs (2005-2012) and long-range costs (2013-2025) are also shown.~~

~~As shown at the end of Appendix C, the total cost for intersection improvements for the alternative design of ALOSI projects is $127 million for the 2005-2025 timeframe. An additional $38 million would be needed to cover the cost of two-way left-turn lanes between key intersections, which are needed for some ALOSI projects. This brings the total cost for the alternative design of ALOSI projects to $165 million. Approximately $47 million of this $165 million will be covered by the county's traffic operations and safety program expenditures, thus reducing the cost for the alternative design of ALOSI projects to $118 million for the 2005-2025 timeframe.~~

Appendix C

Summary of Costs for County Road Projects
Alternative Design of Arterial Level of Service Improvements

2005 Adjusted Dollars (thousands)

Arterial Project Project Limits	Intersecting Roadway	Improvement Category	Staging	Short Range 2005-2012	Long Range 2013-2025	Project Cost
34th Avenue NE 116th Street NE to 136th Street NE	116th Street NE	Major Improvement	S	$2,262,000	$0	$2,262,000
			Arterial Total	**$2,262,000**	**$0**	**$2,262,000**
67th Avenue NE 108th Street NE to 152nd Street NE	132nd Street NE	Major Improvement	L		$2,936,000	$2,936,000
	152nd Street NE	Major Improvement	L		$2,936,000	$2,936,000
			Arterial Total	**$0**	**$5,872,000**	**$5,872,000**
67th Avenue NE Marysville C/L to 108th Street NE	108th Street NE	Major Improvement	S	$2,262,000	$0	$2,262,000
	100th Street NE	Major Improvement	S	$2,262,000	$0	$2,262,000
			Arterial Total	**$4,524,000**	**$0**	**$4,524,000**
83rd Avenue NE Soper Hill Road to SR 528	Soper Hill Road	Minor Improvement	L	-	$1,468,000	$1,468,000
	44th Street NE	Minor Improvement	L		$1,468,000	$1,468,000
	E. Sunnyside School Road	Minor Improvement	L		$1,468,000	$1,468,000
	60th Street NE	Minor Improvement	L		$1,468,000	$1,468,000
			Arterial Total	**$0**	**$5,872,000**	**$5,872,000**
100th Street NE 51st Avenue NE to 67th Avenue NE		No Key Intersection	M		$635,000	$635,000
			Arterial Total	**$0**	**$635,000**	**$635,000**
Marine Drive NW 64th Street NW to 83rd Place NW		No Key Intersection	L		$734,000	$734,000
			Arterial Total	**$0**	**$734,000**	**$734,000**

Arterial Project Project Limits	Intersecting Roadway	Improvement Category	Staging	Short-Range 2005-2012	Long-Range 2013-2025	Project Cost
Marine Drive NW 7th Drive NW to 64th Street NW		No Key Intersection	M		$635,000	$635,000
			Arterial Total	**$0**	**$635,000**	**$635,000**
Shoultes Road/ 100th Street NE State Avenue to 108th Street NE		No Key Intersection	L		$734,000	$734,000
			Arterial Total	**$0**	**$734,000**	**$734,000**
Smokey Point Blvd. UGA Boundary to SR 530	200th Street NE	Major Improvement	L		$2,936,000	$2,936,000
	SR 530	Major Improvement	L		$2,936,000	$2,936,000
			Arterial Total	**$0**	**$5,872,000**	**$5,872,000**
20th Street NE (Lakeview Drive) Lundeen Parkway to Lake Stevens C/L	Callow Road	Minor Improvement	L		$1,468,000	$1,468,000
	Cedar Road	Major Improvement	L		$2,936,000	$2,936,000
			Arterial Total	**$0**	**$4,404,000**	**$4,404,000**
20th Street SE US 2 to Cavalero Road		Major Improvement	S	$3,309,306	-	$3,309,306
			Arterial Total	**$3,309,306**	**$0**	**$3,309,306**
Lundeen Parkway SR 9 to 99th Avenue SE	Vernon Road	Major Improvement	S	$2,262,000	$0	$2,262,000
	SR 9	Minor Improvement	S	$1,131,000	$0	$1,131,000
	99th Avenue NE	Minor Improvement	L	$0	$1,468,000	$1,468,000
			Arterial Total	**$3,393,000**	**$1,468,000**	**$4,861,000**
S. Lake Stevens Road S. Davies Road to E. Lake Stevens Road	Machias Cutoff	Minor Improvement	L	$0	$1,468,000	$1,468,000
			Arterial Total	**$0**	**$1,468,000**	**$1,468,000**
S. Lake Stevens Road 20th Street SE to S. Davies Road	S. Davies Road	Major Improvement	S	$2,262,000		$2,262,000
			Arterial Total	**$2,262,000**	**$0**	**$2,262,000**
Vernon Road Davies Road to SR 9	Davies Road	Major Improvement	L		$2,936,000	$2,936,000
			Arterial Total	**$0**	**$2,936,000**	**$2,936,000**

Arterial Project Project Limits	Intersecting Roadway	Improvement Category	Staging	Short-Range 2005-2012	Long-Range 2013-2025	Project Cost
Broadway Avenue 164th Street SE to SR 9	SR 9	Major Improvement	M	$0	$2,540,000	$2,540,000
	164th Street SE/ Elliot Road	Major Improvement	M	$0	$2,540,000	$2,540,000
			Arterial Total	**$0**	**$5,080,000**	**$5,080,000**
Marsh Road Lowell-Larimer Road to SR 9	Lowell-Larimer Road	Major Improvement	S	$2,262,000		$2,262,000
	Seattle Hill Road	Major Improvement	S	$2,262,000		$2,262,000
			Arterial Total	**$4,524,000**	**$0**	**$4,524,000**
Springhetti Road Broadway Avenue to Airport Way	Broadway	Major Improvement	M	$0	$2,540,000	$2,540,000
			Arterial Total	**$0**	**$2,540,000**	**$2,540,000**
4th Avenue W 112th Street SW to Everett C/L	108th Street SW	Major Improvement	S	$2,262,000		$2,262,000
	112th Street SW	Very Minor Improvement	S	$565,500		$565,500
			Arterial Total	**$2,827,500**	**$0**	**$2,827,500**
28th Avenue W 164th Street SW to SR 525 Off-Ramp	SR 525 On/Off-Ramps	Minor Improvement	S	$1,131,000		$1,131,000
			Arterial Total	**$1,131,000**	**$0**	**$1,131,000**
36th Avenue W / 35th Avenue W 156th Street SW to 148th Street SW		No Key Intersection	M		$635,000	$635,000
			Arterial Total	**$0**	**$635,000**	**$635,000**
52nd Avenue W Lynnwood C/L to Beverly Park Road	148th Street SW	Minor Improvement	M	$0	$1,270,000	$1,270,000
	Beverly Park Edmonds Road	Minor Improvement	M	$0	$1,270,000	$1,270,000
			Arterial Total	**$0**	**$2,540,000**	**$2,540,000**
116th Street SE Everett C/L to 35th Avenue SE	35th Avenue SE	Minor Improvement	L		$1,468,000	$1,468,000
			Arterial Total	**$0**	**$1,468,000**	**$1,468,000**
148th Street SE Seattle Hill Road to Power Line Easmt	Seattle Hill Road	Minor Improvement	L	$0	$1,468,000	$1,468,000
	41st Avenue SE	Minor Improvement	L	$0	$1,468,000	$1,468,000
			Arterial Total	**$0**	**$2,936,000**	**$2,936,000**

Arterial Project Project Limits	**Intersecting Roadway**	**Improvement Category**	**Staging**	**Short-Range 2005-2012**	**Long-Range 2013-2025**	**Project Cost**
178th Street SW/ Maple Road Larch Way to Ash Way	Larch Way	Major Improvement	L		$2,936,000	$2,936,000
			Arterial Total	**$0**	**$2,936,000**	**$2,936,000**
180th Street SE Brook Blvd. to 25th Avenue SE		No Key Intersection	S	$565,500		$565,500
			Arterial Total	**$565,500**	**$0**	**$565,500**
180th Street SE 25th to 35th Avenue SE	29th Drive SE	Very Minor Improvement	S	$565,500		$565,500
			Arterial Total	**$565,500**	**$0**	**$565,500**
180th Street SE 35th Avenue SE to 51st Avenue SE	Sunset Road	Major Improvement	L	$0	$2,936,000	$2,936,000
			Arterial Total	**$0**	**$2,936,000**	**$2,936,000**
180th Street SE 51st Avenue SE to Snohomish Avenue	Snohomish Avenue	Major Improvement	S	$2,262,000		$2,262,000
	Interurban Blvd.	Minor Improvement	S	$1,131,000		$1,131,000
			Arterial Total	**$3,393,000**	**$0**	**$3,393,000**
180th Street SE Snohomish Avenue to 83rd Avenue SE	SR 9	Minor Improvement	M	$0	$1,270,000	$1,270,000
	83rd Avenue SE	Minor Improvement	M	$0	$1,270,000	$1,270,000
			Arterial Total	**$0**	**$2,540,000**	**$2,540,000**
180th Street SE 83rd Avenue SE to Broadway Avenue	Broadway Avenue	Major Improvement	M	$0	$2,540,000	$2,540,000
			Arterial Total	**$0**	**$2,540,000**	**$2,540,000**
Ash Way 164th Street SW to Maple Road	177th Place SW/ Maple Road	Minor Improvement	M	$0	$1,270,000	$1,270,000
			Arterial Total	**$0**	**$1,270,000**	**$1,270,000**
Beverly Park Road 52nd Avenue W to Picnic Point Road/ Shelby Road	Shelby/Picnic Point Road	Minor Improvement	M		$1,270,000	$1,270,000
			Arterial Total	**$0**	**$1,270,000**	**$1,270,000**

Arterial Project Project Limits	Intersecting Roadway	Improvement Category	Staging	Short-Range 2005-2012	Long-Range 2013-2025	Project Cost
E. Gibson Road Ash Way to Airport Road/ 128th Street SW	Gibson Road/ Ash Way	Major Improvement	M	$0	$2,540,000	$2,540,000
	128th Street SW	Very Minor Improvement	M	$0	$635,000	$635,000
			Arterial Total	**$0**	**$3,175,000**	**$3,175,000**
Gibson Road SR 99 to Ash Way	SR 99	Major Improvement	L	$0	$2,936,000	$2,936,000
	Admiralty Way	Major Improvement	L	$0	$2,936,000	$2,936,000
			Arterial Total	**$0**	**$5,872,000**	**$5,872,000**
Manor Way SR 99 to Jefferson Way	Admiralty Way	Minor Improvement	L		$1,468,000	$1,468,000
			Arterial Total	**$0**	**$1,468,000**	**$1,468,000**
Manor Way Jefferson Way to 148th Street SW	148th Street SW	Major Improvement	L	$0	$2,936,000	$2,936,000
	Jefferson Way	Major Improvement	L	$0	$2,936,000	$2,936,000
			Arterial Total	**$0**	**$5,872,000**	**$5,872,000**
Meridian Avenue S./ 130th Street SE/ 3rd Avenue SE Meadow Place SW to SR 96 (128th Street SW)	Meadow Place SW	Major Improvement	M	$0	$2,540,000	$2,540,000
	3rd Avenue SE	Major Improvement	M	$0	$2,540,000	$2,540,000
			Arterial Total	**$0**	**$5,080,000**	**$5,080,000**
228th Street SE 39th to 45th Avenue SE		No Key Intersection	S	$565,500	$0	$565,500
			Arterial Total	**$565,500**	**$0**	**$565,500**
228th Street SE 45th Avenue SE to SR 9	SR 9	Minor Improvement	S	$1,131,000	$0	$1,131,000
			Arterial Total	**$1,131,000**	**$0**	**$1,131,000**
Bostian Road/ 224th Street SE/ 75th Avenue SE Paradise Lake Road to King County Line		No Key Intersection	L	$0	$734,000	$734,000
			Arterial Total	**$0**	**$734,000**	**$734,000**
Paradise Lake Road SR 522 to UGA Boundary		No Key Intersection	M	$0	$635,000	$635,000
			Arterial Total	**$0**	**$635,000**	**$635,000**

Arterial Project Project Limits	Intersecting Roadway	Improvement Category	Staging	Short-Range 2005-2012	Long-Range 2013-2025	Project Cost
Damson Road/N Damson Road SR 524 to Logan Road	Logan Road	Major Improvement	L	$0	$2,936,000	$2,936,000
	N. Damson Road	Major Improvement	L	$0	$2,936,000	$2,936,000
			Arterial Total	**$0**	**$5,872,000**	**$5,872,000**
Larch Way 212th Street SW to Cypress Way	Cypress Way (N. Leg)	Major Improvement	M	$0	$2,540,000	$2,540,000
	28th Avenue W.	Major Improvement	M	$0	$2,540,000	$2,540,000
	Larch Way	Major Improvement	M	$0	$2,540,000	$2,540,000
			Arterial Total	**$0**	**$7,620,000**	**$7,620,000**
Larch Way Cypress to Locust		No Key Intersection	M	$0	$635,000	$635,000
			Arterial Total	**$0**	**$635,000**	**$635,000**
Logan Road Locust Way to Damson Road		No Key Intersection	L	$0	$734,000	$734,000
			Arterial Total	**$0**	**$734,000**	**$734,000**
			Total for All Arterials	**$30,453,306**	**$97,018,000**	**$127,471,306**
					Two-Way Left-Turn Lanes Total	**$38,000,000**
					Total ALOSI	**$165,471,306**

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APPENDIX C

Supportive City Street Improvements

Various cities are proposing to enhance capacity and traffic flow on city streets by significantly widening lanes, adding through and/or turn lanes, adding walkways, improving positive guidance and implementing traffic control revisions. The primary intent of these improvements is to enhance existing street capacity in order to safely and efficiently handle existing and future traffic on city streets. A secondary benefit to Snohomish County is that many of these city street improvements will help handle traffic generated by the county's planned land use and the associated growth.

Appendix C presents various improvements to city streets to serve the city's planned land use and that are supportive of the county's comprehensive plan. The list of city projects was developed by selecting projects from the 2013-2018 Transportation Improvement Program (TIP) and long range transportation plans for each jurisdiction. The projects had to meet the criteria of having lane capacity expansions, new roads, or street extensions to be placed on the list. Appendix C also includes four tribal road improvement projects.

Key to project listing columns

COLUMN	DESCRIPTION
City	Name of jurisdiction
Project	The title of the project
From	The starting point of the project
To	The ending point of the project
Description	Details about the project

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Appendix C

Summary of City Projects Within Snohomish County

City Projects

City	Project	From	To	Description
Arlington	WSDOT - SR 531; 43rd Ave to 67th Ave	43rd Ave NE	67th Ave NE	Preliminary planning complete, working on design pending additional funding(Widen to 5 lanes in '08 TE) (4 lanes)
Arlington	WSDOT - SR 531: 67th Ave to SR 9	67th Ave NE	SR 9	Work with WSDOT on preliminary planning activities - widen to 4 lanes, 6' sidewalk on the south and an 8' nonmotorized path on the north connecting to the Centennial Trail at the intersection of 67th and SR 531
Arlington	Smokey Point Blvd 200th St NE to SR 530 PLANNING (Widen to 3 lanes)	200th St NE	SR 530	(See attached project map) Planning and coordination with West Arlington Plan to Determine Improvements (Widen to 3 lanes)
Arlington	Smokey Point Blvd 175th Pl to 200th St NE PLANNING (Widen to 5 Lanes 175th to 188th then 3 lanes 188th to 200th)	175th Pl	200th St NE	(See attached project map) Planning and coordination with West Arlington Plan to Determine Improvements (Widen to 5 Lanes 175th to 188th then 3 lanes 188th to 200th)
Arlington	Cemetery Rd – 47th Ave to 67th Ave	47th Ave	67th Ave	Widen to 3 lanes

City Projects

City	Project	From	To	Description
Arlington	Arlington Valley Road - 67th Ave NE to 204th St NE	67th Ave NE	204th St NE	New 3 lane industrial standard road connecting 67th Ave NE to 204th St NE. Low impact design
Arlington	Airport Blvd - Extend 51st Ave to 188th Street (PHASE I & II) (5lanes from South City limits to 176th where it curves NW) (3 lanes from 176th to 188th)	SR 531	188th St	(See attached project map) Seeking funding for Phase II. New Arterial extending from SR 531 North to 188th Street. (5 lanes from South City limits to 176th where it curves NW) (3 lanes from 176th to 188th)
Arlington	63rd Ave NE – SR 531 to 188th St NE	SR 531	188th St NE	Widen to 3 lanes
Arlington	59th Avenue NE – SR 531 to 195th	SR 531	195th st	Widen to 3 lanes
Arlington	59th Ave – 195th St to Cemetery Rd	195th St	Cemetery Rd	3 lane road extension (verify possibility with Airport)
Arlington	51st Avenue NE – SR 531 to 164th Street NE	SR 531	164th St NE	Widen to 3 lanes
Arlington	47th Ave NE - 188th St NE to Cemetery Rd	188th St NE	Cemetery Rd	Widen to 3 lanes
Arlington	43rd Ave – 172nd St to 162nd St	172nd St	162nd St	New 3 lane connection
Arlington	188th St NE – Smokey Point Blvd to 47th Ave	Smokey Point Blvd	47th Ave	Widen to 3 lanes
Arlington	188th St NE - 59th Ave NE to 67th Ave NE	59th Ave NE	67th Ave NE	Widen to 3 lanes
Arlington	186th St NE - SR 9 to City Limits	SR 9	City Limits	New 2 lane connection with sidewalks both sides. The total project estimate is $5M and was prepared by Snoh. County. The City's portion (SR 9 to CL) is $2M

City Projects

City	Project	From	To	Description
Arlington	180th St NE – 59th Ave NE to 67th Ave NE	59th Ave NE	67th Ave NE	Widen to 3 lanes
Arlington	172nd St NE - SR 9 to 91st Ave	SR 9	91st Ave	Widen to 3 lanes
Arlington	162nd St - Smokey Point Blvd to 63rd Ave	Smokey Point Blvd	63rd Ave	3 lanes road extension (ECON DEV)
Bothell	Bothell Way (Formerly SR 527) Widening: NE 188th Street SE to 240th Street SE	NE 188th St	240th St SE	Road widening to a 5 lane configuration with intermittent median landscaping where feasible. Due
Bothell	SR 527: SR 524 to I-405 SB Lane and Intersection Improvements	SR 524	I-405	Add a third southbound lane as well as provision for nonmotorized and access management enhancement along the corridor.
Bothell	Bothell Way (Formerly SR 527) Widening: 240th Street SE to 228th Street SE	240th Street SE	228th Street SE	Widen to 5 lanes
Bothell	228th Street widening from 19th Avenue SE to 39th Avenue SE	19th Ave SE	39th Ave SE	Additional lane eastbound, lane westbound, & center turn lane on 228th Street between 19th Avenue SE and 39th Avenue SE. (Total 5 lanes)

City Projects

City	Project	From	To	Description
Bothell	20th Ave SE Extension Feasibility Study (SR-524 to 214th) (2 lanes)	SR 524	214th St SE	Building a roadway with a collector designation to connect 20th Ave SE in the Canyon Park Business center north to the Maltby Road (SR 524). (2 lanes)
Bothell	35th Ave SE	240th St SE	228th St SE	Widen to 3 lanes
Edmonds	238th Street SW, SR104 - 84th Avenue W	SR 104	84th Ave W	Widen to three lanes with curb, gutter, and sidewalk (as per Pine Street Ferry Access Study)
Edmonds	228th Street SW, SR99 - 76th Avenue W	SR 99	76th Ave W	Construct connection of 228th Street SW between SR 99 and 76th Avenue W (Three lanes) lanes with curb, gutter, and sidewalk). Install traffic signal at 228th Street SW and SR 99. Install median on SR 99 to prohibit SB LT movements at 76th Ave W. SR 99.
Everett	US-2 Trestle widening from I-5 to SR 204	I-5	SR 204	Widen the Trestle to 3 lanes in each direction (2 GP & 1 HOV)
Everett	SR-527 widening: 112th to 132nd	112th St SE	132nd St SE	Widen to 5 lanes

City Projects

City	Project	From	To	Description
Everett	SR 526/ Hardeson Road Interchange			Only for Boeing peak direction (SEE ATTACHED DRAWING) (Half Diamond) WB off-ramp to 80th St SW & EB on-ramp lanes - one from Hardeson Rd & another one from W Casino Rd
Everett	South Broadway: SR 526 to 41st Street	SR 526	41st St	Adds capacity by adding additional lanes from current 2 to a 3 lane configuration with improved LT handling at key intersections. Adds bike lanes and sidewalks for nonmotorized capacity.
Everett	SE Everett Mall Way (SR 99 to SR 526)	SR 99	SR 526	Adds Capacity by extending a NB RT pocket into a full length auxiliary lane.
Everett	Riverfront (Simpson) Site Access Improvements (Street) (2 new lanes)			(See attached project map) New access and capacity to mixed use development site. (This is the main access to the Riverfront Development site.) 2 new lanes
Everett	East Marine View Dr.: I-5 to Broadway	I-5	Broadway	Project Complete; added lane capacity, improved truck access and nonmotorized capacity. Already completed, increased from 2 lanes to: 3 lanes north of 16th and 4 lanes south of 16th

City Projects

City	Project	From	To	Description
Everett	Chestnut St. /Eclipse Mill Road. Improvements (Pacific to 36th)	Pacific Ave.	36th Street	(See attached project map) Conversion of informal gravel access road to full design collector street. (2 lanes)Provides lane capacity (2 new lanes)to new development site. (This is the north end access to the Riverfront Development site.)
Everett	Broadway Corridor Improvements (SR 529 to SR 526)	SR 529	SR 526	Would add capacity by adding lanes, going from 2 to a 3 lane configuration and adding LT lanes at key intersections. Adds nonmotorized capacity by providing facilities for peds and bikes.
Everett	41st Over BNSF to Riverfront / Simpson	East of Smith Ave	Riverfront	Project Complete; Added to capacity to serve development. Added 2 new lanes
Everett	3rd Avenue SE Improvements (Street)	92nd Street SE	95th Street SE	New section of roadway in unopened R/W. Adds capacity and grid connectivity. Would add 2 new lanes and nonmotorized capacity.
Everett	112th Street SW-SE Street Improvements (I-5 to SR 527)	Interstate 5	SR 527	Project Completed this summer; added additional lanes from 4 to 5 lane configuration with additional turn capacity at SR 527

City Projects

City	Project	From	To	Description
Everett	100th Street SW Street Improv. (4th Ave. W. to Airport)	Airport Road	4th Ave. W	Would add capacity by adding lanes; going to a 3 lane configuration Increase from two to three lanes
Everett	100th Street SE Improvements (SR 527 to 7th Ave SE)	SR 527	7th Ave SE	Would add new lanes and capacity New alignment, 3 lane capacity
Everett	100th Street SE Improvements (7th Ave to Evergreen)	7th Ave SE	Evergreen Way	Would add new lanes and capacity New alignment, 3 lane capacity
Lake Stevens	20th St SE- Phase II - roadway widening, new sidewalks, improved access (Hwy 2 to 91st Ave SE)	Hwy 2	91st Ave SE	Roadway widening (4 lanes), new sidewalks, improved access.
Lynnwood	New/Expanded Road - Poplar Extension Bridge (196th St SW to AMB)	196th St SW	Alderwood Mall Blvd	New connection 5 lanes
Lynnwood	New/Expanded Road - Maple Road Extension (AMP to 32nd Ave W)	Alderwood Mall Parkway	32nd Ave W	New connection 3 lanes
Lynnwood	New/Expanded Road - 52nd Ave W (168th St SW to 176th St SW)	168th St SW	176th St SW	Add two way center turn lane
Lynnwood	New/Expanded Road - 36th Ave W (Maple Road to 164th St SW)	Maple Road	164th St SW	not much new capacity; conversion of 4 way stop at 172nd to a roundabout; extend existing five lane section currently ending just south of maple road to the north side of maple road; align maple with 189th (currently an offset "T")
Lynnwood	New/Expanded Road - 33rd Ave W Extension (Maple Road)	Maple Road	Maple Road	New Extension 3 lanes

City Projects

City	Project	From	To	Description
Lynnwood	New/Expanded Road - 33rd Ave W Extension (33rd Ave W to 184th St SW)	33rd Ave W	184th St SW	New Extension 3 lanes
Lynnwood	New/Expanded Road - 33rd Ave W Extension (184th St SW to AMP)	184th St SW	Alderwood Mall Parkway	New Extension 3 lanes
Lynnwood	New/Expanded Road - 204th St SW (68th Ave W to SR 99)	68th Ave W	SR 99	New connection 3 lanes
Lynnwood	New/Expanded Road - 200th St SW (64th Ave W to 48th Ave W)	64th Ave W	48th Ave W	Increase from 3 lanes to 5 ONLY between Scriber Lake Road & 64th ("in the SR 99 vicinity only")
Lynnwood	NB I-5 Braided Ramps	196th St SW	I-405	
Lynnwood	44th Ave W - (I-5 to 194th St SW)	I-5	194th St SW	Add Lanes - Widen to 7 lanes with 8 lanes at 196th (dual NB lefts)
Lynnwood	200th St SW - (40th Ave W to 48th Ave W)	40th Ave W	48th Ave W	Add Lanes - Widen to 5 lanes
Lynnwood	196th St SW Improvements	Scriber Lk Rd	48th Ave W	Likely Beyond 20 years out according to Lynnwood Planner (Widening from 5 to 7 lanes)
Lynnwood	196th St SW Improvements	SR 99	Scriber Lk Rd	Add lanes - 5 lanes WB and EB at Scriber. 6 Lanes at WB approach at SR99. 5 lanes at EB approach at SR99.
Lynnwood	196th St SW (SR-524) - (37th Ave W to 48th Ave W)	37th Ave W	48th Ave W	Widen from 5 to 7 lanes
Lynnwood	194th St SW - (33rd Ave W to 40th Ave W)	33rd Ave W	40th Ave W	New Road - 2 Lanes

City Projects

City	Project	From	To	Description
Lynnwood	176th St SW Road Diet	52nd Ave W	44th Ave W	The project will restripe 176th Street SW from four lanes to three lanes (two through lanes and one center turn lane) with bicycle lanes between 52nd Avenue W and 44th Avenue W.
Marysville	WSDOT - SR 529 EBEY SLOUGH BRIDGE REPLACEMENT - (COMPLETED) REPLACE EXISTING 2 LANE SWING SPAN BRIDGE WITH A 4-LANE FIXED- SPAN BRIDGE	-	-	(COMPLETED) REPLACE EXISTING 2 LANE SWING SPAN BRIDGE WITH A 4-LANE FIXED- SPAN BRIDGE
Marysville	SUNNYSIDE BLVD.: 47TH AVE. NE TO 52ND ST. NE - TWO GENERAL PURPOSE LANES IN EACH DIRECTION WITH A TWO-WAY LEFT TURN LANE, AND CURB, GUTTER AND SIDEWALK	47TH AVE. NE	52ND ST. NE	TWO GENERAL PURPOSE LANES IN EACH DIRECTION WITH A TWO-WAY LEFT TURN LANE, AND CURB, GUTTER AND SIDEWALK
Marysville	STATE AVENUE: 100TH ST. NE TO 116TH ST. NE - WIDEN TO 5 LANE SECTION WITH CURB, GUTTER AND SIDEWALK, AND REPLACE QUILCEDA OVERCROSSING	100TH ST. NE	116TH ST. NE	WIDEN TO 5 LANE SECTION WITH CURB, GUTTER AND SIDEWALK, AND REPLACE QUILCEDA OVERCROSSING
Marysville	STATE AVE: 116TH ST. NE to 136TH ST. NE - CONSTRUCT EASTERN 2 LANES FOR A FULL 5 LANE ROADWAY SECTION	116TH ST. NE	136TH ST. NE	CONSTRUCT EASTERN 2 LANES FOR A FULL 5 LANE ROADWAY SECTION
Marysville	SR 529 / INTERSTATE 5 INTERCHANGE EXPANSION - CONSTRUCT NEW NORTHBOUND OFFRAMP FROM I-5 TO SR 529 AND NEW SOUTHBOUND ON RAMPS FROM SR 529 TO I-5	I-5 / SR 529	SR 529-State Ave / I-5	CONSTRUCT NEW NORTHBOUND OFFRAMP FROM I-5 TO SR 529 AND NEW SOUTHBOUND ON RAMPS FROM SR 529 TO I-5
Marysville	LAKEWOOD TRIANGLE ACCESS / 156TH ST OVERCROSSING - (COMPLETED) CONSTRUCT I-5 OVERCROSSING AT 156TH ST. NE AND CONNECTING ROADWAY BETWEEN TWIN LAKES BLVD. AND STATE AVE.	-	-	(COMPLETED) CONSTRUCT 2 lane I-5 OVERCROSSING AT 156TH ST. NE AND CONNECTING ROADWAY BETWEEN TWIN LAKES BLVD. AND STATE AVE.

City Projects

City	Project	From	To	Description
Marysville	Ingraham Blvd - Major Widening	74th Ave NE	81st Ave NE	Widen to 5 lane arterial including bicycle and pedestrian facilities.
Marysville	Downtown (First St) Bypass -New Roadway	State Ave/1st St	47th Ave/Sunnyside Blvd	(See attached project Map) Construct 5 lane arterial including pedestrian facilities. (State Ave/1st St to 47th Ave/Sunnyside Blvd)
Marysville	88TH STREET NE: STATE AVE. TO 67TH AVE. NE - WIDEN TO A 5 LANE ROADWAY SECTION WITH IMPROVEMENTS AT ARTERIAL INTERSECTIONS. IMPROVEMENTS BY INTERLOCAL AGREEMENT	STATE AVE	67TH AVE. NE	WIDEN TO A 5 LANE ROADWAY SECTION WITH IMPROVEMENTS AT ARTERIAL INTERSECTIONS. IMPROVEMENTS BY INTERLOCAL AGREEMENT
Marysville	67th Ave NE Connector - New Roadway	67th Ave NE/44th St NE	71st Ave NE/40th St NE	Construct 2 lane arterial including bicycle and pedestrian facilities.
Marysville	54th St NE/ 55th Pl NE - New Roadway	83rd Ave NE	Whiskey Ridge Trail (East of 80th Ave NE)	NEW Connector with bicycle and pedestrian facilities. (2 lanes)
Marysville	51ST AVENUE NE: 84TH ST. NE TO 88TH ST. NE - NEW 3 LANE MINOR ARTERAL	84TH ST. NE	88TH ST. NE	NEW 3 LANE MINOR ARTERAL
Marysville	51ST AVENUE NE: 160TH ST NE TO ARLINGTON CITY LIMITS - WIDEN EXISTING ROADWAY FROM TWO LANES TO 5 LANES WITH CURB, GUTTER, SIDEWALK, BICYCLE AND PEDESTRIAN FACILITIES	160TH ST NE	ARLINGTON CITY LIMITS	WIDEN EXISTING ROADWAY FROM TWO LANES TO 5 LANES WITH CURB, GUTTER, SIDEWALK, BICYCLE AND PEDESTRIAN FACILITIES
Marysville	51st Ave NE - Major Widening	152nd St NE	160th St NE	Widen to 5 lane arterial including bicycle and pedestrian facilities.

City Projects

City	Project	From	To	Description
Marysville	43rd Ave NE - New Roadway	152nd St NE	Marysville City Limits	Construct 2 lane arterial for Smokey Point Master Plan. Specific alignments to be determined.
Marysville	40TH STREET NE: SUNNYSIDE BOULEVARD NE TO SR9 - IMPROVEMENTS CONSISTING OF ONE OR TWO GENERAL PURPOSE LANE EACH DIRECTION AND SHOULDER TO PROVIDE ARTERIAL CONNECTIVITY	SUNNYSIDE BOULEVARD NE	SR9	(NEW ROAD) IMPROVEMENTS CONSISTING OF ONE GENERAL PURPOSE LANE EACH DIRECTION AND SHOULDER TO PROVIDE ARTERIAL CONNECTIVITY
Marysville	40TH ST NE/87th AVE NE/35th ST NE: 83RD AVE NE TO SR 9 - 3 LANES FROM 71ST TO 83RD AVE.; 5 LANES FROM 83RD TO SR 9 CONNECTING TO NEW WEST LEG OF SR 92 INTERSECTION	83RD AVE NE	SR 9	3 LANES FROM 71ST TO 83RD AVE.; 5 LANES FROM 83RD TO SR 9 CONNECTING TO NEW WEST LEG OF SR 92 INTERSECTION
Marysville	27TH AVE NE EXTENSION FROM 156TH ST NE TO 166TH ST NE - CONSTRUCT A NEW ROADWAY ALIGNMENT TO CONNECT 156TH ST NE TO 166TH ST NE	156TH ST NE	166TH ST NE	CONSTRUCT A NEW 2 LANE ROADWAY ALIGNMENT TO CONNECT 156TH ST NE TO 166TH ST NE
Marysville	172nd St NE (SR 531) - Major Widening	27th Ave NE	11th Ave NE	Widen to 4 lane arterial including bicycle and pedestrian facilities.
Marysville	160th St NE - New Roadway	Smokey Point Blvd	59th Ave NE	Construct 2 lane arterial for Smokey Point Master Plan. Specific alignments to be determined.
Marysville	156th/152nd St NE - New Roadway	Smokey Point Blvd	51st St NE	Construct 4 lane arterial including bicycle and pedestrian facilities.
Marysville	156TH STREET NE: STATE AVENUE TO 51ST AVE. VIC. - WIDEN TO 5 LANES CURB, GUTTER, AND SIDEWALK	STATE AVENUE	51ST AVE. VIC.	WIDEN TO 3 LANES CURB, GUTTER, AND SIDEWALK

City Projects

City	Project	From	To	Description
Marysville	156th St NE Interchange @ I-5			CONVERT THE 156TH ST NE OVERCROSSING INTO A FULL SINGLE POINT PE 750 UNFUNDED PE 750 UNFUNDED ALL 40,000 UNFUNDED URBAN INTERCHANGE WITH INTERSTATE 5
Marysville	152ND STREET NE: STATE AVE. TO 43RD VIC. - WIDEN FROM 2 TO 3 LANES	STATE AVE.	43RD VIC.	WIDEN FROM 2 TO 3 LANES
Marysville	152nd St NE - Major Widening	51st Ave NE	67th Ave NE	Widen to 4 lane arterial including bicycle and pedestrian facilities.
Marysville	152nd Connector - New Roadway	152nd St NE	156th St NE	Construct 3 lane arterial for Smokey Point Master Plan. (See attached project map) Specific alignments to be determined.
Marysville	*152ND STREET NE: 43rd AVE. VIC. TO 67TH AVE. NE - WIDEN TO A 3 LANE ROADWAY SECTION WITH IMPROVEMENTS PE 1,000 UNFUNDED ALL 10,000 UNFUNDED AT ARTERIAL INTERSECTIONS	43rd AVE. VIC	67TH AVE. NE	WIDEN TO A 3 LANE ROADWAY SECTION WITH IMPROVEMENTS PE 1,000 UNFUNDED ALL 10,000 UNFUNDED AT ARTERIAL INTERSECTIONS
Mill Creek	East Gateway Spine Road - Construction (Diagonal SE to NW cut in the NE most corner of city)	Seattle Hill Rd between 136th & 135th	Intersection of 39th Ave SE & 132nd Ave SE	Construction of public infrastructure and central spine road in East GatewayUrbanVillage Area. Project elements could consist of a roadway with two 14-foot lanes, on-street parking, sidewalk,utilities, and could also include regional draina

City Projects

City	Project	From	To	Description
Monroe	Woods Creek Rd – Phase 2	Oak St	City Limit	Widen road to 3-lane section with bike lanes, curb, gutter, and sidewalk.
Monroe	Tjerne Pl - Chain Lake to Woods Creek - New Road (2 lanes)	Chain Lake Rd	Woods Creek Rd	New Roadway (2 lanes)
Monroe	Oak Street Widening	Woods Creek Rd	Old Owen Rd	Continuation of Tjerne Pl to Old Owen Rd. (2 lanes)
Monroe	E/W Connector - South of US 2 (154th (From 179th to intersection of Hill Street & Kelsey)) (2 lanes)	179th Street	Hill Street	New Roadway (2 lanes)
Monroe	Chain Lake Rd – Phase 2	North Kelsey St	Brown Rd	Widen road to 5-lane section with bike lanes, curb, gutter, and sidewalk.
Mountlake Terrace	Gateway Connector / Blvd- Construct new road from Gateway Bridge to 236th Street SW - Gateway Bridge to 236th St SW) (2 lanes)	Gateway Bridge	236th St SW	(See attached project map) Construct new road from Gateway Bridge to 236th St SW (2 lanes)
Mukilteo	Harbour Reach Drive Extension - Extend Harbour Reach Drive from Harbour Point Boulevard to the Old South Road and extend the old South Road to Beverly Park Road. Install sidewalks/walkways, street lighting, and storm drainage. (Harbour Point Boulevard t	Harbour Pt Blvd	Beverly Park Rd	Extend Harbour Reach Dr from Harbour Pointe Blvd to the old South Rd and extend the old South Rd to Beverly Park Rd. (2 lanes) Install sidewalks/walkways, street lighting and storm drainage.
Shoreline	Aurora Corridor Improvement Project – N 192nd Street to N 205th Street	192nd	205th	Add Business Access and Transit (BAT) lanes on both sides of street (2 BAT lanes), curbs, gutters, landscaping/street furnishings, sidewalks onboth sides.

City Projects

City	Project	From	To	Description
Snohomish	Bickford Avenue / US 2 Interchange - Intersection realignment and Roadway Construction improvements	Intersection	US 2	Intersection realignment and Roadway Construction improvements (Crossover Onramp)
Snohomish	20th Street Extension - New alignment, Right of Way, and Roadway extension improvements - (Bickford to Lake Ave)	Bickford Ave	Lake Avenue	New alignment (2 lanes), Right of Way, and Roadway extension improvements
Stanwood	74th Ave NW Construction - Construct new 74th Ave NW with curb, gutter, utilities, and sidewalks on both sides - (267th St NW South to Pioneer Hwy)	267th St NW	Pioneer Hwy	Construct new (2 LANE) 74th Ave NW with curb, gutter, utilities, and sidewalks on both sides
Stanwood	68th Avenue extension and improvements.	280th St NW	Woodland Rd	68th Avenue extension and improvements. (2 lanes)
Tulalip	88th St NE	I-5	19th Ave NE	Extend 88th street NE with a new six lane roadway to intersect with 19th Ave NE.
Tulalip	27th Avenue - Marine Dr to 88th St - Capacity/Safety, Widen roadway to 3 or 5-lane section – ped/bike/transit improvements	Marine Dr	88th St	Capacity/Safety, Widen roadway to 5-lane section – ped/bike/transit improvements
Tulalip	27th Avenue – 88th St to 116th St - Capacity/Safety, Widen roadway to 3 or 5-lane section – ped/bike/transit improvements	88th St	116th St	Capacity/Safety, Widen roadway to 3 lane section – ped/bike/transit improvements
Tulalip	19th Avenue NE - Capacity, Widen to 3-lane and extend to new east-west roadway	Marine Dr NE	116th St NE	Capacity, Widen to 3-lane and extend to new east-west roadway roadway

City Projects

City	Project	From	To	Description
Woodinville	Woodinville-Snohomish Widening - Widen the road to a 5-lane section with curb, gutter, sidewalk, bike lanes, illumination and new traffic signals - (140th Ave NE to North City Limits)	140th Ave NE	North City Limits	Widen the road to a 5-lane section with curb, gutter, sidewalk, bike lanes, illumination and new traffic signals

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APPENDIX D

Transportation Mitigation Fees

A. Basic Strategy for Transportation Impact Fees

Based on the update to the TE and the range of possible ((~~2005~~)) 2015 transportation impact fee rates, DPW (Department of Public Works) proposes the following strategies.

1. Adopt a continuation of the existing GMA-based impact fee requirements. The impact fee program would be based on a ((~~2005-2025~~)) 2015-2035 set of arterial capacity improvements instead of the current ((~~1995-2012~~)) 2005-2025 set of improvements.

2. The updated impact fee program would include methodology and criteria to reflect transitional issues from the ((~~1995-2012~~)) 2005-2025 program. To the extent that improvements are considered "existing deficiencies" within the context of the ((~~2005-2025~~)) 2015-2035 TE, that portion of the project would be excluded in the updated impact fee cost basis.

3. ((~~At this time,~~)) DPW ((~~does not~~)) may propose changes to the boundaries of existing TSAs, which are adopted administratively in the TNR.

((~~4. The transportation rates in TSA "C" would be lowered slightly to reflect the new calculations of maximum possible impact fee rates.~~))

B. Background: Authority, Statutes, Ordinances, Administrative Documents

1. Snohomish County, through Chapter 30.66B SCC, imposes various mitigation requirements on new developments for their impacts on the road system. These requirements include "proportionate share" mitigation for impacts on the capacity of the road system. The term "proportionate share" is a broad term which in Chapter 30.66B SCC is used to mean impact fees.

2. RCW 82.02.050-((~~.100~~)).110 provides the legal authority under which the county imposes impact fees on development. This statute lays out the specific requirements that jurisdictions must follow to impose these fees.

3. There are three primary documents which support the county's requirements on new development for proportionate share payments to mitigate impacts on the capacity of the road system.

a. Snohomish County GMA Comprehensive Plan, General Policy Plan. Originally adopted by the Council on June 28, 1995, this document includes the Future Land Use map and growth targets upon which future forecasts of residential and commercial growth are based. These forecasts are the basis for the traffic forecasts which estimate the future demands on County roads caused by new development.

b. Snohomish County GMA Comprehensive Plan, Transportation Element, originally adopted with the General Policy Plan by the Council on June 28, 1995, and updated herein. This ((~~2005~~)) 2015 TE identifies the road improvements needed to support the forecast residential and commercial growth from ((~~2005 through 2025~~)) 2015 through 2035. The TE estimates the total costs of these needed improvements and estimates the total expected revenues available to pay for them. Chapter V. Strategy for Financing County Transportation Improvements) documents an approximate balance between forecast growth, the demands of that growth on transportation infrastructure, and the revenues needed to pay for that infrastructure. Importantly, the TE functions as the County's GMA Capital Facilities Element for transportation.

c. Snohomish County Transportation Needs Report (TNR). The Snohomish County Transportation Needs Report was originally published on September 10, 1995, and has been updated on a regular basis since. The TNR establishes the cost basis for the County's GMA-based impact fees (See Appendix D of the TNR). The TNR estimates the costs for projects in the TE and makes certain adjustments to those costs to comply with RCW requirements for impact fees.

4. The TNR also defines a set of six Transportation Service Areas which define major county traffic sheds consistent with the RCW. RCW 82.02.090(8) states that "Service area" means a geographic area defined by a county, city, town, or intergovernmental agreement in which a defined set of public facilities provide service to development within the area. Service areas shall be designated on the basis of sound planning or engineering principles. RCW ((~~82.02.060(6)~~)) 82.02.060(7) indicates that jurisdictions imposing impact fees, "Shall establish one or more reasonable service areas within which it shall calculate and impose impact fees for various land use categories per unit of development."

5. Capital Facilities Plan Element. RCW 82.02.050(4) states, "Impact fees may be collected and spent only for the public facilities defined in RCW 82.02.090 which are addressed by a capital facilities plan element of a comprehensive land use plan adopted pursuant to the provisions of RCW 36.70A.070." As described above, the County's GMA TE is, for Transportation, the GMA Capital Facilities Plan Element required by RCW 36.70A.070(3) and is used by the county as the basis of its transportation impact fees.

C. Meeting the Requirements for Imposition of Impact Fees

By following the requirements of chapter 36.70A RCW for comprehensive planning and certain other requirements of chapter 82.02 RCW for impact fees in the adoption of the TE and the TNR, the county meets the requirements for determining reasonable proportionate shares (i.e., GMA-based fees). Through this process and adherence to statutory requirements, the county assures that impact fees imposed on a development are "reasonably related" to the impacts of that development, and that the expenditure of those impact fee revenues by the county "reasonably benefits" the development.

There are two main ways that the County makes sure that fees from particular developments will reasonably benefit those developments. First, revenues from impact fees are only spent on projects needed to support new development (i.e., identified as part of the cost basis). Second, the county makes sure that fees collected from a development are spent only on projects in the same TSA as the development. This is done through the administrative accounting procedures

used to transfer funds from impact fee revenue accounts to transportation project expenditure accounts. Annual reports provide summaries and details on the accounts.

D. Capital Facilities Plan Element

For Snohomish County, the TE constitutes the capital facilities plan with respect to transportation. The TE meets all of the requirements for a capital facilities plan as defined in chapter 36.70A RCW.

The specific projects identified in the TE and included in the impact fee cost basis must meet one basic criterion: The identified road improvements must be needed to accommodate growth forecast in the county's GMA comprehensive plan. More specifically, the planned growth must be forecast to cause LOS problems on a particular arterial, thus requiring capacity improvements to maintain the adopted LOS standard.

The county's schedule of impact fees is found in Chapter 30.66B ((~~.330~~)) SCC and shows various levels based on TSA, type of development, and location with respect to the urban growth boundary.

Cost estimates are initially made in the TE to document the broad estimate of total costs and total revenues. The cost estimates are based on the Cost Estimating Model of the TNR (Appendix B). However, as time passes, some projects change in scope, some projects are annexed, unit costs change, etc. These ongoing changes preclude the ability of the county to update the TE frequently enough to be as accurate as possible to best support impact fees. Therefore, the impact fee cost basis is established in the TNR.

The TNR provides more specific engineering information on the projects identified in the TE. As the county learns new information about specific projects, the cost estimates in the TNR are updated. The use of the TNR helps to ensure that fees are collected and spent on projects that are described and cost-estimated as accurately as possible.

E. The Impact Fee Cost Basis

For each TSA, Appendix D of the TNR aggregates the costs of improvements needed to support new development and divides this sum by the number of new trips in each TSA that are forecast to be generated by new developments. These costs per new trips are the maximum fee amounts that could be assessed for each TSA.

Consistent with the applicable state law, the county adjusts the costs of projects in the TNR to provide a credit for taxes that might be paid by new development towards the projects in the impact fee cost basis. The method for doing this is described in Appendix H of the TNR.

The fee levels for each TSA are established by the county council in Chapter 30.66B SCC. The SCC 30.66B impact fees adopted by council reflect a balance between the costs to the transportation system between new developments and existing residents.

Consistent with the state law, the county considers the availability of other sources of public funding in establishing its fee levels. Other means of public funding consists of taxes on existing residents which go towards city, county, state, and federal highway funding programs. In terms of

County revenues, the taxes collected are known as the "County Road Fund" and consist primarily of revenues from property taxes, fuel taxes, and vehicle excise taxes. (See TNR Appendix I.)

In some cases the county applies impact fees for improvements already in place, but only so long as capacity remains on the road resulting from the improvement to accommodate future growth, and only for a limited period of time.

F. Credits for Certain Improvements by Developers

Chapter 30.66B SCC establishes ((~~policies~~)) the provisions for credits consistent with RCW ((~~82.02.060(3)~~)) 82.02.060(4). Through these provisions, credit against a development's road system impact fee is provided for dedication of land for, improvement to, or construction of any capacity improvements that are identified in the TNR as part of the road system impact fee cost basis and are imposed by the county as a condition of approval.

G. Consideration of Existing Deficiencies

RCW 82.02.050(4)(a) provides that the capital facilities plan must identify "Deficiencies in public facilities serving existing development and the means by which existing deficiencies will be eliminated within a reasonable period of time." ((~~As of the time of adoption of the 2005-2025 TE there were several arterial units in arrears that could be construed as "existing deficiencies" under the statute cited above. These deficiencies, which are set forth in Chapter II.B.5, will be mitigated through capacity and operational improvements identified in the TE.~~)) As noted earlier in Chapter II, Section B.4; no county arterial units are identified as being in arrears as of the publication date of this TE and consequently no "existing deficiencies" are identified in this TE.

((~~In addition,~~)) It is worth noting, that the methodology used by the county to calculate the impact fee cost basis includes an adjustment to the project costs to exclude a portion of the costs associated with ((~~the~~)) any existing deficiency. The calculations used to make this adjustment are contained in Appendix D of the TNR.

Appendix E

Traffic Forecasts for Snohomish County Arterial Units

As noted in Chapter I, Section B, the GMA requires forecasts of traffic for at least ten years based on the adopted land use plan. Appendix E presents 2035 traffic forecasts (20-year forecasts) for Snohomish County arterial units based on the adopted land use plan. The 267 arterial units reported on in this appendix are the same units that Snohomish County uses to monitor transportation concurrency and operations on county-owned arterial roadways under the county's CMS (concurrency management system).

For each county arterial unit, Appendix E presents for both existing conditions and the 2035 forecast year:

- a.m. and p.m. peak-hour traffic volumes,
- maximum service volume (MSV), and
- a.m. and p.m. peak-hour volume-to-capacity (V/C) ratios.

Traffic volumes are two-way volumes (both directions of travel are combined). Existing volumes come from traffic counts conducted under the county's CMS. The MSVs for county arterial units are based on DPW Rule 4224 (ref. 15). The forecasted 2035 volumes are based on modeling results from the county's travel demand forecasting (TDF) model.

As noted in Chapter II, Section B, this TE uses a planning-level analysis in which the peak-hour volume (V) for a section of roadway is compared to the section's MSV to determine the potential need for capital improvements. In this analysis, the MSV functions as the roadway's estimated capacity (C), thus providing a volume-to-capacity evaluation. In this appendix, the existing and forecasted 2035 traffic volumes for the a.m. and p.m. system peak-hours for each county arterial unit are compared to the unit's MSV, resulting in V/MSV (V/C) ratios. When the V/C ratio indicates there may be a potential LOS deficiency, then potential arterial improvement projects or other strategies are considered to address the potential deficiency. If an improvement project that increases capacity on a county arterial roadway has been identified and included in this TE, then the 2035 MSV reflects the increased capacity. More detailed descriptions of the traffic-forecast analysis for county arterial units and the county's TDF model can be found in the Draft Environmental Impact Statement (ref. 26) and Final Environmental Impact Statement (ref. 34) prepared for the 2015 Update of the GMACP.

COUNTY ARTERIAL UNITS				Existing					2035				
Unit	Road Name	From	To	AM Peak Traffic Volume	PM Peak Traffic Volume	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio	AM Traffic Volume Forecast	PM Traffic Volume Forecast	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio
101	OLD PACIFIC HWY	STWD C/L/276 ST NW	PIONEER HWY	329	455	1090	0.30	0.42	405	550	1090	0.37	0.50
102	PIONEER HWY	300 ST NW	SNOCO-SKAGIT CO LINE	610	734	1090	0.56	0.67	795	920	1090	0.73	0.84
103	300 ST NW	PIONEER HWY	STWD UGB/0.42 mi. e/o PIONEER HWY	134	186	1460	0.09	0.13	215	255	1460	0.15	0.17
104	PIONEER HWY	STWD C/L (335 ft. se/o 286 Pl NW)	300 ST NW	151	210	1460	0.10	0.14	270	355	1460	0.18	0.24
105	300 ST NW	STWD UGB/0.42 mi. e/o PIONEER HWY	OLD 99 N	173	267	1090	0.16	0.24	230	345	1090	0.21	0.32
106	76 AVE NW	300 ST NW	END OF CO RD	140	231	1090	0.13	0.21	155	245	1090	0.14	0.22
107	68 AVE NW	STWD C/L & UGB (554 ft. s/o 292 St NW)	332 ST NW/SNOCO LINE	73	121	1090	0.07	0.11	75	125	1090	0.07	0.11
109	300 ST NE/NW	OLD 99 N	15 AVE NE	234	310	980	0.24	0.32	305	390	980	0.31	0.40
110	28 AVE NW	OLD 99 N	SR 532	31	41	980	0.03	0.04	40	90	980	0.04	0.09
111	OLD 99 N/12 AVE NW	SR 532	300 ST NW	52	86	1090	0.05	0.08	55	90	1090	0.05	0.08
112	268 ST NE/15 AVE NE	300 ST NE	STWD BRYANT RD	51	54	980	0.05	0.06	55	55	980	0.06	0.06
113	STANWOOD BRYANT RD	I-5 NB ON/OFF RAMPS	SR 9	139	227	1090	0.13	0.21	200	515	1090	0.18	0.47
114	SUNDAY LK RD	12 AVE NW	SR 532	52	59	980	0.05	0.06	55	65	980	0.06	0.07
115	W SUNDAY LK RD	SR 532	25 AVE NW	47	52	980	0.05	0.05	85	85	980	0.09	0.09
116	GRANDVIEW RD	SR 9	115 AVE NE/HEIMER RD	122	200	980	0.12	0.20	155	240	980	0.16	0.24
117	PIONEER HWY E/PIONEER HWY	I-5 SB ON/OFF RAMPS	STWD C/L (158 ft. e/o 72 AVE NW)	244	397	1090	0.22	0.36	340	490	1090	0.31	0.45
118	MARINE DR	LAKEWOOD RD	STWD C/L	373	415	1090	0.34	0.38	490	510	1090	0.45	0.47
119	NORMAN RD	MARINE DR	PIONEER HWY	95	132	980	0.10	0.13	95	135	980	0.10	0.14
120	236 ST/19 AVE/252 ST NE	I-5 NB ON/OFF RAMPS	SR 9	379	562	980	0.39	0.57	475	630	980	0.48	0.64
121	JIM CREEK RD	SR 530	LK RILEY RD	110	178	1090	0.10	0.16	130	195	1090	0.12	0.18
122	115 AVE NE	SR 530	228 ST NE	68	92	980	0.07	0.09	90	120	980	0.09	0.12
123	ARL HTS/228 ST NE/WALLITNER RD	JORDAN RD	JIM CR RD	166	256	1090	0.15	0.23	175	275	1090	0.16	0.25
124	HAPPY HOLLOW/50 AVE NW/220 ST NW/LARSON RD	MARINE DR	PIONEER HWY	163	281	980	0.17	0.29	235	370	980	0.24	0.38
125	FRANK WATERS RD	LAKEWOOD RD	MARINE DR	124	178	1090	0.11	0.16	165	225	1090	0.15	0.21
126	40 AVE NW-HAPPY VALLEY RD	SR 531 (LAKEWOOD RD)	220 ST NW	84	141	1360	0.06	0.10	125	200	1360	0.09	0.15
127	3 AVE NE/SILL RD/212 ST NW-NE	SR 531 (172 ST NE)	PIONEER HWY	71	109	980	0.07	0.11	80	120	980	0.08	0.12
129	JORDAN RD	GRAN FLS UGB C/L	TSA A/ 0.67 mi. n/o 148 ST NE (PVT RD)	218	368	1090	0.20	0.34	245	405	1090	0.22	0.37
130	159 AVE NE/116 ST NE/BURN RD	100 ST NE	330 ft. se/o 112TH AVE SE (Utility SERVICE RD)	71	117	1090	0.07	0.11	110	190	1090	0.10	0.17

COUNTY ARTERIAL UNITS				Existing					2035				
Unit	Road Name	From	To	AM Peak Traffic Volume	PM Peak Traffic Volume	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio	AM Traffic Volume Forecast	PM Traffic Volume Forecast	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio
131	MARINE DR/176 ST NW/92 AVE NW	83 PL NW	LAKEWOOD RD(188 ST NW)	153	241	1090	0.14	0.22	225	345	1090	0.21	0.32
132	LAKEWOOD RD	MARINE DR	SR 531	245	417	980	0.25	0.43	345	530	980	0.35	0.54
133	W LK GOODWIN RD	46 AVE NW	LAKEWOOD RD	116	187	980	0.12	0.19	150	230	980	0.15	0.23
134	E LK GOODWIN/46 AVE NW	140 ST NW	WENBERG ST PK ENT	81	159	980	0.08	0.16	90	175	980	0.09	0.18
135	154 ST NW/WILLOW/16 AVE NW/MCRAE	140 ST NW	SR 531	60	93	980	0.06	0.09	65	100	980	0.07	0.10
136	FORTY-FIVE RD	23 AVE NE	SR 531	174	267	1090	0.16	0.24	255	410	1090	0.23	0.38
137	KAYAK PT RD/140 ST NW	MARINE DR	46 AVE NW	171	196	1360	0.13	0.14	215	265	1360	0.16	0.19
138	140 ST NE/NW	46 AVE NW	23 AVE NE	441	676	1090	0.40	0.62	615	870	1090	0.56	0.80
139	140/STIMSON/136 ST NE	23 AVE NE	MSVL C/L (106 ft. e/o I-5 NB Overpass)	594	889	1390	0.43	0.64	875	1155	1390	0.63	0.83
141	152 ST NE	MSVL C/L (201 ft. w/o Athletic Field Entrance - MSVL)	67 AVE NE	175	325	1460	0.12	0.22	595	610	1460	0.41	0.42
146	132 ST NE	MSVL C/L (312 ft. e/o 58 Ave. NE)	67 AVE NE	195	250	1460	0.13	0.17	285	310	1460	0.20	0.21
147	67 AVE NE	108 St. NE (MSVL C/L)	ARL C/L 966 ft. s/o 168 St. NE	406	701	1460	0.28	0.48	1050	1080	1460	0.72	0.74
150	132 ST NE/99 AVE NE	SR 9	116 ST NE / TSA BOUNDARY	102	165	980	0.10	0.17	125	305	980	0.13	0.31
151	99 AVE NE	84 ST NE	132 ST NE	80	103	980	0.08	0.11	185	300	980	0.19	0.31
153	84 ST NE	SR 9	SR 92	646	888	1090	0.59	0.81	820	1130	1470	0.56	0.77
154	123 AVE NE/44 ST NE/127 PL NE	SR 92	84 ST NE	123	136	980	0.13	0.14	270	345	980	0.28	0.35
155	100 ST NE	GRAN FLS UGB (470 ft. e/o 169 DR NE)	159 AVE NE	102	169	1220	0.08	0.14	130	210	1220	0.11	0.17
156	163 AVE NE	84 ST NE	100 ST NE	142	191	1220	0.12	0.16	180	240	1220	0.15	0.20
157	MT LOOP HWY	GRAN FALLS UGB (CENTER OF BRIDGE NO. 102)	MONTE CRISTO RD	314	338	1360	0.23	0.25	320	345	1360	0.24	0.25
158	N LK ROESIGER/MENZEL LAKE RD	TSA B & C BOUNDARY	GRAN FLS UGB/ 0.36 mi. nw/o WAITE RD	99	151	980	0.10	0.15	280	405	980	0.29	0.41
159	ROBE MENZEL RD	GRAN FLS UGB	SCHERRER RD	120	198	980	0.12	0.20	165	325	980	0.17	0.33
160	NEWBERG RD/BOSWORTH/ROBE MENZEL	OK MILL RD	SCHERRER RD	159	226	1090	0.15	0.21	220	305	1090	0.20	0.28
162	27 AVE NE	MARINE DR NE	END OF CO RD	565	738	980	0.58	0.75	1050	1260	1750	0.60	0.72
163	MARINE DR NE/MARINE DR	I-5 SB ON/OFF RAMPS	7 DR NW	1227	1746	1220	1.01	1.43	1750	2720	1750	1.00	1.55
166	SUNNYSIDE BLVD	SR 204	SOPER HILL RD	430	637	1460	0.29	0.44	960	930	1460	0.66	0.64
176	N/S MACHIAS RD	LK STEVENS UGB/12 ST NE	MACHIAS CUTOFF RD	708	941	980	0.72	0.96	800	1070	1460	0.55	0.73
177	S/E LK STEVENS RD	LK STEVENS C/L (0.054 mi. n/o Machias Cutoff)	LK STEVENS C/L (0.104 mi. ne/o Purple Pennant Rd)	304	415	1460	0.21	0.28	495	650	1460	0.34	0.45

COUNTY ARTERIAL UNITS				Existing					2035				
Unit	Road Name	From	To	AM Peak Traffic Volume	PM Peak Traffic Volume	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio	AM Traffic Volume Forecast	PM Traffic Volume Forecast	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio
179	MACHIAS CUTOFF RD	LK STEVENS C/L (26 ft. e/o 115 DR SE)	WILLIAMS RD	431	630	1400	0.31	0.45	495	715	1400	0.35	0.51
181	OK MILL/CRESWELL RD	S MACHIAS RD	DUBUQUE RD	440	619	980	0.45	0.63	545	765	980	0.56	0.78
182	171 AVE SE	DUBUQUE RD	THREE LKS RD/TSA BOUNDARIES B/C	128	216	980	0.13	0.22	160	270	980	0.16	0.28
183	20 ST SE/WILLIAMS RD/MACHIAS CUTOFF RD	LK STEVENS C/L (222 ft. e/o 106 AVE SE)	S MACHIAS RD	451	707	1400	0.32	0.51	500	875	1400	0.36	0.63
184	S LK STEVENS RD	87 AVE SE	LK STEVENS C/L (0.114 mi. sw/o SR 9)	120	154	980	0.12	0.16	155	200	980	0.16	0.20
185	CAVALERO/S LK STEVENS RD	LK STEVENS C/L (1/4 mi. s/o 20 ST SE)	87 AVE SE	89	113	1220	0.07	0.09	125	125	1220	0.10	0.10
187	S MACHIAS RD	SR 2 OVERPASS (TSA BDRY)	MACHIAS CUTOFF RD	1124	907	1460	0.77	0.62	1300	1020	1460	0.89	0.70
188	DUBUQUE RD	S MACHIAS RD	STORM LK RD	298	370	1090	0.27	0.34	420	475	1090	0.39	0.44
189	WOODS CREEK RD	MNR C/L	INGRAHAM RD (MNR UGB)	509	633	1460	0.35	0.43	720	935	1460	0.49	0.64
190	WAGNER/MERO/STORM LK RD	WOODS CR RD	DUBUQUE RD	273	260	980	0.28	0.27	295	280	980	0.30	0.29
191	139 AVE SE	THREE LKS RD	DUBUQUE RD	97	151	980	0.10	0.15	100	180	980	0.10	0.18
192	THREE LKS RD	123 AVE SE (E 1/2)/SNOH C/L	171 AVE SE	349	447	980	0.36	0.46	375	470	980	0.38	0.48
193	88 ST SE/131 AVE SE	SR 2 OVERPASS	THREE LKS RD	374	460	980	0.38	0.47	405	460	980	0.41	0.47
194	S MACHIAS RD	SR 2 OVERPASS (TSA BDRY)	MAPLE RD (SNOH)	680	864	1460	0.47	0.59	710	930	1460	0.49	0.64
195	WESTWICK RD (100 ST SE)	SR 2	171 AVE SE	164	213	980	0.17	0.22	170	225	980	0.17	0.23
196	ROOSEVELT RD/159 AVE SE	MNR UGB (0.44 mi. s/o Trombley Rd.)	WESTWICK RD	127	181	980	0.13	0.18	160	230	980	0.16	0.23
197	OLD SNOH-MONROE RD	SNOH UGB-SNOH C/L	MNR UGB	269	290	1090	0.25	0.27	300	335	1090	0.28	0.31
198	MARSH RD	LOWELL-LARIMER RD	SR 9	360	648	1400	0.26	0.46	555	830	1400	0.40	0.59
199	LOWELL-LARIMER RD	SR 96 (SEATTLE HILL RD)	EVT C/L	581	712	1460	0.40	0.49	880	910	1460	0.60	0.62
200	100 ST SE	EVT C/L (370 ft. w/o 33 AVE SE)	35 AVE SE	925	990	1750	0.53	0.57	1315	1360	1750	0.75	0.78
201	35 AVE SE	SR 96 (132 ST SE)	100 ST SE	1147	1327	1750	0.66	0.76	1585	1630	1750	0.91	0.93
202	SEATTLE HILL RD	35 AVE SE	SR 96	964	1240	1460	0.66	0.85	1160	1505	1750	0.66	0.86
204	35 AVE SE	168 ST SE	SEATTLE HILL RD	1170	1296	1750	0.67	0.74	1595	1645	1750	0.91	0.94
206	180 ST SE	SR 527	35 AVE SE	1309	1830	1610	0.81	1.14	1415	2300	3440	0.41	0.67
207	35 AVE SE	188 ST SE	168 ST SE	835	869	1460	0.57	0.60	1280	1250	1750	0.73	0.71
209	39 AVE SE	228 ST SE	SR 524	880	1053	1460	0.60	0.72	1260	1565	1750	0.72	0.89
211	SNOH-WOODINVILLE RD	KING CO LINE	SR 522 (EB RAMPS)	1254	1292	2740	0.46	0.47	2350	2545	2740	0.86	0.93
212	228 ST SW	LOCUST WY	BOTHELL C/L	849	985	1340	0.63	0.74	990	1095	1340	0.74	0.82
214	212 ST SW/LARCH WY	MTLK TERR C/L (792 ft. w/o 212th/LARCH WAY)	CYPRESS WY (N LEG)	865	1286	1470	0.59	0.87	920	1460	1760	0.52	0.83

COUNTY ARTERIAL UNITS				Existing					2035				
Unit	Road Name	From	To	AM Peak Traffic Volume	PM Peak Traffic Volume	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio	AM Traffic Volume Forecast	PM Traffic Volume Forecast	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio
215	204 ST SW	LYNN C/L	28 AVE W	609	878	1460	0.42	0.60	675	945	1460	0.46	0.65
216	4 AVE W/214 ST SW/DAMSON RD	216 ST SW (BTHL C/L)	SR 524	506	580	1400	0.36	0.41	710	720	1400	0.51	0.51
217	NORTH RD	SR 524	176 PL SW	902	757	1390	0.65	0.54	1245	1115	1750	0.71	0.64
218	164 ST SW/SE	I-5 NB ON/OFF RAMPS	MILL CR C/L	3681	4235	3410	1.08	1.24	4630	5180	3410	1.36	1.52
219	164 ST SW	LYNN C/L (Spruce Way)	I-5 SB ON/OFF RAMPS	2653	3772	3410	0.78	1.11	3870	4745	3410	1.13	1.39
220	ALDERWOOD MALL PKWY	164 ST SW	LYNN C/L	1001	1398	2870	0.35	0.49	1930	2250	3440	0.56	0.65
222	52 AVE W	LYNN C/L	148 ST SW	848	1129	1390	0.61	0.81	1430	1510	1750	0.82	0.86
223	52 AVE W/BEVERLY PARK RD	148 ST SW	MUK C/L	893	1215	1680	0.53	0.72	1625	1570	1680	0.97	0.93
224	148 ST SW	52 AVE W	SR 99	625	987	1610	0.39	0.61	655	1230	1610	0.41	0.76
225	148 &150 ST SW/JEFFERSON/MADISON	SR 99	ASH WY	589	934	1460	0.40	0.64	815	1280	1750	0.47	0.73
227	BEVERLY PARK RD	SR 525	AIRPORT RD (EVT)	1706	2073	3290	0.52	0.63	2890	2595	3290	0.88	0.79
228	AIRPORT RD/128 ST SW	SR 99	I-5 SB ON/OFF RAMPS	3077	3924	3410	0.90	1.15	3915	4800	3410	1.15	1.41
229	4 AVE W	128 ST SW	112 ST SW	1452	1911	3170	0.46	0.60	2035	2235	3170	0.64	0.71
230	112 ST SW	EVT C/L	EVT C/L	1258	2145	3440	0.37	0.62	1385	2300	3440	0.40	0.67
231	AIRPORT RD	EVT C/L	400 ft. n/o 103 ST SW (EVT)	1855	2931	3550	0.52	0.83	3275	3855	3550	0.92	1.09
233	100 ST SW	AIRPORT RD	330 ft. w/o 23 AVE W	580	734	1390	0.42	0.53	645	830	1390	0.46	0.60
234	112 ST SW	BEVERLY PARK RD	AIRPORT RD	619	1050	3440	0.18	0.31	1080	1475	3440	0.31	0.43
236	BICKFORD AVE	SR 2 EB ON RAMP	SNOH C/L (634 ft. se/o 83 Ave. SE)	570	799	1460	0.39	0.55	930	835	1460	0.64	0.57
237	88 ST SE / 92 ST SE	SR 2 OVERPASS	W END BRIDGE #633	818	1092	1390	0.59	0.79	985	1280	1390	0.71	0.92
240	DETTLING RD	PIONEER HWY (STAN UGB) / 300 ST NW	OLD PACIFIC HWY	69	71	980	0.07	0.07	115	135	980	0.12	0.14
242	108 ST NE	67 AVE NE	SR 9	255	313	1460	0.17	0.21	410	560	1460	0.28	0.38
248	34 AVE NE	116 ST NE	136 ST NE	603	842	1390	0.43	0.61	1090	1060	1390	0.78	0.76
249	188 ST NE	ARL C/L (0.328 mi. w/o 47 AVE NE at M.P. 0.998)	0.25 mi. e/o SMOKEY PT BLVD (M.P. 1.280)	243	416	1460	0.17	0.28	355	650	1460	0.24	0.45
251	43 AVE/52 ST SE/HOMEACRES/ 60 ST/FOSTER SLOUGH/RIVERVIEW RD	SNOH UGB (0.249 mi. e/o 85 AVE SE)	43RD @ HOME ACRES RD (STATE)	165	200	980	0.17	0.20	205	245	980	0.21	0.25
252	66 AVE SE/SKIPLEY/52 ST SE	60 ST SE	SNOH (CITY) UGB 15 ft. w/o 83 AVE SE C/L	57	98	980	0.06	0.10	60	100	980	0.06	0.10
253	60 ST SE	FOSTER SLOUGH RD	83 AVE SE	45	73	980	0.05	0.07	75	115	980	0.08	0.12
254	72 ST SE/83 AVE SE	SNOH UGB/87 AVE SE	52 ST SE (SKIPLEY RD)	155	173	980	0.16	0.18	180	205	980	0.18	0.21
255	56 ST SE	SNOH C/L	185 ft. w/o SR 9 (SNOH C/L)	303	383	1460	0.21	0.26	310	430	1460	0.21	0.29

COUNTY ARTERIAL UNITS				Existing					2035				
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256	BUNK FOSS RD/RITCHEY RD	99 AVE SE	S MACHIAS RD	734	609	980	0.75	0.62	850	675	1750	0.49	0.39
257	OLD OWEN RD	MNR UGB/ 0.88 mi. FROM OAKS ST	SULTAN UGB	405	632	980	0.41	0.64	460	685	980	0.47	0.70
258	FLORENCE ACRES/WOODS LK RD	OLD OWEN RD	OLD OWEN RD	204	268	1090	0.19	0.25	235	300	1090	0.22	0.28
259	132 ST SE/134 PL SE	SR 96 (SEATTLE HILL RD)	SNOH-CASCADE DR	1502	2195	3550	0.42	0.62	1830	2680	3550	0.52	0.75
260	PUGET PARK DR	134 PL SE	SNOH-CASCADE DR	428	645	1760	0.24	0.37	440	660	1760	0.25	0.38
261	BROADWAY AVE	164 ST SE	SR 9	681	823	1540	0.44	0.53	1120	1180	1540	0.73	0.77
262	180 ST SE	SR 9	BROADWAY AVE	325	406	1390	0.23	0.29	350	670	1390	0.25	0.48
263	164 ST SE	SR 9	BROADWAY AVE	202	216	1460	0.14	0.15	235	280	1460	0.16	0.19
264	ELLIOTT RD/HIGH BRIDGE RD	CRESCENT LK RD	FALES RD	126	140	980	0.13	0.14	225	220	980	0.23	0.22
265	FALES/ELLIOT RD	SR 522	BROADWAY AVE	388	441	980	0.40	0.45	645	780	980	0.66	0.80
266	ECHO LK RD / 131 AVE SE	SR 522	END OF COUNTY RD (131 AVE SE)	545	654	980	0.56	0.67	615	800	980	0.63	0.82
267	CRESCENT LK/203 ST SE	HIGH BRIDGE RD	SR 203	107	132	980	0.11	0.13	135	140	980	0.14	0.14
268	HIGH BRIDGE RD	KING CO LINE	CRESCENT LK RD	141	203	980	0.14	0.21	270	340	980	0.28	0.35
270	BEN HOWARD RD/311 AVE SE	SR 203	BRIDGE #94 (SULTAN C/L)	69	112	980	0.07	0.11	75	315	980	0.08	0.32
272	228 ST SE	39 AVE SE	SR 9	738	878	1460	0.51	0.60	1155	1875	1750	0.66	1.07
273	LOCKWOOD RD	LOCUST WY	KING CO LINE	311	331	1460	0.21	0.23	365	405	1460	0.25	0.28
274	LOCUST WY	KING CO LINE	228 ST SW	789	959	1400	0.56	0.69	1075	1140	1400	0.77	0.81
275	CYPRESS WY	LARCH WY	SR 524	325	521	1460	0.22	0.36	585	825	1460	0.40	0.57
276	LOGAN RD/LARCH WY	CYPRESS WY (N LEG)	DAMSON RD	649	929	1460	0.44	0.64	700	1080	1460	0.48	0.74
277	28 AVE W	LYNN C/L	LARCH WY	288	481	1460	0.20	0.33	360	605	1460	0.25	0.41
278	POPLAR WY	LYNN C/L	BRIER C/L	782	979	1400	0.56	0.70	820	1075	1680	0.49	0.64
279	LARCH WY	204 ST SW (LYNN)	212 ST SW	130	161	1540	0.08	0.10	275	320	1540	0.18	0.21
280	84 AVE W	MAPLE LN (EDMD)	220 ST SW (EDMD)	295	415	1460	0.20	0.28	540	680	1460	0.37	0.47
281	228 ST SW	80 AVE W (EDMD)	92 AVE W (EDMD)	134	245	1460	0.09	0.17	215	345	1460	0.15	0.24
284	FISHER RD/NORMA BEACH/148 ST SW	72 AVE W	52 AVE W	296	424	1400	0.21	0.30	420	530	1400	0.30	0.38
285	PICNIC POINT RD	BEVERLY PARK RD	PUGET SOUND BLVD	522	603	1400	0.37	0.43	580	670	1400	0.41	0.48
286	SHELBY RD	SR 99	BEVERLY PARK RD	219	300	1390	0.16	0.22	260	380	1390	0.19	0.27
287	36 AVE W	LYNN C/L s/o 164 ST SW	164 ST SW	592	898	1610	0.37	0.56	1075	1300	1610	0.67	0.81
288	ASH WY	164 ST SW	LYNN C/L	501	990	1400	0.36	0.71	705	1250	1400	0.50	0.89
289	ASH WY	164 ST SW	134 ST SW	1023	1482	1540	0.66	0.96	1610	1925	1850	0.87	1.04

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290	MANOR WY	164 ST SW	SR 99	429	697	1460	0.29	0.48	940	995	1750	0.54	0.57
291	ADMIRALTY WY	MANOR WY	AIRPORT RD	254	499	1340	0.19	0.37	490	635	1340	0.37	0.47
292	GIBSON RD	BEVERLY PARK RD	SR 99	106	150	1460	0.07	0.10	315	275	1460	0.22	0.19
293	GIBSON RD/134 ST/4 AVE/ASH WY	SR 99	128 ST SW	1212	1457	1460	0.83	1.00	1550	2050	1750	0.89	1.17
294	E GIBSON RD	GIBSON RD	128 ST SW	202	301	1290	0.16	0.23	440	435	1290	0.34	0.34
295	NORTH RD/2 PL W/130 ST SW/MEADOW PL	164 ST SW-SE	MERIDIAN AVE S	158	298	1460	0.11	0.20	380	395	1460	0.26	0.27
296	146 ST SW/SE	MEADOW RD	CASCADIAN WY	61	94	1460	0.04	0.06	65	100	1460	0.04	0.07
297	MEADOW RD/MEADOW PL SW	146 ST SW	MERIDIAN AVE S	237	372	1540	0.15	0.24	640	590	1540	0.42	0.38
298	MERIDIAN AVE S/130 ST SE/3 AVE SE	MEADOW PL SW	SR 96	397	611	1460	0.27	0.42	1035	1040	1460	0.71	0.71
299	10 DR SE/ELGIN WY	SR 96 (132 ST SE) (MILL CR C/L)	EVT C/L	82	162	1390	0.06	0.12	250	370	1390	0.18	0.27
300	116 ST SE	EVT C/L	35 AVE SE	885	1033	1460	0.61	0.71	965	1130	1460	0.66	0.77
301	27 AVE SE/MONTE CRISTO DR	110 ft. s/o 96 ST SE (EVT C/L)	MERCHANT WY(EVT C/L)	276	264	1460	0.19	0.18	285	300	1460	0.20	0.21
303	LOWELL-SNOH RIVER RD	EVT C/L (0.867 mi. se/o Bridge 277)	AIRPORT WY	331	476	1540	0.21	0.31	485	725	1540	0.31	0.47
304	LARCH WY	164 ST SW	TSA F/ 178 ST SW	359	793	1340	0.27	0.59	410	895	1340	0.31	0.67
305	CYPRESS WY	LOCUST WY	LARCH WY	187	215	1460	0.13	0.15	215	365	1460	0.15	0.25
306	72 ST SE	SNOH UGB/87 AVE SE	SNOH C/L (180 ft. e/o 89 AVE SE)	106	174	1460	0.07	0.12	135	205	1460	0.09	0.14
308	N MACHIAS RD	SR 92	LK STEVENS UGB/ 12 ST SE	302	439	1460	0.21	0.30	455	695	1460	0.31	0.48
310	SNOH-CASCADE DR	134 PL SE	PUGET PARK DR	359	368	1750	0.21	0.21	365	375	1750	0.21	0.21
311	14 AVE W	228 ST SW	END OF CO RD	136	134	1460	0.09	0.09	685	965	1460	0.47	0.66
318	14 AVE W/CARTER RD	228 ST SW	LOCKWOOD RD	195	355	1460	0.13	0.24	525	825	1460	0.36	0.57
320	JORDAN/ARLINGTON HTS RD	SR 530	TSA B/ 0.67 mi. n/o 148 ST NE (PVT RD)	281	450	980	0.29	0.46	315	510	980	0.32	0.52
321	BURN RD	ARL C/L (450 ft. nw/o 196 ST NE)	JORDAN TRAILS RD	153	238	1090	0.14	0.22	155	250	1090	0.14	0.23
323	DUBUQUE RD N-S/LK ROESIGER RD	STORM LAKE RD	4 ST NE/ TSA B AND C BOUNDARIES	119	154	1090	0.11	0.14	160	210	1090	0.15	0.19
324	DUBUQUE RD N-S/LK ROESIGER RD	STORM LAKE RD	4 ST NE/TSA B AND C BOUNDARIES	119	154	1090	0.11	0.14	160	210	1090	0.15	0.19
326	87 AVE SE	SNOH C/L (238 ft. s/o SR 2 OVERPASS)	S LK STEVENS RD	105	274	980	0.11	0.28	110	280	980	0.11	0.29
327	THREE LKS RD	123 AVE SE (E 1/2)/SNOH C/L	171 AVE SE	349	447	980	0.36	0.46	375	470	980	0.38	0.48

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328	STORM LK RD	MERO RD	DUBUQUE RD	66	86	980	0.07	0.09	90	110	980	0.09	0.11
329	LOWELL-LARIMER RD	MARSH RD	EVT C/L	581	712	1460	0.40	0.49	880	910	1460	0.60	0.62
330	BROADWAY AVE	SR 524	164 ST SE	638	635	1460	0.44	0.43	975	825	1460	0.67	0.57
331	164 ST SE	SR 9	BROADWAY AVE	202	216	1460	0.14	0.15	245	285	1460	0.17	0.20
332	39 AVE SE	228 ST SE	SR 524	880	1053	1460	0.60	0.72	1260	1565	1750	0.72	0.89
333	228 ST SE	35 AVE SE/BTHL C/L	39 AVE SE	1057	1285	1630	0.65	0.79	1720	2565	3320	0.52	0.77
334	NORTH RD	JONATHAN RD	164 ST SW	755	761	1470	0.51	0.52	1005	1010	1760	0.57	0.57
335	LARCH WY	SR 524	TSA D/ 178 ST SW	297	352	1390	0.21	0.25	520	570	1390	0.37	0.41
336	35 AVE SE	188 ST SE	168 ST SE	835	869	1460	0.57	0.60	1280	1250	1750	0.73	0.71
337	YORK RD/35 AVE SE	SR 524	188 ST SE	1325	1542	1470	0.90	1.05	1770	1990	1760	1.01	1.13
338	OLD SNOH-MONROE RD	161 AVE SE/MNR UGB	MNR C/L	212	351	1460	0.15	0.24	280	485	1460	0.19	0.33
339	CEMETERY RD	ARL C/L	ARL C/L (204 ST NE)	236	405	1460	0.16	0.28	400	770	1460	0.27	0.53
343	MENZEL LK RD	GRAN FLS UGB	GRAN FLS C/L	99	151	1460	0.07	0.10	115	175	1460	0.08	0.12
344	100 ST NE	GRAN FLS C/L	GRAN FLS UGB (470 ft. e/o 169 DR NE)	327	305	1460	0.22	0.21	385	480	1460	0.26	0.33
346	ROBE MENZEL RD	GRAN FLS C/L	BRIDGE #204	141	233	1460	0.10	0.16	185	360	1460	0.13	0.25
347	OLD OWEN RD	MNR C/L /0.13 mi. FROM SR 2	MNR UGB/ 0.88 mi. FROM OAKS ST	770	1078	1460	0.53	0.74	820	1120	1460	0.56	0.77
348	WOODS CREEK RD	INGRAHAM RD (MNR UGB)	S LAKE ROESIGER RD	435	501	980	0.44	0.51	700	900	980	0.71	0.92
349	MT LOOP HWY	MT LOOP HWY (USFS)-END OF PAVEMENT	DARR C/L	93	134	1360	0.07	0.10	95	135	1360	0.07	0.10
350	180 ST SE	35 AVE SE	SR 9	479	626	1470	0.33	0.43	510	900	1470	0.35	0.61
352	4 AVE W	112 ST SW	EVT C/L	849	1317	2640	0.32	0.50	1375	1650	2640	0.52	0.63
353	AIRPORT WY	SR 9	SNOH C/L	816	1213	1400	0.58	0.87	1150	1550	1400	0.82	1.11
354	PARADISE LAKE RD	SR 522	KING CO LINE	937	957	1460	0.64	0.66	1265	1360	1460	0.87	0.93
360	148 ST SE	PUGET PARK DR	SEATTLE HILL RD	659	917	1460	0.45	0.63	790	1085	1460	0.54	0.74
364	MENZEL LK RD	GRAN FLS C/L	S ALDER AVE (GRAN FLS C/L)	173	239	1460	0.12	0.16	215	300	1460	0.15	0.21
365	171 AVE SE	WESTWICK RD/100 ST SE	THREE LKS RD/TSA BOUNDARIES B/C	188	246	980	0.19	0.25	235	310	980	0.24	0.32
367	CATHCART WY	SNOH-CASCADE DR	SR 9	1198	1213	2960	0.40	0.41	2130	2300	2960	0.72	0.78
368	PUGET PARK DR	SNOHOMISH CASCADE DR	CATHCART WAY	233	274	1540	0.15	0.18	275	320	1540	0.18	0.21
375	THREE LKS RD	S MACHIAS RD	SNOH C/L (M.P. 0.240)	230	340	980	0.23	0.35	250	375	980	0.26	0.38
377	W CYPRESS WY	SR 524 (FILBERT RD)	CYPRESS WY	145	189	1460	0.10	0.13	285	475	1460	0.20	0.33
379	LOCUST WY	228 ST SW	LARCH WY/LOGAN RD	626	728	1400	0.45	0.52	765	815	1400	0.55	0.58
388	131 AVE NE	LK STEVENS C/L (0.170 mi. s/o 16 ST NE)	LK STEVENS C/L (0.514 mi. s/o 16 ST NE)	72	83	1460	0.05	0.06	80	95	1460	0.05	0.07

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389	131 AVE NE/2 ST SE	4 ST NE	123 AVE SE	49	68	980	0.05	0.07	50	70	980	0.05	0.07
390	PURPLE PENNANT RD/N-S NYDEN FARMS RD	E LAKE STEVENS RD	2 ST SE	73	95	1460	0.05	0.07	110	140	1460	0.08	0.10
391	4 ST NE	0.123 mi. e/o N NYDEN FARMS RD	N NYDEN FARMS / PURPLE PENNANT RD	53	64	1460	0.04	0.04	90	110	1460	0.06	0.08
392	123 AVE SE	MACHIAS CUTOFF RD	2 ST SE/S NYDEN FARMS RD	85	117	1460	0.06	0.08	125	165	1460	0.09	0.11
394	32 ST SE	103 AVE SE	SR 9	199	286	980	0.20	0.29	280	415	980	0.29	0.42
397	SUNSET RD	180 ST SE	164 ST SE/TSA D/E BOUNDARY	226	238	1460	0.15	0.16	525	490	1460	0.36	0.34
398	SUNSET RD	164 ST SE/TSA D/E BOUNDARY	156 ST SE	215	263	1460	0.15	0.18	515	295	1460	0.35	0.20
399	156 ST SE	35 AVE SE	SUNSET RD	306	389	1540	0.20	0.25	320	405	1540	0.21	0.26
400	156 ST SE	SUNSET RD	UGB (510 ft. w/o Forest View Elem. W Exit)	211	224	1220	0.17	0.18	220	235	1220	0.18	0.19
401	169 ST SE/ W INTERURBAN BLVD	35 AVE SE	51 AVE SE	164	179	1460	0.11	0.12	235	300	1460	0.16	0.21
402	41 AVE SE	156 ST SE	148 ST SE	197	262	1540	0.13	0.17	475	555	1540	0.31	0.36
403	139 AVE SE-DUBUQUE RD 'Y'	139 AVE SE	DUBUQUE RD	46	51	1220	0.04	0.04	55	90	1220	0.05	0.07
410	CARLSON RD/171 AVE SE	OK MILL RD	DUBUQUE RD	136	203	980	0.14	0.21	200	280	980	0.20	0.29
411	204 ST SW	28 AVE W	CYPRESS WY	386	369	1540	0.25	0.24	475	455	1540	0.31	0.30
414	56 ST SE/107 AVE SE	310 ft. e/o 99 AVE SE	SNOH C/L	204	195	1460	0.14	0.13	305	350	1460	0.21	0.24
415	36/35 AVE W	164 ST SW	148 ST SW	588	945	1340	0.44	0.71	1075	1350	1680	0.64	0.80
417	32 ST SE/91 AVE SE	SR 9	END OF CO RD	38	53	980	0.04	0.05	60	90	980	0.06	0.09
419	236 ST NE/NW	PIONEER HWY	I-5 SB ON/OFF RAMPS	102	132	1090	0.09	0.12	390	260	1090	0.36	0.24
420	YORK RD/35 AVE SE	SR 524	188 ST SE	1325	1542	1470	0.90	1.05	1770	1990	1760	1.01	1.13
423	MARINE DR	7 DR NW	83 PL NW	765	884	1090	0.70	0.81	1010	1185	1400	0.72	0.85
424	19 AVE NE/156 ST NE/23 AVE NE	MSVL C/L (.147 s/o 170 ST NE)	140 ST NE	229	386	1460	0.16	0.26	385	580	1460	0.26	0.40
425	212 ST NE/TVIET RD	ARL C/L	395 ft. w/o 92ND AVE NE (PVT)	138	165	1460	0.09	0.11	245	290	1460	0.17	0.20
427	64 AVE NW	SR 532	STWD UGA BOUNDARY	18	41	1540	0.01	0.03	25	55	1540	0.02	0.04
428	64 AVE NW	STWD UGA BOUNDARY	PIONEER HWY NW	20	41	980	0.02	0.04	40	105	980	0.04	0.11
429	80 AVE NW	STWD UGA BDRY. (20 ft. s/o PVT. Rd.)	300 ST NW	78	96	1090	0.07	0.09	100	135	1090	0.09	0.12
430	80 AVE NW	STWD C/L (0.192 mi. s/o 288 ST NW)	STWD UGA BDRY. (20 ft. s/o PVT. Rd.)	83	102	1460	0.06	0.07	105	140	1460	0.07	0.10
432	95 AVE NE	BURN RD	ARL C/L (145 ft. s/o 196 PL NE)	26	36	980	0.03	0.04	30	40	980	0.03	0.04
435	WOODLAND RD	STWD C/L (1,120 ft. se/o 70 AVE NW)	STWD UGA BOUNDARY	189	208	980	0.19	0.21	210	435	980	0.21	0.44

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436	WOODLAND RD/64 AVE NW	STWD UGA BOUNDARY	SR 532	93	131	1460	0.06	0.09	115	195	1460	0.08	0.13
437	16 ST NE	LK STEVENS C/L	N MACHIAS RD (UNIT 308)	51	105	1460	0.03	0.07	60	115	1460	0.04	0.08
438	103 AVE SE	LK STEVENS C/L (0.048 mi. s/o 26 PL SE)	BUNK FOSS RD	204	262	980	0.21	0.27	210	270	980	0.21	0.28
439	60 ST NE/99 AVE NE	SR 9	SR 92	67	118	980	0.07	0.12	140	345	980	0.14	0.35
441	132 ST SE/339 AVE SE	SULTAN C/L	SULTAN C/L	29	35	1460	0.02	0.02	35	45	1460	0.02	0.03
442	164 ST SE/419 AVE SE	415 AVE SE (GOLD BAR C/L)	NORTHERN TERMINUS OF 419 AVE SE	16	34	980	0.02	0.03	50	75	980	0.05	0.08
443	179 AVE SE/ROBINHOOD LN/TROMBLEY RD	SR 2	MNR UGA BOUNDARY	301	386	1340	0.22	0.29	445	520	1340	0.33	0.39
444	MAY CR RD	LEY RD (GOLD BAR C/L)	419 AVE SE EXTENSION	25	46	1090	0.02	0.04	30	60	1090	0.03	0.06
445	SPRINGHETTI RD	BROADWAY AVE	AIRPORT WY	259	337	1090	0.24	0.31	450	695	1090	0.41	0.64
446	TROMBLEY RD	MNR UGA BOUNDARY	ROOSEVELT RD	115	160	1090	0.11	0.15	120	185	1090	0.11	0.17
447	116/117 ST SE	35 AVE SE	51 AVE SE	556	757	1470	0.38	0.51	640	930	1470	0.44	0.63
448	50 AVE SE/152 PL SE	148 ST SE	50 DR SE EXT	37	76	1540	0.02	0.05	40	80	1540	0.03	0.05
449	51 AVE SE/116 ST SE/56 AVE SE	SR 96 (SEATTLE HILL RD)	LOWELL-LARIMER RD	321	426	1540	0.21	0.28	595	565	1540	0.39	0.37
450	ADMIRALTY WY	AIRPORT RD	CENTER RD	227	350	1400	0.16	0.25	390	430	1400	0.28	0.31
451	BROOK BLVD/23 AVE SE/168 ST SE	35 AVE SE	180 ST SE	424	451	1460	0.29	0.31	435	500	1460	0.30	0.34
452	CENTER RD	SR 99	4 AVE W	201	355	1460	0.14	0.24	290	415	1460	0.20	0.28
453	LINCOLN WY	BEVERLY PARK RD	143 ft. W of LAKE RD	467	559	1460	0.32	0.38	825	975	1460	0.57	0.67
454	MEADOW RD	164 ST SW	146 ST SW	323	534	1470	0.22	0.36	640	695	1470	0.44	0.47
455	156 ST SE/SILVER FIRS DR	UGB (510 ft. w/o Forest View Elem. W Exit)	PUGET PARK DR	257	245	1540	0.17	0.16	265	250	1540	0.17	0.16
456	SNOH-CASCADE DR	PUGET PARK DR	PUGET PARK DR EXT	183	223	1540	0.12	0.14	185	235	1540	0.12	0.15
457	178 ST SW/MAPLE RD	LYNN C/L (69 ft. ne/o Ash Wy - LYNN)	LARCH WY	366	835	1470	0.25	0.57	490	995	1470	0.33	0.68
458	178 ST SW/MAPLE RD	LYNN C/L	LARCH WY	337	783	1470	0.23	0.53	380	875	1470	0.26	0.60
459	196 ST SE/GRANNIS RD	SR 527	35 AVE SE	435	545	1470	0.30	0.37	540	665	1470	0.37	0.45
460	196 ST SE/GRANNIS RD	SR 527	35 AVE SE	435	545	1470	0.30	0.37	540	665	1470	0.37	0.45
461	45 AVE SE / 212 ST SE	240 ST SE	39 AVE SE	511	526	1400	0.37	0.38	850	970	1400	0.61	0.69
462	188 ST SE	35 AVE SE	E TERMINUS OF 188 ST SE	100	104	1540	0.06	0.07	140	165	1540	0.09	0.11
463	240 ST SE	SNOH-WOODINVILLE RD	MALTBY UGA BOUNDARY	225	324	1340	0.17	0.24	340	365	1340	0.25	0.27
464	240 ST SE	MALTBY UGA BOUNDARY	75 AVE SE	172	272	980	0.18	0.28	285	315	980	0.29	0.32
465	43 AVE SE	N TERMINUS OF 43 AVE SE (RD LOG # 21780) AT - 188 ST SE	196 ST SE	16	37	980	0.02	0.04	530	795	980	0.54	0.81

COUNTY ARTERIAL UNITS				Existing					2035				
Unit	Road Name	From	To	AM Peak Traffic Volume	PM Peak Traffic Volume	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio	AM Traffic Volume Forecast	PM Traffic Volume Forecast	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio
466	43 AVE SE	200 ST SE	SR 524	22	24	980	0.02	0.02	355	395	980	0.36	0.40
467	240 ST SE/47 AVE SE/244 ST SE	45 AVE SE	130 AVE SE	431	470	980	0.44	0.48	735	775	980	0.75	0.79
468	51 AVE SE	W INTERURBAN BLVD	196 ST SE	135	240	1460	0.09	0.16	215	345	1460	0.15	0.24
469	BOSTIAN RD / 224 ST SE	PARADISE LK RD	MALTBY UGA BOUNDARY	185	250	1460	0.13	0.17	330	425	1460	0.23	0.29
470	224 ST SE/75 AVE SE	MALTBY UGA BOUNDARY	SNOCO-KING CO LINE	241	318	980	0.25	0.32	245	325	980	0.25	0.33
471	YEW WY	BROADWAY AVE	SR 524	472	663	1460	0.32	0.45	640	695	1460	0.44	0.48
472	LOCUST WY	SR 524	LARCH WY	166	209	1460	0.11	0.14	325	325	1460	0.22	0.22
474	MT LOOP HWY	GRAN FALLS C/L	GRAN FALLS UGB (CENTER OF BRIDGE NO. 102)	262	332	1460	0.18	0.23	340	515	1460	0.23	0.35
477	35 AVE W	148 ST SW	SR 99	409	468	1400	0.29	0.33	635	615	1400	0.45	0.44
478	52 ST SE	SNOH (CITY) UGB 15 ft. w/o 83 AVE SE	BICKFORD AVE	21	39	1460	0.01	0.03	25	40	1460	0.02	0.03
480	QUARRY RD	SR 92	MT LOOP HWY	373	383	1580	0.24	0.24	415	410	1580	0.26	0.26

Appendix F

Traffic Forecasts for State Highways

Appendix F presents 2035 traffic forecasts (20-year forecasts) for state highways in Snohomish County based on the county's adopted land use plan. The methodology used in this TE to analyze state highway capacity and estimate traffic impacts to state-owned transportation facilities is similar to that used for county-owned arterial units: a planning-level, volume-to-capacity evaluation. This methodology is explained in Chapter II, Section B and Appendix E.

For the purposes of this TE, Snohomish County has identified 101 state route units for this planning-level analysis. For each unit, Appendix F presents for both existing conditions and the 2035 forecast year:

- a.m. and p.m. peak-hour traffic volumes,
- maximum service volume (MSV), and
- a.m. and p.m. peak-hour volume-to-capacity (V/C) ratios.

Traffic volumes are two-way volumes. Existing peak-hour volumes were estimated based on average daily volumes provided by WSDOT. The source of MSVs for the state route units was tailored to state highways. WSDOT does not have MSVs for state highways. Consequently, other sources were considered and, for the purposes of this TE, a set of tables developed by the Florida Department of Transportation based on the 2010 Highway Capacity Manual (ref. 12) were used to assign MSVs to the state route units. Like the analysis for county arterial units, if an improvement project that increases capacity on a state highway has been included in this TE (Appendix B), then the 2035 MSV reflects the increased capacity. The forecasted 2035 volumes are based on modeling results from the county's TDF model. More detailed descriptions of the analysis of estimated traffic impacts to state-owned transportation facilities and the county's TDF model can be found in the Draft Environmental Impact Statement (ref. 26) and Final Environmental Impact Statement (ref. 34) prepared for the 2015 Update of the GMACP.

STATE ROUTE UNITS				Existing					2035				
State Highway	Unit #	Begin	End	AM Peak Traffic Volume	PM Peak Traffic Volume	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio	AM Traffic Volume Forecast	PM Traffic Volume Forecast	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio
US 2	201	I-5	SR 204	5,840	7,300	6,450	0.91	1.13	7,485	8,615	7,710	0.97	1.12
US 2	202	SR 204	Old SR 2 (Bickford Ave)	2,480	3,100	6,200	0.40	0.50	3,190	3,720	6,200	0.51	0.60
US 2	203	Old SR 2 (Bickford Ave)	SR 9	2,000	2,500	6,200	0.32	0.40	2,730	3,150	6,200	0.44	0.51
US 2	204	SR 9	92nd St SE	1,600	2,000	6,200	0.26	0.32	1,800	2,125	6,200	0.29	0.34
US 2	205	92nd St SE	SR 522	1,936	2,420	2,400	0.81	1.01	1,465	2,160	2,400	0.61	0.90
US 2 - New section	206	SR 522	City Limit Monroe (E)						1,415	1,940	5,660	0.25	0.34
US 2	207	SR 522	Old Owen Rd	2,560	3,200	3,040	0.84	1.05	2,140	2,505	3,040	0.70	0.82
US 2	208	Old Owen Rd	City Limit Monroe (E)	1,600	2,000	2,190	0.73	0.91	1,000	1,040	2,190	0.46	0.47
US 2	209	City Limit Monroe (E)	City Limit Sultan (E)	1,440	1,800	1,628	0.88	1.11	1,820	2,215	1,628	1.12	1.36
US 2	210	City Limit Sultan (E)	County Line	880	1,100	2,190	0.40	0.50	1,065	1,345	2,190	0.49	0.61
I-5	501	County Line (SR 104)	220th St SW	10,620	14,160	14,060	0.76	1.01	12,015	16,020	14,060	0.85	1.14
I-5	502	220th St SW	SR-524	10,800	14,400	14,060	0.77	1.02	13,065	16,035	15,060	0.87	1.06
I-5	503	SR-524	I-405	8,880	11,840	19,482	0.46	0.61	11,055	13,205	19,482	0.57	0.68
I-5	504	I-405	164th St SW	11,520	15,360	16,840	0.68	0.91	13,915	16,510	16,840	0.83	0.98
I-5	505	164th St SW	SR 96 (128th St SE)	10,800	14,400	14,060	0.77	1.02	12,375	16,500	14,060	0.88	1.17
I-5	506	SR 96 (128th St SE)	SR 526	10,020	13,360	13,390	0.75	1.00	12,020	16,030	13,390	0.90	1.20
I-5	507	SR 526	41st St	11,100	14,800	17,682	0.63	0.84	13,600	16,490	17,682	0.77	0.93
I-5	508	41st St	US 2	10,380	13,840	17,682	0.59	0.78	12,315	15,230	17,682	0.70	0.86
I-5	509	US 2	SR 528	8,520	11,360	11,060	0.77	1.03	10,040	12,255	11,060	0.91	1.11
I-5	510	SR 528	88th St NE	7,740	10,320	13,390	0.58	0.77	9,370	10,915	13,390	0.70	0.82
I-5	511	88th St NE	116th St NE	7,020	9,360	10,060	0.70	0.93	9,155	10,700	10,060	0.91	1.06
I-5	512	116th St NE	SR 531	6,240	8,320	10,060	0.62	0.83	7,085	9,445	10,060	0.70	0.94
I-5	513	SR 531	SR 530	5,100	6,800	10,060	0.51	0.68	6,075	7,730	10,060	0.60	0.77
I-5	514	SR 530	SR 532	4,560	6,080	8,370	0.54	0.73	5,900	7,195	8,370	0.70	0.86
I-5	515	SR 532	County Line	3,540	4,720	8,370	0.42	0.56	4,340	5,580	8,370	0.52	0.67
9	901	SR 522	SR 524	2,240	2,800	3,580	0.63	0.78	3,565	4,025	3,580	1.00	1.12
9	902	SR 524	180th St SE	1,200	1,500	1,064	1.13	1.41	2,705	3,145	2,774	0.98	1.13
9	903	180th St SE	SR 96 (E Lowell-Larimer Rd)	1,360	1,700	1,864	0.73	0.91	2,975	3,395	3,040	0.98	1.12
9	904	SR 96 (E Lowell-Larimer Rd)	US 2	1,560	1,950	1,460	1.07	1.34	2,805	3,280	3,200	0.88	1.03
9	905	US 2	Hewitt Ave/20th St SE	1,680	2,100	1,460	1.15	1.44	2,740	3,365	3,200	0.86	1.05
9	906	Hewitt Ave/20th St SE	SR 204	1,440	1,800	1,460	0.99	1.23	2,650	3,025	3,200	0.83	0.95
9	907	SR 204	Lundeen Park Way	2,640	3,300	3,040	0.87	1.09	3,740	4,445	4,579	0.82	0.97
9	908	Lundeen Park Way	SR 92	2,000	2,500	3,040	0.66	0.82	2,540	3,040	3,040	0.84	1.00
9	909	SR 92	SR 528	1,360	1,700	1,460	0.93	1.16	1,735	1,955	1,460	1.19	1.34
9	910	SR 528	SR 531	1,200	1,500	1,168	1.03	1.28	1,405	1,655	1,168	1.20	1.42

STATE ROUTE UNITS				Existing					2035				
State Highway	Unit #	Begin	End	AM Peak Traffic Volume	PM Peak Traffic Volume	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio	AM Traffic Volume Forecast	PM Traffic Volume Forecast	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio
9	911	SR 531	SR 530	800	1,000	1,168	0.68	0.86	1,050	1,345	1,168	0.90	1.15
9	912	SR 530	County Line	624	780	1,300	0.48	0.60	730	995	1,300	0.56	0.77
92	9201	SR 9	N Machias Rd	1,200	1,500	1,460	0.82	1.03	1,610	1,680	1,460	1.10	1.15
92	9202	N Machias Rd	End of SR 92/Granite Ave	1,096	1,370	1,460	0.75	0.94	1,515	1,670	1,460	1.04	1.14
96	9601	I-5	SR 527	2,640	3,300	3,401	0.78	0.97	2,835	3,545	3,401	0.83	1.04
96	9602	SR 527	Seattle Hill Rd	2,320	2,900	3,401	0.68	0.85	2,925	3,680	3,401	0.86	1.08
96	9603	132nd St SE	E Lowell-Larimer Rd	880	1,100	1,410	0.62	0.78	1,360	1,660	1,410	0.96	1.18
96	9604	Seattle Hill Rd	SR 9	880	1,100	1,280	0.69	0.86	1,720	2,115	1,280	1.34	1.65
99	9901	County Line	SR 524	2,400	3,000	5,121	0.47	0.59	2,640	3,145	5,121	0.52	0.61
99	9902	SR 524	SR 525	2,640	3,300	5,121	0.52	0.64	3,060	3,560	5,121	0.60	0.70
99	9903	SR 525	Evergreen Way/SW Everett Mall Way	2,800	3,500	3,401	0.82	1.03	3,185	3,980	5,121	0.62	0.78
99	9904	Evergreen Way/SW Everett Mall Way	SR 526/I-5	2,640	3,300	5,121	0.52	0.64	2,975	3,720	5,121	0.58	0.73
99	9905	N 185th St	County Line	2,738	3,422	5,121	0.53	0.67	3,340	4,230	5,121	0.65	0.83
99	9906	N 175th St	N 185th St	2,981	3,726	5,121	0.58	0.73	3,475	3,985	5,121	0.68	0.78
104	10401	Edmonds Ferry Terminal	SR 104/5th Ave Merge	880	1,100	1,600	0.55	0.69	1,050	1,245	1,600	0.66	0.78
104	10402	SR 104/5th Ave Merge	SR 99	1,600	2,000	3,401	0.47	0.59	1,770	2,255	3,401	0.52	0.66
104	10403	SR 99	I-5	3,256	4,070	3,401	0.96	1.20	3,495	4,285	3,401	1.03	1.26
203	20301	County Line	US 2	1,000	1,250	960	1.04	1.30	1,210	1,440	960	1.26	1.50
204	20401	US 2	SR 9	2,400	3,000	2,990	0.80	1.00	2,810	3,200	2,990	0.94	1.07
I-405	40501	County Line	SR 527	7,440	9,920	12,363	0.60	0.80	10,405	11,290	19,482	0.53	0.58
I-405	40502	SR 527	I-5/SR 525	6,960	9,280	10,563	0.66	0.88	8,415	11,220	10,563	0.80	1.06
522	52201	County Line	SR 9	3,760	4,700	5,900	0.64	0.80	4,595	5,495	5,900	0.78	0.93
522	52202	SR 9	SR 524/Paradise Lake Rd	2,480	3,100	5,605	0.44	0.55	3,545	4,385	5,605	0.63	0.78
522	52203	SR 524/Paradise Lake Rd	164th St SE	2,160	2,700	2,190	0.99	1.23	3,810	5,065	5,660	0.67	0.89
522	52204	164th St SE	US 2	1,280	1,600	2,190	0.58	0.73	2,380	3,280	5,660	0.42	0.58
524	52401	SR 104	76th Ave W	1,040	1,300	1,410	0.74	0.92	1,295	1,560	1,410	0.92	1.11
524	52402	76th Ave W	SR 99	1,720	2,150	3,401	0.51	0.63	2,220	2,710	3,401	0.65	0.80
524	52403	SR 99	I-5	2,616	3,270	3,401	0.77	0.96	3,385	4,315	3,401	1.00	1.27
524	52404	I-5	24th Ave W	2,160	2,700	3,401	0.64	0.79	3,200	4,225	3,401	0.94	1.24
524	52405	24th Ave W	SR 527	1,384	1,730	1,520	0.91	1.14	2,365	2,965	3,401	0.70	0.87
524	52406	SR 527	SR 9	1,200	1,500	1,280	0.94	1.17	1,680	1,825	1,280	1.31	1.43
524	52407	SR 9	SR 522	528	660	1,280	0.41	0.52	1,075	1,105	1,280	0.84	0.86
524 Spur-Cedrwy	52408	SR 524 Mainline	I-5	2,160	2,700	3,759	0.57	0.72	2,345	2,935	3,759	0.62	0.78
524 Spur-3rd Ave	52409	SR 524 Mainline	SR 104	272	340	1,064	0.26	0.32	460	460	1,064	0.43	0.43

STATE ROUTE UNITS				Existing					2035				
State Highway	Unit #	Begin	End	AM Peak Traffic Volume	PM Peak Traffic Volume	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio	AM Traffic Volume Forecast	PM Traffic Volume Forecast	Maximum Service Volume	AM V/C Ratio	PM V/C Ratio
525	52501	I-5/I-405	SR 99	4,216	5,270	6,700	0.63	0.79	5,130	6,415	6,700	0.77	0.96
525	52502	SR 99	SR 525 Spur-Paine Field Blvd	3,184	3,980	3,759	0.85	1.06	3,600	4,360	3,759	0.96	1.16
525	52503	SR 525 Spur-Paine Field Blvd	Mukilteo Ferry Terminal	1,216	1,520	1,680	0.72	0.90	1,325	1,615	1,680	0.79	0.96
525 Spur-Paine	52504	SR 525 Mainline	SR 526	1,680	2,100	3,580	0.47	0.59	2,595	2,310	3,580	0.72	0.65
526	52601	SR 525 Mainline	Airport Rd	2,616	3,270	5,605	0.47	0.58	3,085	3,560	5,605	0.55	0.64
526	52602	Airport Rd	Evergreen Way	4,104	5,130	8,398	0.49	0.61	4,605	5,755	8,398	0.55	0.69
526	52603	Evergreen Way	I-5	5,920	7,400	8,398	0.70	0.88	6,285	7,860	8,398	0.75	0.94
527	52701	I-405	SR 524	3,624	4,530	4,261	0.85	1.06	4,910	5,285	4,261	1.15	1.24
527	52702	SR 524	180th St SE	2,760	3,450	3,401	0.81	1.01	3,730	3,955	3,401	1.10	1.16
527	52703	180th St SE	164th St SE	2,400	3,000	3,401	0.71	0.88	3,335	3,550	3,401	0.98	1.04
527	52704	164th St SE	SR 96	1,760	2,200	3,401	0.52	0.65	2,585	2,685	3,401	0.76	0.79
527	52705	SR 96	112th St SE	1,560	1,950	3,401	0.46	0.57	2,400	2,385	3,401	0.71	0.70
527	52706	112th St SE	I-5	2,104	2,630	3,401	0.62	0.77	3,015	3,095	3,401	0.89	0.91
528	52801	I-5	SR 529	2,520	3,150	2,708	0.93	1.16	2,700	3,380	2,708	1.00	1.25
528	52802	SR 529	SR 9	1,440	1,800	2,708	0.53	0.66	1,465	1,830	2,708	0.54	0.68
529	52901	Pacific Ave	Everett Ave	1,040	1,300	2,774	0.37	0.47	1,460	1,955	2,774	0.53	0.70
529	52902	Maple St	W Marine View Dr	1,256	1,570	2,774	0.45	0.57	1,395	1,800	2,774	0.50	0.65
529	52903	Everett Ave	Broadway Ave	1,040	1,300	3,401	0.31	0.38	1,855	1,635	3,401	0.55	0.48
529	52904	Broadway Ave	I-5	2,440	3,050	4,695	0.52	0.65	3,695	3,465	4,695	0.79	0.74
529	52905	I-5	SR 528	1,064	1,330	2,990	0.36	0.44	2,730	2,525	2,990	0.91	0.84
529 Spur-Everet	52906	Maple St	I-5	608	760	2,774	0.22	0.27	1,195	1,345	2,774	0.43	0.48
530	53001	I-5	SR 9	1,328	1,660	1,550	0.86	1.07	1,720	1,885	1,550	1.11	1.22
530	53002	SR 9	Arlington Heights Rd	824	1,030	1,300	0.63	0.79	1,135	1,370	1,300	0.87	1.05
530	53003	Arlington Heights Rd	County Line	336	420	1,550	0.22	0.27	785	835	1,550	0.51	0.54
531	53101	Wenberg County Park	Lakewood Rd	164	205	2,190	0.07	0.09	220	270	2,190	0.10	0.12
531	53102	E Lake Goodwin Rd	Forty Five Rd	720	900	2,190	0.33	0.41	815	1,015	2,190	0.37	0.46
531	53103	Forty Five Rd	I-5	816	1,020	960	0.85	1.06	960	1,225	960	1.00	1.28
531	53104	I-5	Smokey Point Blvd	2,576	3,220	3,838	0.67	0.84	2,730	3,435	3,838	0.71	0.89
531	53105	Smokey Point Blvd	67th Ave NE	1,624	2,030	1,460	1.11	1.39	1,825	2,365	3,040	0.60	0.78
531	53106	67th Ave NE	SR 9	784	980	1,460	0.54	0.67	1,175	1,765	3,040	0.39	0.58
532	53201	County Line	64th Ave NW	1,440	1,800	1,460	0.99	1.23	1,575	2,080	1,460	1.08	1.42
532	53202	64th Ave NW	I-5	1,360	1,700	2,190	0.62	0.78	1,535	2,075	2,190	0.70	0.95

EXHIBIT B

Amended Ordinance 14-137

Arterial Circulation Map

SNOHOMISH COUNTY 2015 GMA COMPREHENSIVE PLAN UPDATE

Map 1
Arterial Circulation

EXHIBIT B

	Existing	Recommended*
Interstate		
Freeway / Expressway		
Principal Arterial		
Minor Arterial		
Major Collector		
Minor Collector		

*Subject to Additional Study

- Incorporated City
- Tulalip Reservation
- UGA Boundary
- County Boundary
- National Forest
- The Consolidated Borough of Quil Ceda Village
- Interstate Highway
- Arterial Roadway
- Local Road
- Railroad
- Water

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Adopted June 10, 2015

2015 UPDATE

EXHIBIT C

Amended Ordinance 14-137

Bicycle Facility System Map

Darrington Inset

To Darrington

To Arlington

To Granite Falls

Sultan / Gold Bar Inset

Please Contact Parks for more information about this stretch of the proposed trail alignment

SNOHOMISH COUNTY 2015 GMA COMPREHENSIVE PLAN UPDATE

Map 2

EXHIBIT C

Countywide Bicycle Facility System

	Existing	Proposed
County Bikeway	———	·····
County Trail	———	·····
Municipal Bikeway	———	·····
Interstate/ State Highway*	———	

NOTE: All County Roads are Bicycle Facilities. Rural roads will have 7/8 foot shoulders. See county parks plan for additional trail information. See city plans for additional bike information. See state plan for additional bike information.

* Option for Biking. See WSDOT Bike Map.

- Incorporated City
- Tulalip Reservation
- County Boundary
- UGA Boundary
- National Forest
- The Consolidated Borough of Quil Ceda Village
- Interstate Highway
- Arterial Roadway
- Local Road
- Railroad
- Water

0 1 2 4

Miles

N

Adopted June 10, 2015

2015 UPDATE

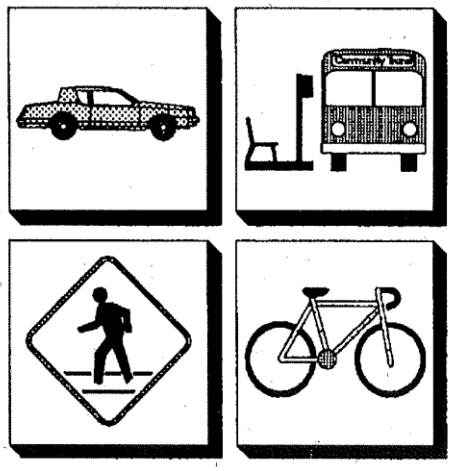
EXHIBIT D

Amended Ordinance 14-137

Transportation Facilities and Services – Catalog of Maps and Databases

Inventory Of Transportation Facilities and Services

Catalog of Maps and Databases



Revised ((~~January 2002~~))July 14, 2014

Snohomish County
Public Works

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Background and Purpose

The purpose of this catalog is to provide an easy to understand reference to information available on transportation facilities and services in Snohomish County. This information helps provide a sound basis for transportation planning and decision-making.

1.2 Growth Management Act Requirements

In 1990, the State Legislature passed the Growth Management Act (GMA), which requires each city and the county to perform:

An inventory of air, water and ground transportation facilities and services, including transit alignments and general aviation airport facilities, to define existing capital facilities and travel levels as a basis for future planning. This inventory must include state-owned transportation facilities within the city or county's jurisdiction boundaries. (RCW 36.70A.070(6)(a)(iii)(A))

The Snohomish County Department of Public Works, in compliance with the GMA, maintains a set of maps and related databases that provide an inventory of transportation facilities and services. The inventory is part of the County's *GMA Comprehensive Plan: Transportation Element*. This information is available to the public by calling Snohomish County Public Works at 425-388-3488.

2. TRANSPORTATION FACILITIES AND SERVICES

2.1 Public Highways, Streets and Roads

Snohomish County, along with 20 municipalities,((~~and~~)) the Washington State Department of Transportation (WSDOT), and the Tulalip Tribe provide the public roadway system in Snohomish County. Major responsibilities include the planning, design, construction, and maintenance of these transportation facilities.

To have a better understanding of the highway, street and road system, Snohomish County maintains a functional classification system. The system is shown on the Arterial Circulation Map. ((~~In urban areas, an arterial can be classified as a freeway, principal arterial, minor arterial, or collector arterial. In rural areas, the classification system is freeway, principal arterial, major collector arterial, and minor collector arterial.~~)) Arterials are classified as an interstate, freeway/expressway, principal arterial, minor arterial, major collector, or minor collector. High Occupancy Vehicle Lanes (HOV) are also designated on state highways and a county arterial, Airport Road/128th St SW.

Other important information specific to Snohomish County roads such as traffic volumes, traffic control, bridges, road geometry, and striping are maintained in separate databases such as ((~~CRIS (County Road Information System)~~ Mobility.

2.2 Countywide ((~~Bikeway~~)) Bicycle Facility System

Integrated within the Snohomish County public highway, street, and road system are non-motorized facilities including separated paths. The Countywide Bicycle Facility System includes ((~~the Centennial and Interurban))~~ trails, such as the Centennial and Interurban trails; designated on-street bike lanes on ((~~several))~~ some State highways; select County and city roads; routes on widened County road shoulders; and streets and roads with shared roadway use that do not include special markings or signs.

2.3 Southwest Area Pedestrian Facility System

Pedestrian facilities are another form of non-motorized transportation that run adjacent to roadways within the county. The Southwest Area Pedestrian Facility System includes facilities on state, county, city, and tribal roads. The facilities include sidewalks; shoulders; and both regional and local trails.

2.4 Public Transit

Public transit is an important part of the transportation system within Snohomish County. ((~~Four~~)) Six transit systems currently operate within the County working cooperatively to provide for the transportation needs of our residents and commuters.

Community Transit

The Snohomish County Public Transportation Benefit Area (PTBA) Corporation is a special purpose municipal corporation approved by voters in 1976 that operates Community Transit (CT). The PTBA consists of most of the urban portion of Snohomish County, excluding the City of Everett.

Community Transit operates ((~~52~~)) **forty-five** routes: ((~~19~~)) **twenty-three** as local routes (including 1 Bus Rapid Transit route) and ((~~33~~)) **twenty-two** commuter express routes. CT served over **9.1 million** passenger rides with **281** coaches and had a total of **more than 1,500 bus stop locations in 2013**. The Express routes provide service to Boeing's Everett facility, downtown Seattle, the Eastside (Redmond, Bellevue), and the University of Washington. ((~~CT discontinued demand-response service effective February 2000 due to funding cuts initiated through a voter-approved referendum.~~))

Community Transit provides ride-matching service to people interested in carpooling and provides vans to employers for commuter vanpooling. ((~~CT Operates 20 park-and-ride lots and three transfer centers within the County.~~)) CT operates three transfer stations and **twenty park-and-ride lots** with more than 7,355 parking stalls within the County. ((~~The Everett Multimodal Station will open in early 2002 providing a large transit center and park and ride lot. A true multimodal center, the station will connect Everett Transit, Community Transit, and Sound Transit passengers with Amtrak and Greyhound riders.~~))

Everett Transit

The City of Everett took over operation of a private transit company in 1969 and created Everett Transit. Everett Transit provides fixed route service throughout the city and demand-response service to elderly and disabled riders within its PTBA. ((~~Everett Transit currently operates nine routes serving~~)) In 2013, Everett Transit served over **2 million** boardings at **617 bus stops** with **49 buses** and **21 routes** in the City of Everett and its immediate surroundings. ((~~Everett Transit also provides demand response service within its PTBA.~~)) The Everett Multimodal Station near downtown Everett provides a large transit center with a park-and-ride lot. As a true multimodal

center, the station connects Everett Transit, Community Transit, Sound Transit, and Skagit Transit passengers with Amtrak, Greyhound, and Northwest Trailways riders.

King County Metro

Metro has been operating transit service in King County since 1973 and is now part of King County government. King County Metro operates primarily in King County, but runs ((~~four~~)) one custom/express ((~~route~~)) routes to Boeing's Everett facility. ((~~They~~)) Metro also provides ((~~six~~)) two fixed routes ((~~whose northern termini are located in southern Snohomish County~~)) that travel into and serve southwest Snohomish County. A large fleet of vanpools provide transportation for a number of King County residents commuting to Snohomish County employers.

Sound Transit

In 1996, voters of the "Greater" Seattle area approved funding of a 10-year regional transportation plan now known as Sound Transit's *Sound Move*. Sound Transit's PTBA extends south from Everett to Tacoma, including portions of Snohomish, King, and Pierce counties. In 2008, voters approved the Sound Transit 2 ballot measure, which adds regional express bus service and will extend light rail service into Snohomish County by 2023. Sound Transit's goal is to respond to a growing demand for public transit within the region.

Sound Transit provides inter-county bus service to Snohomish County. ((~~Nine~~)) Six express bus routes provide service between King and Snohomish counties. Community Transit operates Sound Transit's routes in Snohomish County under contract. Routes ((~~505/506/510, and 512/513~~)) 510/512, 513, and 535 coming into Everett ((~~will~~)) utilize the ((~~new~~)) Everett Multimodal Station ((~~beginning in early 2002~~)) in downtown Everett. Sounder Commuter Rail service ((~~is slated to begin~~)) runs between Seattle, Edmonds Station, Mukilteo Station, and the Everett Multimodal Station ((~~in 2003~~)).

Island Transit and Skagit Transit

Skagit Transit runs an express bus route from Mount Vernon to Everett. Island Transit runs two bus routes from Camano Island to Stanwood and one to Stanwood and Mount Vernon. Both agencies offer vanpool options for their resident commuters traveling to Snohomish County employers.

2.5 Other Public and Private Passenger and Freight Transportation Facilities and Services

Other public agencies and private transportation providers own and operate facilities and services within Snohomish County.

Intercity Bus

Greyhound and Northwest Trailways bus lines provide interstate bus transportation connecting Snohomish County with Bellingham northward, Spokane ((~~and~~)) eastward, and Portland ((~~and south~~)) southward. The Greyhound terminal is located in ((~~downtown Everett and will relocate to the Everett Multimodal Station in 2002~~)) the ((~~downtown~~)) Everett Multimodal Station.

Passenger Rail

Amtrak currently provides passenger rail service from Seattle through Snohomish County with stops ((~~in~~)) at Edmonds ((~~and~~)), Everett Multimodal Station, and Stanwood. The service provides north-south connections to Vancouver, British Columbia and Portland, Oregon southward. It also runs service easterly to ((~~Wenatchee~~)) Spokane and beyond. ((~~The Everett Multimodal Station will serve Amtrak passengers beginning in early 2002~~))

Freight Rail

The Burlington Northern Santa Fe (BNSF) Railroad provides rail freight service. Its major terminal facility within Snohomish County is located near downtown Everett on the waterfront.

Snohomish County's eastside rail corridor currently provides freight service with additional potential future uses as a regional non-motorized multi-use trail, excursion train, and commuter rail line.

Ferry System

Two Washington State Ferry (WSF) routes serve Snohomish County providing cross((-))Puget ((sound)) Sound travel. The Edmonds-Kingston route operates between the cities of Edmonds and Kingston. The Edmonds Ferry Terminal has ((~~a 175-space parking lot)~~) 220 spaces in parking lots nearby and provides a separated overhead walk-on passenger ramp for boarding. ~~Two Jumbo class ferries with 206 vehicle and 2000 passenger carrying capacities currently serve the route with 450-minute headways.~~ J**umbo and jumbo Mark II class ferries with 188-205 vehicle and 2000-2500 passenger carrying capacities** currently serve the route with 30-minute headways. In ((~~2001~~)) 2013, ((~~2,410,329~~)) 2,036,982 vehicles and ((~~4,706,085~~)) 1,817,926 passengers were served on the route.

The Mukilteo-Clinton ferry route operates between two WSF terminals located in the cities of Mukilteo and Clinton. The Mukilteo Terminal ((~~has a 110 space parking lot~~)) has **limited parking. ((~~Two~~)) Issaquah and Olympic class ferries with ((~~100-103~~)) 124-144 vehicle and 1,200-1500 passenger carrying capacities** currently serve the route with ((~~30-35~~)) 20 minute headways. In ((~~2001~~)) 2013, approximately ((~~2,229,960~~)) **2,119,716 vehicles and ((~~4,152,796~~)) 1,787,254 passengers** were served on the route.

Airports

Several public and private airports are located in Snohomish County. Paine Field airport is located southwest of Everett and is owned and operated by Snohomish County. The airport has three runways used for general aviation and for aircraft-related manufacturing. The City of Arlington owns and operates ((~~an airport.~~)) ((~~The~~)) the Arlington Airport which has two runways ((~~and~~))with an adjoining industrial park. A municipal airport in Darrington provides for general aviation use with one runway. Other smaller privately owned airports exist in Granite Falls, Marysville, Monroe, Snohomish, and Sultan.

Marine Port Facilities

The Port of Everett operates **8 berths on 100 acres handling over ((~~1 million~~)) 359,000 tons of cargo ((~~annually~~)) in 2013** ((~~,~~));; mainly wood and ((~~agricultural product~~)) container exports, ((~~alumina ore and specialized aircraft parts imports~~)) cement and general cargo imports. BNSF Railroad serves the facility. The Port of Everett also owns the largest marina on the West Coast with **a ((~~2,050~~)) 2,300 capacity boat-slip marina**. The Port of Edmonds owns and operates a ((~~940~~)) **662 boat-slip marina** providing for both recreational and commercial users.

3. TRANSPORTATION INVENTORY

3.1 Transportation Databases and Maps

Snohomish County's Inventory of Transportation Facilities and Services ((~~Inventory~~)) is maintained in both text and digital map form. Written information is maintained in database software, while digital maps of the inventory are produced through the County's Geographic Information System (GIS). Together, this system of database tables and digital maps provide ((~~a complete~~)) an inventory of both public and private transportation facilities and services within Snohomish County.

Database Structure and Components

The Snohomish County Transportation Inventory of Facilities and Services ((~~Inventory~~)) database contains tables of existing inventory data. A list of the tables and a general description of each is shown ((~~on the following page~~)) below.

In addition, the Snohomish County Public Works Department maintains the Arterial Unit Database providing information on each arterial under Snohomish County jurisdiction. The database summarizes existing traffic count data, travel time study results, and roadway geometry for each county arterial unit, which are delineated on a separate digital Arterial Units map. The information is used to monitor and assess existing traffic conditions annually and as an aid during the land use development review process. Snohomish County Public Works also maintains its ((~~County Road Information System (CRIS.)~~)) road inventory in Mobility. ((~~CRIS~~)) Mobility enables the Department to maintain data on ((~~accidents, traffic volumes, and physical facilities.~~)) road characteristics. ((~~CRIS contains a series of data files that relate to the various components of the system~~)) The county also has databases for traffic volumes and accidents/collisions.

Table Name	**Inventory Description**
County Road System Tables *(maintained by Traffic Operations Section)*	Traffic counts, accident data, intersection information, facility roadway geometry, sign inventory, road striping, and other pavement markings.
Airports/Airfields	Existing airports and airfields
Bridges	Existing county-maintained bridges

Table Name	Inventory Description
Transit Routes System Tables	Existing Community Transit (CT), Sound Transit, Everett Transit, and King County Metro transit fixed routes. ((~~Sound Transit fixed routes operated by CT.~~))
Ferries	State Ferry terminals and routes
Grade-separated Interchanges	Existing and proposed WSDOT grade-separated interchanges
Park & Ride Lots	Major park and ride lots
Ports	Major port facilities
Rail Terminals	Rail terminal locations
Railroad Crossings	Railroad crossing locations
Traffic Signal Tables	Signals maintained by Snohomish County as well as other city and WSDOT traffic signals
Transit Transfer Stations	Major transit transfer centers

Other transportation system components, such as high-occupancy vehicle (HOV) lanes, bikeways and urban trails, pedestrian facilities, and interstate bus facilities are better illustrated in digital map form. As a result, they are not included in the database inventory.

Available Maps

Digital ((~~Maps~~)) maps depicting various components of the County's Inventory of Transportation Facilities and Services ((~~Inventory~~)) are referenced ((~~on the next page)~~) below. These digital maps ((~~provide~~)) include other useful information including: city limits, designated urban growth areas, water features, and major roadways. These digital maps cover the entire western portion of ((~~the~~)) Snohomish County. Two of the digital maps, Arterial Circulation and Countywide Bicycle Facility System, are printed in paper format in the Transportation Element.

Sources of Data

Information contained in the Inventory of Transportation Facilities and Services ((~~Inventory~~)) originates from a variety of sources. Freeways, streets, roads, bikeways, and related facilities

inventories were primarily derived from the Snohomish County Public Works Department, individual cities and towns, the Tulalip Tribe, and the Washington State Department of Transportation.

Transit information, including routes, park-and-ride lots, and transit transfer centers was obtained from WSDOT and transit agencies operating in Snohomish County. State Ferries information was provided by WSF.

Information on other public and private passenger and freight transportation facilities and services such as ports, railroads, and interstate bus service, was obtained from the respective agency or company.

Map Name	Inventory Description
Arterial Circulation	Arterial functional classification and ((~~Recommended~~)) recommended ((~~New~~))new ((~~Arterials~~)) arterials
Bridges and Grade-Separated Interchanges	County maintained bridges((~~,~~)) and WSDOT grade-separated interchanges
Signals and Number of Lanes	Countywide traffic signals and number of lanes on major arterials
Bikeways, Urban Trails, and Railroad Crossings	Existing bikeways, ((~~and~~)) urban trails, ((~~Railroad~~)) railroad crossings, and ((~~Existing~~)) railway lines
Countywide Bicycle Facility System	Existing and proposed ((~~Bikeways~~))bikeways/((~~Trails~~))trails
Southwest Area Pedestrian Facility System	Existing pedestrian facilities
Transit Facilities and High Occupancy Vehicle Lanes	Community Transit (CT) routes, ((~~CT~~)) transfer stations, ((~~CT~~))maintenance facility, ((Transit))transit centers, ((~~Major~~))major ((~~Park~~))park & ((~~Ride~~))ride facilities, and High Occupancy Vehicle (HOV) lanes
Intermodal Facilities	Airports and airfields, ((~~Railways~~))railways, WSDOT ferry terminals and routes,((~~Interstate~~)) interstate bus terminals and routes, and ((~~Port~~))port locations
State Highway Units and Inventory	WSDOT freeways and highways, ((~~Freeway~~)) interchanges, ((~~WSDOT Park~~)) park & ((~~Ride~~)) ride lots, and WSF routes and terminals

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