



CITY OF KIRKLAND
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To: Dave Ramsay, City Manager

From: Daryl Grigsby, Public Works Director
 Thang Nguyen, Transportation Engineer
 David Godfrey P.E., Transportation Engineering Manager

Date: February 23, 2006

Subject: Traffic Concurrency Update

RECOMMENDATION:

It is recommended that Council direct staff to implement a short term update to the concurrency methodology as recommended by the Transportation Commission and plan for a more major review and update to coincide with the next Comprehensive Plan update.

BACKGROUND DISCUSSION:

Staff provided Council with a reading file item dated February 1 (Attachment 1) that indicated we are approaching concurrency targets for the northwest and northeast subareas. At their February 7 meeting, Council directed staff to discuss the situation further with both the Transportation and Planning Commissions and recommend changes to the Council. This memo provides an update on work that has been done since the Council's February 7 meeting.

Review of the issue

Table 1 shows where we are relative to the concurrency standards in the Comprehensive Plan. A comparison of Column 3 with Column 1 illustrates how the subarea average is at the standard and Columns 5 and 6 can be compared to see where we are relative to our maximum V/C ratio standard.

Table 1. Concurrency Status Summary

Subarea	(1) Current LOS Standard in the Comprehensive Plan	(2) Current Condition (based on 2004 Traffic Counts)	(3) 2011 forecast with projects that have passed traffic concurrency	(4) Status	(5) Current Highest Intersection V/C in each Subarea (2011 with Development Projects Currently Under Review)	(6) Number of Intersections Exceeding 1.40
Southwest	0.89	0.70	0.80	Ok	1.15	None
Northwest	0.89	0.78	0.89	Ok	1.03	None
Northeast	0.87	0.71	0.87	Ok	1.29	None
East	1.05	0.92	1.00	Ok	1.16	None

Level of Service (LOS) values based on current traffic counts (Column 2) are well below our adopted LOS standards. However, when considering developments that have passed concurrency (including the Totem Lake Mall redevelopment anticipated to be completed in 2011), the forecast LOS for the northwest and northeast subareas (Column 3) closely approaches the adopted limits (Column 1). This means that proposed developments could exceed the current City's LOS standards limit and fail their traffic

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concurrency test. Attachment 1 includes more details about what options developers have when they fail the concurrency test.

We are reaching our LOS standards because developments in the Totem Lake area (notably the Totem Lake Mall and Evergreen Hospital) are occurring more rapidly than was forecast in the Comprehensive Plan. Also, some developments are larger than what was included in the plan. For example, the forecast of land use at the Totem Lake Mall was smaller than what was actually proposed.

Options

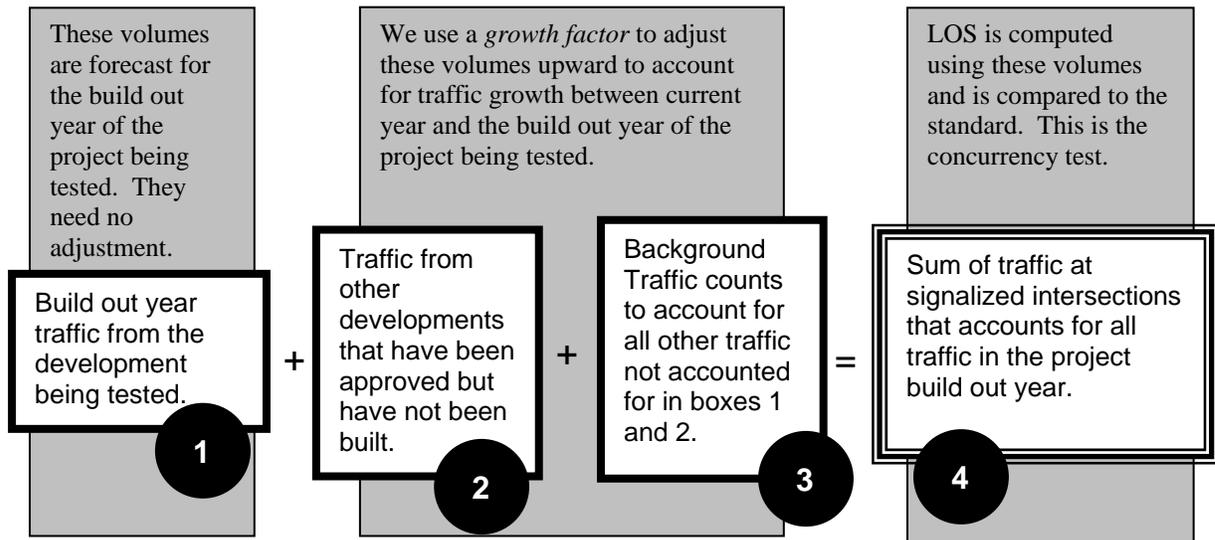
As outlined in our February 1 memo, there are three options that could be taken:

1. **Make no changes.** This is a viable alternative based on the notion that concurrency is working the way it is designed to work; helping to spread the impacts of growth over time and to make sure that land use development and construction of capacity facilities keep pace with one another. Land use development is happening faster than forecasted and so concurrency is slowing the pace of development. Therefore, developers that still want to move forward have to make special considerations.
2. **Make changes as part of a Comprehensive Plan update.** This would give the most flexibility in the type of changes to be considered and could include a change in concurrency targets and/or changes in methodology. By law, changes to the Comprehensive Plan may take place only once per year. The process for a Comprehensive Plan change is quite lengthy and our annual change usually covers a number of amendments beyond vehicular level of service. The Planning Department usually coordinates a Comprehensive Plan update each year and one is scheduled for this fall.
3. **Make changes that do not require a Comprehensive Plan update.** An option that does not require a change to the Comprehensive Plan would change the way concurrency impacts are calculated. Specifically, when a development is checked for concurrency, we estimate the traffic impacts of the development under consideration in the build out year, plus the traffic from all the other projects that are approved but not yet built, plus the background street traffic that would occur in the build out year, as illustrated in Figure 1. The last two components; traffic from projects approved but not yet built and the background street traffic (boxes 2 and 3 in Figure 1) are inflated at 2% per year to account for normal growth from the current year to the build out year of the project being tested. The 2% growth factor was established when we created our concurrency system in 1997 and at that time it accurately reflected trends in traffic growth. The rate of background growth was determined by analyzing growth in traffic volumes in Kirkland. If a lower rate was used, the impacts, represented by box 4 of Figure 1 would be less and there would be more room between the standards and the forecasted LOS in the build out year.

Would Option 3 make a difference?

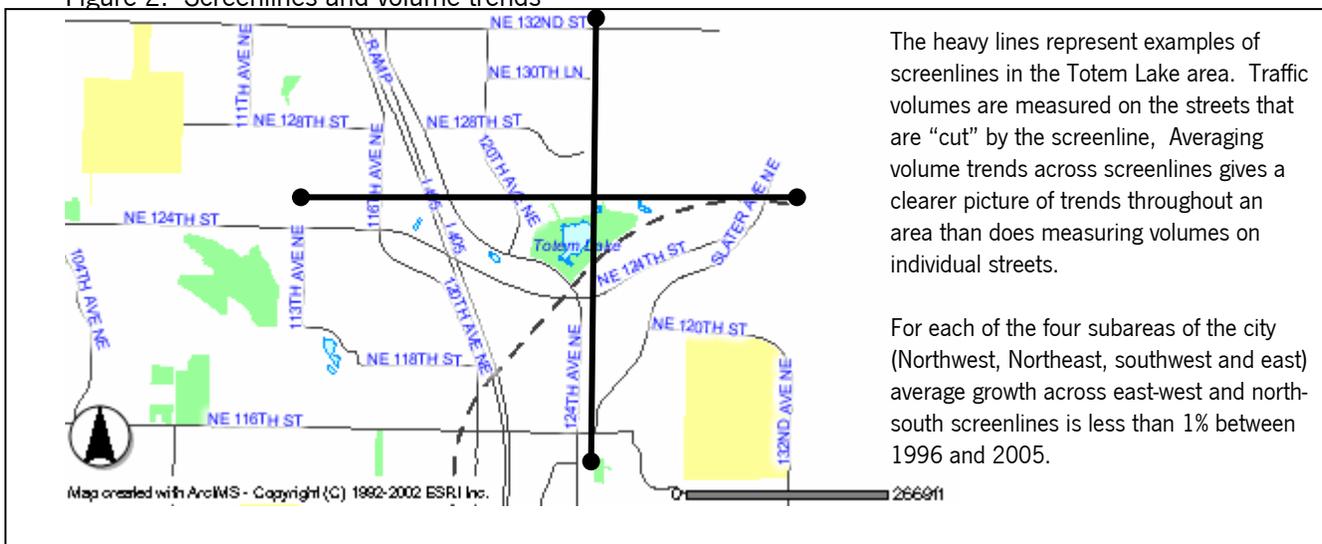
As described in the February 1 reading file memo, on January 25, the Transportation Commission was briefed on the concurrency situation. They suggested that staff evaluate a) if there was a technical basis for lowering the growth rate (option 3 above) and b) if it were lowered, what difference such an adjustment would make.

Figure 1. Concurrency test process and growth factors



Following that recommendation, staff re-evaluated the rate at which traffic is growing and have found that a 1% rate is more accurate than the 2% rate. Figure 2 illustrates the concept of screenlines and volume trends. The concurrency test for the analysis of the Totem Lake Mall was re-run and we found that the 1% rate gives additional space between the target and the LOS forecast at the Mall build out. The results are shown in Table 2. The difference between growth rates is shown in the sub columns of column 3. The left column shows the subarea averages with a 2% growth rate, the right column shows the averages with a 1% rate. The values on the right are smaller indicating that changing the growth rate would increase the difference between the target (column 1) and the forecast LOS. (column 3).

Figure 2. Screenlines and volume trends



The heavy lines represent examples of screenlines in the Totem Lake area. Traffic volumes are measured on the streets that are "cut" by the screenline. Averaging volume trends across screenlines gives a clearer picture of trends throughout an area than does measuring volumes on individual streets.

For each of the four subareas of the city (Northwest, Northeast, southwest and east) average growth across east-west and north-south screenlines is less than 1% between 1996 and 2005.

Table 2 Concurrency status with 1% and 2% background growth rates

Subareas	(1) Current LOS Standard	(2) Existing Condition (1/25/2006)	(3) 2011 Forecast with Development Projects Currently Under Review		(4) Status	(5) Current Highest Intersection V/C in each Subarea		(6) Number of Intersections Exceeding 1.40
			With 2% growth rate	With 1% growth rate		Existing Condition (1/25/2006)	2011 with Development Projects Currently Under Review	
Southwest	0.89	0.70	0.80	0.79	OK	1.01	1.14	None
Northwest	0.89	0.78	0.89	0.86	Ok	0.91	1.03	None
Northeast	0.87	0.71	0.87	0.85	Ok	0.93	1.29	None
East	1.05	0.92	1.00	0.99	Ok	1.07	1.16	None

The Transportation Commission recommendation

On February 22, staff brought the findings described above to the Transportation Commission. While the Commission recommended that option 3 be implemented because it more accurately reflects the growth rate, they felt that there was more work to be done. Some members agreed to option 3 only because they were assured that a more major update would be forthcoming. The Commission would like to re-examine the policy decisions behind both concurrency and the vehicular level of service section of the Comprehensive Plan's Transportation Element. Some members of the Transportation Commission have not had a chance to thoroughly go through either concurrency methodology or level of service decisions that underlie the plan and others would like to review it again. They want to reexamine the purposes of concurrency, and what methods might best be used to accomplish those purposes. They feel that small adjustments to the system when things get tight is not a sustainable or prudent course of action. The Commission plans to further evaluate options in connection with the update of the Comprehensive Plan this fall. Also, the Transportation Commission chair and vice-chair plan to attend the Planning Commission's March 9th meeting to discuss the Transportation Commission's findings on concurrency.

Zoning and Land use changes

The Council is considering land use and zoning changes for the Par-Mac area as a part of work on the Totem Lake neighborhood plan. Although the changes being considered do not directly effect concurrency, land use changes are indirectly tied to concurrency. One issue under discussion is whether housing should be allowed in the Par-Mac area. Those changes could result in more office development and less housing than what is currently planned for in Kirkland's 2022 land use forecast. Not allowing housing in the designated housing incentive areas would require an amendment to the Comprehensive Plan. Also, since it results in a change in the 2022 land use, the traffic impacts of the change would have not been accounted for in the level of service forecasts in the Comprehensive Plan. The BKR model could be used to evaluate the impacts, once a land use scenario is agreed on. Including the Par-Mac modification, re-running the 2022 forecast and reviewing concurrency further could all be done as part of the next Comprehensive Plan update.


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To: Dave Ramsay, City Manager

From: Daryl Grigsby, Public Works Director
Thang Nguyen, Transportation Engineer
David Godfrey P.E., Transportation Engineering Manager
Teresa Swan, Senior Planner

Date: February 1, 2006

Subject: Traffic Concurrency Update

This memo is an update on levels of service relative to the standards in the Comprehensive Plan.

Where we are

LOS values based on current traffic counts are well below our adopted LOS standards. However, when considering developments that have passed concurrency (including the Totem Lake Mall redevelopment anticipated to be completed in 2011), the forecast LOS for the northwest and northeast subareas closely approaches the adopted limits. This means that proposed developments could exceed the current City's LOS standards limit and fail their traffic concurrency test.

Table 1 summarizes concurrency LOS relative to Comprehensive Plan standards.

Table 1. Concurrency Status Summary

Subarea	(1) Current LOS Standard in the Comprehensive Plan	(2) Current Condition (based on 2004 Traffic Counts)	(3) 2011 forecast with projects that have passed traffic concurrency	(4) Status	(5) Current Highest Intersection V/C in each Subarea (2011 with Development Projects Currently Under Review)	(6) Number of Intersections Exceeding 1.4
Southwest	0.89	0.70	0.80	Ok	1.15	None
Northwest	0.89	0.78	0.89	Ok	1.03	None
Northeast	0.87	0.71	0.87	Ok	1.29	None
East	1.05	0.92	1.00	Ok	1.16	None

Column 3 of Table 1 includes proposed developments that have passed traffic concurrency and are in the permitting process or are under construction such as:

- Totem Lake Mall Redevelopment
- Linbrook Office redevelopment (near NE 38th/Lake Washington Blvd.)
- Park Place Phase I redevelopment
- Northwest University Academic Building
- Lake Washington Technical College Master Plan Phase I and II Addition
- 60,000 square foot Marina Suite Office Building (near NE 53rd/Lake Washington Blvd.)
- Lee Johnson Dealership Expansion
- Kirkland Honda Dealership Expansion

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- 75 State Street Mixed-use Development (Southwest quadrant of Kirkland Ave/3rd Street)
- Meriwether Residential Development (near NE 68th/108th NE)
- Kirkland-Hotel(northwest quadrant of Kirkland Ave/3rd Street)
- Mixed use project at old Safeway/Salvation Army site
- Juanita Village (remaining phase at Juanita Drive and 97th)
- Evergreen Hospital Updated Master Plan

Why are we approaching the standards?

We are reaching our LOS standards because developments in the Totem Lake area (notably the Totem Lake Mall and Evergreen Hospital) are occurring more rapidly than was forecast in the Comprehensive Plan. Also, some developments are larger than what was included in the plan. For example, the forecast of land use at the Totem Lake Mall was smaller than what was actually proposed.

Options for change

Options for addressing the current situation fall into three categories:

- project specific options to be taken by project developers
- change the Comprehensive Plan. This could include changes to LOS standards, land use assumptions, and/or network assumptions.
- change how we calculate project's impacts.

If a development fails to meet concurrency there are at least three options which could be selected by the developer to allow the project to move forward:

1. The project can be scaled back or TDM strategies can be used so that fewer auto trips are generated.
2. The development can be delayed or phased until more trip capacity is available, either through a change in standards or through provision of additional capacity projects by the city or others.
3. The project can include construction of additional infrastructure to provide more trip capacity.

These three options represent the “no action” alternative for the City. This is a viable alternative based on the notion that concurrency is working the way it is designed to work; helping to spread the impacts of growth over time and to make sure that land use development and construction of capacity facilities keep pace with one another. Land use development is happening faster than forecasted and so concurrency is slowing the pace of development. Therefore, developers that still want to move forward have to make special considerations.

Changing the LOS standards, land use assumptions or network assumptions require a change to the Comprehensive Plan. By law, changes to the Comprehensive Plan may take place only once per year. The process for a Comprehensive Plan change is quite lengthy and our annual change usually covers a number of amendments beyond vehicular level of service. Emergency amendments are possible but it is necessary to demonstrate a critical need for the change. There are a wide variety of choices for how and what should be changed. They involve different level of complexity. If this option is chosen we would more fully study each of these sub-choices as part of the 2006 Comprehensive Plan Amendment process.

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An option that does not require a change to the Comprehensive Plan would change the way concurrency impacts are calculated. Specifically, when a development is checked for concurrency, we estimate the traffic impacts of the development under consideration in the build out year, plus the traffic from all the other projects that are approved but not yet built, plus the background street traffic that would occur in the build out year. The last component, the background street traffic, is increased from the current year to the build out year at 2% per year. The 2% rate was established when we created our concurrency system in 1997 and at that time it accurately reflected trends in traffic growth but we believe that this rate may be too high based on recent traffic trends. Overestimating the growth rate lead to estimates of future congestion that are unrealistically high.

Next steps

On January 25, we discussed the current concurrency situation with members of the Transportation Commission and described possible options. Our plan is to continue to evaluate the accuracy of the traffic growth rate and if a lower rate can be justified technically, to implement it. We will consider other changes to the LOS system as a part of the 2006 Plan update.