

15 February 2008

Mr. John Everett  
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Via e-mail

**Re: Foothills Subarea Plan SEIS Traffic Issues**

Dear John:

I am writing you to expand on some of the points we discussed in our phone conversation of last week (February 5, 2008). These transportation issues stem from the review of proposed Balfour Village project traffic study and extend to the SEIS traffic analysis for the update to the Foothills Subarea Plan now underway, for which you have indicated that PDS intends to utilize the Balfour Village existing traffic information

### **Defining Rural Character**

The county and state road network in the Foothills Subarea has much to do with defining the subarea's rural character. In the series of traffic studies for Balfour Village and in the draft 2007 Foothills Subarea Plan, the rural character of the area's roads and how they serve abutting land uses has not been well defined (and is sometimes not even acknowledged). I think it is essential that the road network's chief characteristics be well described and that the consequences of those characteristics are explained, otherwise neither rural character nor regional traffic comprehensive planning will be well served.

Constraints on the Road Network:

- Reese Hill Road and South Pass Road are suitable only for very low volumes and would not well accommodate additional traffic from new growth. Both are narrow, two-lane roads with limited passing capability, narrow bridges, numerous speed restrictions, little to no shoulder, and winding sections with significant grades. Such conditions do not support any significant increases in traffic volume.
- Similarly, Kendall Road (SR-547) faces numerous challenges in terms of safe and predictable operations should volumes increase substantially from its dog-leg corners, numerous driveways, and

90-degree corner at Kendall requiring a speed change from the posted 55 mph to a recommended 20 mph.

- As was seen in the Balfour Village study, even with its partial analysis of the SR-542/SR-547 junction, the amount of traffic generated by that level of development creates unacceptable traffic operations with the current configuration of that intersection. It is already obvious that a significant revision to the intersection will be required to carry that amount of new traffic, yet no credible improvement has been evaluated to date for this junction.
- While turning lanes exist at selected locations to separate turning vehicles from through traffic, there are locations generating recreational use that do not have turning lanes. Consequently, traffic capacity decreases while safety concerns increase as traffic must stop behind vehicles waiting to make a left-turn into the driveway. One such example is the equestrian/recreational Black Mountain Ranch on SR-542 south of Kendall.
- School buses stop on the roads to load and unload children. This reduces capacity and raises obvious safety concerns as traffic volumes increase.
- Finally, Mt. Baker Highway (SR-542) also has dog-leg corners just south of Kendall which would receive the majority of new trips due to development in the area.

#### Implications for Growth in this Rural Area:

- The constraints listed above considerably reduce the traffic carrying capacity of all major roads leading into and out of the Foothills Subarea. Not only do those physical constraints limit capacity, but the rural function of the roads, simultaneously serving both long distance trips and local access needs, demonstrates that they are not well suited to higher volumes of traffic since conflicts occur between turning and through vehicles, and between vehicles operating at vastly different speeds. Short of completely reconfiguring the land use patterns and retrofitting a supporting local street network (which would not in any way reflect rural traits), that pattern of use will continue. The question needs to be asked: ***At what point does development and its new traffic become incompatible with the rural character of the area's roads, many of which are likely to remain substantially in their present condition?***
- That each road serving the Columbia Valley, where the majority of growth is predicated, has major physical constraints such as numerous dog-leg corners, speed restrictions, limited passing areas, narrow bridges, little to no shoulder, or winding sections with significant grades, means that the valley can support a very limited amount of new development.
- As part of the SEIS traffic review, a realistic capacity and level of service should be determined for ***each*** road. The consequences of that capacity should be shown for the amount of development that could be supported, and ability to satisfy emergency access and evacuation needs for the subarea and the UGA in particular. Given that the 2007 Draft Subarea Plan specifically calls for

maintaining two-lane roads in order to protect rural character, those consequences should be clearly identified.

### **Reliability of “Existing” Data**

As I mentioned, the traffic counts presented in the Balfour Village reports for the intersections in Kendall and near the project’s site were collected in December, 2004 and January 2005. To reiterate our conversation, there are the following issues with those counts:

- The Balfour Village counts have been presented without any adjustments for seasonal variations.
- The Balfour Village counts were two-hour counts for the afternoon peak period. No daily traffic counts were presented for that project. As we know, in the absence of any daily counts, daily totals can be estimated by factoring up peak hour counts. However, this approach yields considerable uncertainty about the daily estimate since it can lead to very inaccurate figures depending on the factor used. Obviously, it is far better to obtain actual daily counts. For the main roads in the sub-area, I would strongly encourage using actual daily counts, both for the accuracy and the more complete picture of traffic patterns across the day.
- Potential problems arising from the use of those counts include not only the lack of seasonal adjustment, but the poor snow conditions of the 2004/05 winter that significantly depressed the ski season and thus produced reduced December/January ski traffic. To the extent that the counts may have captured weekday ski traffic, they may have counted a very low volume of ski traffic due to a poor season.
- Additionally, it would be necessary to indicate what changes in development and activity have occurred since those counts were taken to determine the validity of using counts now three or more years old.

Finally, it is unclear from the Foothills Subarea 2007 draft Plan how the reported daily traffic volumes were collected. I understand from you that both Whatcom County and WSDOT daily counts were made at various locations but it is not clear which locations were actually counted and which were factored up from peak hour counts. As noted above, this creates uncertainty about the reliability and consistency of the data.

### **Ski Areas and Seasonal Traffic Variations**

As you know, I have emphasized the importance of identifying the recreational character of the Mt. Baker Highway serving both winter and summer recreation traffic. While WSDOT data from other mountain regions in the state indicate higher daily volumes in the summer, ski areas generate very high volumes on a number of weekends and holidays across the winter, and these volumes may be higher than those occurring during the summer.

I have experience with ski area traffic analyses having worked on environmental impact statements for ski area expansion projects in Washington, New Mexico and Colorado. In each instance, the EIS analyzed traffic conditions for the "design day" volume, which is typically among the 10 highest attendance days per year. As with any other land use, it is incumbent on the project to identify its time of peak use, to show how that peak varies from more typical conditions, and to demonstrate the period of highest total road traffic (whether ski influenced or otherwise). Such analysis is not restricted to the mid-week view frequently used for other land uses. Ski traffic can easily overlap with weekday traffic, both on the holiday weekends when private sector employees still work, and when schools have mid-winter or spring break weeks, a time when many families go skiing. Another influence at Mt. Baker comes from its lack of destination lodging, requiring skiers to leave the mountain each day, adding to traffic volumes in Foothills communities.

In short, the recreation character of Mt. Baker Highway deserves to be clearly identified by new traffic counts along the entire length of the highway, across the year so that the consequences of land use policies and traffic growth can be better understood for the entire Foothills Subarea. Seasonal recreational traffic will compound traffic from development growth during both winter and summer months, may frequently produce volumes higher than the average weekday's peak hour, and should be known for planning purposes.

### **Land Use and Transportation**

The opportunity to coordinate land use and transportation planning for the Foothills Subarea is immediate and promising. Carefully identifying the traffic capacity of roads entering and leaving the Subarea would allow the remaining capacity to be determined for a given level of service. The level of service measure would reflect one means of describing and maintaining a rural traffic character. One could then quickly estimate how much development could be accommodated before running up against level of service (and therefore rural character) thresholds. This approach could go a long way towards addressing concerns about fostering and managing development in the area.

I welcome the opportunity to continue this discussion and would be pleased to answer any questions you may have. Thank you for your consideration of these important transportation matters for the Foothills region.

Sincerely,

Ross Tilghman

cc: David Stalheim, Director, Whatcom County Planning and Development Services Department  
Claudia Newman, Bricklin Newman Dold  
Foothills Friends