



- Traffic Impact
- Parking
- Transportation Planning
- Corridor Studies
- Traffic Operations
- Transit
- Trucking
- Network Modelling
- Bicycles/Pedestrians

Email: lisa@newtownservices.net

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New Town Planning Services
1450 Pandosy Street
Kelowna, BC V1Y 1P3

Attention: Mr. Keith Funk

Dear Keith:

Re: Traffic Implications of Proposed Business Park

In response to your request, we have now considered the implications of changing some of the residential lands in the proposed East Bella Vista Highlands Future Land Use Plan from “residential” as previously proposed to “business park.” It is understood that this business park land will be located towards the north end of the Highlands Plan Area and that this business park will not be established until such time as the West Bypass shown in your Figure No. 3 as running a southwest to northeast orientation across the northwest quadrant of the Plan is in place. Furthermore, this business park is outside of the Phase 1 lands of DC Properties Ltd.

Tables 3.1 and 3.2 of our report of December 29, 2004 documented the trip generation calculations for our study. Table 3.1 covered Phase 1 which included 530 residential units whereas Table 3.2 covered build-out conditions with 1,898 residential units made up of a mixture of housing types. It is understood that with this business park in place, the number of units is reduced to 1,750 and for the purpose of the traffic study the number of single family units reduces from 912 to 827 and the townhouses reduce from 242 to 179.

The trip generation rates – primarily the Institute of Transportation Engineers (ITE) equations for the different residential uses – were applied to the revised number of housing units in order to establish the reduction in trips resulting from the removal of these 150 housing units. This found that in the weekday a.m. peak hour, there would be a reduction of 84 trips and in the p.m. peak hour there would be a reduction of 103 trips.

It is understood that the business park is to cover 14.2 hectares of land, this being equivalent to 35 acres. The ITE *Trip Generation Manual* has rates for a business park (Code 770) are provided based on number of employees, square feet of gross floor area, and acres of land. In the absence of other data, the acres category was used. The appropriate rates for this use were then applied to the area of land available and then reduced by 15% to account for the fact that the intensity of development is likely to be lower as this is located on the outskirts of Vernon and not in a large urban city. The total number of trips expected to be generated by the proposed business park is 561 in the a.m. peak hour and slightly lower at 501 in the p.m. peak hour. When the reduction in trip generation rates resulting from the elimination of some of the housing units is taken into account, this means a net increase of 477 trips in the a.m. peak hour and 398 trips in

the p.m. peak hour. When these are added onto the total trips given in Table 3.2, this means an increase of 42% in the a.m. peak hour (from 1,129 to 1,606) and 30% in the p.m. peak hour (from 1,343 to 1,741). The revised trip table is provided in Table 3.2R.

Table 3.2R
Trip Generation – Build Out

Component	Units (Ha)	a.m. peak				p.m. peak					
		Rate	Total	%in	In	Out	Rate	Total	%in	In	Out
Single Family	825	0.71	595	25	149	446	0.86	718	65	465	251
Townhouse	179	0.44	82	17	14	68	0.52	97	67	65	32
Apartment	744	0.50	368	20	73	295	0.57	427	65	278	149
Business Park (Ha)	14.2	46.6	561	85	477	84	46.6	501	20	100	401
Total	1,748		1,606		713	893		1,741		908	833

rates are based on ITE equations

The report undertook an analysis of the 39 Avenue/39A Avenue intersection at different levels of full development and concluded that once it exceeded the 60% level, i.e., 1,140 dwelling units, then an additional access will be required. The same holds true with this business park development replacing some of the 758 units that exceed this 1,140 threshold. It is essential that an alternative access, this presumably being the proposed West Bypass, be in place before this business park can be developed. Once such a new road is in place, there will be adequate capacity on this road for the business park.

It is considered very unlikely that traffic oriented to this business park arriving from the south on Alexis Park Drive would use the 39 Avenue route to travel to this park given that they can continue north on Alexis Park Drive and enter from the northeast corner. Although it may be slightly longer, this Alexis Park Drive route is certainly faster and less circuitous. Taking 39 Avenue will mean having to deal with traffic entering and exiting the traffic stream since it circulates through the East Bella Vista area and will no doubt experience significant numbers of local residential vehicles starting or ending their trips.

I trust that this provides the information you require at this time. Please do not hesitate to call if you have any further questions.

Yours truly,

T. D. WARD CONSULTING GROUP INC.

Trevor J. Ward, P. Eng., M.B.A.
President

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