

**Snohomish County Department of Public Works (DPW) Rules For The  
Concurrency and Road Impact Mitigation Requirements of Chapter 30.66B SCC**

**EFFECTIVE 9-19-16**

These rules are adopted pursuant to SCC 30.66B.080 and Chapter 30.82 SCC to provide detail and specificity for implementing the requirements of Chapter 30.66B SCC.

**TABLE OF CONTENTS**

<b>4220 PRESUBMITTAL CONFERENCES AND TRAFFIC STUDIES</b>	<b>4</b>
4220.010 Applicability and/or Purpose	4
4220.020 Presubmittal Conferences	4
4220.030 Traffic Studies	5
4220.040 Trip generation	7
4220.045 Trip Generation for Development Applications Involving Boundary Line Adjustments or Future Development Tracts	9
4220.060 Traffic Counts	12
4220.070 Trip Distributions and Assignments	12
4220.080 Defining a Development’s Transportation Service Area	14
4220.090 Analysis of Traffic Impacts	14
4220.100 Traffic Studies Used to Make Concurrency Determinations	14
<b>4221 DEDICATION, DEEDING, OR ESTABLISHMENT OF RIGHT-OF-WAY</b>	<b>16</b>
4221.010 Purpose	16
4221.020 Right of Way Required	16
4221.030 Extent of Right-of-Way Required	17
4221.040 Format of Right-of-Way Deeding	17
4221.050 Timing of Right-of-Way Acquisition	17
4221.060 Compensation for Right-of-Way and Improvements	17
<b>4222 FRONTAGE AND OFFSITE ROAD IMPROVEMENTS</b>	<b>20</b>
4222.010 Purpose	20
4222.015 Extent of Improvements	20
4222.020 Frontage Improvement Standard	20
4222.040 Engineering Reasons and Other Criteria Used in Determining the Extent of Improvements	21
4222.050 Pedestrian Walkways	22
<b>4223 INADEQUATE ROAD CONDITIONS</b>	<b>23</b>
4223.010 Purpose	23
4223.020 Mitigation of Impacts on Inadequate Road Conditions is Required	23

4223.030	Timing of Elimination of Inadequate Road Conditions	23
4223.040	Determination of Inadequate Road Condition Locations	24
4223.050	Appeal of Inadequate Road Condition Determination	24
4223.060	Determination that A Road Condition is No Longer Inadequate	24
<b>4224</b>	<b>MAKING LEVEL-OF-SERVICE DETERMINATIONS</b>	<b>26</b>
4224.010	Purpose	26
4224.020	Level of Service Standards	26
4224.030	Arterial Units	26
4224.040	Level of Service Determinations	27
4224.050	Arterial Units in Arrears	31
4224.060	Arterial Units No Longer in Arrears	32
4224.070	Level of Service Screening Tables for Urban/Suburban Category 1 Arterial Units	33
4224.080	Level of Service Table for Rural Category 2 Arterial Units	41
4224.100	Ultimate Capacity Process	47
4224.110	Ultimate Capacity Criteria	48
<b>4225</b>	<b>MAKING CONCURRENCY DETERMINATIONS</b>	<b>51</b>
4225.020	Concurrency Management System	52
4225.040	Defining Responsibility for Knowledge of Level of Service Conditions of the Road System	52
4225.050	Making and Documenting Concurrency Determinations	53
4225.070	Defining Key “Points in Time” Associated with Concurrency Determinations	54
4225.080	Excluding Developments from the Inventory of Developments Determined Concurrent (Pipeline Inventory)	54
4225.090	Pipeline Forecast Reports	55
4225.100	Preapplication Concurrency Evaluation Process	56
4225.110	Conditional Concurrency Approvals	58
<b>4226</b>	<b>CREDIT FOR RIGHT-OF-WAY AND DEVELOPER CONSTRUCTED IMPROVEMENTS TO THE ROAD SYSTEM</b>	<b>61</b>
4226.020	Credit for Right-Of-Way and Developer Constructed Improvements	61
4226.030	Requests for Credits and Application to Individual Units	62
<b>4228</b>	<b>TRANSPORTATION DEMAND MANAGEMENT (TDM) FOR DEVELOPMENT</b>	<b>64</b>
4228.020	Trip Reduction Credits Procedures.	64
4228.030	TDM Measures Eligible for Trip Reduction Credits.	64
4228.040	TDM Plan or Written Proposal Required to Receive Trip Reduction Credits	64
4228.050	Restrictions	64

4228.060	Application of Trip Reduction Credits	65
4228.070	Discontinuance or Non-implementation of TDM Plans.	66
4228.080	Trip Reduction Credits for TDM Compatible On-Site Design Features for Commercial Developments.	66
4228.090	Trip Reduction Credits for TDM Compatible On-Site Design Features for Residential Developments.	67
4228.100	Trip Reduction Credits for Voluntary Trip Reduction Programs for Commercial Developments.	67
4228.110	Additional Trip Reduction Credits for Trip Reduction Measures with Area-Wide Impact.	69
<b>4229</b>	<b>WRITTEN PROPOSALS AND VOLUNTARY AGREEMENTS FOR MITIGATING IMPACTS TO ANOTHER JURISDICTION</b>	<b>71</b>
4229.010	Applicability	71
4229.020	Written Proposals	71
4229.030	Voluntary Agreements	71
<b>4231</b>	<b>TRANSPORTATION IMPACT ANALYSES AND CERTAIN TRANSPORTATION MITIGATION REQUIREMENTS ASSOCIATED WITH MINERAL OPERATIONS AND/OR OTHER DEVELOPMENTS GENERATING LARGE TRUCK TRAFFIC</b>	<b>72</b>
4231.010	Applicability and/or Purpose	72
4231.020	General Traffic Study Requirements	72
4231.030	Trip Generation, Distribution and Assignment	73
4231.040	Traffic Impact Analysis for Mineral Operations	74
4231.050	Application of 30.66B Development Review Requirements and Identification of Improvements	76
4231.060	Responsibilities for State Highways, Town, and City Streets	77
4231.070	State Laws Related To Local Governments Authority To Regulate Streets And Roads	77
<b>4232</b>	<b>CONCURRENCY REQUIREMENTS FOR PUBLIC FACILITIES NECESSARY TO SUPPORT RESIDENTIAL DEVELOPMENT</b>	<b>80</b>
4232.010	Applicability	80
4232.020	Process and Timing	80
4232.040	Public Facility Necessary to Support Residential Development	80
<b>4233</b>	<b>MULTIMODAL ARTERIAL UNITS – RULES RELATED TO DESIGNATION</b>	<b>81</b>
4233.010	Purpose	81
4233.020	Determination by County Engineer	81
4233.030	Technical Evaluation and Recommendation by the County Traffic Engineer	81
4233.040	Criteria for Multimodal Designation	82

## **4220 PRESUBMITTAL CONFERENCES AND TRAFFIC STUDIES**

### **4220.010 Applicability and/or Purpose**

*Adopted: 7/13/95, First Revision: 1/26/99, Second Revision: 7/17/00, Third Revision: 1/1/03, Fourth Revision 10/11/04, Fifth Revision 9/19/16*

(1) This Rule applies to Presubmittal Conferences conducted pursuant to SCC 30.66B.020. Presubmittal Conferences are not the same as “Preapplication Conferences” although they are often a part of the latter. While not every development may choose to have a Preapplication Conference, a Presubmittal Conference is mandatory.

(2) This Rule also applies to all traffic studies either required by the County or offered by developers pursuant to SCC 30.66B.035, 040 and 045 to assess the impact of developments on the County Road System. Pursuant to interlocal agreements, traffic studies may also be required by the Washington State Department of Transportation (WSDOT), cities, towns or other counties.

### **4220.020 Presubmittal Conferences**

*Adopted: 7/13/95, First Revision: 1/26/99, Second Revision: 7/17/00, Third Revision: 1/1/03, Fourth Revision 10/11/04, Fifth Revision 9/19/16*

(1) Developers are required to attend a presubmittal conference before submitting an application for all development except for:

- (a) Single-family dwellings;
- (b) Structures accessory to a single family use not used for commercial purposes;
- (c) Attached or detached accessory apartments;
- (d) Duplex conversions;
- (e) Temporary dwellings; or
- (f) Portable classrooms for public k-12 schools utilizing existing access.

(2) The Presubmittal Conference is required in order to determine the transportation-related aspects of the proposed development proposal, whether a traffic study will be required by the County, WSDOT, and/or any other cities, towns or counties, and to ensure that the application is submitted with adequate information for the review process.

(3) The determinations made at the Presubmittal Conference shall be shown on the Presubmittal Conference Review Form which will be signed and dated by the appropriate County and developer representatives. Such determinations will include the scope of traffic information that must be included with the development’s initial application for it to be accepted by the County.

(4) Presubmittal Conference Review Forms are valid for 90 days after signing unless the scope of the proposed development changes in such a way as to alter the likely traffic impacts of the development including, but not limited to, an increase in the size of the development or change in points of access, in which case the County may require either a new presubmittal meeting or supplemental traffic information subsequent to the

development application submittal. If the 90 day period has elapsed a new Presubmittal Conference Review Form must be completed, PROVIDED, that the original form may be initialed and dated by the appropriate County representative if the proposed development, as identified on the original Presubmittal Conference Review Form, has not changed in size and scope and the development regulations in Chapter 30.66B SCC or the EDDS have not changed, or if changed, the change would not impact the proposed development.

(5) At the Presubmittal Conference, when a traffic study is required, a Traffic Study Checklist for the County may be completed by County staff and the appropriate developer representative. The checklist provides additional information about the extent of the traffic study that will be required with the development's initial application. Consistent with interlocal agreements, traffic study checklists may also be completed for jurisdictions the County has an interlocal agreement with concerning traffic impact mitigation.

(6) When a developer, under SCC 30.66B.020(6), selects the option of allowing the scope of the traffic impact analysis to be determined by the County during the first review of the application, then the developer will only be required to submit trip generation or trip generation and a trip distribution with their initial applications.

#### **4220.030 Traffic Studies**

*Adopted: 7/13/95, First Revision: 1/26/99, Second Revision: 7/17/00, Third Revision: 1/1/03, Fourth Revision 10/11/04, Fifth Revision 4/24/06, Sixth Revision 9/19/16*

(1) In accordance with SCC 30.66B.035, any development that will add three (3) or more PM peak hour trips to the road system may be required to provide a traffic study where there is need for additional information to determine the impacts of the development. Traffic studies include trip generation, traffic counts, trip distribution, trip assignment, and may include traffic impact analysis.

(2) Traffic studies may also be required of any development pursuant to the terms of an interlocal agreement between the County and other agencies or jurisdictions.

(3) The County will determine the scope of the development's required traffic study, including any determination that a traffic study is not necessary, based on factors including, but not limited to, the following:

- (a) The facilities likely to be impacted, i.e. roads, streets, highways, intersections, and other transportation facilities that are likely to be impacted by the development,
- (b) The estimated capacities or threshold service volumes for the facilities likely to be impacted,
- (c) The difference between the forecast volumes and the estimated threshold service volumes,
- (d) The existing and forecast level of service (LOS) of arterial units in the development's Transportation Service Area (TSA),
- (e) The size and location of the development,
- (f) The development's estimated occupancy time line,
- (g) The scope of other development activity in the vicinity,

- (h) The timeline and funding status of improvements or strategies that may affect the LOS of critical arterial units,
- (i) The availability, quality, and relevance of existing traffic data and/or analysis,
- (j) The possibility of impacting a current or future Inadequate Road Condition (IRC) or causing an IRC,
- (k) The possible need to make provisions for access and/or circulation,
- (l) The possible need to make provisions for non-motorized and/or transit modes,
- (m) The terms and conditions of any applicable interlocal agreements, and
- (n) Any other traffic-related factors deemed important by Public Works.

(4) For the purpose of preparing traffic studies, DPW will make available all existing traffic data compiled from previous developer studies as well as data compiled by DPW including pipeline forecast reports from the database inventory of developments in the pipeline (See DPW Rule 4225).

(5) Per SCC 30.66B.035(7), if there is sufficient information known about a development's road system from previous traffic studies, the County may waive the requirement for a traffic study and so state the finding in the Presubmittal Conference Review Form .

(6) Consistent with SCC 30.66B.040, traffic studies required under SCC 30.66B.035 shall be conducted and prepared under the direction of a responsible individual or firm acceptable to the County Traffic Engineer. Traffic studies for developments that generate more than 50 Peak Hour Trip (PHT) or developments that generate less than 50 PHT that are determined by the County Traffic Engineer to be more complex, require expert analysis and opinion beyond the compilation of available existing data, and shall be conducted by an engineer licensed to practice in the State of Washington with special training and experience in traffic engineering, and preferably, membership in the Institute of Transportation Engineers (ITE). The developer, when requested, shall provide to the County Traffic Engineer the credentials of the individual(s) who prepared the traffic study certifying compliance with the foregoing.

(7) The County may choose to not accept or review any traffic study that is not signed and stamped by an engineer approved by the County.

(8) A traffic study will be reviewed for completeness, adequacy and accuracy. If the traffic study does not meet the requirements imposed by the County, including having the trip distribution in the required format, then a concurrency determination will be made requesting additional information. An example of the "Required Format for Trip Distributions" can be found at: <http://www.snohomishcountywa.gov/888/Traffic-Mitigation-Concurrency>.

(9) Outline of General Traffic Study Requirements:

Development Size	Trip Generation Required?	Trip Distribution Required?	Level of Service Forecasting Required?
Development generating 50 or less PHT	Yes	Yes, if a Key Intersection will be impacted by 3 or more directional PHT.  See DPW Rule 4220.030(7) below	When required by the County Engineer pursuant to SCC 30.66B.035(2)(c)
Development generating more than 50 PHT	Yes	Yes	Yes, for those critical arterial units within the developments TSA impacted by 3 or more directional PHT

(10) Developments that generate 50 or less PHT may be required to provide a Trip Distribution on a case-by-case basis depending on the location of the development with respect to such factors as arterial units in arrears (AUIAs), inadequate road conditions (IRCs), or WSDOT mitigation projects.

(a) A development which generates less than three (3) new directional PHT can't possibly add three (3) new directional PHT to an AUIA or a WSDOT mitigation project, hence such development can always be deemed concurrent and demonstrate that no WSDOT mitigation payment is required. Thus, such developments will not be required to provide trip distributions and can submit a "zero offer" to WSDOT without a distribution.

(b) The threshold of three (3) PHT with respect to IRCs is NOT directional. Hence, any development generating three (3) or more new PHT can potentially impact an IRC and may be required to provide a distribution based on its proximity to an IRC.

**4220.040 Trip generation**

*Adopted 1/1/03 unless otherwise noted, First Revision 10/11/04, Second Revision 4/24/06, Third Revision 12/9/07, Fourth Revision 9/19/16*

(1) Trip generation means the determination of the forecast number of net new vehicle trips that will be placed on the road system by the development at full occupancy. Trip generation may be required of any applicant.

(a) A developments trip generation will be determined using the rates as identified in the latest edition of the ITE Trip Generation Manual published by the Institute of Transportation Engineers. If a rate is not listed in the ITE Trip Generation Manual or is based on a small sample size, a developments trip generation may be determined using valid trip generation data in a traffic study.

(b) Credit for existing trips associated with either a legally established conforming or nonconforming structure or use will be based on the following:

(i) Existing single family residence(s). In 1957 the County adopted its zoning code which prohibited more than one dwelling unit per tax parcel, except for the "Rural Use" zone. (Note: In 1957 most of the north and east County was zoned Rural Use.) On August 9, 1969 the County adopted its subdivision ordinance which prohibited more than one dwelling unit per tax parcel in the Rural Use zones as well. If the applicant can provide assessor data showing a "year built" for a dwelling unit as being prior to 1957 or by other means acceptable to the County, then the County may give credit for more than one house on a legal tax parcel. The same could apply to a dwelling unit constructed between 1957 and August 9, 1969 if the applicant can show that the parcel was zoned Rural Use when the dwelling unit was constructed.

(ii) Credits under this subsection will be provided on a case-by-case basis based upon such factors as the type of permitted use and the purposes for which the original permit was intended. For example, assume a scenario in which a 'temporary dwelling permit' has been granted for a mobile home which will be a second dwelling unit on a single tax parcel. If sometime later the property on which the permanent and temporary dwelling are located is subdivided into two or more lots, and the temporary dwelling would be located on its own lot, credit cannot be given for what would now be a new permanent dwelling, because the use of the dwelling was reviewed and permitted as a temporary dwelling. As a temporary dwelling is not subject to the provisions of Chapter 30.66B SCC (see SCC 30.91D.210) to allow a credit would circumvent the purpose and intent of Chapter 30.66B SCC to have development mitigate its traffic impacts.

(c) To determine the number of net new PHT, DPW will accept valid trip generation data per the requirements of SCC 30.66B.130(3), including reductions for trip reduction credits under SCC 30.66B.610-680 and reductions for pass-by trips and internal capture based on technically defensible pass-by studies for comparable developments.

(d) DPW will not accept reductions in trip generation for diverted link trips.

(2) In most cases, the AM peak-hour and PM peak hour of a development's trip generation shall be assumed to be the same peak hours as the adjacent roadway.

(a) For the purposes of administering the concurrency provisions of Chapter 30.66B SCC, the AM and PM peak hours of the development's trip generation shall usually be assumed to be the same as those of any arterial units in arrears within the development's TSA, even if there are more than one arterial units in arrears and their specified hours of level-of-service (LOS) deficiency are different.

(b) The exceptions may come for types of developments that generate their peak traffic at times distinctly outside the usual AM and PM peak periods like schools, churches, and movie theaters.

(3) In rare circumstances there could be arterial units whose AM or PM peak hour falls at a time distinctly different than typical the AM or PM peak periods. These unusual circumstances will have to be treated on a case-by-case basis and be carefully documented.



(4) For all uses, the five-day, Monday through Friday, (as opposed to the seven-day) equation or average rate shall be used for trip generation for both ADT and PHT when determining impacts for concurrency, IRC's and proportionate share mitigating payments. In addition, weekend trip generation may be required to determine impacts on access and circulation.

(5) To clarify interpretations for trip generation for various ITE residential land uses, the following shall be used:

ITE Code	Description	Conditions	Equation or Rate
210	Single Family	Duplexes, single unit structures, and single family detached units regardless of ownership or size of development	Rate
220	Apartments	Rental: triplexes or greater	Rate
230	Condominium/Townhouse	Ownership: triplex or greater	Rate

**4220.045 Trip Generation for Development Applications Involving Boundary Line Adjustments or Future Development Tracts**

*Adopted 12/23/06 effective 1/8/07, First Revision 9/19/16*

(1) Purpose of rule. Developers unable to achieve concurrency for large developments have utilized boundary line adjustments (BLA's) and/or future development tracts (FDT's) to make multiple developments that are small enough so that their traffic impacts on arterial units in arrears (AUIAs) from any single development are less than 3 peak-hour trips (PHTs). The County's ability to implement the concurrency requirements mandated by RCW 36.70A.070, and County code, to ensure that capacity on the County's road system is available "concurrent" with development are circumvented if developers, unable to achieve concurrency for large projects, are able to achieve concurrency by disaggregating parcels and submitting multiple small projects. See an example of how this rule is applied after sub-section (6) below.

(2) For development applications proposing future development tracts and/or for when any of the subject properties comprising the development are subject to a pending BLA or have been involved in an approved BLA within the last six years, the calculation of trip generation when determining impacts on either LOS for a concurrency determination or an IRC shall include:

- (a) The current proposed development;
- (b) All pending development on related property; and
- (c) All approved development on related property submitted within the previous six years.

(3) For the purposes of this Rule "related property" shall have the following meaning and include:

(a) All parcels associated with the proposed development that are subject to a pending BLA, will be subject to a BLA as a condition of, or requirement for, approval, or within the past six years has been involved in an approved and recorded BLA with any of the parcels associated with the proposed development and in which the area of any one parcel is changed by more than 50%; provided that any additional BLA involving any or all of the subject parcels and exceeding the 50% threshold will expand the related property to include all affected parcels and shall not create separate overlapping related properties, and

(b) The entire parcel subjected to a platting or development process, including any remainder parcels, future development tracts, exceptions, or similarly designated tracts or parcels.

(4) Obligations for impact fees are not affected by this rule.

(5) Credit for trip generation will be given only for preexisting structures consistent with DPW Rule 4220.040(1)(b).

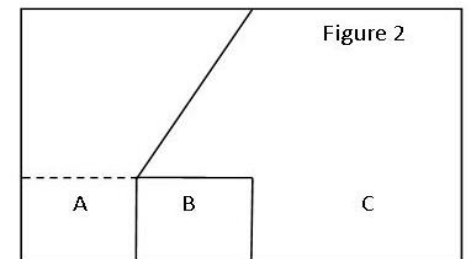
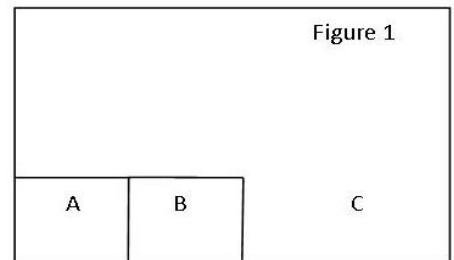
(6) Example

Assume a developer buys Parcel C, a large undeveloped 10-acre parcel as shown in Figure 1, next to two small Parcels A and B. Assume that Parcel C could yield 60 lots, but proximity to an arterial unit in arrears (AUIA) means that a development with more than 20 lots will impact the AUIA (i.e., add three or more directional peak-hour trips to the AUIA). Thus, the applicant could not get approval without offering to construct off-site improvements to remedy the AUIA. In some cases, the magnitude of needed improvements is too large for individual developers to finance.

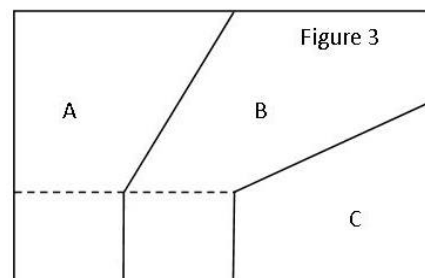
Prior to the original adoption of this rule on January 8, 2007, the developer could purchase Parcels A and B, do BLA's to equalize the sizes of Parcels A, B and C, then submit three separate applications for 20 lots each as shown in Figure 2, and thus not add three or more peak-hour trips (3+ PHT) to the AUIA. Under SCC 30.66B.130(4) and this rule, the developer could still do the BLA's and develop the revised Parcel A as shown in Figure 3, but could not develop Parcels B or C as shown in Figure 2 without adding 3+ PHT to the AUIA.

The following explains how the language of the proposed rule would work.

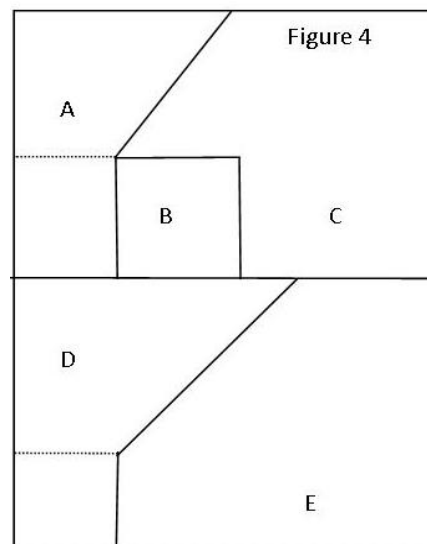
1. First, why could Parcel A, as in Figure 3, proceed with Development A without impacting the AUIA? For Development A, trip generation would be based on the 'current proposed development' plus all pending and



approved developments on related parcels. Since at this point there are no proposed or pending developments for parcels B or C, the trip generation for Development A would be based solely on parcel A and with 20 lots it would not add 3+ PHT to the AUJA. At this point, Parcel B could still subdivide without having to include trips from parcels A or C because it has not been involved in any BLA's. (Also note that any application for a single-family residence on an existing tax lot is exempt from traffic mitigation and concurrency requirements.)



2. Assume that the developer does BLA's on the parcels to reconfigure them as shown in Figure 2, submits an application for Parcel A, and then submits an application for Parcel B. Under SCC 30.66B.130(4) and this rule, trip generation for Development B would include Development A which would be a pending (or approved) development on a related parcel. But why would Parcel A be related to the proposed development on Parcel B? First we ask, was Parcel A 'involved in a BLA process with the subject development? No, though Parcel A was involved in a BLA, it was with Parcel C, not with Parcel B so it would not be directly related. However, Parcel A would be indirectly related under the second part of the definition of related development. Why? Because both Parcels A and B are involved in BLA's with Parcel C. The additional BLA involving Parcel B with Parcel C expands the related property to include all of the parcels affected by BLA's. Because Parcel C was involved in a BLA with Parcel A, then Parcels A, B and C all now constitute the related property. What if Parcel C tries to develop before B? How would Parcel A be related under this scenario? In this case, it is actually simpler because Parcel C was involved in a BLA with Parcel A and thus Development A is directly related.



3. In Figure 4, if Parcel A tries to develop as in Figure 3 and there happens to have been a previous Development D that was involved with a BLA with Parcel E, is Parcel D related to Parcel A? No. Parcel D was not involved in BLA's with Parcels A, B or C and is thus not related, either directly or indirectly. Development on Parcel A would be able to proceed independently of development on Parcel D.

### 4220.050 Pass-By Rates

*Adopted 3/31/03 unless otherwise noted, First Revision 10/11/04, Second Revision 9/19/16*

(1) For any given land use being reviewed by the County, if a pass-by rate is not included in the table shown in Subsection 4220.050(2) below, but an average pass-by

rate for the AM and/or PM peak hour is included in the ITE Trip Generation Manual, then the ITE average pass-by rates shall be used.

(2) For Drive-Through Espresso Stands, Daycare Located on Arterials, Specialty Retail, and Health Clubs, the following pass-by rates shall apply:

<b>ITE Code</b>	<b>Description</b>	<b>Pass-By Rates</b>	<b>Conditions</b>
	Espresso Stand	100%	Apply this rate only to free-standing, no sit-down, drive-through-only espresso stands
565	Daycare	75%	Apply this rate only to daycare facilities located on arterials.
814	Specialty Retail	25%	
493	Health Club	54%	
912	Drive-in Bank	47%	

(3) Unless stated otherwise in an adopted DPW Rule, the pass-by rate for AM and PM peak hour trips (PHT) will be used for average daily trips (ADT).

#### **4220.060 Traffic Counts**

*Adopted: 1/1/03, First Revision 10/11/04, Second Revision 9/19/16*

(1) Traffic Studies provided for developments generating more than fifty (50) new net PHT will need to include traffic counts for any impacted key intersections on critical arterial units. These counts are necessary to estimate future volumes and to support the forecast assignments of trips from the development at the key intersections.

(2) DPW has a regular program of conducting traffic counts and may be able to provide the developer with acceptable counts. DPW will determine whether specific available traffic counts are acceptable. For purposes of future analysis of LOS for traffic studies, the count date should not be more than one year prior to the submittal date of the report. An older count is only acceptable with prior written permission from DPW. For other purposes, such as screening or assistance with trip distributions, counts may be up to two years old. When acceptable counts are not available from DPW, developers must provide new counts with their traffic studies.

(3) DPW may develop guidelines to be used to determine whether or not counts are acceptable, and a standard format for counts, including a tabular format.

#### **4220.070 Trip Distributions and Assignments**

*Adopted: 1/1/03, First Revision 10/11/04, Second Revision 12/9/07, Third Revision 9/19/16*

(1) Trip distribution means applying the trip generation to the road system to forecast the number of new vehicle trips on specific roads in the system. A “trip distribution” is a type of traffic analysis that estimates the likely destinations of new trips generated by a

proposed development and the likely traffic routes to reach those destinations. The result of this analysis is a map or list indicating what number or percentage of trips from the proposed development are added to the development's road system, including the number or percentage of trips added to individual traffic movements on arterial units and/or at key intersections. The analysis provides a set threshold, consisting of a predefined number or percentage of trips below which no attempt is made to further distribute the trips onto the road system.

(2) Developers will be required to do both AM and PM peak-hour distributions.

(3) The County will require three products for each distribution.

(a) Distribution. A schematic map showing the broad distributions of trips in terms of percentages on different roads.

(b) Assignment. A schematic map with the developments access points and the impacted key intersections identified by Identification Number and turning movements for each shown in separate diagrams on the same page or on different pages.

(c) Tabular Format. The assignments in prescribed tabular form listing each access point for the development, an intersection by intersection ID#, and the number of trips at each movement. The County may in the future require the previous table in digital form (e.g. spreadsheet or table).

(4) Trips will be distributed onto the road system as it is expected to be in six years.

(a) DPW will maintain an updated list of the road improvements that are expected to be completed within six years.

(b) DPW will provide this list to the developer or the developers' traffic consultant.

(5) How Far the Distribution is Carried Within the development's TSA:

(a) Within the development's TSA, the distribution will be carried out to each key intersection at which the approach or departure volumes on any leg have three (3) or less PHT.

(b) Trips assigned to I-5, I-405, and SR-2 west of 88th/92nd ST SE do not have to be distributed back onto county roads, city or town streets.

(6) How Far the Distribution is Carried Outside the development's TSA:

(a) The distribution will be carried out to each key intersection at which the approach or departure volumes on any leg have whichever of the following amounts is more:

(i) Three (3) or less PHT, or

(ii) 5% or less of the development's overall PHT.

(b) Trips assigned to I-5, I-405, and SR-2 west of 88th/92nd ST SE do not have to be distributed further.

(7) Trip Distributions for WSDOT, cities, towns, or another county. Pursuant to interlocal agreements (ILA) with WSDOT, cities, towns, or another county that are in effect at the time of a developer's presubmittal or traffic study scoping meeting, the

County may require developers to provide distributions to the other agency's intersections that are not on the list of key County intersections.

(a) The purpose of adding these "other impacted agencies" intersections is to enable the agency to determine the LOS on its facilities.

(b) Then, following submittal, and within either the time period specified in the ILA or, if not specified, 21 days from the date the notice of application was provided to them by the County, the impacted agencies shall submit any requests for mitigation or inform the County that the developer did not submit the required information and that the County will have to request the information again.

(c) Note that the WSDOT threshold of ten trips is determined differently than the County threshold of three trips. Unlike the County method explained above, WSDOT adds up all of the trips at all of the individual movements on a given intersection.

#### **4220.080 Defining a Development's Transportation Service Area**

*Adopted: 1/1/03, First Revision 10/11/04, Second Revision 9/19/16*

A development's TSA is generally the TSA in which the development is located. A development will be assigned to an adjacent TSA only if the peak-hour trip distributions show a higher percentage of trips going to the adjacent TSA than to the TSA in which the development is located.

#### **4220.090 Analysis of Traffic Impacts**

*Adopted: 1/1/03, First Revision 10/11/04, Second Revision 9/19/16*

The analysis of traffic impacts means the application of traffic engineering principles and practices to determine the impacts of new vehicle trips on a particular transportation facility in terms of LOS, IRCs, access, circulation, investigation of the extent of off-site, frontage, or access improvements that may be deemed necessary, or other suspected traffic impacts that may warrant mitigation.

#### **4220.100 Traffic Studies Used to Make Concurrency Determinations**

*Adopted: 1/1/03, First Revision 10/11/04, Second Revision 9/19/16*

(1) Pursuant to SCC 30.66B.035, unless waived under SCC 30.66B.035(5), any development that will generate more than fifty (50) net new PHT will be required to include a future level of service analysis in their traffic study to determine the development's impact to arterial units on the critical list.

(a) In some cases, a development will generate more than fifty (50) total PHT, but, after reductions for trip reduction credits and/or pass-by trips, the development will generate less than fifty (50) net new PHT. Unless acceptable trip reduction credits and/or pass-by rates are determined prior to or at the presubmittal conference, this may cause difficulties in determining traffic study requirements. In such cases, at the presubmittal conference, the County will assume that the development will generate more than fifty (50) new PHT and a future level of service analysis will be required with the initial application submittal.

(b) In such cases developments can also choose the option under SCC 30.66B.020(6) to provide only trip generation and distribution with the initial

application submittal and allow the County to determine the scope of additional analysis during first review of the development.

(2) A future level of service forecast will analyze traffic impacts for arterial units for the developments “forecast year”, which is the sixth year of the adopted Transportation Improvement Program (TIP) from the year in which the development application is determined complete.

(3) Future Level of Service Forecast.

(a) Inside a Developments TSA. Developments generating over 50 PHT required to complete a future LOS forecast, will need to evaluate the future LOS on all critical arterial units in their TSA to which the development will add three or more directional PHT.

(b) Outside a Developments TSA. For the purposes of this subsection, any arterial unit outside a development’s TSA that is impacted by more than 50 directional PHT from the development shall be considered critical with respect to that development and will also need to be evaluated for future level of service conditions.

(c) Developments Generating More Than 100 PHT. For developments generating more than 100 PHT, the County may require the developer to attend a traffic study scoping meeting to, among other things, determine if there are other arterial units, not on the critical list, that need to be evaluated for future level of service.

(4) An arterial unit NOT identified as critical at either the presubmittal or traffic scoping meeting, is not considered to be within the scope of either the required future LOS analysis or the concurrency determinations except if any of the following applies:

(a) The arterial unit is declared to be in arrears prior to the development’s vesting date;

(b) If between the time of initial application submittal and the concurrency determination, the County becomes aware of possible LOS deficiencies on arterial units and conducts its own LOS analysis as the basis of the concurrency determination; or

(c) The arterial unit is impacted by more than 50 directional PHT from the development per DPW Rule 4220.100(3).

(5) For each arterial unit, DPW will identify the “key” intersections needed to adequately estimate LOS.

(6) DPW will specify the appropriate methodology to be used to determine LOS consistent with DPW Rule 4224.

## **4221 DEDICATION, DEEDING, OR ESTABLISHMENT OF RIGHT-OF-WAY**

### **4221.010 Purpose**

*Adopted 9/10/95: First Revision 7/10/98, Second Revision 10/11/04, Third Revision 9/19/16*

The purpose of this Rule is to identify guidelines for applicability, extent, and timing for the dedication, deeding and establishment of right-of-way. For the purposes of this Rule, the term "dedication" means the conveyance of an easement to the County for road purposes on a duly filed and recorded subdivision, short subdivision or binding site plan, and the term "deeding" means the conveyance of land to the County for road purposes by statutory warranty deed or other such deed as approved by the County.

### **4221.020 Right of Way Required**

*Adopted 9/10/95: First Revision 7/10/98, Second Revision 10/11/04, Third Revision 9/19/16*

(1) Pursuant to SCC 30.66B.510 developers shall be required as a condition of approval of a development to dedicate, deed or establish right-of-way to the County for road purposes, when to do so is found by the County Engineer and the applicable approving authority as a direct result of a proposed development to be reasonably necessary for the improvement, use, or maintenance of the road system serving the development.

(2) Right-of-way determined to be reasonably necessary pursuant to SCC 30.66B.510 will be required in the following and other particular circumstances to obtain the right-of-way necessary:

(a) For the construction of frontage improvements pursuant to SCC 30.66B.410 - .430 where there is insufficient right-of-way to meet the requirements of the EDDS for the particular road classification. Right-of-way may provide for the future construction of frontage improvements by the County to address the cumulative impact of developed parcels.

(b) As a result of the proposed development for the construction of any other improvements, either along the frontage of the development's parcel or off site, as identified in the development approval process.

(c) Such that an existing offset road serving the development will be located within right-of-way after the right-of-way dedication and any required development improvements.

(d) To ensure sufficient sight distance in accordance with the EDDS.

(e) For the maintenance of County roads and/or drainage facilities.

(f) To assure that any road fronting or providing access to the development can be constructed in accordance with the EDDS.

(g) To allow the construction of a public road at the present time or in the future, where it has been determined by the Department of Public Works that a public road is necessary for access and circulation.



#### **4221.030 Extent of Right-of-Way Required**

*Adopted 9/10/95: First Revision 7/10/98, Second Revision 10/11/04, Third Revision 9/19/16*

- (1) The extent of right-of-way that will be required for any particular development shall be in accordance with SCC 30.66B.510 and 520.
- (2) Additional right-of-way will be required connecting the intersecting right-of-way lines at intersections to provide a circular curve of sufficient radius to provide for the corner radii and sight distance requirements of the EDDS.

#### **4221.040 Format of Right-of-Way Deeding**

*Adopted 9/10/95: First Revision 7/10/98, Second Revision 10/11/04, Third Revision 9/19/16*

- (1) When right-of-way is conveyed by deed, the deed must be:
  - (a) Accompanied by a Title Report less than 90 days old at the time of submittal;
  - (b) In the form of a Statutory Warranty Deed as provided by the Department of Public Works that must describe a parcel that is the same as or a part of the parcel described by the legal description on the Title Report; and
  - (c) Prepared by an attorney or a licensed surveyor.
- (2) The County will only accept right-of-way which has clear title.

#### **4221.050 Timing of Right-of-Way Acquisition**

*Adopted 9/10/95: First Revision 7/10/98, Second Revision 10/11/04, Third Revision 9/19/16*

- (1) The timing of right-of-way acquisition shall be in accordance with SCC 30.66B.540.
- (2) An "Environmental Site Assessment (ESA)" in accordance with DPW Rule 4320, may be required prior to any right-of-way acceptance by the County. If an ESA is required, the cost of the ESA shall be borne by the developer.

#### **4221.060 Compensation for Right-of-Way and Improvements**

*Adopted 9/10/95: First Revision 7/10/98, Second Revision 10/11/04, Third Revision 9/19/16*

Compensation will only be provided for right-of-way and improvements that are determined not to be necessary for the use and convenience of occupants or users of the development and that are required as a condition of development.

- (1) Right-of-way and improvements that in most cases are determined to be necessary for the use and convenience of occupants or users of the development include, but are not limited to:
  - (a) A two lane road for access to the development constructed in accordance with the EDDS;
  - (b) Frontage improvements constructed in accordance with the EDDS;
  - (c) Property to accommodate the required right-of-way width as determined by the County pursuant to SCC 30.66B.520, located within either:

(i) 30-feet of the centerline of the right-of-way for non-arterials; or

(ii) One half the width of the right-of-way for arterials.

(d) Additional lanes including 2-way turn lanes to accommodate vehicles exiting or entering the development when such lanes are determined necessary by the County Engineer; and

(e) Access roads to adjacent property that, once connected to the area road system, could provide an alternative access to occupants of the development.

(2) Examples of improvements that are NOT necessary for the use and convenience of the occupants or users of the development include, but are not limited to:

(i) Additional lanes constructed on an arterial for capacity purposes where the additional lanes are not necessary due to the traffic generated by the development or necessary to accommodate vehicles exiting or entering the site, or;

(ii) A road constructed to provide access to an adjacent property when the road will not become part of a roadway circulation system that will be used by occupants of the development as an alternate access, for the provision of emergency or other services, or to provide access for the occupants to other adjacent land uses.

(3) Compensation for right-of-way will be provided first by non-monetary compensation, second as a credit against a development's impact fee payment, and/or by cash payment third.

(a) Non-Monetary Compensation. Examples of non-monetary compensation may include access rights, allowing the construction of frontage improvements less than the ultimate standard, deviations from EDDS.

(b) Credit. Where a developer is eligible for credits from both right-of-way and the construction of road improvements, the right-of-way compensation will be credited against the developer's impact fee payment before any construction value will be credited.

If the cost basis of the impact fee includes a value for right-of-way, then compensation is required even if the right-of-way is necessary for the use and convenience of the occupants or users of the development. This is done to insure that the developer does not pay twice for the right-of-way, i.e. first through the dedication, deeding or establishment of the right-of-way itself, and secondly through an impact fee which includes a value for right-of-way. In this case, the amount of the compensation shall not exceed the amount of the impact fee.

(c) Where compensation is provided by credit and/or payment from the mitigation fund and is for right-of-way that is not part of the cost basis of the impact fee, the mitigation fund will be reimbursed from the County road fund for the value of any such payment or credit.

(4) The value of any right-of-way for which compensation will be provided shall be based upon the fair market value of the real property prior to the construction of the development or any adjacent public improvement and shall be subject to review by the County's review appraiser. Fair market value shall be determined through the best information available, including, but not limited to:

- (a) The unit costs in the Transportation Needs Report only if the total amount of compensation for right-of-way does not exceed \$25,000, or
  - (b) If the total amount of compensation for right-of-way exceeds \$25,000:
    - (i) Current market data available to DPW through recent transactions on DPW projects or its commercial data providers, or
    - (ii) A current appraisal report of the subject property prepared by a certified appraiser competent to perform eminent domain appraisals.
- (4) The value of any right-of-way or improvements for which compensation will be provided shall be based upon the right-of-way or improvement unit costs identified in the Transportation Needs Report for the arterial unit to which the credits apply.

## **4222 FRONTAGE AND OFFSITE ROAD IMPROVEMENTS**

### **4222.010 Purpose**

*Adopted 9/10/95, First Revision 10/11/04, Second Revision 9/19/16*

The purpose of this Rule is to establish guidelines for the extent, standard, and engineering criteria for frontage and offsite road improvements.

### **4222.015 Extent of Improvements**

*Adopted 9/19/16*

(1) The extent of improvements required will be determined utilizing the factors contained in SCC 30.66B.057 and SCC 30.66B.057.430, the frontage improvement standards in Section 4222.020, the engineering reasons and other criteria contained in Section 4222.040, and the offsite pedestrian facilities criteria in Section 4222.050.

### **4222.020 Frontage Improvement Standard**

*Adopted 9/10/95, First Revision 10/11/04, Second Revision 9/19/16*

(1) The required frontage improvement standard will be full standard improvements unless otherwise provided by this section. All development, except duplexes on a lot or lots not created through a subdivision, short subdivision, or binding site plan, will be required to make full standard frontage improvements unless the County determines otherwise in accordance with DPW Rule 4222.040, or an EDDS Deviation.

(2) Where the County determines a less than full standard frontage improvement will be required, the improvement may be either an interim or minimum frontage improvement. This Rule in no way reduces or eliminates the requirement to provide pedestrian facilities along all or a portion of a developments frontage in accordance with other county or state policy or code, including the provisions of SCC 30.41A.100, SCC 30.41B.100, or SCC30.66B.430. The description of full, interim, and minimum frontage improvements is as follows:

(a) Full standard frontage improvements shall be constructed along the roads abutting the entire frontage of the development, including frontage where no access is taken as follows:

(i) Full standard frontage improvements in the urban area shall include base materials, curb, gutter, planter, sidewalk, storm drainage improvements, and a paved road section in conformance with the EDDS.

(ii) Full standard frontage improvements in the rural area shall include base materials, a paved roadway section and shoulder in conformance with the EDDS , and required storm drainage improvements.

(iii) Where any end of a new curb/gutter/planter/sidewalk or paved shoulder does not connect to an existing curb/gutter/planter/sidewalk or paved shoulder, the end shall include a 3:1 paved transition taper constructed beyond the development's actual frontage as right-of-way allows. Paved tapers shall extend from the face of curb or edge of shoulder, as appropriate, to meet the existing pavement. Shoulders and/or sidewalks shall transition into the existing pavement as directed by the County. If adequate right-of-way does not exist for

the tapers, the scope of the tapers may be reduced, as determined by the County, to fit within the existing right-of-way.

(b) Interim frontage improvements shall consist of improvements less than full frontage improvements. These improvements shall be determined on a case-by-case basis by the County and will be selected to address the specific needs of the situation. Illumination may be required in conjunction with the construction of interim frontage improvements.

(c) Minimum frontage improvements shall consist of paved driveway aprons at each access point along the development's frontage that comply with the current EDDS. When determined necessary by the County to provide either a refuge area for pedestrians or a pullout area for service vehicles, a shoulder shall be constructed along the departure side of the driveway for a distance determined appropriate by the County for the intended users of the refuge or pullout area. The shoulder shall be constructed up to eight feet wide (as determined by the County) and shall include a 3:1 paved transition taper which, where necessary, will be constructed beyond the development's frontage as right-of-way allows. The improvements shall be constructed in accordance with the EDDS.

#### **4222.040 Engineering Reasons and Other Criteria Used in Determining the Extent of Improvements**

*Adopted 9/10/95, First Revision 10/11/04, Second Revision 9/19/16*

(1) Engineering reasons and other criteria which may preclude the construction of full standard frontage improvements may include, but are not limited to, the following:

(a) The probability of horizontal realignment of the road precludes the building of full frontage improvements in their ultimate horizontal location.

(b) The probability of vertical realignment precludes the building of full frontage improvements in their ultimate vertical location.

(c) The parcel abuts an arterial road which will ultimately include four or more lanes and construction of full frontage improvements at their ultimate location would create a severe discontinuity along the roadway.

(d) The road is scheduled in the Six-Year TIP and/or Annual Construction Program for construction within the next six years and it would be more efficient for Public Works to construct the full frontage improvements as part of its construction project for the entire road.

(e) The parcel abuts a road in the rural area with less than one half (1/2) mile of frontage, and:

(i) No other full standard frontage improvements exist on the same side of the road within one half (1/2) mile of either side of the development,

(ii) 90% of the parcels within each one half (1/2) mile adjacent to the development have little potential for development, and

(iii) The development is over one half (1/2) mile from an existing or proposed attractor such as a school, park, public transit bus stop, walkway, or other

attractor such as a neighborhood business, etc., to which pedestrian access should be provided.

(f) The parcel abuts a road in the urban area with less than one quarter (1/4) mile of frontage, and:

(i) No other full standard frontage improvements exist on the same side of the road within one quarter (1/4) mile of either side of the development,

(ii) 90% of parcels on the same side of the road within one quarter (1/4) mile of either side of the development have little or no potential for development, and

(iii) The development is over one quarter (1/4) mile from an existing or proposed attractor such as a school, park, public transit bus stop, walkway, or other attractor such as a neighborhood business, etc., to which pedestrian access should be provided.

(g) There are other significant reasons as determined by Public Works which may also preclude the construction of full standard frontage improvements at the time of development.

(h) There is no reasonable potential for the development to add any new pedestrian or vehicle trips to a road abutting the rear or side of a parcel. For example, there may be instances in which there is no reasonable potential for residents of a proposed subdivision to use a road abutting a side or rear of the overall subdivision's parcel(s) if that road is not used for pedestrian or vehicle access to the subdivision or the abutting road is a permanent cul-de-sac serving a small number of residences.

(2) When an engineering reason, as described above, precludes the construction of full standard frontage improvements, interim or minimum frontage improvements may be required and the dedication or deeding of right-of-way will be as required.

#### **4222.050 Pedestrian Walkways**

*Adopted 9/10/95, First Revision 10/11/04*

Shoulders will generally not be delineated for walkways as part of the development process. The Road Maintenance Division will generally provide walkway delineation along designated walkway locations as part of the Department of Public Work's annual walkway program. In some cases, however, pedestrian walkways may be required along a development's frontage as well as along offsite roads in order to provide a facility for pedestrians walking to specific locations. Examples of this may include pedestrian walkways to schools, bus stops, commercial centers, etc. When required, pedestrian walkways will be identified as part of the development approval process. Construction and delineation of the walkways must be in accordance with the Engineering Design and Development Standards.

## **4223 INADEQUATE ROAD CONDITIONS**

### **4223.010 Purpose**

*Adopted: 7/13/95, First Revision 10/11/04, Second Revision 9/19/16*

The purpose of this rule is to identify the criteria for determining an Inadequate Road Condition (IRC) and the mitigation required to eliminate the IRC.

### **4223.020 Mitigation of Impacts on Inadequate Road Conditions is Required**

*Adopted: 7/13/95, First Revision 10/11/04, Second Revision 9/19/16*

- (1) A proposed development that will impact an IRC with three or more Peak Hour Trips (PHT) or whose traffic will cause an IRC will only be approved if provisions are made in accordance with SCC 30.66B.210-220 for elimination of the IRC.
- (2) To eliminate an IRC means to make sufficient changes to the road system to allow the County Engineer to determine that the location no longer constitutes an IRC.
- (3) A condition imposed on a development to construct improvements to eliminate an IRC may be imposed on more than one development and on phases of a development. It is important to note that phases do not always have to proceed each other in numerical order, i.e. phase 3 can follow phase 1 in certain circumstances. The following is an example of a 3 phased development that is projected to cause an IRC in phase 2. The development can be conditioned to require the construction of the work necessary to eliminate the IRC prior to either recording phase 2 or phase 3, whichever occurs first, in a Plat, Short Plat or Binding Site Plan or to any occupancy for any phase 2 or phase 3 work, whichever occurs first, in developments other than a Plat, Short Plat or Binding Site Plan.
- (4) The phrase “put three or more peak-hour trips through the identified location” means any combination of trips at the location adding to three or more. IRCs are different than concurrency determinations in that regards. With IRCs there does not have to be three PHT in one direction. For example, 2 westbound peak-hour trips and 1 eastbound peak-hour trip meets the three trip criteria for an IRC. Even 1 northbound, 1 southbound and 1 westbound trip meets the criteria for an IRC at an intersection.

### **4223.030 Timing of Elimination of Inadequate Road Conditions**

*Adopted: 7/13/95, First Revision 10/11/04, Second Revision 9/19/16*

The improvements necessary to remove the IRC must be complete or under contract before a building permit for a development will be issued, provided, that where no building permit will be associated with a conditional or administrative conditional use permit, then the improvements removing the IRC must be completed as a precondition of approval. The County Engineer will determine if the improvements must be complete and accepted by the County prior to building permit issuance. In cases where building permits are issued prior to completion of the improvements, the improvements must be complete and accepted by the County before any certificate of occupancy will be issued or final inspection performed.

#### **4223.040 Determination of Inadequate Road Condition Locations**

*Adopted: 7/13/95, First Revision 10/11/04, Second Revision 9/19/16*

The determination by the County Engineer as to whether or not a location constitutes an IRC shall be made using the following two-step procedure:

- (1) A technical evaluation by an IRC review board in accordance with a modified version of Report No. FHWA-RD-77-82, "Identification of Hazardous Locations," published by the Federal Highway Administration, Department of Transportation, December 1977 including amendments thereto. The IRC review board shall include at a minimum the County Traffic Engineer and two engineers from the Department of Public Works (DPW) that are licensed in the State of Washington, have transportation experience, and preferably membership in the Institute of Transportation Engineers (ITE).
- (2) A final evaluation and sign-off by the County Engineer.

#### **4223.050 Appeal of Inadequate Road Condition Determination**

*Adopted: 7/13/95, First Revision 10/11/04, Second Revision 9/19/16*

The County Engineer's IRC determination is final and not subject to appeal.

#### **4223.060 Determination that A Road Condition is No Longer Inadequate**

*Adopted 7/13/95, First Revision 9/19/16*

- (1) The determination that a road condition is no longer an IRC will be made by the County Engineer. There are two basic scenarios for this as described below; one is based on changes to the operating characteristics of the road system, the other is based on improvements to the road system.
- (2) Changes to the operating characteristics of the road system. There may be instances in which there are changes to the operating characteristics of the road system such as lower traffic volumes or lower accident rates which result in changes to the results of the technical analysis. In this case, the same process described in Rule 4223.040 above will be used to make a determination that a road condition is no longer an IRC.
- (3) Improvements to the road system. Typically, a determination that a road condition is no longer an IRC will occur after improvements are made to eliminate the IRC. The following describes the steps in that process:
  - (a) Based on the recommendations of the IRC review board, the County Traffic Engineer will conduct the necessary research, analysis and preliminary engineering to determine the scope of improvements needed to eliminate the IRC. Alternatively, the County Traffic Engineer determines if the scope of improvements submitted by a development will eliminate the IRC. The County Traffic Engineer presents the recommended improvements needed to eliminate the IRC to the Transportation and Environmental Services (TES) Director.
  - (b) The TES Director reviews the Traffic Engineer's recommended improvements and determines a course of action.
    - (i) If a developer is proposing to construct the improvements, then the review,



permitting and construction of the improvements will be coordinated and combined with the review of other construction permits, construction engineering, and inspections for the development.

(ii) If the County is constructing the improvements, then the Program Planning Manager will program the improvements and coordinate construction with Engineering Services.

(c) When the improvements are completed, they will be reviewed first by the County Traffic Engineer and then by the County Engineer to determine if the improvements meet requirements, and to make a final review and analysis to determine that the road condition is no longer inadequate.

(d) The determination that the road condition is no longer inadequate is documented by a memorandum from the County Engineer to the TES Director and takes effect on the date of that memorandum.

(e) The TES Director instructs the appropriate DPW section supervisors and PDS staff of the determination.

## **4224 MAKING LEVEL-OF-SERVICE DETERMINATIONS**

### **4224.010 Purpose**

*Adopted: 7/13/95, First Revision: 7/18/96, Second Revision: 8/19/02, Third Revision 10/11/04, Fourth Revision 9/19/16*

- (1) This Rule will be used for establishing the level of service (LOS) on County arterial units for the purpose of making concurrency determinations in accordance with Chapter 30.66B SCC.
- (2) This Rule will also be used in determining whether arterial units are in arrears based on either current or future LOS conditions.

### **4224.020 Level of Service Standards**

*Adopted: 7/13/95, First Revision: 7/18/96, Second Revision: 8/19/02, Third Revision 10/11/04, Fourth Revision 4/24/06, Fifth Revision 9/19/16*

- (1) The Transportation Element of the Snohomish County Comprehensive Plan establishes the LOS standards for County arterials. These LOS standards are implemented through SCC 30.66B.100 and.102 and shall be used as the basis against which to compare LOS conditions on County arterials.
- (2) LOS conditions shall be determined from systematic measurements or valid estimates of average daily traffic (ADT) and average travel speed (See Rule 4224.040).

### **4224.030 Arterial Units**

*Adopted: 7/13/95, First Revision: 7/18/96, Second Revision: 8/19/02, Third Revision 10/11/04, Fourth Revision 4/24/06, Fifth Revision 9/19/16*

- (1) Arterial unit, is defined in SCC 30.91A.280.
- (2) The list of arterial units shall, in aggregate constitute the entire system of County arterials.
- (3) The DPW shall establish arterial units based on specific criteria.
- (4) The designation of arterial units shall be maintained by DPW and updated on a periodic basis based on as many as possible of the following criteria:
  - (a) An arterial unit should not extend across the boundary of a TSA. When an arterial unit comprises the boundary between two TSAs, the arterial unit will be considered to be in both TSAs.
  - (b) An arterial unit should not be made up of road segments with different functional classifications.
  - (c) Arterial units should have logical starting and ending points such as:
    - (i) TSA boundaries;
    - (ii) Other arterials, especially arterials with higher functional class designations;
    - (iii) State routes; or
    - (iv) City, Town or another county's boundaries.

(d) Arterial units should typically be 1/2 - 2 miles long in urban areas and 1-10 miles long in rural areas. Arterial units less than those suggested minimums may be necessary in certain situations, but LOS on such short units will be evaluated on the basis of at least a one-mile section of roadway in the urban area and two-mile section in the rural area wherever possible.

(5) Categories of Arterial Units for Level of Service Determinations. Categories have been developed based on the characteristics of Snohomish County arterials. Each arterial unit is assigned to one of the following three main categories of arterials:

(a) Category 1 – Urban. All arterials located within urban growth areas (UGAs) are categorized as urban for the purpose of evaluating LOS. In addition, some arterials located outside of UGAs are categorized as urban in the Transportation Element of the Comprehensive Plan (for the purpose of evaluating LOS). The following characteristics apply to urban arterials:

- (i) They are usually influenced by controlled intersections;
- (ii) They have free-flow speeds generally less than 45 mph; and
- (iii) They typically have one or more controlled intersections.

(b) Category 2 – Rural. Arterials outside the UGA which are not categorized as urban for the purpose of evaluating LOS and which are not designed to serve as rural two lane highways.

(c) Category 3 – Rural Two-Lane Highways. Highways with free-flow speeds typically greater than 50 mph.

(6) The categorization of an arterial as either urban or rural under this section for the purpose of evaluating LOS does not necessarily correlate with the urban and rural engineering design and development standards (EDDS) and determinations of what design standards to use in making improvements.

#### **4224.040 Level of Service Determinations**

*Adopted: 7/13/95, First Revision: 7/18/96, Second Revision: 8/19/02, Third Revision 10/11/04, Fourth Revision 4/24/06, Fifth Revision 1/22/07, Sixth Revision 9/19/16*

(1) All aspects of LOS determinations, including measurement, analysis, and evaluation, shall be based on professionally recognized methods consistent with professional resources including, but not limited to, the Highway Capacity Manual (HCM) as published by the Transportation Research Board, National Research Council, including amendments thereto, and any other relevant published documents.

(2) Traffic Counts. Twenty-four hour traffic counts shall be conducted on all arterial units at least once every three years to measure ADT and hourly rates of flow.

(3) The DPW shall systematically monitor the LOS on all arterial units. Snohomish County's concurrency management system includes a two-step evaluation process as follows:

(a) ADT. The first step consists of a comparison of ADT with standards (i.e., thresholds of ADT) defined in SCC 30.66B.101. Weekday, two-way, 24-hour volumes will be used as the measure of ADT on arterial units. ADT will be evaluated just upstream or downstream from the key intersection on the arterial units

considered most critical for impacting LOS. This evaluation is related to screening and monitoring described below. ADT measurements will include traffic volumes from developments in the pipeline.

(b) Average Travel Speed. The second step will be performed through operational analysis, and/or future LOS analysis as described below. The standards for average travel speed are contained in SCC 30.66B.102. Screening and monitoring, as described below, help to identify roads in which operational analysis and future LOS analysis may be needed. For arterials with preferential High Occupancy Vehicle (HOV) treatments, average person travel speed may be the measure for LOS analysis.

(4) Snohomish County's LOS standards for arterials are contained in SCC 30.66B.100-102.

(a) The LOS of any arterial unit, except for an arterial unit designated at ultimate capacity, is considered to be deficient (i.e., worse than the adopted standard), when ADT is greater than the threshold defined in SCC 30.66B.101 and the average travel speed is less than the threshold defined in SCC 30.66B.102.

(b) For an arterial unit designated at ultimate capacity the LOS is considered to be deficient when the ADT on the arterial is considered greater than the threshold defined in SCC 30.66B.101 for arterial units designated at ultimate capacity.

(5) The DPW uses a four-tiered approach to monitoring the LOS on the road system. The four tiers of LOS analyses are screening, monitoring, operational analysis, and future LOS determinations as described below:

(a) Screening. The purpose of screening is to provide an efficient method of identifying those County arterial units for which monitoring is needed. This is done using threshold testing, that is by comparing two-way peak hour volumes with threshold service volumes in DPW Rules 4224.070 and .080 and comparing ADT with the thresholds in SCC 30.66B.101.

Screening also includes informal observations by DPW staff based on other available data such as intersection LOS provided by WSDOT for state intersections and cities for city intersections, intersection LOS determinations from other sources, field observations by County staff, and/or communications from the general public.

(b) Monitoring. The purpose of monitoring is to provide more frequent and detailed analysis for arterial units for which operational analysis may be needed.

(i) Monitoring of an arterial unit shall begin no later than once its LOS, as determined by screening, is determined to be LOS D in the urban areas, LOS B in the rural areas, or the arterial units ADT has exceeded the threshold in SCC 30.66B.101.

(ii) For arterial units meeting this criteria, traffic counts shall be conducted at least annually.

(c) Operational Analysis. Operational analysis includes measurements of ADT and average travel speeds for current and future conditions and also identifies the cause of LOS problems and points the way to possible solutions.

(i) Operational analysis of an arterial unit shall begin no later than once its LOS,

as determined by monitoring, is determined to be LOS E or worse in the urban areas or LOS C or worse in the rural areas.

(ii) For arterial units meeting this criteria, travel time and delay studies shall be conducted at least annually. This may include future LOS determinations made in conjunction with development applications.

(iii) Appropriate methods that are consistent with the framework established in DPW Rule 4224, including 4224.040(7) below, shall be used to make the LOS determinations for all arterial units that meet the criteria for operational analysis.

(d) Future LOS Determinations. Used to forecast future LOS on arterial units using methods compatible with those used for operational analysis.

(i) Future LOS determinations may be conducted by DPW (e.g. technical studies, design reports, etc.) or may be required of developers as part of the development review process. (See also DPW Rule-4220) Future LOS determinations used to make concurrency determinations for large developments shall be made through traffic studies. Future LOS determinations may also be conducted by DPW as part of technical studies, design reports, concurrency determinations or other studies.

(ii) Appropriate methods that are consistent with the framework established in DPW Rule 4224 including 4224.040(7) below shall be used to make the future LOS determinations in traffic studies. When bottlenecks downstream from an arterial unit cause delay on the arterial unit being evaluated, as in cases where queues from one intersection spill back through an adjacent intersection, then the methods must be able to account for this effect.

(6) The County Traffic Engineer will make the final determination on what LOS methodologies will be acceptable based on these rules with adjustments and exceptions made on a case-by-case basis.

(a) When developments are required to conduct future LOS analysis, methodologies that differ from these rules will be spelled out in a traffic study scoping document.

(b) With prior written approval by the County Traffic Engineer of professionally accepted methodology, a developer may also propose analysis showing that actual LOS on a specific arterial unit would be better than that indicated by the methods required above.

(c) LOS determinations based on the traffic studies, including any pre-approved special methodology, shall be subject to final review and approval by the County Traffic Engineer.

(d) All traffic studies and scoping documents are available for public review by contacting the transportation development reviewer as shown on the notice of application.

(7) Level-of-Service Methods. The County has identified methods appropriate for the four types of LOS determinations and applied them to the main categories of arterial units as shown in the following table.

<b>LOS Methodologies for Different Categories of Arterial Units</b>			
<b>Category</b>	<b>Screening</b>	<b>Monitoring</b>	<b>Operational Analysis and Future LOS Determinations</b>
Category 1 – Urban Arterials. Usually Influenced by Controlled Intersections	Threshold testing using tables developed by DPW (See 4224.070) and the ADT thresholds in SCC 30.66B.101.	Threshold testing which may include values for input factors obtained from measurements instead of default values.	Appropriate methodologies consistent with HCM including travel-time studies and estimation of travel time with models such as Synchro.
Category 2 Rural Arterials			
Category 3- Rural Two-Lane Highways			

(8) Peak Hours and Directions of LOS Deficiencies. Determinations that arterial units are in arrears will specify one or more weekday peak hours (AM peak and/or PM peak) and travel directions of LOS deficiency. For each arterial unit there are actually four possibilities for an arterial unit in arrears, that is, two directions each for the two peak hours (AM and PM).

(9) Critical Arterial Units. DPW will develop and maintain a list showing the critical arterial units for each TSA.

(a) The list will be updated on an ongoing basis as new information becomes available, but at least once each year. The list includes all of the arterial units at risk for concurrency and for which forecasts should be required, typically those being monitored or under operational analysis.

(b) The Transportation Development Reviewers (TDRs), other County staff, and citizens are encouraged to suggest to Traffic Operations any “critical” arterial units that may need to be added to the lists based on field observations, and/or other information. This does not mean that arterial units are added to the critical list simply because of field observations. It means that field observations can trigger further investigation by Traffic Operations including additional traffic counts or travel time studies to make an objective determination as to whether or not the arterial unit needs to be added to the critical list.

(c) The most up-to-date list of critical arterial units will be provided to the TDRs who will in turn provide them to developers at the presubmittal meeting or traffic study scoping meetings.

(10) Key Intersections. For each arterial unit, DPW will identify the “key” intersections needed to estimate the LOS.

(a) State and City intersections that lie AT the terminus of a County arterial unit WILL be included in the list of key intersections.

(b) State and City intersections that lie NEAR the terminus of a County arterial unit MAY be included in the list of key intersections.

(11) Traffic Counts at Key Intersections. DPW will conduct regular manual counts at the key intersections. DPW will prioritize these counts, based on the LOS status of the corresponding arterial unit. Counts will include AM and PM peak-hour counts. The peak hours will be the peak hours of the arterial units.

#### **4224.050 Arterial Units in Arrears**

*Adopted: 7/13/95, First Revision: 7/18/96, Second Revision: 8/19/02, Third Revision 10/11/04, Fourth Revision 9/19/16*

(1) An “arterial unit in arrears” is defined in SCC 30.91A.290.

(2) The Transportation and Environmental Services (TES) Director shall make the final determination as to whether or not an arterial unit is in arrears.

(3) The County Traffic Engineer shall determine appropriate methodologies and shall make the final determination as to whether or not an arterial unit is currently or is forecast to be operating below the adopted LOS standard.

(4) For any arterial unit determined by the County Traffic Engineer to have a deficient LOS, the Program Planning Manager will evaluate relevant transportation projects to determine whether there is a programmed improvement(s) or strategy that might affect the LOS deficiency. For any such project(s), the Program Planning Manager shall determine whether a financial commitment is in place and a reasonably certain date upon which the project(s) shall be completed. The phrase “financial commitment in place” shall have the following meanings for:

(a) Public Agencies: Grant funds shall be considered committed for a project when they have been awarded by the funding agency.

(b) The County: Projects must be shown as fully-funded on the County six-year TIP.

(c) Cities, as with the County: Projects must be shown as fully-funded on the City six-year TIP. For joint City/County projects, the projects must be shown as fully-funded on both the County and the City six-year TIP.

(d) WSDOT: Projects must be shown as a line item on an adopted construction or capital budget.

(e) Transit Agencies: Projects must be shown as a line item on an adopted construction or capital budget.

(f) Cities, WSDOT, Transit Agencies and other public agencies, the County must receive a letter from the agency indicating that there is a financial commitment in place per the criteria of this section.

(g) Private Developers: For the construction of improvements by developers, it shall mean that all of the following conditions have been met:

(i) Construction plans and cost estimates for the improvements have been submitted by the developer, and

(ii) The County Engineer has determined that the cost estimates and construction plans are adequate to determine the amount of funds required to secure right-of-way, complete the design, secure all permits, and construct the improvements, and

(iii) The developer has presented the County a performance security in accordance with either Chapter 13.10 SCC or Chapter 30.85 SCC, as applicable, to ensure the construction of the improvements.

(h) Alternatively, prior to a determination by the TES Director that an arterial unit is no longer in arrears based on developer constructed improvements, the improvements must be substantially complete as determined by the County Engineer, the improved road(s) must be open to the public, and even if a maintenance security is provided as required by Chapter 13.10 SCC, the performance security required pursuant to Rule 4224.050(g)(iii) shall remain in effect or a new performance security shall be required to secure the construction of any unfinished project work items.

(5) The County Traffic Engineer shall determine whether any identified projects are reasonably certain to remedy the LOS deficiency.

(6) For any arterial unit with a deficient LOS the Program Planning Manager and the County Traffic Engineer shall assemble documents supporting their determinations in DPW Rule 4224.050(2) and (3) above and provide these to the TES Director. The TES Director shall review these documents and determine if the arterial unit is in arrears.

(7) If an arterial unit is determined to be in arrears the TES Director shall promptly, and in writing, notify the Public Works Director. The TES Director shall also hold a review meeting in accordance with Rule 4224 to determine the appropriate action to address the arterial unit in arrears.

(8) *State or City Projects Considered in LOS Determinations.* State or city transportation projects will be considered in making determinations about whether or not arterial units are in arrears or will remain in arrears.

#### **4224.060 Arterial Units No Longer in Arrears**

*Adopted: 7/13/95, First Revision: 7/18/96, Second Revision: 8/19/02, Third Revision 10/11/04, Fourth Revision 9/19/16*

(1) The TES Director shall make the final determination as to whether or not an arterial unit is NO LONGER in arrears.

(2) The County Traffic Engineer shall determine appropriate methodologies and make a preliminary determination as to whether conditions have changed and the LOS on an arterial unit in arrears is, or is forecast to be, operating AT OR ABOVE the adopted LOS standard. If so, the County Traffic Engineer shall assemble documents supporting this determination and provide these to the TES Director for a final determination.

(3) The TES Director shall review these documents and determine if the arterial unit is NO LONGER in arrears and, in writing, notify the Public Works Director, County Engineer, County Traffic Engineer, all supervisors in the Transportation and Environmental Services Division and all TDR's in PDS.



(4) If an arterial unit in arrears is once again operating above the adopted LOS standard, but within six years is forecast to be operating below the adopted LOS, then the arterial units shall be considered to be still in arrears.

(5) For any arterial unit in arrears the Program Planning Manager will monitor planned and programmed improvements or strategies that may affect the LOS deficiency. For any such projects, the Program Planning Manager shall determine if, and when, a financial commitment is in place to complete the improvements or implement the strategies within six years.

(6) The County Traffic Engineer shall determine whether the projects or strategies identified above are reasonably certain to remedy the LOS deficiency. If so, the Program Planning Manager and the County Traffic Engineer shall assemble documents supporting this determination and provide these to the TES Director.

(7) The TES Director shall review these documents and determine if the arterial unit is NO LONGER in arrears and, in writing, notify the Public Works Director, County Engineer and all supervisors in the Transportation and Environmental Services Division and all TDR's in PDS.

#### **4224.070 Level of Service Screening Tables for Urban/Suburban Category 1 Arterial Units**

*Adopted: 2/14/96, First Revision: 4/30/99, Third Revision 10/11/04, Fourth Revision 01/20/14, Fifth Revision 9/19/16*

(1) *Urban/Suburban Category 1, Arterial Units Influenced by Signalized Intersections.* Contained within this section are sets of tables of maximum service volumes for urban/suburban arterial units. The maximum service volumes vary by arterial classification, lane design and signalization. Instructions for, and an example of screening-table use are as follows.

(2) Instructions for Urban/Suburban Category 1

- (a) Take the two-way, peak-hour volume for a given arterial unit.
- (b) Determine the number of signals per mile on the arterial unit.
- (c) Select the appropriate table set based on signals per mile.
- (d) Determine the arterial unit's class and its standard or nonstandard lane widths.
- (e) Select the appropriate table for class and standard/nonstandard lane widths.
- (f) Select the overall through approach width and number of lanes.
- (g) Compare the arterial peak hour volume with the maximum service volume for the appropriate LOS taken directly from the table.

(3) Example for Urban/Suburban Category 1

- (a) A given arterial unit has a two-way, peak-hour volume of 3,700 vehicles per hour (VPH).
- (b) Number of signals per mile is 0.10.
- (c) Table Set 1 is selected because 0.10 is bracketed by 0.0-0.50 signals per mile.
- (d) The arterial unit is a principal arterial with standard 12 foot lanes.

- (e) Table 1-A is selected for principal arterials.
  - (f) Through approach width is 24 feet with four through lanes and one continuous left-turn lane (if through approach width varies by approach, assume lesser width).
  - (g) The peak hour volume of 3,700 VPH is greater than the maximum service volume of 3,660 for LOS C under a 5-lane roadway.
  - (h) The arterial unit can be expected to operate within the volume range for LOS D.
- (4) Tables for Urban/Suburban Category 1
- (a) There are six table sets for this category as shown below.
  - (b) Each table shows maximum service volume thresholds for LOS B through E.
  - (c) Volumes are expressed as two-way vehicles per hour.
  - (d) Volumes vary by approach width and number of lanes.
  - (e) Table sets vary by the number of signalized intersections per mile.
  - (f) There are three tables in each set, first principal arterials with standard lane widths, second minor and collector arterials with standard lane widths, third for all arterials with non-standard lane widths.

**TABLE SET 1**

**0.0 - 0.50 Signalized Intersections Per Mile**

**Table 1a: Principal Arterial with Standard Lane Widths**

Table 1a	12 ft	12 ft	24 ft	24 ft	37 ft	37 ft
LOS	2-lane	3-lane	4-lane	5-lane	6-lane	7-lane
A	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
B	1,390	1,670	2,840	3,410	4,290	5,150
C	1,500	1,800	3,050	3,660	4,600	5,520
D	1,560	1,870	3,170	3,800	4,780	5,740
E	1,580	1,900	3,200	3,840	4,830	5,800

**Table 1b: Minor And Collector Arterials With Standard Lane Widths**

Table 1b	12 ft	12 ft	23 ft	23 ft
LOS	2-lane	3-lane	4-lane	5-lane
A	n/a**	n/a**	n/a**	n/a**
B	1,360	1,630	2,770	3,320
C	1,460	1,750	2,970	3,560
D	1,520	1,820	3,090	3,710
E	1,540	1,850	3,120	3,740

**Table 1c: Principal, Minor And Collector Arterials With Nonstandard Lane Widths**

Table 1c	≤11 ft	≤11 ft	≤22 ft	≤22 ft	31 ft	31 ft	36 ft	36 ft
LOS	2-lane	3-lane	4-lane	5-lane	6-lane	7-lane	6-lane	7-lane
A	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
B	1,290	1,550	2,640	3,170	4,000	4,800	4,250	5,100
C	1,390	1,670	2,820	3,380	4,260	5,110	4,550	5,460
D	1,450	1,740	2,930	3,520	4,430	5,320	4,730	5,680
E	1,460	1,750	2,960	3,550	4,470	5,360	4780	5,740

\* Interpolation is only appropriate for service volumes between 31 and 36 feet.

\*\* Not applicable to the screening process

**TABLE SET 2**

**0.51 – 1.00 Signalized Intersections Per Mile**

**Table 2a: Principal Arterial with Standard Lane Widths**

Table 2a	12 ft	12 ft	24 ft	24 ft	37 ft	37 ft
LOS	2-lane	3-lane	4-lane	5-lane	6-lane	7-lane
A	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
B	900	1,080	1,920	2,300	2,920	3,500
C	1,440	1,730	2,920	3,500	4,420	5,300
D	1,500	1,800	3,050	3,660	4,600	5,520
E	1,520	1,820	3,080	3,700	4,650	5,580

**Table 2b: Minor And Collector Arterials With Standard Lane Widths**

Table 2b	12 ft	12 ft	23 ft	23 ft
LOS	2-lane	3-lane	4-lane	5-lane
A	n/a**	n/a**	n/a**	n/a**
B	890	1,070	1,890	2,270
C	1,390	1,670	2,860	3,430
D	1,460	1,750	2,970	3,560
E	1,470	1,760	3,000	3,600

**Table 2c: Principal, Minor And Collector Arterials With Nonstandard Lane Widths\***

Table 2c	≤11 ft	≤11 ft	≤22 ft	≤22 ft	31 ft	31 ft	36 ft	36 ft
LOS	2-lane	3-lane	4-lane	5-lane	6-lane	7-lane	6-lane	7-lane
A	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
B	860	1,030	1,820	2,180	2,790	3,350	2,890	3,470
C	1,320	1,580	2,720	3,260	4,100	4,920	4,380	5,250
D	1,390	1,670	2,820	3,380	4,260	5,110	4,550	5,460
E	1,400	1,680	2,850	3,420	4,300	5,160	4,600	5,520

\* Interpolation is only appropriate for service volumes between 31 and 36 feet.

\*\* Not applicable to the screening process

**TABLE SET 3**

**1.01 – 1.50 Signalized Intersections Per Mile**

**Table 3a: Principal Arterial with Standard Lane Widths**

<b>Table 3a</b>	<b>12 ft</b>	<b>12 ft</b>	<b>24 ft</b>	<b>24 ft</b>	<b>37 ft</b>	<b>37 ft</b>
<b>LOS</b>	<b>2-lane</b>	<b>3-lane</b>	<b>4-lane</b>	<b>5-lane</b>	<b>6-lane</b>	<b>7-lane</b>
<b>A</b>	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
<b>B</b>	440	530	890	1,070	1,360	1,630
<b>C</b>	1,300	1,560	2,740	3,290	4,170	5,000
<b>D</b>	1,470	1,760	3,000	3,600	4,560	5,470
<b>E</b>	1,500	1,800	3,050	3,660	4,600	5,520

**Table 3b: Minor And Collector Arterials With Standard Lane Widths**

<b>Table 3b</b>	<b>12 ft</b>	<b>12 ft</b>	<b>23 ft</b>	<b>23 ft</b>
<b>LOS</b>	<b>2-lane</b>	<b>3-lane</b>	<b>4-lane</b>	<b>5-lane</b>
<b>A</b>	n/a**	n/a**	n/a**	n/a**
<b>B</b>	420	500	890	1,070
<b>C</b>	1,270	1,520	2,670	3,200
<b>D</b>	1,440	1,730	2,940	3,530
<b>E</b>	1,460	1,750	2,970	3,560

**Table 3c: Principal, Minor And Collector Arterials With Nonstandard Lane Widths\***

<b>Table 3c</b>	<b>≤11 ft</b>	<b>≤11 ft</b>	<b>≤22 ft</b>	<b>≤22 ft</b>	<b>31 ft</b>	<b>31 ft</b>	<b>36 ft</b>	<b>36 ft</b>
<b>LOS</b>	<b>2-lane</b>	<b>3-lane</b>	<b>4-lane</b>	<b>5-lane</b>	<b>6-lane</b>	<b>7-lane</b>	<b>6-lane</b>	<b>7-lane</b>
<b>A</b>	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
<b>B</b>	400	480	860	1,030	1,300	1,560	1,350	1,610
<b>C</b>	1,200	1,440	2,560	3,070	3,890	4,670	4,130	4,950
<b>D</b>	1,370	1,640	2,790	3,350	4,220	5,060	4,510	5,420
<b>E</b>	1,390	1,670	2,820	3,380	4,260	5,110	4,550	5,460

\* Interpolation is only appropriate for service volumes between 31 and 36 feet.

\*\* Not applicable to the screening process

**TABLE SET 4**

**1.51 - 2.00 Signalized Intersections Per Mile**

**Table 4a: Principal Arterial with Standard Lane Widths**

<b>Table 4a</b>	<b>12 ft</b>	<b>12 ft</b>	<b>24 ft</b>	<b>24 ft</b>	<b>37 ft</b>	<b>37 ft</b>
<b>LOS</b>	<b>2-lane</b>	<b>3-lane</b>	<b>4-lane</b>	<b>5-lane</b>	<b>6-lane</b>	<b>7-lane</b>
<b>A</b>	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
<b>B</b>	240	290	500	600	770	920
<b>C</b>	1,170	1,400	2,520	3,020	3,900	4,680
<b>D</b>	1,420	1,700	2,920	3,500	4,420	5,300
<b>E</b>	1,500	1,800	3,050	3,660	4,600	5,520

**Table 4b: Minor And Collector Arterials With Standard Lane Widths**

<b>Table 4b</b>	<b>12 ft</b>	<b>12 ft</b>	<b>23 ft</b>	<b>23 ft</b>
<b>LOS</b>	<b>2-lane</b>	<b>3-lane</b>	<b>4-lane</b>	<b>5-lane</b>
<b>A</b>	n/a**	n/a**	n/a**	n/a**
<b>B</b>	240	290	500	600
<b>C</b>	1,140	1,370	2,470	2,960
<b>D</b>	1,390	1,670	2,860	3,430
<b>E</b>	1,460	1,750	2,970	3,560

**Table 4c: Principal, Minor And Collector Arterials With Nonstandard Lane Widths\***

<b>Table 4c</b>	<b>≤11 ft</b>	<b>≤11 ft</b>	<b>≤22 ft</b>	<b>≤22 ft</b>	<b>31 ft</b>	<b>31 ft</b>	<b>36 ft</b>	<b>36 ft</b>
<b>LOS</b>	<b>2-lane</b>	<b>3-lane</b>	<b>4-lane</b>	<b>5-lane</b>	<b>6-lane</b>	<b>7-lane</b>	<b>6-lane</b>	<b>7-lane</b>
<b>A</b>	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
<b>B</b>	240	290	490	590	740	890	760	910
<b>C</b>	1,090	1,310	2,360	2,830	3,660	4,390	3,860	4,630
<b>D</b>	1,320	1,580	2,700	3,240	4,100	4,920	4,380	5,250
<b>E</b>	1,390	1,670	2,820	3,380	4,260	5,110	4,550	5,460

\* Interpolation is only appropriate for service volumes between 31 and 36 feet.

\*\* Not applicable to the screening process

**TABLE SET 5**  
**2.01 – 4.00 Signalized Intersections Per Mile**

**Table 5a: Principal Arterial with Standard Lane Widths**

Table 5a	12 ft	12 ft	24 ft	24 ft	37 ft	37 ft
LOS	2-lane	3-lane	4-lane	5-lane	6-lane	7-lane
A	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
B	140	170	300	360	460	550
C	720	860	1,500	1,800	2,300	2,760
D	1,320	1,580	2,770	3,320	4,200	5,040
E	1,440	1,730	2,960	3,550	4,460	5,350

**Table 5b: Minor And Collector Arterials With Standard Lane Widths**

Table 5b	12 ft	12 ft	23 ft	23 ft
LOS	2-lane	3-lane	4-lane	5-lane
A	n/a**	n/a**	n/a**	n/a**
B	140	170	290	350
C	700	840	1,470	1,760
D	1,290	1,550	2,700	3,240
E	1,400	1,680	2,870	3,440

**Table 5c: Principal, Minor And Collector Arterials With Nonstandard Lane Widths\***

Table 5c	≤11 ft	≤11 ft	≤22 ft	≤22 ft	31 ft	31 ft	36 ft	36 ft
LOS	2-lane	3-lane	4-lane	5-lane	6-lane	7-lane	6-lane	7-lane
A	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
B	130	160	280	340	430	520	460	540
C	670	800	1,420	1,700	2,170	2,600	2,280	2,730
D	1,220	1,460	2,570	3,080	3,900	4,680	4,160	4,990
E	1,340	1,610	2,740	3,290	4,140	4,970	4,420	5,300

\* Interpolation is only appropriate for service volumes between 31 and 36 feet.

\*\* Not applicable to the screening process

**TABLE SET 6**

**>4.00 Signalized Intersections Per Mile**

**Table 6a: Principal Arterial with Standard Lane Widths**

Table 6a	12 ft	12 ft	24 ft	24 ft	37 ft	37 ft
LOS	2-lane	3-lane	4-lane	5-lane	6-lane	7-lane
A	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
B	50	60	100	120	160	190
C	240	290	520	620	790	950
D	970	1,160	2,100	2,520	3,270	3,920
E	1,390	1,670	2,840	3,410	4,300	5,160

**Table 6b: Minor And Collector Arterials With Standard Lane Widths**

Table 6b	12 ft	12 ft	23 ft	23 ft
LOS	2-lane	3-lane	4-lane	5-lane
A	n/a**	n/a**	n/a**	n/a**
B	50	60	100	120
C	240	290	500	600
D	940	1,130	2,060	2,470
E	1,360	1,630	2,770	3,320

**Table 6c: Principal, Minor And Collector Arterials With Nonstandard Lane Widths\***

Table 6c	≤11 ft	≤11 ft	≤22 ft	≤22 ft	31 ft	31 ft	36 ft	36 ft
LOS	2-lane	3-lane	4-lane	5-lane	6-lane	7-lane	6-lane	7-lane
A	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**
B	40	50	100	120	150	180	160	190
C	220	260	490	590	740	890	780	940
D	900	1,080	1,960	2,350	3,040	3,650	3,240	3,880
E	1,290	1,550	2,640	3,170	3,990	4,790	4,260	5,110

\* Interpolation is only appropriate for service volumes between 31 and 36 feet.

\*\* Not applicable to the screening process



## **4224.080 Level of Service Table for Rural Category 2 Arterial Units**

*Adopted: 2/14/96, First Revision: 4/30/99, Second Revision 10/11/04, Third Revision 01/20/14, Fourth Revision 9/19/16*

(1) *Rural Category 2: Two-Lane Arterial Units NOT Primarily Influenced by Signalized Intersections.* Contained within this section is Table 7 showing maximum service volumes for rural arterial units. The values in Table 7 represent maximum service volumes (MSVs) for LOS A through LOS E measured in vehicles per hour for two-lane arterials not influenced by signalized intersections. The maximum service volumes vary by free-flow speed and lane and shoulder widths. Instructions for, and an example of screening-table use are as follows.

### (2) Instructions for Rural Category 2

- (a) Take the two-way, peak-hour volume for a given arterial unit.
- (b) Determine the arterial type based on average free flow speed and standards (lane and shoulder widths).

(3) Compare arterial peak-hour volume with maximum service volume for type of road to estimate LOS.

### (4) Example for Rural Category 2

- (a) A given arterial unit has a peak-hour, two-way volume of 920 vehicles per hour (VPH).
- (b) The arterial unit is not built to standards and has average free flow speed of 38 mph (i.e. < 40).
- (c) The peak hour volume of 920 VPH is greater than the maximum service volume of 680 VPH for LOS B.
- (d) The arterial unit can be expected to operate within the volume range for LOS C.

### (5) Default Values Used For Tables

- (a) Directional split 60/40, heavy vehicles 6% (trucks + buses + RVs), peak hour factor 0.91
- (b) Assumes terrain is two-thirds rolling and one-third level.

### (6) Table 7 for Rural Category 2

- (a) There is only one table for this category as shown below.
- (b) Table 7 shows maximum service volume thresholds for LOS A through E.
- (c) Volumes are expressed as two-way vehicles per hour.
- (d) Volumes vary by whether free-flow speed is greater or less than 40 miles per hour.
- (e) Volumes vary by whether or not the arterial unit is constructed to standards or not.
- (f) Table 7 also shows the assumed volume-to-capacity (V/C) ratios.

**TABLE 7 RURAL CATEGORY 2**

LOS	Free Flow Speed ≤ 40 mph			Free Flow Speed > 40 mph		
	V/C	Not to Standards	To Standards	V/C	Not to Standards	To Standards
<b>A</b>	0.23	410	510	0.23	460	570
<b>B</b>	0.38	680	860	0.38	760	950
<b>C</b>	0.55	980	1,220	0.55	1,090	1,360
<b>D</b>	0.79	1,400	1,750	0.78	1,550	1,940
<b>E</b>	<b>1.00</b>	1,780	2,220	<b>1.00</b>	1,980	2,470

**4224.090 Level of Service C Thresholds for Rural Arterial Units**

*Adopted: 5/10/02, First Revision 10/11/04, Second Revision 01/20/14, Third Revision 9/19/16*

(1) *LOS C Thresholds for Rural Arterial Units.*

(a) The Snohomish County Council has adopted a LOS standard of C for rural arterial units located outside the urban growth area (UGA) which are not categorized as urban for the purpose of evaluating LOS and which are not designed to serve as high-speed rural highways. Snohomish County Public Works (DPW) has developed the following Rule to provide a rational, technically defensible methodology for applying the LOS C standard to the rural (i.e., outside the UGA) arterial units. The method is similar to that used for urban arterial units, in that average travel speed is the criteria by which LOS is determined. Average travel speed on arterial units is either measured in actual field tests (travel time studies using the average car method) or is estimated using traffic engineering models (e.g., Synchro). Given an average travel speed for an arterial unit (either measured for current conditions or estimated for future conditions), a determination is made as to whether or not the speed is greater than a predefined minimum threshold needed to achieve LOS C.

(b) This LOS C threshold can be calculated in different ways depending on the characteristics of the arterial unit. The following describes three possible situations.

(2) *LOS C Threshold Methodology for Rural Highways or Rural Arterials with No Controlled Intersections.* For rural highways or rural arterials with no controlled intersections that cause delay, then the LOS C threshold is simply 75% of the average free-flow speed for the arterial unit. The 75% threshold is based on the methodology in the Highway Capacity Manual for measuring LOS on rural highways.

(3) *LOS C Threshold Methodology for Rural Highways or Rural Arterials with Controlled Intersections.* For rural highways or rural arterials with controlled intersections that cause delay then the LOS C threshold is calculated as follows:

(a) Determine the travel time in seconds on the arterial unit at 75% of the free flow speed.

(b) Add 35 seconds for each signalized intersection and 25 seconds for each stop-controlled intersection on the unit. (These are the amounts allowed by HCM for the maximum intersection delay for LOS C.)

(c) Convert the total seconds from steps (1) and (2) into miles per hour. This is the LOS C threshold.

(d) Table 8 below shows the LOS C thresholds for a rural arterial unit with a controlled intersection at one end, varying by length of arterial unit and free flow speed.

(e) Chart 1 below depicts Table 8 in graphical form.

(f) Table 9 below shows an individual example of how the LOS C threshold is determined for a fictitious rural arterial unit in which there is a signalized intersection at one terminus.

(g) Note that free-flow speeds of 50 mph or greater will only be used for arterial units in which the legal speed limits are 40 mph or greater.

(4) *LOS C Threshold Methodology for Arterial Units with Poor Operating Characteristics.* For some arterial units with poor operating characteristics in which free flow speed is difficult to measure or not representative of the unit as a whole, then a substitute for free-flow speed may be calculated by multiplying 75% by the average travel speed for off-peak conditions.

(5) The County Traffic Engineer will apply these same basic principles to other situations as the need arises to determine the appropriate LOS C thresholds for any rural arterial unit. Typically, the calculation of LOS C thresholds will be determined once an arterial unit has reached the level of operational analysis. Prior to that time, LOS will be based on maximum service volumes.

**TABLE 8**  
**LOS C THRESHOLDS FOR RURAL ARTERIAL UNITS WITH ONE CONTROLLED INTERSECTION AT TERMINUS**

<b>1. Seconds to Travel the Arterial Unit</b>								
Calculation of the time (in seconds) to travel the arterial unit at LOS C (75% of free flow).								
free flow speed	75% of free flow speed	Length of Arterial Unit (in miles)						
		1.0	1.5	2.0	2.5	3.0	3.5	4.0
30	22.5	160	240	320	400	480	560	640
35	26.3	137	206	274	343	411	480	549
40	30.0	120	180	240	300	360	420	480
45	33.8	107	160	213	267	320	373	427
50	37.5	96	144	192	240	288	336	384

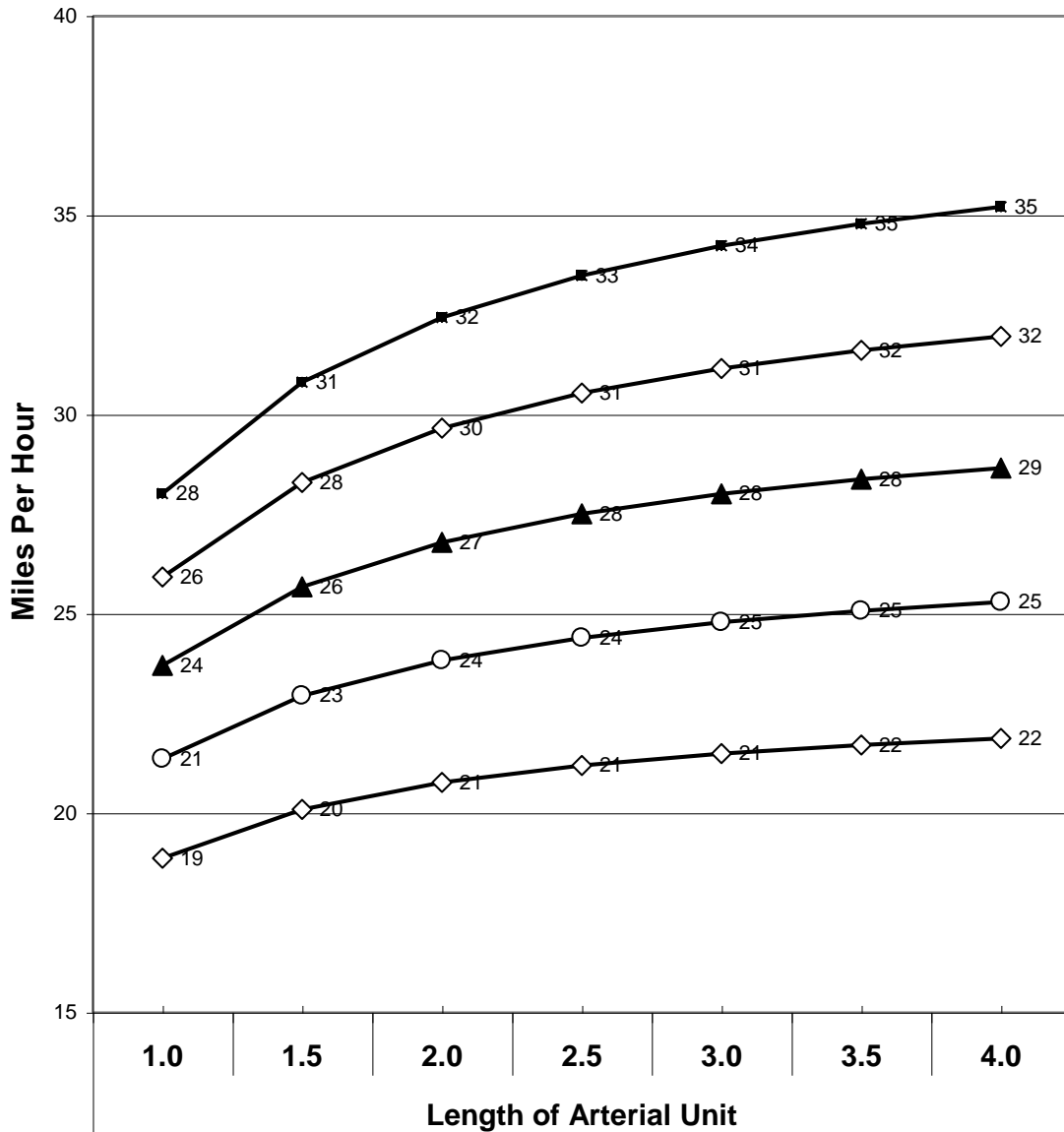
<b>2. Total Travel Time on Arterial Unit at LOS C</b>							
Add maximum controlled delay allowed at intersection at LOS C (35 seconds).							
Free Flow Speed	Length of Arterial Unit (in miles)						
	1.0	1.5	2.0	2.5	3.0	3.5	4.0
30	195	275	355	435	515	595	675
35	172	241	309	378	446	515	584
40	155	215	275	335	395	455	515
45	142	195	248	302	355	408	462
50	131	179	227	275	323	371	419

<b>3. LOS C Thresholds in Miles Per Hour</b>							
Determine minimum travel speed at LOS C (Convert travel time into speed).							
free flow speed	Length of Arterial Unit (in miles)						
	1.0	1.5	2.0	2.5	3.0	3.5	4.0
30	18	20	20	21	21	21	21
35	21	22	23	24	24	24	25
40	23	25	26	27	27	28	28
45	25	28	29	30	30	31	31
*50	27	30	32	33	33	34	34

\*Only used for arterial units in which the free-flow speed is 40 mph or greater

Chart 1

LOS C Threshold for Rural Arterial Unit  
with a Signalized Intersection at Terminus



Free Flow Speed of Unit

- ◇ 30
- 35
- ▲ 40
- ◇ 45
- \*50

**TABLE 9**

Sample of Calculation of minimum average travel speed for LOS C on a rural arterial unit with signalized intersection at one terminus for specific arterial unit.

1. Inputs	
Arterial Unit:	272
Description:	228th from 45th to SR-9
Free Flow Speed:	41.4
Length of Arterial Unit:	1.40

2. Seconds to Travel the Arterial Unit	
77% of free flow speed	31.9
Time (in seconds) to travel the arterial unit at LOS C (77% of free flow speed).	158

3. Total Travel Time on Arterial Unit at LOS C	
The time in seconds to travel the arterial unit (Step 2) plus the maximum controlled delay allowed at intersection at LOS C (35 seconds).	193

4. LOS C Thresholds in Miles Per Hour	
Convert total travel time (Step 3) into speed (miles per hour) to derive the minimum travel speed needed to achieve LOS C.	26.1

## **4224.100 Ultimate Capacity Process**

*Adopted 4/24/06, First Revision 9/19/16*

(1) Chapter 30.66B SCC provides that based on an engineer's report and ultimate-capacity recommendation by DPW, the County Council, may adopt a motion designating an arterial unit as ultimate capacity. That motion will establish the County's commitment to specific improvements or actions that the County Council determines to be appropriate.

(a) The engineer's report will be reviewed and approved by the County Engineer and will include:

- (i) An analysis of the improvements to the roadway that would NOT be warranted because of excessive costs; and
- (ii) Identification of all improvements needed to remedy any inadequate road conditions (IRCs) on the arterial unit; and
- (iii) Identification of improvements shown in adopted Transportation Element and status of funding and/or completion of such improvements; and
- (iv) Identification of any other improvements or actions completed, funded, and or planned, that would be practicable and effective in preserving capacity and improving efficiency; and
- (v) A report on any completed access management plans or standards, or if none, a determination of whether or not access management would be appropriate for the arterial unit, and if so, a scope, budget and timeline for development and implementation of an access management plan; and
- (vi) A report on any completed signal coordination or other Transportation System Management (TSM) actions, and a determination of whether or not additional TSM strategies would be appropriate for the arterial unit, and if so, a scope, budget and timeline for development and implementation of a TSM plan; and
- (vii) A report on any completed Transportation Demand Management (TDM) strategies, and a determination of whether or not additional TDM strategies would be appropriate for the arterial unit, and if so, a scope, budget and timeline for development and implementation of a TDM plan; and
- (ix) Evaluation of the extent to which funding commitments are in place for each identified improvement and action; and
- (x) Evaluation of a reasonable time line for progress and completion of each identified improvement and action based on a review of the current DPW work programs; and
- (xi) Identification of the applicable specific growth management objectives and analysis of how these objectives support or do not support the designation of ultimate capacity for the arterial unit.

(b) The evaluation and recommendation on whether or not the arterial unit is a candidate for ultimate capacity will be based on the criteria identified in SCC

30.66B.110 and DPW Rule 4224.110 and will be reviewed and approved by the Public Works Director.

(2) "Impacting" an ultimate capacity arterial unit means adding three (3) or more a.m. or p.m. peak-hour trips to the arterial unit in accordance with the provisions of SCC 30.66B.160(2) and DPW Rules including DPW Rule 4225.020(2). Developments impacting an ultimate capacity arterial unit will be allowed to add new trips to the road system before improvements or actions identified in the County Council motion are completed, provided that the following conditions are met:

(a) The provisions of SCC 30.66B.220 will apply to the timing of improvements to remedy any IRCs identified by the County Council in the motion declaring a arterial unit to be ultimate capacity; and

(b) The requirements of SCC 30.66B.160 and SCC 30.66B.610-650 will apply to requirements for TDM measures for developments impacting ultimate capacity facilities.

(i) A pending development, that has not been given concurrency approval because of impacts to an arterial unit in arrears, may request a new concurrency determination if the arterial unit in arrears is designated as ultimate capacity, provided the applicant submits a revised TDM plan and/or voluntary TDM offer that meets the requirements of SCC 30.66B.160 and SCC 30.66B.610-650 for developments impacting ultimate capacity facilities.

#### **4224.110 Ultimate Capacity Criteria**

*Adopted 4/24/06, First Revision 9/19/16*

(1) The definitions below apply to this section.

(a) "Fully funded" as used in SCC 30.66B.110(1)(c) shall mean the same as "funding commitment in place" as used in Chapter 30.66B SCC and these Rules.

(b) "Construction" as used in SCC 30.66B.110(1)(c) and this Rule shall mean that construction of the improvements are substantially complete and the improved arterial unit is open for public use.

(c) "Unwarranted public expenditures," or "constraints to cost-effective improvements" or "excessive expenditure of public funds" as used in Snohomish County Code and this DPW Rule, should be considered, at least in part, in terms of whether or not the identified improvements are shown in the currently-adopted Transportation Element as either Critical Arterial System Improvements (CASIs) or Arterial Level of Service Improvements (ALOSIs). That is, improvements identified as CASIs or ALOSIs may not generally be considered as "unwarranted", "constrained", or "excessive" because the Transportation Element has demonstrated that they can likely be financed and constructed within the horizon of the plan using revenues that the County reasonably expects to secure.

(d) "Ultimate Capacity" refers to the congestion LOS standard as opposed to the description of physical improvements to the arterial unit. That is, it refers to a LOS that reflects the "ultimate" capacity of the arterial unit in terms of traffic flow. It contrasts with "ultimate standard" or "ultimate improvements" which refer to the



degree to which the physical improvements on a roadway match the “ultimate” level of improvement as identified in the most currently-adopted Transportation Element.

(e) “Arterial Unit” refers to the arterial units defined under the County’s concurrency management system. However, this does not mean that the beginning and ending points of arterial units cannot be modified to correspond to sections of road designated for ultimate capacity.

(2) In making a recommendation to the County Council as to whether or not an arterial unit should be designated as ultimate capacity, DPW will use the criteria identified in SCC 30.66B.110 and as presented below with somewhat greater specificity and consisting of a series of directed questions for which DPW will provide answers supported by specific details and analysis. (See also flow chart below provided for information purposes only.)

(a) Would additional improvements to the specified arterial unit require unwarranted public expenditures and/or would they cause severe environmental or community impacts?

- o If yes, go to (2)(b)
- o If no, arterial unit does not meet criteria for ultimate capacity designation.

(b) Would determination of ultimate capacity advance one or more specific growth management goals or objectives?

- o If yes, go to (2)(c)
- o If no, arterial unit does not meet criteria for ultimate capacity designation.

(c) Is the arterial unit identified in the Transportation Element as having a Critical Arterial System Improvement?

- o If yes, go to (2)(d)
- o If no, go to (2)(e)

(d) Two part question: One, are the number of lanes and other improvements consistent with the adopted Transportation Element and two, do they meet the EDDS? (Note, “meeting EDDS” includes any formally approved deviations or improvements consistent with DPW design plans approved by the County Engineer.)

- o If yes to both, arterial unit meets criteria for ultimate capacity designation.
- o If no to either, arterial unit does not meet criteria for ultimate capacity designation.

(e) Two part question: One, are the number of vehicle lanes consistent with the adopted Transportation Element and two, do they meet EDDS?

- o If yes to both, go to(2)(g)
- o If no to either, go to (2)(f).

(f) Is the number of general-purpose travel lanes (excluding turn lanes) consistent with the adopted Transportation Element?

- o If yes, go to (2)(g)
- o If no, arterial unit does not meet criteria for ultimate capacity designation.

(g) Two part question: One, are appropriate provisions made to accommodate pedestrian demand for any portions of the arterial unit for which pedestrian

improvements are identified in the Transportation Needs Report as being a high or medium priority and two, are appropriate provisions made to accommodate bicycle demand for any portion of the arterial unit identified in the Transportation Element as a link in the countywide bicycle facility system? “Appropriate provisions to accommodate the pedestrian and bicycle demand” in this section shall mean that the arterial unit is improved consistent with EDDS. Consistency with EDDS includes approved deviations from EDDS when determined appropriate by either the County Engineer or County Traffic Engineer, based on engineering criteria including those in SCC 30.66B.430(3).

- o If yes to both, go to (2)(h)
- o If no to either, arterial unit does not meet criteria for ultimate capacity designation.

(h) Two part question: One, are all intersections signalized that meet warrants and two, are additional left-turn or right-turn lanes provided to maximize efficiency and, where appropriate, to match the ultimate lane configurations identified in the Transportation Element?

- o If yes to both, go to (2)(i)
- o If no to either, arterial unit does not meet criteria for ultimate capacity designation.

(i) Is the source of delay another agency’s road?

- o If yes, go to (2)(j)
- o If no, go to (2)(k)

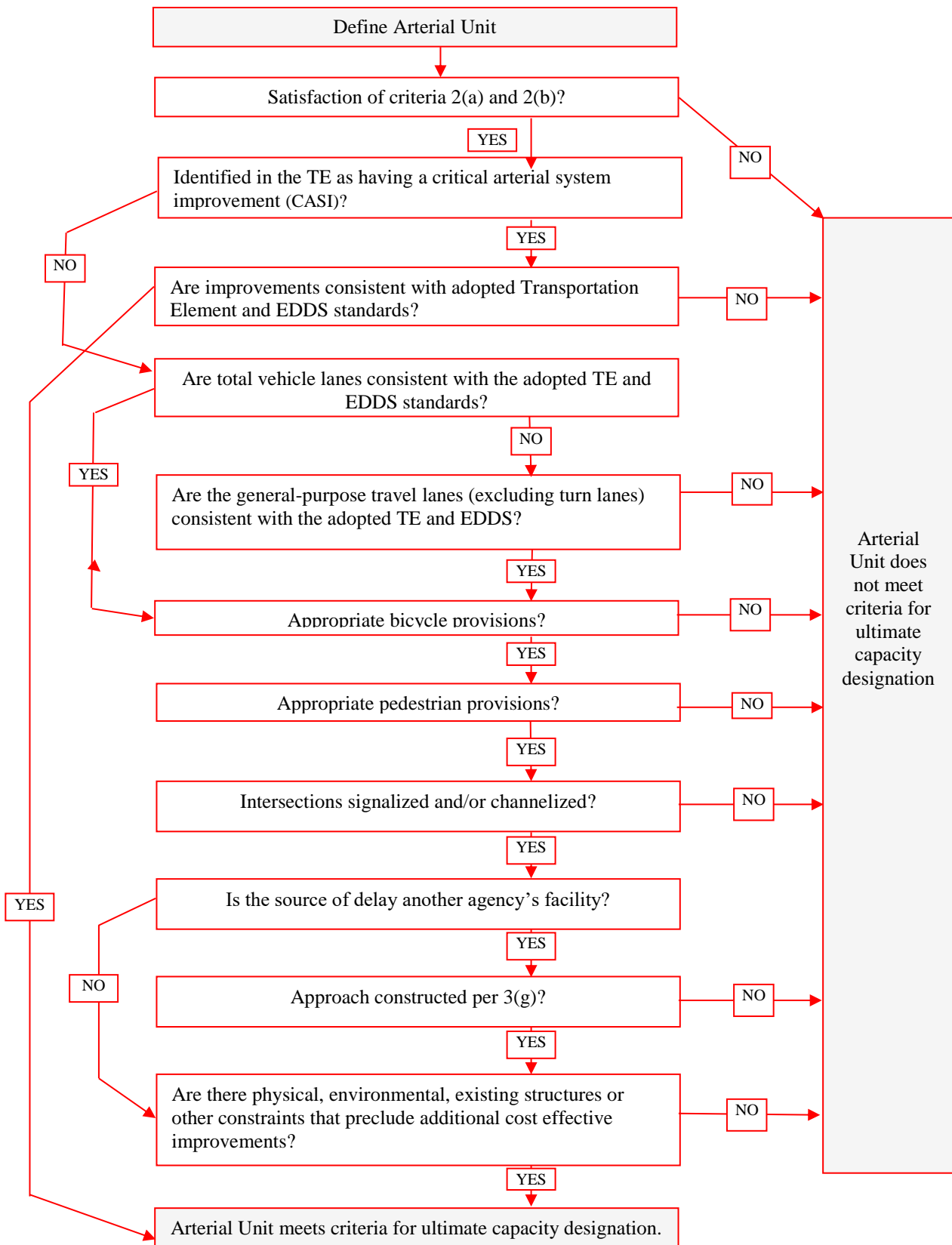
(j) Four part question: One, does the County section of the arterial unit approaching the other agency’s road meet the standards in EDDS? Two, is the number of lanes on the County approach consistent with the adopted Transportation Element? Three, are additional left-turn or right-turn lanes provided on the county approach to maximize efficiency on the County approach and, where appropriate, to match the ultimate lane configuration of the other agency’s road? Four, is the length of turn pockets designed to accommodate 2025 forecast demand?

- o If yes to all four parts, go to (2)(k)
- o If no to any of the four parts, the arterial unit does not meet criteria for ultimate capacity designation.

(k) Are there physical, environmental, existing structures or other constraints that preclude additional cost effective improvements to the County arterial unit that would significantly improve LOS?

- o If yes, the arterial unit meets criteria for ultimate capacity designation.
- o If no, the arterial unit does not meet criteria for ultimate capacity designation.

(l) Unlike the code and rules dealing with ultimate capacity, the following flow chart is provided solely for informational purposes.



## **4225 MAKING CONCURRENCY DETERMINATIONS**

### **4225.020 Concurrency Management System**

*Adopted 1/1/03, First Revision 10/11/04, Second Revision 4/24/06, Third Revision 9/19/16*

- (1) An “Arterial Unit In Arrears” is defined in SCC 30.91A.290 and also means an arterial unit that is formally designated by the DPW to be in arrears prior to the development’s vesting date.
- (2) For each arterial unit there are actually four possibilities for an arterial unit in arrears, that is, two directions each for the two peak hours (AM and PM). If for instance, an arterial unit is in arrears only because of LOS deficiencies westbound in the AM, then a development will be stopped only if it adds three or more trips westbound in the AM peak hour.
- (3) Any development that generates more than 3 Peak Hour Trip (PHT) in a TSA with one or more arterial unit in arrears can only be deemed concurrent on the basis of a trip distribution showing it does not add 3 or more PHT to any arterial units in arrears in the developments TSA in the critical time and direction. The requirement for the distribution may be waived by the transportation development reviewers based on professional judgment if it is obvious that the development will not add 3 PHT to any arterial unit in arrears in the developments TSA in the critical time and direction (See DPW Rule 4220.030(9)). The reviewer will document this determination in the concurrency decision.
- (4) Developments that generate more than 50 AM or PM PHT are also required to conduct a LOS analysis for future conditions.
- (5) Developments that generate 50 or less AM or PM PHT in a TSA with no arterial units in arrears shall be deemed concurrent.
- (6) A concurrency determination once made, cannot be changed because of a subsequent designation of an arterial unit in arrears, even if the development’s trip distribution shows that the development would add 3 or more PHT to the arterial unit in arrears, unless, more than one year has elapsed since the concurrency vesting date and the development’s SEPA determination has NOT been made.

### **4225.040 Defining Responsibility for Knowledge of Level of Service Conditions of the Road System**

*Adopted 1/1/03, First Revision 10/11/04, Second Revision 9/19/16*

- (1) Part of the County’s concurrency management system involves systematically measuring level of service on arterial units. This ongoing process is based on adopted departmental Rules and accepted principles of professional traffic engineering. (DPW Rule 4224, “Making Level of Service Determinations.”)
- (2) At any point in time, there may be arterial units operating at a worse level of service than most recently estimated by the Department of Public Works (DPW), or even operating below the County’s adopted standards. DPW makes determinations on which arterial units are in arrears based on the best and most recent information available and consistent with its adopted Rules.

(3) A concurrency determination is based on the list of arterial units in arrears and other information as of the developments concurrency vesting date. Developers will not be held accountable for arterial units not designated as in arrears as of their concurrency vesting date because DPW lacked certain information at that time. The fact that DPW did not have certain information in hand at a certain point in time and thus failed to designate an arterial unit as in arrears will not be considered to be a mistake, such that a concurrency determination can be changed because of it.

(4) The DPW may designate an arterial unit as in arrears based on a forecast LOS deficiency. The same Rules summarized in this section with respect to “knowledge in hand” at the time of determinations of arterial units in arrears and use of the concurrency vesting date as the “point in time” for analysis also applies to forecast levels of service.

#### **4225.050 Making and Documenting Concurrency Determinations**

*Adopted 1/1/03, First Revision 10/11/04, Second Revision 9/19/16*

(1) A concurrency determination shall not be made until after a development application has been determined complete in accordance with SCC 30.70.040, except for when the concurrency determination is a preapplication concurrency determination made pursuant to SCC 30.66B.175.

(2) If the traffic study submitted by the developer with the initial application is sufficient for the County to make a concurrency determination, then that determination is included in the first review comments.

(4) The written concurrency determination will document the criteria upon which the determination was made. Such criteria shall be based on one or more of the following:

- (a) Thresholds based on number of peak hour trips generated,
- (b) The development’s TSA,
- (c) Whether or not there are any arterial units in arrears in the development’s TSA as of the development’s vesting date,
- (d) Future level-of-service conditions documented by traffic impact analysis,
- (e) Information about improvements or strategies which may affect level of service, and
- (f) Additional information needed to make a concurrency determination.

(5) Whenever a concurrency determination finds that a development can NOT be deemed concurrent, the written determination will:

- (a) Indicate that the development cannot be deemed concurrent at that point in time, and identify the supplemental information needed to make a concurrency determination, and
- (b) Describe DPW’s plans, if any, to remedy the level-of-service deficiency to allow the development to proceed in the future. Examples of plans to remedy a level-of-service deficiency might include projects in the Transportation Element, Grant Applications, TIP projects, State projects, or Strategic Plans for arterial units in arrears under DPW Rule 4224.

(6) Whenever a concurrency determination finds that a development is concurrent, the written determination will include the:

- (a) Concurrency vesting date,
- (b) Concurrency expiration date.
- (c) Terms and copies of any proposals offered by the developer that will be tied to the concurrency determination.
- (d) Conditions, if any, that enabled the development to be deemed concurrent and the timing of when they have to be satisfied.

#### **4225.070 Defining Key “Points in Time” Associated with Concurrency Determinations**

*Adopted 1/1/03, First Revision 10/11/04, Second Revision 9/19/16*

- (1) “Concurrency Determination Date.” The “concurrency determination date” is that date the development is deemed concurrent.
- (2) “Concurrency Inventory Date.” The “concurrency inventory date” is that date when developments that are deemed concurrent are considered to be part of the inventory of developments in the pipeline used to forecast future traffic volumes at key intersections. For developments deemed concurrent under the regular application process, and for an application that is later determined to be complete, the concurrency inventory date will be 30 days from the date of submittal. .
- (3) “Concurrency Vesting Date.” The significance of the “concurrency vesting date” is that it is the “point in time” for which the concurrency analysis is based, including any subsequent reviews or appeals. The concurrency vesting date will be the same as the underlying development applications regulatory completeness and vesting date as determined by PDS. PROVIDED, that the concurrency vesting date for a preapplication concurrency determination shall be the date of application for the preapplication concurrency determination.

#### **4225.080 Excluding Developments from the Inventory of Developments Determined Concurrent (Pipeline Inventory)**

*Adopted 1/1/03, First Revision 10/11/04, Second Revision 12/9/07, Third Revision 9/19/16*

- (1) Determining whether or not the trips from a particular development will be part of the inventory of developments determined concurrent or the “pipeline inventory” for a particular intersection at a particular time will depend on the relationship between the occupancy date and the count date.
  - (a) Count Date. For each key intersection, the date of the most recent traffic count. Note that for any particular intersection there may be a different count date for the AM and PM peak hours.
  - (b) Occupancy Date. The date a development is assumed to be occupied. The date of occupation will be based on documentation acceptable to the DPW such as certificates of occupancy, photographs, aerial photographs, visual confirmation by DPW staff, or letters from property owners. After the occupancy date, it is assumed that trips generated by the development will be captured by any traffic counts.

(i) With building permits the occupancy date will be the date of the certificate of occupancy (C of O). For a single family home or duplex the final of the building permit is considered the C of O.

(ii) For subdivisions, short subdivisions, binding site plans, or SFDU's, lacking other documentation (i.e. C of O), the date of occupation will be assumed to be two years after final approval.

(2) There are other cases in which developments, or portions of developments, will be excluded from the pipeline. These include:

(a) When a developments concurrency determination, including a preapplication concurrency approval, expires pursuant to SCC 30.66B.155.

(b) Partial Occupancy. Entering a percentage in the percent occupied field of the database and a corresponding date indicating that as of that date the development is considered to be X% occupied.

#### **4225.090 Pipeline Forecast Reports**

*Adopted 1/1/03, First Revision 10/11/04, Second Revision 4/24/06, Third Revision 9/19/16*

(1) Given a key intersection, at any point in time, the "pipeline" or "traffic volume forecast" will consist of the distributed trips from all of the developments in the pipeline inventory except those developments that have an occupancy date that is prior to the intersection count date. DPW will use the most up-to-date pipeline available whenever it conducts a future LOS analysis (either for a concurrency determination or to determine whether an arterial unit should be in arrears).

(2) Within 90 days of the presubmittal or traffic scoping meeting, and upon the request of the developer, the County will provide the developer with reports from the pipeline inventory database. These reports will be known as the "pipeline forecast reports."

(a) One pipeline forecast report will be provided for each key intersection on each identified critical arterial unit.

(b) If acceptable current counts are available, the County will provide them. If not, the developer will have to provide the counts. (See Rule 4220.060(2))

(c) The information in the pipeline forecast report will be valid for ninety days from the date of the report, except as follows:

(i) The County will provide the developer with trip distributions from any developments generating over 50 PHT that have been added to the pipeline inventory during the 90-day period.

(ii) To be deemed concurrent, the subject developer will have to either add these other developments to the forecast, or with the submittal of the traffic study other analysis showing that the additional trips will not cause the LOS to fall below the adopted standard, PROVIDED, the subject developer will not have to consider any other developments whose concurrency inventory date is less than 30 days prior to the subject development's submittal date. (These 30- and 90-day "grace periods" will apply only for a pipeline report used in conducting future LOS analyses submitted by the developer.)

## **4225.100 Preapplication Concurrency Evaluation Process**

*Adopted 1/1/03, First Revision 10/11/04, Second Revision 12/9/07, Third Revision 9/19/16*

(1) Application for a preapplication concurrency evaluation will be consistent with SCC 30.66B.175(2) and the following:

- (a) No formality is required to initiate the preapplication concurrency evaluation process.
- (b) A developer can initiate the preapplication concurrency process for a proposed development by requesting a traffic study scoping meeting over the telephone.
- (c) The formal preapplication concurrency application will consist of a written request for a preapplication concurrency evaluation, a basic information form, a copy of the traffic impact analysis scoping checklist, the traffic study itself, a payment in the amount of the review fee required by SCC 13.110.030, and, if required for the underlying development, a completed “phased” SEPA checklist limited to impacts on LOS in terms of concurrency.
- (d) The basic proposal will consist of a list of all the property Tax Account Numbers (with Section, Township, Range) defining the parcel(s), the maximum number of AM and PM Peak Hour Trips (PHT) to be analyzed for concurrency, the name and general location of the possible access roads and the “worst-case” access scenario in terms of impacts on LOS.
- (e) The “site plan” will not show any details of building layouts, but will be limited to the vicinity map showing the location of the property, the road system in the area of the proposal, and the general location of any new public roads, access roads or driveways that will connect to the existing road system.

(2) Traffic Study Scoping. Prior to submitting a development application, applicants will attend a traffic study scoping meeting.

- (a) The County has developed a checklist to be completed by the TDR and the Developer or the Developers representative at the traffic study scoping meeting.
- (b) The concurrency coordinator may also attend the scoping meetings.
- (c) The TDR may also request to have a representative from Traffic Operations attend the traffic study scoping meeting.
- (d) Because of the methodology adopted by Ordinance 01-011 to estimate future traffic volumes (i.e., using the pipeline inventory rather than using growth factors), the forecast will not vary by number of years. With this methodology, for example, there is no difference between a three-year forecast and a six-year forecast. In almost all cases the forecast year will be six years in the future. If a developer wants a time period different than six years, then it will have to be determined on a case-by-case basis by the County Traffic Engineer.

(3) The following shall apply to applications for preapplication concurrency evaluations:

- (a) Application submittals will be by appointment only. A PDS TDR will attend the submittal meeting.



- (b) Preapplication concurrency applications will be assigned a standard project file number in AMANDA and tracked in such a way as to be tied to the subsequent application for the development.
- (4) Notice of application and decision. PDS will provide, including posting, mailing, and publication, notice of:
- (a) Application consistent with Chapter 30.70 SCC; and
  - (b) Decision consistent with Chapter 30.71 SCC.
- (5) Scope of Review for preapplication concurrency evaluations will include the following:
- (a) Though the road system includes City streets and State highways, the preapplication concurrency evaluation will be limited to County arterial units. Level-of-service impacts to City streets and State highways will be analyzed during review of the subsequent application pursuant to any ILA's.
  - (b) Comments received during the 21-day public comment period will be evaluated and reviewed.
  - (c) The County will review the application during the 21-day public comment period, and finalize its review following the close of that 21-day period.
- (6) SEPA Review for a preapplication concurrency determination will only be required if SEPA is required for the underlying development for which the preapplication determination is sought and, if so required, will include the following:
- (a) The SEPA evaluation will be limited solely to impacts to the LOS on those County arterial units within the developments TSA, measured in terms of the County's concurrency regulations. If the developer proposes or the County requires improvements to the County road system to achieve concurrency, then the SEPA review for the preapplication concurrency review will be conditioned to require the improvements. Any environmental impacts associated with the construction of those improvements would be completed during the SEPA review for the underlying development.
  - (b) If the development cannot be determined concurrent due to the level of traffic impacts then the County, prior to making a SEPA threshold determination, would notify the developer that if the development was not revised to reduce the impacts to a level that would allow the development to be determined concurrent, then under SEPA a DS would be likely.
- (7) The preapplication concurrency determination will be in the form of a letter to the applicant.
- (8) The appeal of a preapplication concurrency determination is pursuant to SCC 30.66B.180.
- (9) Clarifications on Validity of Subsequent Applications
- (a) SCC 30.66B.155(1) provides that a preapplication concurrency determination is valid for six months following the notice of decision unless an appeal is pending, in which case the approval shall be valid for six months following resolution of all appeals. This means that for a preapplication concurrency determination to be

considered valid, a subsequent development application must be submitted within six months following the notice of final decision. This does not mean that a subsequent application has to be determined complete within six months following the notice of final decision. If a development application is submitted within the six months, no further concurrency review is required.

(b) A subsequent development application may be submitted prior to the end of the appeal period for a preapplication concurrency decision or prior to the resolution of any appeals. In such instances, the subsequent development application will not be determined concurrent until the appeal period has ended, and any appeals, if so filed, have been resolved and the concurrency determination is upheld. In the event of an appeal of a preapplication concurrency determination and the subsequent development application is subject to SEPA, PDS will not issue a SEPA threshold determination for the project until any appeals of the preapplication concurrency determination have been resolved and the development has been determined concurrent.

#### **4225.110 Conditional Concurrency Approvals**

*Adopted 1/1/03, First Revision 10/11/04, Second Revision 9/19/16*

(1) The County may deem that a development is concurrent based upon satisfaction of specific conditions.

(a) Conditions necessary for concurrency will be documented in writing on the concurrency determination pursuant to SCC 30.66B.120(2)(b).

(b) The County may only deem a development conditionally concurrent if a written proposal has been received from the applicant and approved by the County. If no public agency is constructing road improvements that will remedy the LOS deficiencies pertinent to the developer's concurrency determination, or if the County has determined that such improvements are not fully funded, the applicant must then offer to either construct the needed improvements or, if applicable, contribute an equitable proportionate share payment towards the improvements. The proportionate share option will only be applicable if some mechanism for pooling contributions from developers for funding the project has already been established by other developers and/or other agencies and accepted by the County.

(c) The County Traffic Engineer will review all proposals for conditional concurrency and make the final determination.

(2) Satisfaction of conditions necessary for concurrency.

(a) If a development is deemed concurrent conditional upon the construction of improvements by the developer, these conditions must be stated as such on the written proposal described under subsection 4225.110(1)(b) above and the improvements must be:

(i) Under contract prior to building permit issuance, and

(ii) Completed prior to occupancy consistent with SCC 30.66B.170(6).

(b) If a development is deemed concurrent conditional upon the construction of improvements by the County, WSDOT, or another jurisdiction, then there must be a

financial commitment in place for improvements that will remedy the arterial unit in arrears prior to the conditional concurrency determination.

- (3) Conditional concurrency may be provided based on phasing of a development.
  - (a) For subdivisions, conditions have to be based on specific phases, as opposed to a specified number of individual building permits. For example, assume that a 100-lot subdivision can be deemed concurrent based on the construction of a traffic signal, but the signal is only needed after 50 lots have been occupied. In such case, the development could be broken into two 50-lot phases and would be conditioned such that building permits for phase two could not be issued until the traffic signal was under contract. Under this example what would NOT be allowed is to establish a more broadly-written condition to the effect of “building permits for the 51st and subsequent lots cannot be issued until such time as the traffic signal is under contract.” Basing the conditions on specific phases, as opposed to specified numbers of individual building permits is the only way in which the County can effectively enforce such conditions.
  - (b) Changes in the phasing plan upon which concurrency was conditionally granted, but not considered at preliminary plat approval may result in the need for a plat modification and potentially an additional hearing. For example, a modification will likely be needed if a developer wants to build a phase sooner than identified in the approved conditions. A phase constructed later than in the approved conditions will typically not require a modification solely to address concurrency. Exceptions to those examples may be when a development is conditioned so that before a certain phase can be constructed or occupied, a different phase must be constructed. In this case a modification would likely be needed if the timing of the construction of the phases was modified.
  - (c) In some cases a developer with concurrency approval for an entire subdivision decides to build in phases subsequent to preliminary approval. This will not cause any changes in the concurrency approval or require a plat modification solely to address concurrency unless the developer does not want to comply with all the conditions with the construction of the first phase.
- (4) Developments, when not required by other sections of Chapter 30.66B SCC to achieve concurrency, have TDM options under SCC 30.66B.610-680 for earning extra trip reduction credits based on either the construction of certain on-site or off-site TDM features or implementing a voluntary trip reduction program. Concurrency granted on the basis of these extra trip reductions under SCC 30.66B.610-680 is not considered to be conditional. The purpose of the following section is to define Rules with respect to TDM proposals by developers that go beyond the trip reduction percentages required under SCC 30.66B.610-680 for the purposes of achieving concurrency.
  - (a) Applicants considering TDM strategies should meet with the County prior to submittal so that the TDM plan and necessary traffic analysis can be part of the original submittal.
  - (b) Any such TDM strategies have to be offered voluntarily by the applicant in writing.
  - (d) Conditions established by such proposals may be recorded as a covenant on the involved parcels and may involve aspects such as annual reporting and

monitoring requirements that will continue subsequent to occupancy of the development.

## **4226 CREDIT FOR RIGHT-OF-WAY AND DEVELOPER CONSTRUCTED IMPROVEMENTS TO THE ROAD SYSTEM**

### **4226.020 Credit for Right-Of-Way and Developer Constructed Improvements**

*Adopted 9/10/95, First Revision 10/11/04, Second Revision 4/24/06, Third Revision 9/19/16*

(1) As required by RCW 82.02.060(3) and SCC 30.66B.310(2), credit against a development's road system impact fee shall be provided for either right-of-way or the construction of full standard road-system improvements . The credit is required to prevent a developer from paying twice for the same improvements, i.e. first as a cost associated with either acquiring property that will be required for right-of-way or the construction of the actual full standard road-system improvements, and second, as part of paying an impact fee. To receive a credit, either the right-of-way or the required road-system improvements constructed by the developer shall be:

- (a) Identified in the Transportation Needs Report (TNR) as being part of the impact fee cost basis;
- (b) Determined by the County to be part of the "ultimate" (as opposed to interim or minimum) road-system improvements; and
- (c) Required and imposed by the County as a condition of approval.

(2) Credits shall not exceed 100% of the amount calculated using the unit costs of the TNR impact fee cost basis as provided in DPW Rule 4226.020(6) below and are subject to the following:

- (a) DPW Rule 4221 contains policies about credits for right-of-way.
- (b) DPW Rule 4221.060(3)(c) indicates that where a developer is eligible for credits for both right-of-way and the construction of road improvements, compensation for right-of-way will be credited against the developer's impact fee payment before any construction value will be credited.
- (c) A construction project's preliminary engineering, construction engineering, and/or mobilization, may also be creditable, to the extent that the developer installing the improvements was also responsible for these aspects of the project.

(3) Creditable road-system improvements may include, but are not limited to, frontage improvements, improvements to eliminate an IRC, improvements to provide access and circulation, and improvements to remedy arterial units in arrears.

(4) Credit will be given for the construction and delineation of pedestrian walkways when required by the County only to the extent that improvements constructed are identified in the Transportation Needs Report as part of the impact fee cost basis and the County determines the pedestrian improvements can be utilized in the full standard frontage improvements when constructed.

(5) No credit will be given for the construction of minimum or interim frontage improvements.

(6) The County may agree to provide credits against a developer's impact fees for construction of certain additional road-system improvements not needed strictly for the use and convenience of the occupants or users of the development if the developer

voluntarily offers to construct such additional improvements in conjunction with the development, and the improvements are part of the impact fee cost basis, and the County has determined that the net cost to the County will be less than if the County constructed the improvements itself.

(7) Credits for construction of road-system improvements may not exceed the value of a development's impact fee even though the cost to construct the improvements may exceed the value of a development's impact fee. In the event the cost of the improvements exceeds the credit amount the developer may be eligible for assessment reimbursement (a.k.a., latecomer's agreement) as allowed under Chapter\_13.95 SCC.

(9) Credits will be based upon the dollar amounts used to compute the road needs costs in the impact fee cost basis as found in the Snohomish County Transportation Needs Report (TNR) reduced by the same percentage that was used to establish the applicable road system impact fee.

(10) The County will calculate the amount of credit by applying the relevant costs in the impact fee cost basis reduced by the same percentage that was used to establish the applicable road system impact fee to the dimensions and/or quantities of constructed improvements, except that when the amount of such calculation exceeds \$100,000 the following shall apply:

(a) The initial credit shall only equal 85% of the amount calculated unless, and until, the developer provides copies of receipts and cancelled checks documenting that the actual costs of the improvements to the developer equaled or exceeded 85% of the amount calculated using the TNR impact fee cost basis;

(b) The amount of the final credit shall be determined and shall not exceed the lessor of either:

(i) The amount documented by paid receipts or invoices; or

(ii) 100% of the amount calculated using the TNR impact fee cost basis reduced by the same percentage that was used to establish the applicable road system impact fee.

(11) If, by the time the developer wishes to pay the impact fee, the final credit amount has not been determined or the developer who installed the improvements has not requested a credit, then the developer can choose to either wait to pay the fee or pay the fee and have the County refund all or part of the fee if the final credit is determined within six months of fee payment.

#### **4226.030 Requests for Credits and Application to Individual Units**

*Adopted 12/9/07, First Revision 9/19/16*

(1) The developer is responsible to request impact fee credits for road improvements in writing (or e-mail) and to provide the County with all documents and information the County determines are needed to calculate the credits. Such request and submittal of required information shall be made with the first submittal of the construction plans for the improvement for which credit is being sought. This will allow the calculation of credits to be completed sufficiently in advance of final development review so that the final plat Mylar, site plan, and record of developer obligations accurately reflect the net per unit impact fee after application of all available credits.

(2) Credits applied to a development will be evenly distributed among any units that make up the development. For example, in a subdivision, the total amount of credits will be divided by the total number of new lots, and the same per-lot amount will be applied to each building permit application within the subdivision.

## **4228 TRANSPORTATION DEMAND MANAGEMENT (TDM) FOR DEVELOPMENT**

### **4228.020 Trip Reduction Credits Procedures.**

*Adopted 9/27/01, First Revision 10/11/04, Second Revision 9/19/16*

- (1) Developers are required to provide TDM measures to mitigate their traffic impacts. Certain TDM measures are eligible for trip reduction credits.
- (2) Developers will be informed of TDM options at the presubmittal conference.
- (3) The County will help developers apply the on-site design principles of Sno-Trans' "A Guide to Land Use and Public Transportation" (document available for reference at DPW) to facilitate compatibility with TDM.

### **4228.030 TDM Measures Eligible for Trip Reduction Credits.**

*Adopted 9/27/01, First Revision 10/11/04, Second Revision 9/19/16*

- (1) TDM measures eligible for trip reduction credits may include:
  - (a) Construction of on-site TDM measures pursuant to SCC 30.66B.640,
  - (b) Construction of off-site TDM measures pursuant to SCC 30.66B.620,
  - (c) Implementation of a voluntary trip reduction program pursuant to SCC 30.66B.650(2), and
  - (d) Additional TDM measures with an area-wide impact may be eligible for trip reduction credits on a case-by-case basis pursuant to SCC 30.66B.650(3).

### **4228.040 TDM Plan or Written Proposal Required to Receive Trip Reduction Credits**

*Adopted 9/27/01, First Revision 10/11/04, Second Revision 9/19/16*

- (1) Developers wishing to receive credits must provide with their initial development application submittal a TDM plan for on-site TDM measures or a written proposal for off-site TDM measures or a voluntary on-site trip reduction program. Such TDM plan or written proposal will adequately show and describe the TDM measures proposed for the development. In the event a developer opts to earn trip reduction credits utilizing a combination of TDM measures, both a TDM plan and written proposal will be required.
- (2) Based upon the requirements of Chapter 30.66B SCC and these adopted Rules, the County will determine if a development's TDM plan meets the requirements for on-site TDM, and/or if a development's written proposal meets the requirements for off-site TDM or a voluntary on-site trip reduction program, and will determine the amount, if any, of trip reduction credits allowed.
- (4) The written submittal of voluntary trip reduction programs shall be provided in the TDM plan in a form acceptable to the County. When a traffic study is required, the written submittal of voluntary trip reduction programs will be part of that traffic study.

### **4228.050 Restrictions**

*Adopted 9/27/01, First Revision 10/11/04, Second Revision 9/19/16*



- (1) On-site TDM features accepted in a mitigation proposal and/or measures with area-wide impacts allowed credits under this section must be constructed before any certificate of occupancy or final inspection will be issued.
- (2) Special access easements accepted for TDM features in a mitigation proposal must be recorded as restrictive covenants on the appropriate property title(s) before any certificate of occupancy or final inspection will be issued.
- (3) Voluntary trip reduction programs accepted for TDM features in a mitigation proposal must be recorded as restrictive covenants on the appropriate property title(s) before any certificate of occupancy or final inspection will be issued. Such restriction shall state that the owner agrees to the implementation and ongoing operation of the voluntary trip reduction program by the proposed occupant(s) of the site and by all subsequent occupants as a condition of use for that property for the term of the program.
- (4) The County will determine fulfillment of the terms of the voluntary trip reduction program through the development's annual report and through verification by DPW's monitoring program under Rule 4228.100(5) below.
- (5) If the County determines that the terms of the voluntary trip reduction program are not being fulfilled the County will notify the developer or owner in writing.
- (6) After the determination of program fulfillment has been made for the sixth year of the voluntary trip reduction program, the County shall within 60 days of receiving a request by the property owner, provide appropriate documentation enabling the property owner to remove the voluntary trip reduction program title encumbrance.
- (7) Voluntary trip reduction programs accepted for any development occupied by an affected, major employer subject to the provisions of the Chapter 32.40 SCC, shall, in cases of conflicting requirements, meet the requirements of Chapter 32.40 SCC.

#### **4228.060 Application of Trip Reduction Credits**

*Adopted 9/27/01, First Revision 10/11/04, Second Revision 9/19/16*

- (1) Trip reduction credits allowed to developers will be used in accordance with SCC 30.66B.670.
- (2) The County will encourage other jurisdictions to allow trip reduction credits granted to a development to apply against its calculated trip generation including PM peak-hour trips and ADT for use in determining impacts on state facilities as per SCC 30.66B.710 or other jurisdiction's facilities as per SCC 30.66B.720.

**4228.070 Discontinuance or Non-implementation of TDM Plans.**

*Adopted 9/27/01, First Revision 10/11/04, Second Revision 9/19/16*

(1) After occupancy or upon resale, a development and/or owner which decides to not implement or discontinue a trip reduction program contrary to the title covenant or to remove or cease maintaining site-design features contrary to the developer's approved TDM plan or proposal may do so by making a payment to the County equal to the amount of the discount(s) resulting from the initial credit to any proportionate share mitigating payment imposed under this title to mitigate the development's impact on the future capacity of County roads, mitigation requirement and/or any TDM payment under SCC 30.66B.625 with adjustments for inflation.

(2) The County shall, upon receipt of such payment release the developer and/or owner from any further trip reduction program obligation and allow the developer and/or owner to remove the restrictive covenant and/or release the developer and/or owner from obligations of the TDM plan. Upon failure by a developer and/or owner to make such payment in full to the County, the Public Works Director, after notice to the developer and/or owner, may place a lien upon the property for an amount equal to the required payment and/or withhold further certificates of occupancy or occupancy approval.

(3) Upon failure by a developer and/or owner to maintain on-site features approved as part of a TDM plan or to continue an approved trip reduction program contrary to a restrictive covenant, the Public Works Director, after notice to the developer and/or owner, may place a lien upon the property for an amount equal to the discount(s) resulting from the initial credit to any proportionate share mitigating payment imposed under this title to mitigate the development's impact on the future capacity of County roads, mitigation requirement and/or any TDM payment under SCC 30.66B.625 with adjustments for inflation.

(4) Any development that does not implement a TDM plan or proposal as approved, shall be subject to a new concurrency determination. If a new concurrency determination is required, the original concurrency vesting date shall apply.

**4228.080 Trip Reduction Credits for TDM Compatible On-Site Design Features for Commercial Developments.**

*Adopted 9/27/01, First Revision 10/11/04, Second Revision 12/9/07, Third Revision 9/19/16*

(1) The County will allow a five percent trip reduction credit to any commercial development including multi-family residential deemed "TDM compatible" by incorporating on-site design features as described in SCC 30.66B.640(2) to the satisfaction of the County.

(a) The intent of SCC 30.66B.640(2) is to apply to both commercial developments and multi-family residential developments. The code uses the word "including" because at the time it was adopted, multi-family was considered to be a commercial development.

(b) The term "adjacent" in SCC 30.66B.640(2)(d) shall mean a bus stop or pedestrian facility located immediately next to the perimeter boundary of the development, on a parcel that is coincident with a parcel of the development, that

can be reached without having to construct off-site improvements. If neither a bus stop nor a pedestrian facility is located adjacent to the development, then construction of the design features in SCC 30.66B.640(2) shall not be eligible for trip reduction credits.

(2) The County will allow up to two additional trip reduction credits pursuant to SCC 30.66B.650(1), and as indicated below, to any commercial development, including multi-family residential, voluntarily agreeing to implement a voluntary trip reduction program under SCC 30.66B.650(2) and deemed "TDM compatible" for on-site design which constructs or incorporates bicycle facilities and reduced automobile parking to the satisfaction of the County consistent with the following.

(a) For employment sites an additional one percent trip reduction credit for on-site bicycle facilities including bicycle parking lockers or secure/covered racks and bicyclist/pedestrian shower and locker facilities sufficient to meet the needs of one percent of the development's peak-hour trips; and/or

(b) An additional one percent trip reduction credit for a reduction of required parking spaces under SCC 30.26.040(1) and (2) resulting in provision of parking spaces less than the amounts specified as minimum requirements under SCC 30.26.030.

#### **4228.090 Trip Reduction Credits for TDM Compatible On-Site Design Features for Residential Developments.**

*Adopted 9/27/01, First Revision 10/11/04, Second Revision 9/19/16*

(1) The County will allow a five percent trip reduction credit to any subdivision or short subdivision for single-family and/or duplex residential units deemed "TDM compatible" by incorporating on-site design features as described in SCC 30.66B.640(3) to the satisfaction of the County:

(2) The term "adjacent" in SCC 30.66B.640(3)(b) is defined in Rule 4228.080(1)(b). If neither a bus stop nor a pedestrian facility is located adjacent to the development, then construction of the design features in SCC 30.66B.618(3) shall not be eligible for trip reduction credits.

#### **4228.100 Trip Reduction Credits for Voluntary Trip Reduction Programs for Commercial Developments.**

*Adopted 9/27/01, First Revision 10/11/04, Second Revision 9/19/16*

(1) Pursuant to SCC 30.66B.650(2), the County will allow a five percent trip reduction credit to a commercial development including multi-family residential which voluntarily agrees to implement a trip reduction program under the provisions of Chapter 32.40 SCC to the satisfaction of DPW. The intent of SCC 30.66B.650(2) is to apply to both commercial developments and multi-family residential developments.

(2) Voluntary trip reduction programs under this section will meet the same basic requirements as those required of affected employers under Chapter 32.40 SCC with the following exceptions and/or modifications:

(a) Use of concepts applying to "employer(s)" and "employee(s)" will be applied to "developer(s)", "owners", "managers", or "occupants" and to any persons

making trips to and from the development site; and

(b) Use of concepts applying to "Commuter Trip Reduction" or "CTR" will be applied to "Trip Reduction" in general and include trips outside the peak hours; and

(c) The term "Transportation Coordinator" will be used instead of "Employee Transportation Coordinator"; and

(d) The CTR zones, CTR performance targets, and surveys as per SCC 32.40.050(2) will not apply to voluntary trip reduction programs under this section.

(3) Voluntary trip reduction programs under this section will include the "basic measures" of designation of a transportation coordinator, distribution of information, annual report, and ridematching program.

(a) The transportation coordinator must at minimum: be regularly available to answer questions on how to access the site using alternative transportation modes, be able to provide information about the nearest transit stops and routes, provide employees or residents with ridematch applications for the regional ridematch program and provide personalized ridematching assistance, and be available to DPW to coordinate the monitoring of the development's trip reduction program.

(b) The annual report shall be on a form available from the DPW. The annual report shall be submitted to the DPW each year prior to the anniversary date of the issuance of the development's initial occupancy permit. The annual report will provide information to the DPW indicating the status of the trip reduction program including at minimum: confirmation of continuing operation of the program, any changes in the program, results from any formal or informal surveys, and a general assessment of the effectiveness of the program.

(4) Voluntary trip reduction programs under this section will include an additional minimum number of trip reduction measures from the "Selection Menu" shown in Table 4228.1 below and described in SCC 32.40.050(4), to meet the following requirements for developments with:

(a) 200 or less ADT: no additional selectable measures; and

(b) 201 — 800 ADT: one additional measure; and

(c) 801 — 2,000 ADT: two additional measures; and

(d) 2,001 — 10,000 ADT: three additional measures at least one of which must be from category two or area-wide enhancements; and

(e) 10,000 or more ADT: four additional measures at least two of which must be from category two or area-wide enhancements.

(5) The DPW shall have the right to monitor voluntary trip reduction programs under this section including:

(a) Semi-annual telephone calls to the transportation coordinator to confirm the program's status; and

(b) Annual site visits, by appointment, to confirm the program's status and

maintenance of TDM-compatible site features.

<b>Table 4228.1: Additional CTR Measures by Category</b>	
<b>Category 1: Programmatic and Minor Capital Measures</b>	<b>Category 2: Services and Major Capital measures</b>
Ridematching, Personalized and/or Regional	Dedicated ETC (20+ hours per week)
Restrictions on Parking Availability	Subsidized Bus Service
Teleworking	Subsidized Ridesharing
Modified or Flexible Work Schedules	Provision of Vans for Vanpooling
Guaranteed Ride Home	Design or Redesign Site for Transit and HOV Compatibility
Enhanced Promotions and Marketing	Construct Transit/ Rideshare Shelters or Loading Areas
Commuter Information Centers	Monetary Incentives
Participate in Transportation Management Organizations	Instituting or Increasing Parking Charges
Bicycle Facilities	Employer Vehicles for Ridesharing
Preferential High Occupancy Vehicle (HOV) and Bicycle Parking	Other Innovative Measures
Other Innovative Measures	

**4228.110 Additional Trip Reduction Credits for Trip Reduction Measures with Area-Wide Impact.**

*Adopted 9/27/01, First Revision 10/11/04, Second Revision 9/19/16*

(1) Pursuant to SCC 30.66B.650(3) the County may allow to a development on a case-by-case basis up to five percent additional trip reduction credits for on-site measures with an area-wide impact not used to satisfy requirements under SCC 30.66B.650(2).

(2) The County may allow up to a five percent trip reduction credit for one or a combination of more than one of the following to the satisfaction of the County:

- (a) Mixed-use site design; and/or
- (b) Construction of designated, signed commuter parking spaces for commuters accessing transit, carpools, or vanpools (i.e. park-and-pool or park-and-ride spaces) PROVIDED, That the total number of parking spaces constructed by any non-residential development is less than or equal to the minimum specified under SCC 30.26.030; and/or
- (c) Other innovative projects with area-wide impacts approved by the DPW.

(3) Such credits may only be allowed based upon analysis in a traffic study by the developer which substantiates that the measure(s) are likely to achieve the

requested trip reduction or achieve a commensurate reduction in vehicle trips from traffic in the area (existing traffic or traffic not generated by the development). Such substantiation must include detailed data on the travel characteristics of the affected trip-makers, identification of the selected trip reduction measures and their relationship to the travel characteristics of the affected trip-makers, specification of the percent reduction likely for each of the selected trip reduction measures, and supporting documentation which may include case studies, available research, or other data and information showing that the selected measures are likely to meet the indicated reductions.

## **4229 WRITTEN PROPOSALS AND VOLUNTARY AGREEMENTS FOR MITIGATING IMPACTS TO ANOTHER JURISDICTION**

### **4229.010 Applicability**

*Adopted: 7/13/95, First Revision 10/11/04, Second Revision 9/19/16*

This Rule applies to voluntary agreements and written proposals in conjunction with land development applications.

### **4229.020 Written Proposals**

*Adopted: 7/13/95, First Revision 10/11/04, Second Revision 9/19/16*

In accordance with the requirements of SCC 30.66B.055(4), developers shall make a written proposal for TDM measures or other measures to mitigate impacts on roads under the jurisdiction of another agency. A sample proposal will be made available by the Department of Public Works.

### **4229.030 Voluntary Agreements**

*Adopted: 7/13/95, First Revision 10/11/04*

(1) Voluntary agreements between developers and agencies (city, town, WSDOT, or another county) may be required for mitigation imposed under interlocal agreements. The Department of Public Works will work with the other agencies to develop the format for such agreements and make them available to developers.

(2) The Department of Public Works may also execute voluntary agreements with developers related to construction of off-site improvements by developers, particularly for large projects when credits against impact fees or purchase of right-of-way are involved.

## **4231 TRANSPORTATION IMPACT ANALYSES AND CERTAIN TRANSPORTATION MITIGATION REQUIREMENTS ASSOCIATED WITH MINERAL OPERATIONS AND/OR OTHER DEVELOPMENTS GENERATING LARGE TRUCK TRAFFIC**

### **4231.010 Applicability and/or Purpose**

*Adopted: 12/23/06, First Revision 9/19/16*

- (1) This Rule applies to traffic study and mitigation requirements for mineral operations.
- (2) This Rule builds on existing Snohomish County development review code and rules with modifications to address the unique characteristics of the development associated with heavy trucking activity.
- (3) While this Rule focuses on mineral operations, it may be applied to any development activity that generates a large quantity of heavy trucks such as a warehouse/distribution center or other activity involving significant trucking.
- (4) In addition to all other requirements under Chapter 30.66B SCC, applications for mineral operations submitted in accordance with Chapter 30.31D SCC or other development activity that will generate a large quantity of heavy trucks such as, but not limited to, a warehouse/distribution center shall be subject to the requirements of this Rule. The additional requirements are necessary to address the unique characteristics of the large trucks generated by mineral operations and to identify impacts and mitigation requirements.
- (5) The purpose of this Rule is to provide sufficient detail and specificity related to traffic study and mitigation requirements for applications for mineral operations or other development activity that will generate a large quantity of heavy trucks so that as much as possible, mitigation requirements are clearly identified at the time of project approval.

### **4231.020 General Traffic Study Requirements**

*Adopted: 12/23/06, First Revision 9/19/16*

- (1) Applicants for mineral operations in accordance with Chapter 30.31D SCC must submit a traffic study consistent with the provisions of Chapter 30.66B SCC, Chapter 13.40 SCC, and these rules.
- (2) Prior to submittal, all mineral operation applicants will be required to attend traffic study scoping meetings at which time the department of public works will provide applicants with detailed instructions for the required submittals.
- (3) The County's Transportation Service Areas (TSAs) will be used in defining a development's road system, but analysis of impacts beyond the TSA boundaries to encompass the development's "impact study area" will be required to provide for full disclosure of traffic impacts under the State Environmental Protection Act (SEPA).
- (4) DPW Rule 4220 also applies to traffic study requirements for applicants under this section.
- (5) The 2005 Mineral Resource Lands Transportation Study will be provided to applicants for the purpose of gathering data on geographic and temporal distributions of mineral operations and traffic generated by mineral operations.



## **4231.030 Trip Generation, Distribution and Assignment**

*Adopted: 12/23/06, First Revision 9/19/16*

### **(1) Prepare Trip Generation.**

- (a) Calculate trip generation based on the size of the mineral operations facility, the average daily extraction rates, and other factors.
- (b) Determine and list the numbers, types and sizes of vehicles and their passenger car equivalents (PCEs). Some analysis will utilize the actual number of trucks as opposed to their passenger car equivalents. Other analysis (e.g., grade analysis and some aspects of LOS analysis) will utilize passenger car equivalents.
- (c) Determine vehicle and PCE trip generation for average weekday and weekend daily traffic (ADT) and weekday AM peak hour and PM peak hour.
- (d) Determine average seasonal impact conditions (i.e., average seasonal material/trucks/traffic impacts). An additional analysis scenario may be required if the mineral operation is proposed to have a significantly higher-than-average level of activity for part of the year.
- (e) Include adjustments related to proposed hours of operation.

### **(2) Develop Trip Distribution and Assignment.**

- (a) Must be consistent with DPW document called "Format for Trip Distributions and Assignments," except that trips assigned to SR-2 west of 88th/92nd ST SE do have to be distributed to I-5.
- (b) Provide schematic maps showing the broad distributions of trips in terms of percentages on different roads. Provide separate distributions and assignments for different types of vehicles, one for large trucks and one for all other vehicles.
- (c) Provide a detailed explanation of the methodologies used to determine the distribution. For example, a mining applicant can develop traffic distribution based on the specific market such as a batch processing plant or limited service area (same as current traffic study requirements). This will be subject to review and approval by the County. The "2005 Mineral Resource Lands Transportation Study" may be useful in helping to determine distributions.
- (d) Provide peak hour turning movements of total vehicles at key intersections for weekday and weekend ADT, weekday AM peak hour, and weekday PM peak hour.
- (e) Carry peak hour traffic assignment out to a three-trip threshold consistent with Chapter 30.66B SCC and DPW Rules. The geographical extent of impacts using this threshold determines the study impact area. This analysis will not use PCE-based trip generation.

## **4231.040 Traffic Impact Analysis for Mineral Operations**

*Adopted: 12/23/06, First Revision 9/19/16*

(1) In addition to all other requirements under Chapter 30.66B SCC, traffic studies submitted by applicants under this section shall include additional information addressing the impacts of large trucks, including all of the following:

(a) All analysis must address the extent to which any identified deficiency already exists prior to the commencement of the mineral operations, the extent to which the deficiency applies to all classes of vehicle operations or is limited to deficiencies for large truck operations, the extent to which the commencement of mineral operations will create new deficiencies, and the extent to which the commencement of mineral operations will exacerbate existing deficiencies.

(b) The applicant must determine traffic, geometric, and structural needs on any access road(s) connecting the site with the nearest arterial(s) and all other roads, streets and highways in the impact study area (See DPW Rule 4231.030 for definition of impact study area).

(c) The County Engineer will consider, and may grant, reductions in traffic study requirements under this section in response to timely written requests by the applicant.

(d) The applicant must identify any roads, streets, highways, intersections, bridges, road surfaces, edge treatments, traffic control features, or other transportation facilities that do not meet the EDDS or do not meet structural, geometric or safety standards based on engineering analysis.

(e) The analysis must take into consideration truck volumes, road grades, percent passing zones, shoulder widths, potential icy conditions, and the characteristics of large trucks such as height, length, weight, turning radii, and vehicle performance (acceleration and deceleration) as well as any other relevant factors identified by the County in the traffic study scoping meeting.

(f) The analysis must include consideration of both outgoing and incoming large trucks, and the directions in which they are loaded. In addition to the primary mineral excavation operations, this analysis must consider any backfilling operations, either in conjunction with reclamation, or as an operation ancillary to the primary mineral excavation operations (e.g., storage of fill materials).

(g) Analysis must evaluate the appropriate roadway geometry including, but not limited to required road widths and bridge widths, starting and stopping sight distances, intersection sight distances, horizontal and vertical curves.

(h) Where appropriate for analysis of rural roads, the two-lane rural highway process provided by the Transportation Research Board's most current Highway Capacity Manual will be utilized to make determinations related to roadway geometry. Analysis will be done assuming LOS C or better for rural areas.

(i) Analysis must evaluate the need for turn lanes at access points and or intersections including analysis of storage/queuing impacts.

(j) Analysis must evaluate the needed turn radii for large trucks with respect to existing geometry of roads, streets, and highways in the study impact area.

(k) Analysis must determine needs for permanent and temporary traffic control (e.g., signs, signals, etc.).

(l) Analysis must determine adequacy or inadequacy of bridge structure(s). Apply County rating system based on additional loading from mineral resource activity.

(m) Analysis must evaluate adequacy of existing pavement structures to accommodate the proposed mineral operations.

(i) For any public access road(s) between the site and the nearest arterial(s) provide a report from a professional Engineer practicing in pavement design or Geotechnical design, which evaluates the structure of the road with respect to its ability to withstand the impacts of the large trucks generated by the development and with respect to the County's normal maintenance cycle for that road. This will require either evidence from as-built plans and maintenance records when available or from boring to determine thickness of pavement layers, base layers, and characteristics of subgrade soils and at sufficiently frequent locations along the access road(s) to capture any significant differences between different segments of the road(s).

(ii) For all other county roads or city streets evaluated under this section, provide a survey of pavement condition ratings or equivalent evaluation using the inspection procedures and guidelines published by the Northwest Pavement Management Association.

(n) Analysis must evaluate impacts on school bus stops/walk routes/or other locales of concentrated pedestrian/bicycle activity and

(i) Evaluate any conflicts with bus stops.

(ii) Evaluate need for pullouts, shoulder improvements, or limited operation hours, if appropriate.

(iii) Evaluate need for pedestrian/bicycle/trail crossing enhancements such as signing, beacons, or signals, as appropriate.

(o) Analysis must evaluate locations where icy conditions will most typically be found and the need for additional signing or other safety enhancements.

(p) Analysis by applicants in Transportation Service Areas A, B, or C must evaluate the need and initial feasibility for alternate public and/or private routes such as the Granite Falls alternate route.

(q) Applicant must identify any private, on-site access roads for which the applicant intends to transfer jurisdiction to the County upon cessation of operations, and how these roads will be designed to meet EDDS.

(r) Applicant must provide other information as determined by DPW, including, but not limited to:

(i) Identify impacted sections of County roads by name, from, to, road numbers, milepost from and milepost to.

(ii) Description of what will be hauled and quantities involved.

(iii) Steps proposed to prevent tracking dirt/mud/dust onto street system.

(iv) Where applicable, information, traffic analysis, and traffic mitigation offers consistent with interlocal agreements between the County and WSDOT, and between the County and other jurisdictions.

(s) For any identified deficiency, the applicant will identify specific improvements that would be sufficient to remediate the deficiencies. For each deficiency, the analysis must provide a defensible basis for determining the extent to which the applicant should be responsible for constructing the identified improvements and the necessary timing of such improvements. Some deficiencies (e.g., a bridge that is structurally obsolete) may require improvements constructed solely by the applicant prior to commencing operations. Other deficiencies (e.g., increased frequency of pavement overlays), may be the joint responsibility of the County and the applicant through some form of voluntary agreement.

(2) Concurrency evaluations will be required of all applicants under this section.

(a) The thresholds for concurrency evaluations will be based on vehicles, not passenger car equivalents (PCEs), (i.e., a large truck will be counted as one vehicle).

(b) Forecasts must include volumes from existing development plus pipeline development, plus project traffic.

(c) Intersection analyses are included in arterial speed calculation.

(d) PCE adjustments will be included in calculating intersection delays and travel speeds in corridors in that the analysis must be based on the number and/or percentage of heavy vehicles.

(e) TDM strategies will not apply because developments cannot mitigate truck activity with carpools and buses.

(3) Evaluations for IRCs will be required of all applicants under this section.

(a) The thresholds for IRC analysis will be based on vehicles, not PCEs, however all analyses must reflect the size, performance, and other characteristics of large trucks.

(b) Thresholds for IRCs are three non-directional Peak Hour Trip (PHT), not directional as for other impacts.

(4) The amount of the road system impact fee will be based on vehicles, not PCEs.

#### **4231.050 Application of 30.66B Development Review Requirements and Identification of Improvements**

*Adopted: 12/23/06, First Revision 9/19/16*

(1) In addition to all other requirements of Chapter 30.66B SCC, proposals for mineral operations submitted in accordance with Chapter 30.31D SCC are required to mitigate any structural, traffic, or geometric deficiencies as determined necessary by the DPW.

(2) Based on analysis under DPW Rule 4231.040, the County will identify any mitigation payments and improvements needed to mitigate the development's impacts, the extent to which the applicant will be responsible for such improvements,

and the timing of such improvements, including, but not limited to:

- (a) Improvements to remedy arterial units in arrears; and
- (b) Improvements to remedy inadequate road conditions (IRCs); and
- (c) Improvements to bring County roads up to standards based on geometry, operations and/or structure; and
- (d) Mitigation payments to the state or cities consistent with interlocal agreements; and
- (e) Improvements to city streets or state highways consistent with interlocal agreements; and
- (f) County impact fees and TDM payments.

(3) At the conclusion of the mineral operation, any private access and circulation roads constructed to serve the development which the developer wants to deed to the County as a public road should conform to the County's EDDS, unless it is concluded by the County that the road is not consistent with the comprehensive plan and should be removed.

#### **4231.060 Responsibilities for State Highways, Town, and City Streets**

*Adopted: 12/23/06, First Revision 9/19/16*

(1) Transportation analysis and mitigation requirements for impacts on highways, streets, and roads by developments under this section shall be consistent with and not reduce minimum requirements of adopted interlocal agreements with the state, cities, towns, or other counties. Such interlocal agreements may include provisions whereby the County recognizes certain legislatively adopted city, town, state, or other county transportation mitigation policies as County SEPA policies and enforce such policies as a condition of development for applicants under this section.

(2) To address impacts and mitigation on State Highways, Town, and City Streets, the County will do the following:

- (a) Work with WSDOT, towns and cities to provide examples of how policies can be modified to better analyze and mitigate the impacts of large trucks.
- (b) Apply and or modify interlocal agreements with WSDOT, Towns and Cities regarding passenger-car equivalents (PCEs).
- (c) For those cities or towns that do not currently have interlocal agreements with the County, the County will continue to be responsive, supportive, and cooperative in negotiating and executing such agreements.
- (d) For applications affected by this Rule, the County will ensure that the notice of application is sent to WSDOT and those impacted cities or towns with an interlocal agreement so they can request mitigation measures consistent with the terms of existing interlocal agreements.

#### **4231.070 State Laws Related To Local Governments Authority To Regulate Streets And Roads**

*Adopted: 12/23/06, First Revision 9/19/16*

(1) It is the intent of DPW Rules 4231.010 - .060 to address the impacts on the road system from new mineral operations by providing for imposition of mitigation requirements at the time of development approval which adequately address all of the County's concerns regarding public health/safety and the integrity of the road system.

(2) State law does not appear to give specific legislative authority to local governments to recoup excessive wear and tear on roadways due to vehicles operating within legal load limits, generated by approved mineral operations (or any other approved developments).

(3) State law does appear to provide authority to local governments to protect public health/safety and the integrity of the road system by imposing restrictions on specific roads or implementing road closures to protect safety or prevent damage. The County's regulations based on the state laws is contained in Snohomish County Code Title 13.

(a) The state laws related to local government authority to regulate streets and roads are:

(i) RCW 36.32.120(2) & (7) – general jurisdiction over roads and public health and safety

(ii) RCW 36.75.020 & .040(4) – general authority to administer County roads

(iii) RCW 36.75.270 – authority to limit or prohibit vehicles on County roads and bridges (needs resolution, specified duration, notice, and signs)

(iv) RCW 36.80.030 – authority of County road engineer to administer County roads

(b) The County's authority to close roads or restrict traffic under certain conditions are contained in:

(i) RCW 46.44.080 – authorizes restrictions to prevent damage by providing that “local authorities with respect to public highways under their jurisdiction may prohibit the operation thereon of motor trucks or other vehicles or may impose limits as to the weight thereof, or any other restrictions as may be deemed necessary, whenever any such public highway by reason of rain, snow, climatic or other conditions, will be seriously damaged or destroyed unless the operation of vehicles thereon be prohibited or restricted or the permissible weights thereof reduced.”

(ii) RCW 36.75.270 – applies to all vehicles, procedural requirements for closures/restrictions (basically, ordinance or resolution of legislative body and posting and maintenance of notice signs at each end of affected highway)

(iii) RCW 47.48.010 – authorizes road closures and restrictions by providing that “whenever the condition of any . . . county road . . . is such that for any reason its unrestricted use or continued use by vehicles or by any class of vehicles will greatly damage that . . . county road . . . or will be dangerous to traffic . . . the county legislative authority . . . is authorized to close the . . . county road . . . to travel by all vehicles or by any class of vehicles . . . for such a definite period as it shall determine. ....”

(iv) RCW 47.48.020 – requires that “before any ..... county road ... is closed or the maximum speed limit is reduced for all or any class of vehicle, a notice indicating the change and the effective date of the change shall be published once in the official county newspaper and at each end of the county road.... PROVIDED that the county road can’t be closed sooner than three days after publication of the notice....PROVIDED further that in an emergency when the road will be closed for twelve hours or less no publication of the notice is required and the notice is only required to be posted at all intersections with state highways, city streets or county roads.....”

(c) The authority of the County to regulate overweight or oversize truckloads is contained in RCW 46.44.010 through 46.44.180.

(d) Because the County may close roads for safety reasons, or to protect the integrity of the road system, it would be reasonable to assume that it may also negotiate terms of continued use on a case by case basis. Arterial roads are typically constructed to a standard to withstand traffic from heavy trucks, and most arterial roads already serve a significant volume of heavy trucks making it difficult to fairly assign the cause of any extraordinary damage or accelerated deterioration to any one generator of heavy truck traffic. Thus, for approved mineral operations, only local access roads between the site and the nearest arterial(s) will be subject to restrictions or road closures related to extraordinary damage or accelerated deterioration

(e) The terms “extraordinary damage” and “accelerated deterioration” are based on the following definitions:

(i) Accelerated Deterioration: Use of a road that results in the need for additional maintenance.

(ii) Additional Maintenance: Grading, reshaping, repair, and/or modification of roads in excess of the same operations identified as routine maintenance operations performed by the County.

(iii) Extraordinary - beyond what is common or usual.

(iv) Routine Maintenance - the grading, reshaping, repair, and/or modification of the road prism as indicated in the regular maintenance schedule.

## **4232 CONCURRENCY REQUIREMENTS FOR PUBLIC FACILITIES NECESSARY TO SUPPORT RESIDENTIAL DEVELOPMENT**

### **4232.010 Applicability**

*Adopted: 12/9/07, First Revision 9/19/16*

This Rule applies only to development applications for “Public Facilities Necessary to Support Residential Development” as that term is defined in SCC 30.91P.390.

### **4232.020 Process and Timing**

*Adopted: 12/9/07, First Revision 9/19/16*

(1) For applications seeking the reduced LOS standard for concurrency, the main task to be accomplished will be a determination by the County that the applicant and the development qualify as a “Public Facility Necessary to Support Residential Development”.

(2) The following lays out the key steps to be followed by the applicant and the County. All steps will be “in writing” with e-mail being acceptable. Deviation from this process and timeline may be allowed on a case-by-case basis.

(a) Prior to the initial submittal of the development application the applicant will submit a separate request to a PDS Traffic Development Reviewer (TDR) of the need for a determination as to whether or not a proposed public facility will qualify. The request, which may be submitted before or at the presubmittal conference for the development, shall be accompanied by adequate information and documentation to show how the applicant and the proposed development meet the criteria in SCC 30.66B.103(2)(a) through (d) and why the development needs the reduced LOS for concurrency.

(b) The County, after reviewing the information, will respond in writing indicating that:

(i) More information is required, and provide details of the information required;

(ii) The applicant or development does not meet the requirements established in SCC 30.66B.103(2), and provide details on why they don’t meet the requirements; or

(iii) The applicant and development meet the requirements established in SCC 30.66B.103(2).

### **4232.040 Public Facility Necessary to Support Residential Development**

*Adopted: 12/9/07, First Revision 9/19/16*

(1) Applicants will only be allowed to use the code and rule provisions related to the reduced LOS standards for qualified public facilities when it is necessary to obtain concurrency. If at any time during the review process, it becomes evident that the reduced LOS standard is not necessary to obtain concurrency, the review of the application will be finalized, and all mitigation established, without utilizing the reduced LOS standards in this rule.



## **4233 MULTIMODAL ARTERIAL UNITS – RULES RELATED TO DESIGNATION**

### **4233.010 Purpose**

Adopted 9/19/16

The purpose of this rule is to define the process and criteria for designating an arterial unit as multimodal.

### **4233.020 Determination by County Engineer**

Adopted 9/19/16

The County Engineer shall make the determination as to whether or not an arterial shall be designated as multimodal shall be based on a technical evaluation completed by the County Traffic Engineer.

### **4233.030 Technical Evaluation and Recommendation by the County Traffic Engineer**

Adopted 9/19/16

(1) Within six months of the adoption of this rule, and no less than every two years thereafter, the County Traffic Engineer shall prepare a technical evaluation of all urban arterials to determine if they meet, continue to meet, or no longer meet the minimum criteria for being designated as multimodal.

(2) The technical evaluation shall be completed in a four step progressive process with step one being evaluating the criteria for Transit facilities, step two the Pedestrian Facilities, step three the Bicycle Facilities, and step four the Density. The evaluation of the Pedestrian Facilities in step two, the Bicycle Facilities in step three, or the Density in step four shall only be required if the criteria in the previous step is met. The reason for this is because transit service is the only one of the four criteria's that is most susceptible to change, and if the transit service on an arterial does not meet the minimum criteria established in Rule 4223.040(1) then there is no reason to continue with evaluating the others.

(3) The County Traffic Engineer shall only be required to submit the technical evaluation to the County Engineer for a determination if the technical evaluation identifies any arterial unit either meeting or no longer meeting the criteria for being designated as multimodal.

(4) The County Traffic Engineer shall only recommend that an arterial unit be designated multimodal if the technical evaluation prepared by the County Traffic Engineer establishes that the minimum criteria, as determined in rule 4233.030, have been met.

(5) A technical evaluation shall not be required for an arterial unit designated as ultimate capacity because a multimodal designation would have no impact on the LOS of an ultimate capacity arterial unit. The reason for this is that the LOS for an ultimate capacity arterial unit is measured in ADT rather than travel speed like all other arterials.

## **4233.040 Criteria for Multimodal Designation**

Adopted 9/19/16

The minimum criteria for designating an arterial unit as multimodal are; continuous pedestrian and bicycle facilities meeting county standards, transit service operating at 15 minute headways or better during the peak periods, and a gross density of 20 persons and/or employees per acre within ¼ mile of the transit facilities. Subsections (1) through (4) below, shall be used to determine if an arterial unit meets the minimum criteria.

(1) Transit service. Transit service is considered to meet the criteria when it is 15 minutes or less between transit vehicles moving in the same direction along the arterial unit during the arterial peak hour (i.e., typically 6:30 to 8:30 AM and 4:00 to 6:00 PM), as confirmed by the transit agencies serving the arterial unit.

(2) Pedestrian facilities. Pedestrian facilities are considered to meet county standards when they are continuous along both sides of the road for the full length of the arterial unit and comply with the following:

(a) No less than 85% of the lineal footage of the pedestrian facilities along the same side of the arterial unit are separated from the travel way by a vertical curb and meet the EDDS; and

(b) No more than 15% of the lineal footage of the pedestrian facilities along the same side of the arterial unit may utilize paved shoulders if they are a minimum of 5 feet wide.

(c) Pedestrian facilities located outside of the right-of-way will be considered contiguous and count towards meeting the minimum criteria if:

(i) The design has been approved by DPW;

(ii) They are connected at both ends to the pedestrian facilities within the right-of-way; and

(iii) An easement for public use has been approved and recorded.

(3) Bicycle facilities. Bicycle facilities are considered to meet the criteria when they meet county standards and are continuous on both sides of the road for the full length of the arterial unit, PROVIDED, that Bicycle facilities located outside of the road prism, as defined by SCC 13.02.352, will count towards meeting the minimum criteria if they have been approved by DPW and are connected to the bicycle facilities within the road prism..

(4) Density. The density criteria is met when there is a gross density of either 20 persons or employees per acre within ¼ mile of the transit facilities along the arterial unit. For the purposes of this Rule, “transit facilities” shall mean any transit stop along the arterial unit that meets the transit criteria in sub (1) above.