



Aerial perspective of Sea to Sky University campus



Squamish Transit System

Conventional Service Expansion Plan 2004/05

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1.0 Introduction

The following report outlines the operational feasibility and cost impact of service expansion to provide for the introduction of service to growth areas and improved frequency. The report is based on a review of the community's transit needs and discussions with District and Squamish Transit staff. The report provides the District of Squamish with a direction of future action to meet their immediate transit requirements.

2.0 Background

Squamish Transit conventional service offers excellent coverage throughout the community operating 10 to 12 hours per day with evening service on Fridays. Ridership is strong with an average of 550 passengers per weekday as indicated in the most recent two week passenger count. This is an increase of over 40% in the last five years and is a good indication of the acceptance of public transit in the community.

There are currently several commercial and residential developments in Squamish, including the largest, the proposed Sea to Sky University. Adding an expansion bus and increased service hours will enhance passenger convenience, offer fully accessible transit to new development areas and meet the growing needs in the community.

3.0 Options for Service Expansion

An added conventional bus together with expanded hours will improve service several ways. Three concepts to consider have been previously reviewed.

1. Expanded service in peak hours only, Monday to Friday.
2. Expanded service all day Monday through Friday and Saturday
3. Expanded service all day Monday through Friday and Saturday plus expanded evening service.

For the purposes of this report, service expansion concept #2 (an additional bus operating full time Monday – Saturday) is reviewed in detailed. This expansion proposal offers significant service improvements increasing the number of daily service hours by 50% to over 10,400 hours annually. The report outlines new growth areas where expansion hours could be used most effectively. Key activity centres and new developments are also identified.

3.1 Potential Growth Areas

Squamish is a growing community with several areas of development for the immediate future. The following growth areas have been identified by municipal and operating staff as regions for potential transit expansion.

1. Sea-to-Sky University - Scheduled to open in 2005, the overall development site is approximately one km east of current transit service (2 Highlands). Although enrollment will be modest at first, Sea to Sky University is expected to become a major activity point within Squamish and potential to greatly improve transit ridership.

Proposal: To introduce regular transit service to Sea to Sky University and promote regular transit service from the start; an extension to the 2 Highlands route together with an increase in service frequency is proposed. The new Sea to Sky service will provide 30 minute service during peak times and 45 minute service the rest of the day. Transfer connections to all District neighbourhoods will be made at Highlands Mall and Downtown. Routing details and stop locations will be finalized through the planning and construction phase.

2. East Valleycliffe - This residential growth region is comprised of residential developments on Westway east of Spruce. The closest transit service is provided by the 3 Valleycliffe and is over one km away, well outside reasonable walk limits.

Proposal: To introduce service to this developing region it is proposed that the present 3 Valleycliffe bus be extended east on Westway. Service would loop through the new development then return to the existing routing. The extended service would provide 30 minute service during peak hours, 45 minute service during midday and Saturdays.

3. Boston Pizza/Theatre Complex and New Golf Course Development - Adjacent to Highlands Mall these two developing residential and commercial areas require improved transit coverage. Existing service is provided by both the 1 Brackendale and 2 Highland buses; however, convenient passenger access is difficult as current routes are one to three blocks away.

Proposal: To improve passenger convenience and access to the new developments, minor route adjustments are proposed. These adjustments include routing via Glenalder Place (behind Canadian Tire) via access or frontage roads connecting through to Highlands Mall. Other adjustments would include improved access on Tantalus Road to better serve the developing areas north of Highlands Mall. Both routing adjustments are subject to final completion of the developments.

4. Brennan Park Leisure Centre – Located on Centennial Way the Brennan Park Leisure Centre has been the subject of transit service issues for many years. Although centrally located, traffic patterns together with the current base level of transit service (2 buses) and very limited ridership potential make transit service to the site difficult. At present there is no service. Prior to 1997 service was provided on a regular basis, however ridership was very poor averaging only 3 rides a day. In 1997, following traffic pattern changes which forced a time-consuming circuitous routing, a limited regular service was implemented. Unfortunately this limited

service meant even fewer Leisure Centre bound passengers used transit. Finally it was offered on a “on-demand only” service, which again attracted no riders, hence service was withdrawn in 1999.

Proposal: To reintroduce public transit to Brennan Park Leisure Centre a limited regular service is proposed. This service requires expansion hours and would be a part of the overall expansion proposal. For example, with the addition of expansion hours to serve Sea to Sky University, additional trips will be scheduled linking Downtown and Highlands Mall. Some of these additional trips will divert via Finch Road and Loggers Lane to serve the Centre. Since there is still a question as to the cost benefit of such a service ridership would be monitored closely.

Expansion Proposal Summary

The above four service expansion proposals are based on the addition of approximately 11 to 12 additional service hours per day and the addition of a third conventional bus within the regular schedule. Total conventional fleet requirements would increase from 3 buses (2 in service and 1 spare) to 4 buses (3 in service and 1 spare). Table 1 outlines the expansion proposal. Specific details are outlined in Appendix A and illustrated on the attached system map (Appendix B).

**Table 1
Expansion Proposal Summary**

Growth Area	Existing Service		Proposed Service		Details
	Rush Hour	Midday and Saturday	Rush Hour	Midday and Saturday	
Sea-to-Sky University	None	None	Introduce service every 30 min	Introduce service every 45 min	2 Highlands bus extended to site of Sea to Sky University
East Valleycliffe	None -Outside reasonable walk limits of 3 Valleycliffe bus	None	Introduce service every 30 min	Introduce service every 45 min	3 Valleycliffe bus extended 5 min to include service to new development. Plus improved coverage to Plateau Drive neighbourhoods.
Highlands Mall - Boston Pizza/ Multi-Plex Theatre - Golf Course Development	None	None	Introduce service every 30 min	Introduce service every 45 min	2 Highlands and 1 Brackendale buses adjusted to improve passenger access.
Brenan Park Leisure Centre	None	None	none	Introduce service, 4-6 trips per day	Selected trips to divert via Finch Rd and Loggers Lane.
Frequency of Service					
Frequency of Service	Existing Service		Proposed Service		Details
	Rush Hour	Midday and Saturday	Rush Hour	Midday and Saturday	
1 Brackendale	Every 60 minutes	Every 60 minutes	Every 60 minutes	Every 60 minutes	No change to frequency
2 Highlands	Every 30-40 minutes	Every 60 minutes	Every 30 minutes	Every 45 minutes	Frequency improves
3 Valleycliffe	Every 30-40 minutes	Every 60 minutes	Every 30 minutes	Every 45 minutes	Frequency improves
Total number of Buses in service	2 Buses	2 Buses	3 Buses	3 Buses	One additional bus is added to fleet for a total of 3 buses in-service and one spare

3.3 Further Considerations

Residential growth areas - Additional residential growth areas to considered for future transit service include the phased golf course and residential developments 1 to 3 kms further north on Hwy 99, the downtown waterfront region and the proposed big box retail outlets on Hwy 99 north of Industrial and Discovery Way. Other areas of future development include expanded residential neighbourhoods in the Garibaldi Highlands south of Pia Crescent and Condor.

School Service Market – School District #48

Student ridership on Squamish Transit is very strong making up 43.5% of all ridership. This market must be maintained and improved to ensure continued success. Discussion with School District 48 have taken place to ensure that service duplication is kept to a minimum and that the operating schedule continues to meet the needs of as many students as possible. With an expanded service and additional frequency in Valleycliffe and Garibaldi Highlands more student transportation options will be available to further encourage student ridership.

4.0 Service Expansion - Financial and Ridership Summary

The following table details costs associated with the addition of an expansion bus. As outlined in the service plan summary the additional bus would operate approximately 11 hours per day Monday through Saturday. Operating costs include wages and benefits, fuel, maintenance, ICBC and fleet insurance. Minor overhead costs include bus servicing and storage. Based on the present 2003/04 Annual Operating Agreement an hourly cost of \$47.00 was used to estimate budget. The additional bus would be a 30 foot fully accessible Dennis DART with a local annual debt service cost of \$21,000. This bus would increase the overall fleet to four 30 foot Dennis DARTs (3 buses in service and a spare).

Ridership for the expansion proposal is forecast in the range of 15 to 17 additional rides per service hour for a annual total of 63,000 generating \$77,500 in additional transit revenues. Overall cost would be \$184,500 with a flex funding local share of approximately \$107,000.

3rd Bus Expansion - Annual Summary

Proposed Expansion	Service Hours	Total Cost*	Additional Ridership**	Revenue Impact***	Net Local Cost
3rd Bus added Monday-Saturday - Improved area coverage and frequencies	3,407	\$184,512	63,020	\$77,515	\$106,997

* Based on overall projected cost of \$47.00 per service hour, including local share of Debt Service for 30 foot low-floor Dennis DART bus (\$21,000).

** Based on 15 to 17 new rides per hour

*** Based on current fare structure

5.0 Recommendations and Future Action

As outlined in the service plan the addition of an expansion bus within the operating schedule will address the issue of service to the new Sea to Sky University, introduces new service to growth regions and improve overall service frequency.

Should the District of Squamish wish to proceed with the expansion plan then a detailed service specification including a new public timetable will be prepared as well as a detailed description of routing changes (subject to future development of Sea to Sky University). The current AOA budget 'Schedule C' will then be amended to include the additional costs. At this point the amended AOA will be presented to the BC Transit Board of Directors for approval and forwarded to the District for final approval. **The additional cost would be funded with a higher local percentage share (flex funding), which requires a one time 'Order in Council'.**

The Ministry of Transportation is currently reviewing governance and funding models for BC Transit. It is expected that a specific timeframe for completion of this work will be forthcoming shortly.

It is recommended that the District of Squamish receive this report as information. Please contact me if you have any questions regarding this matter.

Appendix A

Proposed Service Specifications

Adding a third bus to the conventional fleet will benefit the Squamish Transit System in the following ways:

- 2 Highlands extended by 10 to 12 minutes to serve Sea-to Sky University.
- 2 Highlands will provide limited Monday through Saturday service to Brennan Park Leisure.
- 2 Highlands will provide improved access to Commercial developments at the Highlands Mall area.
- 2 Highlands frequency will improve to 30-45 minutes throughout the day.
- 3 Valleycliffe extended by 5 minutes to serve the new residential developments northeast of Valleycliffe.
- 3 Valleycliffe frequencies will improve to 30-45 minutes throughout the day.
- The common north/south corridor linking Downtown and Highland Mall will see improved frequencies