



## MEMORANDUM

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**TO:** Dennis Trudeau  
General Manager, Transportation & Solid Waste Services

**FROM:** Daniel Pearce  
Manager, Transit and Planning

**SUBJECT:** Gabriola Island Transit Service Feasibility Study

**DATE:** March 14, 2011

**FILE:** 8500-30-GIFS

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### PURPOSE

To present the Gabriola Island Transit Service Feasibility Study to the Board.

### BACKGROUND

RDN staff has a work plan that includes transit service studies in Electoral Areas A, B, E, F, and H. BC Transit indicated that they would work with Regional District of Nanaimo (RDN) staff and be responsible for the completion of the studies. The first study has now been completed (*Appendix A*) and addresses Gabriola Island, Electoral Area 'B'.

The permanent population of Electoral Area 'B', which includes Gabriola, DeCourcy and Mudge Islands, was 4,050 in 2006. It is estimated that the population doubles in the summer due to visitors and seasonal residents. As a whole, the population of Gabriola Island is older than that of the Regional District and the BC average. Population is most dense on the western end of the island, which consists of predominantly single family dwellings.

The main services of the island are located in the Gabriola Village, within walking distance of the intersection of North and South Roads. These services include shopping, library, post office, museum, some medical and dental services, banking and the Agricultural Hall. There are also services located in the Twin Beaches area at Silva Bay. The main medical treatment centre for the island is located at Twin Beaches; however, there are plans to move it to the Gabriola Village at some future point. The Island has an elementary school and trade/continuing education courses but there is no secondary school or formal post-secondary school.

The existing transportation options serving Gabriola residents include:

- Walking and Cycling- Bicycle route plan under development;
- BC Ferries - daily service between Nanaimo harbour and Descanso Bay on Gabriola;
- Nanaimo Regional Transit (NRT) - does not currently serve Gabriola Island but many residents use the system when they arrive in Nanaimo;
- School District No. 68 (Nanaimo-Ladysmith) School busing - provides transportation on the island to Gabriola Elementary and to elementary and secondary schools in Nanaimo;
- Gabriola Island Taxi - operates seven days a week using a sedan (seating for 4 passengers); and,
- Other transportation providers, including seaplane travel to Vancouver on Tofino Air and a passenger van owned and operated by the Haven Resort to pick up and drop off guests.

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The feasibility study assesses the number of people, general service expectations and ridership potential for each district passenger market for transit. Commuter service and midday service were the key markets that were observed on Gabriola Island. Overall the potential markets would be described as medium for commuter service and low for midday service.

The study outlines a number of transit service concepts that are used when forming the service options. The transit service concepts include:

- Taxi supplement - uses a private carrier and private vehicles (usually those of a taxi company) to deliver scheduled service on routes or door-to-door services on an as-needed basis;
- Taxi Saver - provides people with a disability, who are registered with NRT System, a 50% subsidy towards the cost of taxi rides; and,
- Paratransit - uses a transit vehicle or vehicles, normally a smaller minibus in smaller towns or more rural setting, to provide service. Paratransit services can include everything from door-to-door, demand responsive services for people with disabilities to buses serving stops on fixed routes and schedules.

The study outlines a number of transit options addressing the potential markets and destinations, special considerations and existing transportation providers. The options include:

- **Service Option 1: Taxi Saver Program.** This option would implement a Taxi Saver Program, enabling registered people with a disability on Gabriola Island the ability to access up to \$60 in taxi rides per month for \$30. It would primarily serve people with a disability and seniors with cognitive or mobility impairments. This option could be implemented as a stand-alone program or to complement Option 2 or 3.
- **Service Option 2: Scheduled Commuter Trips with Two Midday Flex-Routed Trips.** This option provides four scheduled trips per weekday (two in the morning, two in the afternoon) to meet the most popular commuter ferry times. It also provides two midday flex-routed trips each day from Monday to Saturday. These trips would operate on the same routing as the commuter service but would have additional time added to the schedule to enable the bus to pick up or drop off people with disabilities who are registered with NRT System.
- **Service Option 3: Scheduled Commuter Trips with Three Midday Flex-Routed Trips.** This option operates the same number of commuter trips as Option 2 but increases the number of midday trips from two to three to offer better frequency. Midday service in this option would operate using the flex-routed model, enabling deviations off route for people with disabilities who are registered with NRT System.

The service options range from a Taxi Saver Program with no service hours to a scheduled bus service that has 3,630 service hours. The RDN has experienced solid and sustained ridership increases, which have resulted in many requests for service improvements. To address that need a Transit Business Plan was completed and approved by the Board in 2008. The Transit Business Plan outlines short and medium range service options (*Appendix B*) that are intended to improve service and double ridership by 2018. Any new service option proposals will have to be prioritized within the existing list of service options in the Transit Business Plan.

Prior to transit service being implemented on Gabriola Island the steps below would need to be considered:

- Prioritization - prior to implementation, BC Transit would work with staff to rank the implementation of the Gabriola transit services against the requests for other service expansions within the RDN and amend the RDN Transit Business Plan as required. In addition BC Transit

would have to rank the expansion against other communities throughout BC. This could considerably delay implementation.

- Funding - BC Transit and the RDN would have to secure funding prior to implementation. If one of the parties cannot provide the funding, then service would be too expensive to implement.
- Detailed Implementation Plan - once funding was confirmed, a detailed implementation plan would be created. This plan would provide detailed operational planning to confirm routes and schedules. The implementation plan would also include a detailed financial report on the impact to the participants of the transit function and legislative requirements to add Electoral Area 'B' to the regional transit funding service area.

## **ALTERNATIVES**

1. That the Board receive the report on the Gabriola Island Transit Service Feasibility Study for information and direct staff to investigate the full financial impacts of the various expansion options and to work with BC Transit to prioritize the proposed service increase and update the RDN Transit Business Plan as required.
2. That the Board receive the report on the Gabriola Island Transit Service Feasibility Study and provide alternative direction to staff.

## **FINANCIAL IMPLICATIONS**

The report outlines various scenarios and cost implications. Historically staff has found that BC Transit forecasts have tended to project lower cost estimates than the actual cost of implementation. A detailed financial analysis of the proposed service integrated with the existing transit function will be required to ensure that the Board has a full understanding of the cost before proceeding further.

## **SUSTAINABILITY IMPLICATIONS**

The Transportation Services Department is working continuously on improving the viability and efficiency of public transit. The Gabriola Island Transit Feasibility Study provides important information for the future link between transit in Nanaimo and transit on Gabriola Island. The use of cleaner running buses, combined with the use of biodiesel fuel, demonstrates NRT's commitment to reducing its carbon footprint, which is in keeping with the RDN's Corporate Climate Change Plan.

## **CONCLUSIONS**

As requested, RDN staff in conjunction with BC Transit planning staff has developed a transit service feasibility study for Gabriola Island.

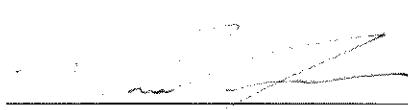
The study outlines a number of transit options including a Taxi Saver Program, Scheduled Commuter Trips with Two Midday Flex-Routed Trips and Scheduled Commuter Trips with Three Midday Flex-Routed Trips.

Based upon recent budget experiences staff needs to carefully investigate the financial impacts of these and other transit expansion options that develop from studies being prepared by BC Transit. In addition the RDN Transit Business Plan will have to be updated so options resulting from BC Transit studies can be prioritized. Prior to proceeding with the implementation of any service on Gabriola Island, the transit

service area will need to be amended to include Electoral Area 'B' and BC Transit funding will need to be secured.

## RECOMMENDATION

That the Board receive the report on the Gabriola Island Transit Service Feasibility Study for information and direct staff to investigate the full financial impacts of the various expansion options and to work with BC Transit to prioritize the proposed service increase and update the RDN Transit Business Plan as required.



Report Writer



General Manager



CAO Concurrence

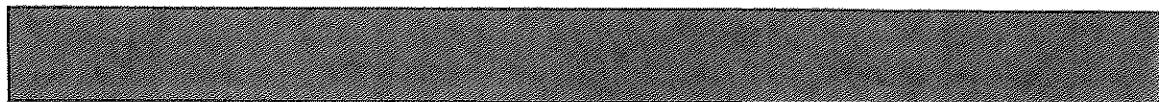
**APPENDIX A**



**Gabriola Island  
Transit Feasibility Study**



*November 30, 2010*



## ACKNOWLEDGEMENTS

BC Transit would like to thank those Gabriola Island residents and Regional District of Nanaimo (RDN) staff and elected officials who participated in this study and provided input. In particular, Fay Weller, Bill Schram, Jim Ramsay and Judith Roux of the Gabriola Public Transit Task Force, RDN Area B Director Gisele Rudischer, and RDN Transportation General Manager Dennis Trudeau.

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## EXECUTIVE SUMMARY

### 1.0 Introduction

At the request of the Nanaimo Regional District (RDN), this study was conducted by BC Transit staff to examine the demand for transit service on Gabriola Island, B.C. and to create options for the provision of service.

This report presents the findings of the study and outlines service options for consideration. The service option proposals are based on background statistics provided by Statistics Canada, the Islands Trust and Vancouver Island University, a residential transportation survey conducted by the Gabriola Public Transit Task Force, discussions with local residents, site visits by BC Transit staff, and comparisons of communities of similar size and density.

### 2.0 Community Profile

The study area comprised the Gabriola Island portion of RDN Electoral Area "B." Gabriola Island is located approximately six kilometres east of the City of Nanaimo, B.C. and is linked to Vancouver Island by public ferry service provided by BC Ferries and to Metro Vancouver by seaplane.

The permanent population of RDN Electoral Area B (of which Gabriola is the largest but which also includes DeCourcy and Mudge Islands) was 4,050 in 2006. It is estimated that the population doubles in the summer with visitors / seasonal residents.

- **Demographics:** In general, the island's population is older than the Regional District as a whole and the B.C. average. Residences on the island are predominantly single family dwellings. Population is most heavily concentrated on the western end of the island, including the neighbourhoods of Berry Point, Harrison / Pat Burns and Whalebone.
- **Land use and form:** Land use planning on Gabriola Island is under the jurisdiction of the Island's Trust. The last Official Community Plan was completed in 1997 and an OCP review and update process is currently underway and scheduled for completion in 2011. Roadways are under the jurisdiction of the BC Ministry of Transportation and Infrastructure.
- **Community Amenities and Potential Trip Generators:** The island's main cluster of services is located in the Gabriola Village, which is centred near (or within walking distance of) the intersection of North and South Roads. This includes shopping, library, post office, museum, some medical and dental services, banking and the Agricultural Hall.
  - There are also clusters of services and amenities in the Twin Beaches area and Silva Bay. The main medical treatment centre for the island is currently located at Twin Beaches but has plans to move to the Gabriola Village at some future point.
  - The island has an elementary school and a number of trades / continuing education course offerings. However, islanders must travel off Gabriola to access secondary schools and formal post-secondary education in Nanaimo.

### 3.0 Existing Transportation Options

Existing transportation options serving Gabriola residents include:

- **Walking and cycling**, with some off road trails under construction and a bicycle route plan under development.
- **BC Ferries** daily service between Nanaimo harbour and Descanso Bay on Gabriola.
- **Nanaimo Regional Transit**, which does not currently serve Gabriola but which many residents already use when they arrive in Nanaimo.
- **School District 68 (Nanaimo-Ladysmith) School Bussing**, which provides transportation on the island for school students only to Gabriola Elementary and to an elementary and secondary school in Nanaimo.
- **Gabriola Island Taxi**, which operates seven days a week using a sedan able to carry up to four passengers.
- **Other transportation providers and assets**, which includes seaplane travel to Vancouver on Tofino Air and a passenger van owned and operated by The Haven resort to pick up and drop off guests.

### 4.0 Assessing Potential Markets for Transit

The study assesses the number of people, general service expectations and ridership potential for each distinct passenger market for transit: people with a disability, seniors, school students / youth, young adults / college students, and adults. Key conclusions are that:

- Two distinct markets emerge for transit on Gabriola: commuter services that would attract younger adults, commuting adults, and youth travelling home from after school activities in Nanaimo and midday services targeted to the specific needs of seniors and people with a disability.
- Overall the potential market for service in these configurations is medium for commuter services and low for midday services.

### 5.0 General Service Design Concepts

The study outlines a number of **transit service concepts**, which represent the "box of tools" that are used when forming the options presented in section 6.0 Service Options. These include:

- **Taxi Supplement**, which uses a private carrier and private vehicles (usually those of a taxi company) to deliver scheduled service on routes or door-to-door services on an as needed basis.
- **Taxi Saver**, which provides people with a disability who are registered with the transit system a 50% subsidy towards the cost of taxi rides.
- **Paratransit**, which uses a transit vehicle or vehicles—normally a smaller minibus in smaller towns or more rural settings--to provide service.
  - Encompassing a range of service types, paratransit services can include everything from door-to-door, demand responsive services for people with disabilities, to buses serving stops on fixed routes and schedules.
  - It may also include many other mixtures and hybrids of these, such as **flexible routing** (which enables schedule trips to deviate off route to provide door to door service to people with disabilities) or **trip windows** (which provides blocks of time during which any resident of a specified area may request a door to door transit pick up).

A number of **supplementary service concepts** are also included to provide examples of services that could be organized and implemented locally without Regional District of Nanaimo

or BC Transit involvement. These supplementary concepts include **ride sharing** using the Jack Bell Foundation's free matching service at <http://www.ride-share.com>, a **car stops** program used successfully on Pender Island, and a volunteer transportation network example from the Mt. Waddington Regional District on the northern part of Vancouver Island.

## 6.0 Service Options

The study outlines a number of transit service options that address different aspects of the identified potential markets and destinations, special considerations and existing transportation providers. The service description for each option outlines expected ridership, revenue, costs and vehicle requirements. Appendix D presents a sample route map and schedules for options as well as questions that would need to be answered by the community before implementation and detailed scheduling was undertaken.

The presented options include:

**Service Option 1: Taxi Saver Program** - This option would implement a Taxi Saver Program, enabling registered people with a disability on Gabriola (many of whom may be seniors) the ability to access up to \$60 in taxi rides per month for \$30. It would primarily serve people with a disability and seniors with cognitive or mobility impairments. This option could be implemented as a stand alone program or to complement Options 2 or 3.

**Service Option 2: Scheduled Commuter Trips with Two Midday Flex-Routed Trips** - This option provides four scheduled trips per weekday (two in the morning, two in the afternoon) to meet the most popular commuter ferry times. It also provides two midday flex-routed trips each day from Monday to Saturday. These trips would operate on the same routing as the commuter service but would have additional time added to the scheduled to enable the bus to pick up or drop off people with disabilities registered with the system.

**Service Option 3: Scheduled Commuter Trips with Three Midday Flex-Routed Trips** - This option operates the same number of commuter trips as Option 2 but increases the number of midday trips from two to three to offer better frequency. Midday service in this option would operate using the flex-routed model, enabling deviations off route for people with disabilities registered with the system.

### 6.1 Service Option Summary

The following table summarizes the estimated impacts for all service options presented above. All figures are annual and are based on estimates that would require review based on actual date of implementation and confirmed service and operational details. Costs are also based on the service being operated under the umbrella of the Nanaimo Regional Custom system; it would not be feasible at this time to operate the service under the Nanaimo Regional Conventional system.

Service Option Summary

	Option 1: Taxi Saver Program	Option 2: Four Scheduled Commuter Trips Plus Two Midday Flex-Routed Trips	Option 3: Four Scheduled Commuter Trips Plus Three Midday Flex-Routed Trips
<b>Vehicles Required</b>	0	2*	2*
<b>Service Hours</b>	n/a	3,110	3,630
<b>Ridership</b>	4,300	21,800	27,200
<b>Total Revenue</b>	\$0	\$33,800	\$42,200
<b>Total Cost*</b>	\$16,200	\$268,300	\$303,700
<b>Net Local Share of Costs*</b>	\$8,300	\$129,500	\$139,200
<b>Provincial Share of Costs</b>	\$7,900	\$105,000	\$122,300
<b>Rides per Hour</b>	n/a	7.0	8.0
<b>Cost per Ride</b>	\$3.77	\$10.76	\$8.92

\* The number of vehicles includes provision for one in service vehicle plus one spare. With approval of BC Transit's Vehicle Asset Management team and the RDN, this number could potentially be reduced by sharing a spare with the existing RDN Transit fleet. This sharing arrangement would mean that the Gabriola bus would swap out on a routine basis with identical buses from Nanaimo Regional Transit for regular maintenance and on an as-needed basis due to mechanical failure. Reducing the number of vehicles required from two to one would represent a \$26,300 reduction to the Net Local Share of Costs and Total Costs.

### 6.2 Service Option Conclusions

Based on the findings of this report, Service Option 2 or 3 could serve the community well, potentially complemented by Option 1 "Taxi Saver Program." Option 3 appears to offer a more attractive level of service for a marginal increase in cost. However, Option 2 could actually be a more cost-effective introductory option depending on what operating arrangements are established through an implementation process. If the community wishes to pursue transit service, it would be wise to budget on the basis of Option 3 and make a final decision on service levels once operating arrangements (see Section 7.0) and community input on scheduling and routing trade offs (see Appendix D) have been confirmed.

### 7.0 Integration and Implementation

BC Transit has consulted with staff at the Regional District of Nanaimo (RDN) regarding integration of the Gabriola Transit system into existing transit services and programs within the region. This section was been prepared with their assistance.

BC Transit's funding model requires a local government partner to sponsor service. Since Gabriola Island is not its own municipality and is instead part of the Regional District of Nanaimo, it is appropriate and recommended that any new cost-shared transit service on Gabriola be implemented as an expansion to the existing RDN / BC Transit funding partnership for the Nanaimo Regional Transit System.

To improve passenger convenience and ease of use it is also advisable that any new cost-shared service on Gabriola integrate with the Nanaimo Regional Transit System's trip schedules, fares and passenger information materials, such as printed Rider's Guides and web-based schedules.

In terms of operating the Gabriola services, transit partners may wish to consider an option that makes use of centralized RDN Nanaimo Regional Transit services where it makes the most administrative sense (transit telephone information, handyDART administration, fleet and vehicle maintenance services, fare collection, transit system scheduling and oversight) but to set up a separate operating facility and Gabriola-based transit staff on Gabriola Island itself, either as contracted services or a RDN function.

These operational options and integration recommendations would need to be further discussed by BC Transit and the Regional District of Nanaimo prior to proceeding further with the implementation of any cost-shared service on Gabriola.

Other issues related to implementation that will require further investigation or discussion include confirming the support of the RDN Board and Gabriola residents for the introduction of transit service on Gabriola, confirming budget availability and timing for the RDN and BC Transit (including determining the project's priority ranking against other regional and provincial expansion requests), and creating a detailed implementation plan to confirm routes and schedules.

## **8.0 Recommendations**

If the community wishes to pursue transit service, it is recommended that Option 3 "Scheduled commuter trips plus three midday flex-routed trips" as well as potentially Option 1 "Taxi Saver Program" be the service options used for budgeting purposes and that a final decision on service levels be made once operating arrangements (see Section 7.0) and community input on scheduling and routing trade offs (see Appendix D) have been confirmed. It also recommended that the issues presented in Section 7.0 Integration and Implementation be considered and addressed.

**It is recommended that the Regional District of Nanaimo:**

- Receive this report as information and provide comment.

## 1.0 INTRODUCTION

At the request of the Nanaimo Regional District, this study was conducted by BC Transit staff to examine the demand for transit service on Gabriola Island, B.C. and to create options for the provision of service.

This report presents the findings of the study and outlines service options for consideration. The service option proposals are based on background statistics provided by Statistics Canada, the Islands Trust and Vancouver Island University, a residential transportation survey conducted by the Gabriola Public Transit Task Force, discussions with local residents, site visits by BC Transit staff, and comparisons of communities of similar size and density.

### Study Objectives

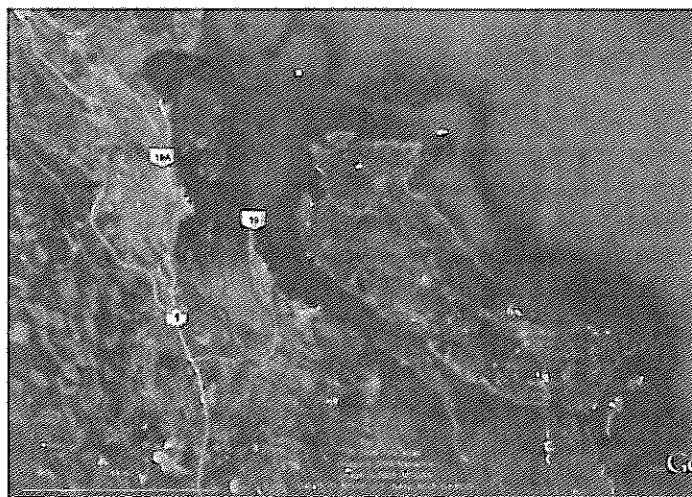
Study objectives were developed in consultation with the Regional District and include:

- Review existing transportation options within the community;
- Review demographic data to identify potential transit markets within the service area;
- Identify the transportation needs of the community;
- Develop service concepts and their associated costs. Service concepts should be in line with the size of the population and area served, based upon experience in similar communities in B.C.;
- Consider all forms of transit including vanpools, taxis, buses, and subsidies for existing transportation networks.

### Study Area

The study area comprised the Gabriola Island portion of RDN Electoral Area "B." Gabriola Island is located approximately six kilometres east of the City of Nanaimo, B.C. and is linked to Vancouver Island by public ferry service provided by BC Ferries and to Metro Vancouver by seaplane. The island is about 14 kilometres long by 4.2 kilometres wide, with a land area of 57.6 square kilometres.

While there is currently no transit service on Gabriola Island, cost of vehicle travel on BC Ferries means that there is a significant amount of walk-on ferry passenger traffic. Both RDN Transit staff and Gabriola residents have provided anecdotal information on the the number of ferry passengers who already make use of the Nanaimo Regional Transit System once they reach Nanaimo. The 2006 Census backs this up, with 9% of Area B commuters indicating that they used transit as their main mode of travel to work. Therefore, while a transit link on board the ferry is not considered, connection to and with Nanaimo Regional Transit services forms part of the context for this study.



## 2.0 COMMUNITY PROFILE

### Community Overview

Gabriola Island's permanent population is slightly more than 4,000 and is concentrated on the west side of the island. The island is rural in nature with a commercial centre, detached homes on large lots, marina, restaurants, library, school, museum as well as public beaches, and forested parks.

The Gabriola Village is the island's main shopping centre and is located just a few minutes up from the ferry terminal in the vicinity of the intersection of North and South Roads. In addition to post office and community gathering spaces, the village includes larger retail plazas such as Folklife Village, Village Plaza and Madrona Marketplace. Other shopping areas can be found at Twin Beaches Mall on the north end of the island and Silva Bay on the south end. The island has a strong connection to the City of Nanaimo.

### Community Evolution

- Gabriola is part of the traditional territory of the Snunéymux. The earliest archeological record on Gabriola is a cave burial dated to about 1500 BCE.
- Settlement of the island by non-aboriginal people began in the 1850's in conjunction with the discovery of coal in Nanaimo, with a number of family farms created on Gabriola to supply Nanaimo's growing population. Besides farming, industrial development of the island from the 1890's to 1930's included a brickyard and the quarrying of sandstone.
- In the early 20<sup>th</sup> century, the population of Gabriola grew slowly. By the 1950s, fewer than 400 people lived full-time on the island. Substantial population growth began in the 1970s when the population tripled and by the mid-1980s, the population was 2,000, half the current figure.

### Population and Demographics

The permanent population of RDN Electoral Area B (of which Gabriola is the largest but which also includes DeCourcy and Mudge Islands) was 4,050 in 2006. It is estimated that the population doubles in the summer with visitors / seasonal residents.

Based on Statistics Canada data, there are a number of key population and demographic conclusions:

- Gabriola's population is growing faster than surrounding areas. From 2001 to 2006, the island's population grew by 15%, compared to 7.8% for the Nanaimo region<sup>1</sup> as a whole and 5.3% for the province of B.C.
- Population is most heavily concentrated on the western end of the island, including the neighbourhoods of Berry Point, Harrison / Pat Burns and Whalebone.
- The island's population is older than average. In 2006, Gabriola's median age was 52.9 years compared to 43.3 for the Nanaimo region and 40.8 for all of B.C. The island has about half the number of young adults (age 15 to 24) and almost double the number of younger seniors (age 55 to 74) as the provincial total.
- Residences on the island are predominantly single family dwellings. There are just under 2,000 dwellings on the island (1,995), with 93% of these detached houses. The

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<sup>1</sup> Based on Nanaimo Census Agglomeration Area.

average household has 2.0 people in it, compared to 2.5 for the province. In general, places with less population density are harder to serve efficiently with transit.

- The total number of private dwellings on Gabriola was 2,744 in 2006, of which 1,998 were occupied by the permanent residents.
- Population density for Gabriola was 70.3 persons per square kilometre, compared to 72.2/km<sup>2</sup> for the Nanaimo Region as a whole and 881.8/km<sup>2</sup> for the City of Nanaimo.

#### Community Land Use and Form

- Land use planning on Gabriola Island is under the jurisdiction of the Island's Trust. The last Official Community Plan was completed in 1997 and an OCP review and update process is currently underway and scheduled for completion in 2011.
- In general, increased density in village centres or along designated transit corridors increases the feasibility, efficiency and effectiveness of transit. The current land use pattern favours rural and dispersed residences that make it harder to access daily needs by walking, cycling and transit. There appear to be strong opinions on Gabriola both for and against changing policies relating to density, mixed zoning that would allow commercial and residential uses to coexist, and rental restrictions.
- There are no major housing developments currently scheduled for completion. Commercial / institutional developments currently under consideration are both proposed for the Village area and include a new health centre and an extension of the current Madrona Marketplace.
- Roadways are under the jurisdiction of the BC Ministry of Transportation and Infrastructure. Other than the consideration of extending Church Street to Phase Four of Berry Point, no major roadway changes are planned for the foreseeable future.

#### Community Amenities and Potential Trip Generators

The following lists Gabriola's current amenities and services by sector and location. Services or amenities that may have particular ability to generate trips for transit are highlighted in *italics*.

#### Shopping & Service Destinations

- *The Island's main cluster of services are centred on (or within walking distance of) the intersection of North and South Roads.*
  - *Folklife Village* (North Road at Lockinvar Road) is the largest of these, a number of tenants including the island's main *grocery store, liquor store, pharmacy, and library*.
  - Other nearby shopping / services include the co-op gas station, *banking in the Village Plaza, health services at the Gabriola Professional Centre, services and retail at the Madrona Marketplace* and the post office.
- The Twin Beaches area includes a theatre and facilities through The Haven resort as well as an emergency medical clinic, fitness centre, bakery, wine store and automotive services.
- The Silva Bay area includes a restaurant and pub, wine store, ship building school and marine repair. Both Silva Bay and Twin Beaches used to have small grocery/convenience stores serving area residents in the vicinity but they have both recently closed, meaning that the Village must be accessed for most groceries/supplies.
- Good Earth Market Garden also offers seasonal vegetables and is a popular destination on summer Saturdays at 10:00am, as well as Wednesdays at 1:00pm.
- Similarly, throughout the summer, a Farmer's Market is held at the *Agricultural Hall* on Saturdays from 10:00am to noon featuring local produce and baked goods from the island, as well as crafts and artwork. A Saturday visit to the Village, the Organic Farm,

and the Saturday Market is a weekly rite of passage for many islanders. A similar market is held at Silva Bay on Sundays from 10:00am to noon.

#### **Health Care**

- The *main medical clinic* for the island is currently located in an interim facility in the Twin Beaches Shopping Centre on Berry Point Road. The Gabriola Heath Care Society is currently leading a process to fundraise and establish an expanded permanent facility, with the desired new location in the vicinity of the Village.
- Many other medical and dental services are located in the Village at the island's *Professional Centre*, with an optical store also nearby.
- In addition, a number of Gabriola Island residents operate practitioner services through their homes and these are scattered across the island. Palliative care services are also offered on a home visit basis.

#### **Education**

- Gabriola Elementary School (North Road, near Church) offers kindergarten to grade 7 and currently has 166 students enrolled. School District 68 school bussing is offered to and from the school, with few after hours extra curricular activities. Some families also choose to send their elementary school-aged children to Fairview Community School in Nanaimo (205 Howard Avenue), following a school bussing pattern similar to that described for secondary school students.
- Secondary School: Students must travel to schools in Nanaimo for grades 8 to 12, with most attending and travelling to Nanaimo District Secondary School (355 Wakesiah Avenue). School bussing is provided for classes but not for extra-curricular activities. This means that there may be some transit demand on Gabriola Island for youth travelling home late from school, either due to formal extra-curricular activities or other time spent in Nanaimo. There is no cost for school related travel on BC Ferries for students to age 18.
- Post-Secondary: Trades and continuing education on the island includes personal growth courses at The Haven, wooden boat building at the Silva Bay Wooden Boat School and log and timber frame home construction through the Island School of Building Arts. Many of these course attendees are from off-island.
  - Other the above, there are no formal post-secondary options available on the island other than by distance education. The largest nearby post-secondary institution is located at Vancouver Island University (Fifth Street at Wakesiah Avenue).
  - Travel to the University is possible using the ferry and Nanaimo Regional Transit and anecdotal evidence from area resident shows that some students are making the daily commute to/from the University. A post-secondary student living on Gabriola and commuting daily to VIU using a discounted BC Ferries Experience Card / tickets would spend \$105 per month on ferry fares.

#### **Facilities for Seniors and People with a Disability**

- Gabriola Garden Homes (500 Argyle Lane) is sponsored by the local Lion's Club and includes 24 units of housing for seniors, plus common areas. Another retirement village is located in the Village near the intersection of North Road and Church.
- Gabriola's People for a Healthy Community are currently mobilizing around creating more housing for seniors and people with a disability.

### **Recreation and Culture**

- Community centres and gathering places open for meetings and gatherings year round on an ad hoc basis:
  - Gabriola Island Community Hall (South Road at Garland). The hall also offers preschool.
  - The Agricultural Hall ("Agi Hall": North Road at South Road)
  - Gabriola Women's Institute (South Road at Lockinvar)
  - Gabriola Commons (North Road near Church). Has a meeting facility as well as community gardens and common garden/orchard.
  - The Gathering Place for Teens (North Road at Tin Can Alley)
- Gabriola Museum (South Road near Lockinvar)
- Theatres:
  - Roxy Theatre (North Road, in the Village)
  - Theatre at The Haven (Twin Beaches area)
- Gabriola Golf and Country Club (South Road, east of Crestwood)
- Island parks:
  - 700 Acre Community Park
  - Gabriola Sands Provincial Park
  - Sandwell Provincial Park
  - Drumbeg Provincial Park
  - Descanso Bay Regional Park

### **Community Events**

- Island festivals include the annual Thanksgiving Weekend Studio and Gallery Tour, sponsored by the Gabriola Arts Council.
- The Dancing Man Music Festival is held in late April through early May and the Home and Garden Tour in June.
- The Non-Marine Boat Race, the Sand Sculpture Competition, the Annual Salmon Barbecue, and Gabriola Islander Day all occur in August.
- Habonim Dror Camp Miriam, a Jewish summer camp, operates on the island from the end of June through the end of August.

### 3.0 EXISTING TRANSPORTATION OPTIONS

The following assesses existing transportation options available on Gabriola Island.

- **Walking and Cycling**
  - Roads on Gabriola are rural in nature and except for the stretch leading to and from the ferry terminal, have no paved shoulders. In the heavily travelled village area, residents have created footpaths on adjacent private property as a way of linking destinations without needing to walk on shoulders.
  - The Gabriola Lands and Trails Trust has been working to construct a network of off-road trails across the island.
  - A bicycle route plan has recently been developed and is in the process of being considered by the Islands Trust.
  - While there are currently few formal cycling and pedestrian facilities, many islanders are using these forms as a means to get around, with 16% of commuters indicating that they walk or cycle to work in the last census. Given the ferry trip, a portion of this travel may be more representative of how people journey to work once they leave the ferry in Nanaimo rather than travel to work on Gabriola itself. However, it is still a notable figure when considering future transit.
  - Some residents also use hitchhiking as a means of travel.
- **BC Ferries**
  - **Based in:** Victoria, BC (Operating out of Nanaimo Harbour and Descanso Bay Ferry Terminals)
  - **Provides:** Ferry service between Nanaimo and Descanso Bay on the western end of Gabriola.
    - The ferry crossing takes 20 minutes and runs daily almost hourly from about 5.30 a.m. to about 11.30 p.m. Appendix A shows BC Ferries' current Gabriola ferry schedule.
    - Residents of Gabriola who work or attend high school in Nanaimo use the ferry to commute, in addition to accessing shopping and health care and other needs in the Nanaimo area. Therefore access to the ferry terminal at Descanso Bay is one of the main potential trip generators for transit on Gabriola.
  - **Vehicle Used:** MV Quinsam ferry, accessible, recently refurbished with a capacity of 70 vehicles and 400 passengers.
  - **Passenger Cost:** Effective October 18, 2010, adult passenger cash fare is \$8.90 for a return trip, or \$5.95 with tickets or Coast Card. Seniors travel free Monday to Thursday. School students travel free on school-related trips.

- **Nanaimo Regional Transit System (Operated by Regional District of Nanaimo Transportation Services)**
  - **Based in:** Nanaimo, BC
  - **Provides:** Daily transit service (except statutory holidays) to areas on Vancouver Island stretching from Cedar in the south to Qualicum Beach in the north.
    - Services include conventional transit that provides scheduled trips serving bus stops as well as demand-responsive handyDART services for people with a disability.
    - The Nanaimo Regional Transit system does not serve Gabriola Island but many of the system's major routes serve Front Street stops by the ferry terminal and provide a link to the main transit exchange at Prideaux and Fitzwilliam (otherwise a 12-15 minute walk from the ferry), direct access to Vancouver Island University and Nanaimo District Secondary School (routes 5 and 6) and major employment and shopping destinations north and south of Nanaimo (routes 8 and 9).
    - Despite the existing lack of transit service on the island, 9% of Gabriola residents who work outside the home indicated that they use transit as part of their commute in the 2006 Statistics Canada Census.
  - **Vehicles Used:** A range of fleet types and sizes. All are accessible to people using wheelchairs or scooters.
  - **Passenger Cost:** One way cash fare is \$2.25 per trip for adults, \$2.00 for students and seniors with a range of ticket and pass options also available.
- **School District 68 (Nanaimo-Ladysmith) School Bussing**
  - **Based in:** Nanaimo, BC (Bus storage on Gabriola Island is at driver's homes).
  - **Provides:** School bus service on Gabriola Island to/from Gabriola Elementary and the Descanso Bay ferry terminal, with connecting school bus service between the Nanaimo Harbour ferry terminal and Nanaimo District Secondary School and Fairview Community School.
    - No additional service is provided to meet extra-curricular activities.
    - Appendix B presents the current school bus schedule and routing on Gabriola Island. This routing is notable since it represents a logical starting point for what routing might be considered for scheduled transit service. Shelters are already constructed at key collector points along the school routes (for instance at the corner of South Road at Price Road) and it would make sense for any scheduled transit service to make use of the same infrastructure and pull over areas.
  - **Vehicle Used:** Standard non-accessible school bus, capacity of 88 elementary students, 56 secondary students.
  - **Passenger Cost:** Free; for school students only.

- **Gabriola Island Taxi**
  - **Based in:** Gabriola Island, BC
  - **Provides:** Local taxi service on Gabriola Island.
    - Many local trips are for seniors shopping as well as to access the ferry.
    - The taxi provides trips for seniors from the village area to the ferry each Thursday for \$2 for the Lion's Club.
  - **Vehicle Used:** One car with capacity for four passengers. Non-accessible (no wheelchair lift) but some people using walkers and collapsible wheelchairs are carried.
  - **Passenger Cost:** Most trips to the ferry terminal are under \$10, with trips to shopping in the \$6-7 range. The longest trip is from the ferry to Silva Bay and costs \$22.

#### Other Transportation

- **Tofino Air** provides three round trip seaplane flights daily between Silva Bay on Gabriola Island and the Vancouver International Airport. Cost is \$82 each way.
- **The Haven** has a passenger van that it uses to transport guests to and from the ferry.
- Gabriola Island may also be reached by small boat.

## 4.0 ASSESSING POTENTIAL MARKETS FOR TRANSIT

To try to gage the potential ridership for a transit service on Gabriola Island, the following describes passenger groups, their general service expectations and the likelihood that they will use transit to travel on Gabriola.

This section makes use of Statistics Canada information as well as information collected in a Transportation Survey conducted by the Gabriola Transit Task Force. Full survey results are included in Appendix C.

### Potential Markets: People with a Disability

**Outlook:** People with disabilities fit into all passenger categories. They include students who need transportation to school, younger adults and adults who may need transportation to jobs or day program activities, and seniors.

- 5.7% of transit survey respondents indicated that someone in their household had a disability requiring door to door transportation.

**General Service Expectations:** In transportation terms, people with disabilities can be found in two general categories:

- **Commuters:** Mainly student and adult passengers, commuting people with disabilities rely on transit for non-discretionary trips to work, school or adult day care programs on a regular, predictable basis. Commuters have much less flexible schedules and it is therefore harder for door-to-door style accessible service to meet their needs since only a limited number of daily trips can be scheduled in peak commuting times.
- **Discretionary Trip Makers:** Mainly adults and seniors, these passengers have schedules that are less regular than those of commuters. These passengers tend to use transit to go to medical, dental and therapy appointments, perform shopping and personal errands and attend social and recreational functions. Transportation needs, then, are somewhat more flexible and often vary from day to day and from week to week.

**Potential Market for Transit Service:** In general, the potential market for people with disabilities for transit service is **low** (based on population) **to medium** (based on potential usage).

- Midday medical / dental appointments and shopping trips would be the prime reasons for transportation on Gabriola and to Nanaimo.
- Gabriola's population is already older than the regional average; as the population ages, the number of residents with mobility or cognitive disabilities will also grow.

### Potential Markets: Seniors

**Outlook:** People aged 65 and older make up approximately 21% of Gabriola's population. This number rises to just under half the population (45%) when the 24% of people who may be early retirees (age 55 to 64) are included. Seniors age 75 or over—who tend to take transit more than their younger counterparts—make up 7% of the area's total population.

- Seniors tend to use transit to perform shopping and personal errands, go to medical and dental appointments and attend social and recreational functions.

Trips, then, are of a discretionary nature and often fluctuate from day to day and week to week.

**General Service Expectations:** In general, seniors request consistent midday service that adequately serves shopping, social, recreational and medical / dental facilities. Services that offer some personal attention and a chance to socialize as part of the trip tend to be better used.

**Potential Market for Transit Service:** In general, the potential seniors market for transit service is **medium** based on a combination of population and potential usage.

- Midday shopping and recreation trips, medical / dental appointments, and connecting travel to Nanaimo would be the prime reasons for transportation.

#### **Potential Markets: School Students / Youth**

**Outlook:** School-aged youth between the ages of 5 and 19 make up approximately 12% of Gabriola's population. Of these, youth in the more independent ages of 15 to 19 make up 4% of the total area population (160 people).

- Youth tend to be a captive transit market with limited transportation alternatives. Cycling and various pedestrian activities (walking, skateboarding, etc.) represent the main means of autonomous transportation.

#### **General Service Expectations:**

- In general across BC, the primary reason why youth take transit is to commute to and from school. In more rural areas such as Gabriola where the School District provides school transportation, one of the more common transit uses is for travel to and from other activities before or after school, whether they be formal (school-based extracurricular activities) or informal (hanging out with friends, shopping, etc.)
- When not in school, the youth market group tends to use transit to go to part-time work or volunteer jobs, shopping and social and recreational activities.
- In general, school students and youth have their needs best met by a transit system which offers direct trips between residential areas and schools, which aligns with school start and end times (in cases where no school bussing is provided), and which offers access to recreation and shopping facilities in the late afternoons and on Saturdays.

**Potential Market for Transit Service:** In general, the potential youth market for transit service is **low** (based on population) **to medium** (based on potential usage).

- Service in the late afternoons and on Saturdays connecting to the ferry and Village destinations would probably be very well used by area youth, particularly those in the 15-19 age range.
- Evening service would also be beneficial from a recreational and employment standpoint but that is a very costly option and should be considered only after daytime options are running and established.

### Potential Markets: Younger Adults and College Students

**Outlook:** Approximately 3% of Gabriola Island's population (110 people) consists of adults between the ages of 20 and 24, about half the provincial average. This group of younger adults may be working or looking for work, may have started families, and may be attending a post-secondary or technical institution ("college" should be taken as referring to both). Aggregated student postal code information was requested from Vancouver Island University to help identify potential post-secondary trips but this information was not available.

Many younger adults may have lower incomes since they are often at the start of their careers, working in the lower-paid service industry or attending post-secondary schools. They therefore may not be able to afford a private automobile and may rely on family and friends for transportation.

Unlike youth, captive young adult riders have a greater tendency to take midday trips to perform personal errands or shop.

#### General Service Expectations:

- Service needs for college students are nearly identical to those of school students. Transit schedules need to correspond to the majority of class start and end times and transit must pass close to learning facilities. However, midday service to these facilities is also necessary since not all college students attend school full-time and not all courses have the same class schedules.
- Younger adults have similar needs to commuters in general, but they may also work part-time or in jobs without standard hours or shifts. This lack of regularity makes midday service more important. For reasons of better health and less insurance coverage, this passenger group tends to make fewer medical/dental related trips.

**Potential Market for Transit Service:** In general, the potential younger adult and youth market for transit service is **low** (based on population) to **medium** (based on usage) depending on the type of service offered.

- Students who commute daily to and from Vancouver Island University would be likely candidates for transit, although transit will not be able to meet the needs of students attending evening courses.
- There may also be a limited market for younger adults travelling to service industry jobs in the Village. However, service would likely need to extend into the early evening to make travel home from shifts viable since most of the businesses stay open later in the afternoon to serve commuters on their way home from the ferry.

### Potential Markets: Adults

**Outlook:** People between the ages of 25 and 64 make up approximately 61% of Gabriola's population, marginally higher than the provincial average. When people between the ages of 55 and 64 are removed from this category (since they may be early retirees and since they were already discussed in the Seniors category above), this number drops to 37% or just over 1,500 people.

In general, members of this group are more likely to be financially stable and most likely to own a private automobile. Transit passengers in this group are normally split into two:

- **Captive adult riders** are those who do not own or have regular access to a private vehicle, often for economic reasons. These passengers have similar transit needs to working young adults.
- **Choice adult riders** are those who have access to—or could have access to—a private automobile but choose to take transit for economic, environmental, social or health reasons. Members of this group tend to be regular full-time commuters and usually expect service levels that closely parallel the convenience and travel times offered by an automobile.

BC Ferries statistics for 2009/10 show that during the afternoon commuter period return trips from Nanaimo, on average 90 walk on foot passengers per day were carried on the 3:45pm sailing, 65 on the 4:50pm sailing (now 5:00pm), and 39 on the 5:55pm sailing (now 6:10pm). (Corresponding foot passenger information in the morning from the Gabriola side is not available). While particularly the 3:45pm sailing numbers would include school students transferring to school bus, these numbers provide an indication of the strong potential commuter demand for transit.

#### General Service Expectations:

- The commuters of this group expect direct service timed to meet key ferry connections and common work start and end times.
- Adults who have less rigid schedules require service similar to that of younger adult riders.

**Potential Market for Transit Service:** Typically throughout B.C., this population segment is the most likely to own private automobiles and the least likely to use transit. However in the case of Gabriola, adults who regularly use the ferry to commute to and from Nanaimo present a sizable potential market and already have cost and hassle reasons to not drive to Descanso Bay. Therefore, the potential adult market for transit service is judged to be **low** for midday trips but **medium** for commuter services.

### Potential Markets: Conclusions

- Two distinct markets emerge for transit on Gabriola: commuter services that would attract younger adults, commuting adults, and youth travelling home from after school activities in Nanaimo and midday services targeted to the specific needs of seniors and people with a disability.
- Overall the potential market for service in these configurations is medium for commuter services and low for midday services.
- Many Gabriola residents are aware of the success of transit service on Salt Spring Island. Some caution should be applied when trying to make comparison between the two places when determining potential markets for transit since Salt Spring's population is almost twice as large and has more on-island commuter travel.

## 5.0 GENERAL SERVICE CONCEPTS

The following outlines general types of transit service design concepts. These concepts represent the "box of tools" that will be used when forming the options presented in section 6.0 Service Options.

A number of supplementary service concepts are also included. These supplementary concepts provide examples of services that could be organized and implemented locally should the community wish to pursue other forms of transportation without Regional District of Nanaimo or BC Transit involvement.

### Transit Service Design Concepts

#### Taxi Supplement

Taxi Supplement uses a private vehicle owner (normally a taxi operator) to provide transit services. These services may be stand-alone or may augment services provided by other transit vehicles.

In general, Taxi Supplement trips are dispatched to a taxi operator and are operated using the taxi company's private vehicle(s). Passengers using the service pay a standard transit fare (which covers a portion of costs), with the remaining portion paid by local transit funding partners. The cost of service may either be a metered amount (usually the case where taxi-dispatched trips are used to complement regular transit service as needed) or on as a per-trip or per-hour amount (usually the case when scheduled trips are regularly operated by taxi).

In essence, the service that Island Taxi currently provides the Lion's Club and Gabriola seniors on Thursdays between the Village and the ferry is already operating much like a Taxi Supplement service. Some examples from other locations of existing BC Transit services that are operated through Taxi Supplement include:

- **Nanaimo Regional Transit handyDART Services**, which has the ability to dispatch door-to-door trips for registered people with disabilities to local taxi operators when the regular handyDART vehicles are either over booked or otherwise unavailable. (See: [http://www.transitbc.com/regions/nan/accessible/family\\_of\\_services.cfm](http://www.transitbc.com/regions/nan/accessible/family_of_services.cfm).)
- **Pemberton Paratransit**, where a taxi operator provides seven scheduled round trips per day between Lil'wat First Nation communities and the Village of Pemberton using his private vehicles. (See: <http://www.transitbc.com/regions/whi/schedules/schedule.cfm?line=100&.>)
- **Central Fraser Valley Transit**, where taxis are used to provided shared-ride service within Mission to transport pre-booked passengers to the train station to meet very early West Coast Express trips that occur prior to the start up of regular service on the transit system. (See: <http://www.transitbc.com/regions/cfv/schedules/wce.cfm>.)

A key benefit of Taxi Supplement service is that funding partners are not directly responsible for funding vehicle leases, insurance, and maintenance. It can also be a more economical way of delivering service since funding partners do not have to pay for driver "down time" between trips.

On the other hand, depending on the operator, Taxi Supplement programs can be harder to monitor and control in terms of customer service and integration within a transit system. The funding partners may have less control over the physical condition of vehicles used and whether or not they are accessible to people using wheelchairs and scooters. Also, at some point

enough trips are carried that it is actually more feasible to pay a driver for a number of hours of work.

The term "Taxi Supplement" is used in the following Service Options section since it is a general description. **The Taxi Supplement services proposed in the options below may be provided by an existing area taxi operator or may be provided by any other area transportation or taxi company that owns or acquires an accessible vehicle.**

#### **Taxi Saver**

Taxi Saver programs normally complement handyDART services in larger communities. (HandyDART provides door-to-door pre-booked transportation for people with a disability). The Taxi Saver program provides people with a disability who are registered with the transit system a 50% subsidy towards the cost of taxi rides. Registered users would typically use subsidized Taxi Saver coupons to travel by taxi when handyDART cannot accommodate their needs.

In smaller towns and more rural communities, the Taxi Saver program can be implemented to provide for more flexible and spontaneous travel, either in the place of transit services or to complement them. Through the program, eligible individuals can purchase a \$60 package of Taxi Saver coupons at a cost of \$30. This package can be purchased once every three months. The coupons come in denominations of \$1, \$2 and \$3.

The registered client uses the coupons to pay the dollar meter rate of taxi fare. For example, if a taxi fare is \$5.80, the passenger pays \$5.00 in coupons and 80 cents in change. (Taxi drivers do not give change on Taxi Saver coupons.) In the Nanaimo Regional Transit System, eligible handyDART clients must obtain a handyPASS from the system which allows them to purchase and use Taxi Saver coupons.

The key benefit to the Taxi Saver Program is that it offers flexibility for passengers to travel when they want and can help support taxi providers in a community, thereby assisting in keeping them viable to provide Taxi Supplement services.

One challenge with the program is that it is harder to monitor usage and that—particularly in smaller communities—it may undermine other transit services since some people will use Taxi Savers exclusively without supporting the shared-ride transit system.<sup>2</sup> Also, the Taxi Saver program is typically misunderstood to be a subsidy program for any senior when it is actually only available for people with a disability who are unable to use the regular transit system (many of whom may be seniors) and are registered with the program.

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<sup>2</sup> For instance, the Nanaimo Regional Transit System has a policy that in order to be able to purchase taxi saver coupons, customers must ride at least once per month with handyDART to retain their eligibility.

### Paratransit

Unlike taxi-provided services, Paratransit uses a standard transit vehicle or vehicles to provide service. It is probably more typical to what people think of as "public transit," but it has better flexibility to meet the specific needs of smaller towns and more rural settings.

Encompassing a range of service types, paratransit services can include everything from door-to-door, demand responsive services for people with disabilities, to buses serving stops on fixed routes and schedules. It may also include many other mixtures and hybrids of these. In most cases, funding partners would be directly responsible for paratransit vehicle lease, insurance and maintenance costs. Within B.C., paratransit services typically use an accessible transit vehicle provided by BC Transit and are usually operated by contracted private operating companies or local governments contracted to provide that function.

Paratransit service can be divided into two basic types:

- **On-Demand Paratransit** operates only when passengers request service and provides door-to-door service. Dispatchers work to group similar trips together and have a specified number of service hours within each day to allocate trips.
- **Scheduled Paratransit** operates on a fixed schedule on a designated route with trips occurring at a predictable time each day. Trips operate regardless of the number of passengers on them. The service may use bus stops in more populated areas or may use flag stops<sup>3</sup> in more rural areas.

Between these two basic types are some hybrid options that are useful to consider for Gabriola:

- **Flexible Transit or Flex-Routed Transit** creates a hybrid between on-demand paratransit and scheduled paratransit by building extra time into scheduled trips. This extra time enables the bus to go off route to provide door-to-door pick up or drop off for people with disabilities who would not otherwise be able to walk to the route.

The benefit to this model is that it provides the predictability of scheduled service for the general population while also being able to provide a higher level of access and care to those who need it. A potential challenge is that it needs careful attention to schedule development and dispatching to work best. It is easier to do well on midday trips rather than mixed with peak-period commuter trips. Transit trips serving the rural areas north and south of Powell River show examples of this style of service done well. (See: [http://www.transitbc.com/regions/pow/accessible/family\\_of\\_services.cfm#rural](http://www.transitbc.com/regions/pow/accessible/family_of_services.cfm#rural)).

- **On-Demand Service Using Trip Windows** is another hybrid. In this case, trip window times (say 10:00am to 11:00am, 2:00pm to 3:00pm, etc.) are published for transit users rather than a fixed route and schedule. People wanting to use transit—including both people with disabilities and general users—call dispatch and indicate during which trip window they would like to travel. The dispatcher then provides the caller with an estimated pick up and drop off time. The bus provides door-to-door service for all pre-booked passengers during that trip window, shaping its route in the most efficient way. If no one requests service, the trip during that window does not operate and/or the transit vehicle can be allocated elsewhere.

The key benefit of this style of service is that it is the most efficient way of providing service to people with a disability and others in a rural setting. It groups similar trips

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<sup>3</sup> A "flag stop" is when passengers wait on the bus route at safe pull off locations—such as group mail box areas—and wave at the approaching driver to stop. To get off the bus, passengers request a stop from their driver.

together and ensures that the bus doesn't travel further than it needs to. The challenge is that it can be harder to mix with commuter needs and can provide less predictability and autonomy for general users. Transit services in two rural electoral areas outside of Comox use this style of service. (See: [http://www.transitbc.com/regions/com/schedules/community\\_bus.cfm](http://www.transitbc.com/regions/com/schedules/community_bus.cfm)).

#### **Supplementary Service Concepts**

In addition to the concepts presented above, the community may wish to consider supplementary service ideas that could be implemented independently without involvement or funding through the Regional District of Nanaimo or BC Transit. These could be used as interim measures until such time as formal transit is implemented or the community may decide that these are preferable over the longer term.

- **Ridesharing** or carpooling refers to cases where people coordinate trips together using a private vehicle owned by one of the participants. Likely a number of informal rideshares have already been organized among Gabriola's commuters. The community could increase the incidence of ridesharing by promoting online tools like the Jack Bell Foundation's free matching service at <http://www.ride-share.com>.

Easy to use, this tool helps match potential rideshare travelers based on time and location while also protecting user privacy. The benefit to this approach is that it is organized by participants themselves and has no community cost. A drawback is that it is more useful for regular commuters rather than seniors and youth whose travel may vary each day.

- **Car Stops** is a program that has been operating on the Pender Islands since 2008 ([http://www.barrymathias.com/car\\_stops.htm](http://www.barrymathias.com/car_stops.htm)). The program has created 29 "car stops" (pull off areas with signage similar to bus stops) around North and South Pender. The program is administered by the Moving Around Pender Alternative Transportation Society. Somewhat like either a more formal version of hitchhiking or a less formal version of ridesharing, the program enables potential passengers to wait at the stops and wait for automobile drivers to volunteer to pick them up. The program is conducted on a voluntary basis and there is no fee for travel.

The program is governed by a set of guidelines, which appear on signage at each of the car stops:

- Drivers don't have to take the first in line;
- You're not obliged to accept a ride, that's fine.
- You accept a ride at your own risk,
- But the ride is free, so consider it a gift.

**A Volunteer Transportation Network** is a transportation concept that has worked quite well in the Mt. Waddington Regional District in the Port Hardy / Port McNeil area ([http://www.transitbc.com/regions/mtw/accessible/family\\_of\\_services.cfm](http://www.transitbc.com/regions/mtw/accessible/family_of_services.cfm)). Through the Network anyone who is a resident within the Regional District and does not own or have access to transportation (due to a permanent or temporary disability or socio-economic reasons) may register with or be referred to the program. Trips are booked by calling the North Island Community Services Society who coordinates the service. Volunteer drivers use their own private vehicles to deliver the service. Passengers using the service (or families or referring agencies on their behalf) provide a donation to the Network for each trip.

## 6.0 SERVICE OPTIONS

The following service options address different aspects of the potential markets listed in section 4.0. They take into account the identified special considerations and existing transportation providers. The service description for each option outlines expected ridership, revenue, costs and vehicle requirements. Appendix D presents a sample route map and schedules for options as well as questions that would need to be answered by the community before implementation and detailed scheduling was undertaken.

Costs provided are estimates based on a blend of actual 2010/11 costs for transit services of a similar size and nature. Actual costs may vary depending on date of implementation and the nature of an operating contract. Revenue estimates are based on current Regional District of Nanaimo fares. As discussed further in section 7.0 Implementation and Integration, since any services operating on Gabriola Island would be within the Regional District of Nanaimo and since it is advantageous for Gabriola passengers to be able to transfer seamlessly onto other transit services once they reach Nanaimo.

**It should be emphasized that the provision of service options does not guarantee implementation of service. Please also see the following section 7.0 Implementation and Integration for additional considerations.**

### Service Option 1: Taxi Saver Program

Description: This option would implement a Taxi Saver Program, enabling registered people with a disability on Gabriola (many of whom may be seniors) the ability to access up to \$60 in taxi rides per month for \$30.

Serves: People with a disability, seniors with cognitive or mobility impairments.

Service Notes and Highlights:

- This option could be implemented initially as a standalone service or could be used to complement the other service options that follow in this section.
- Taxi Saver coupons could be used on Gabriola Island (assuming a participating taxi company) or on any other participating taxi services within the Regional District of Nanaimo.
- If implemented as a standalone option, this option ensures basic mobility for those who do not have access to transportation due to a disability. However, it would not address the transportation needs of most youth or commuting adults, meaning that it would be less helpful in meeting any climate action goals the community might have. The current lack of an accessible taxi vehicle on the island also presents limitations to the usefulness of the program.
- If implemented to complement other services, this option potentially provides better travel flexibility to people with a disability. However, users should be encouraged to use Taxi Savers only when other transit services are not available to reduce the risk of undermining the effectiveness of those services.

#### Summary Information – Estimated Annual Impacts

##### Option 1: Taxi Saver Program

Service Hours: n/a Passenger Revenue: \$0

Annual Ridership: 4,300 Total Cost: \$16,200

Vehicles Required: 0 Net Local Share of Costs: \$8,300

Provincial Share of Costs: \$7,900

#### Service Option 2: Scheduled Commuter Trips with Two Midday Flex-Routed Trips

Description: This option provides a balance of service for commuters, seniors and people with disabilities. It provides:

- Four scheduled trips per weekday (two in the morning, two in the afternoon) to meet the most popular commuter ferry times. These trips would follow routing that would serve the most populous sections of the island. Three scheduled trips would be offered on Saturdays. (See Appendix D for sample routes and schedules).
- Two midday flex-routed trips each day from Monday to Saturday. The flex-routed trips would operate as scheduled service on the same route as the commuter trips, but would have additional time built into the schedule to deviate off route to provide door to door service for people with disabilities registered with the system.

Serves: All users.

Service Notes and Highlights:

- The scheduled trips could be operated on either the paratransit model or taxi supplement model; the trip windows would be most effectively operated on the taxi supplement model.
- This option would provide a basic initial level of service to Gabriola's key passenger markets.
- The flex-routed option provides consistency and convenience for passengers but in order to work well it needs careful attention to scheduling and dispatch. Appendix D discusses some of the trade offs that would need to be discussed by the community as part of detailed implementation and schedule development.

#### Summary Information – Estimated Annual Impacts

##### Option 2: Scheduled Commuter Trips with Two Midday Flex-Routed Trips

Service Hours: 3,110

Passenger Revenue: \$33,800

Annual Ridership: 21,800

Total Cost: \$268,300\*

Vehicles Required: 2\*

Net Local Share of Costs: \$129,500\*

Provincial Share of Costs: \$105,000

\* The number of vehicles includes provision for one in service vehicle plus one spare. With approval of BC Transit's Vehicle Asset Management team and the RDN, this number could potentially be reduced by sharing a spare with the existing RDN Transit fleet. This sharing arrangement would mean that the Gabriola bus would swap out on a routine basis with identical buses from Nanaimo Regional Transit for regular maintenance and on an as-needed basis due to mechanical failure. Reducing the number of vehicles required from two to one would represent a \$26,300 reduction to the Net Local Share of Costs and Total Costs.

**Service Option 3: Scheduled Commuter Trips with Three Midday Flex-Routed Trips**

Description: This option builds on elements of Option 2 but uses flex-routed trips for the midday service and increases midday frequency by one trip.

- Like Option 2, this option provides four scheduled trips per weekday and three trips per Saturday serving key commuter morning and afternoon ferry times.
- This option provides the time for three scheduled flex-routed trips per day Monday through Saturday, meaning that the time between midday trips goes from about three hours to two. These trips would operate on the same routes used for the commuter trips. However, they would have additional time added to enable the bus to deviate off route to provide door-to-door pick up or drop off for registered people with disabilities.

Serves: All users.

Service Notes and Highlights:

- All trips could be operated on either the paratransit model or taxi supplement model.
- A key benefit of this option is that it offers improved frequency and consistency across the day, which means it will be easier for new passengers to understand and use.
- Potential challenges to this style of service is that it has less flexibility to meet the needs of all people with a disability if the number of people requesting deviated service is routinely higher than what the system can cope with on any given day or trip.

**Summary Information – Estimated Annual Impacts****Option 3: Scheduled Commuter Trips with Three Midday Flex-Routed Trips**

Service Hours: 3,630

Passenger Revenue: \$42,200

Annual Ridership: 27,200

Total Cost: \$303,700\*

Vehicles Required: 2\*

Net Local Share of Costs: \$139,200\*

Provincial Share of Costs: \$122,300

\* The number of vehicles includes provision for one in service vehicle plus one spare. With approval of BC Transit's Vehicle Asset Management team and the RDN, this number could potentially be reduced by sharing a spare with the existing RDN Transit fleet. This sharing arrangement would mean that the Gabriola bus would swap out on a routine basis with identical buses from Nanaimo Regional Transit for regular maintenance and on an as-needed basis due to mechanical failure. Reducing the number of vehicles required from two to one would represent a \$26,300 reduction to the Net Local Share of Costs and Total Costs.

## 6.1 SERVICE OPTION SUMMARY

The following table summarizes the estimated impacts for all service options presented above. All figures are annual and are based on estimates that would require review based on actual date of implementation and confirmed service and operational details. Costs are also based on the service being operated under the umbrella of the Nanaimo Regional Custom system; it would not be feasible at this time to operate the service under the Nanaimo Regional Conventional system.

Service Option Summary

	Option 1: Taxi Saver Program	Option 2: Four Scheduled Commuter Trips Plus Two Midday Flex-Routed Trips	Option 3: Four Scheduled Commuter Trips Plus Three Midday Flex-Routed Trips
<b>Vehicles Required</b>	0	2*	2*
<b>Service Hours</b>	n/a	3,110	3,630
<b>Ridership</b>	4,300	21,800	27,200
<b>Total Revenue</b>	\$0	\$33,800	\$42,200
<b>Total Cost*</b>	\$16,200	\$268,300	\$303,700
<b>Net Local Share of Costs*</b>	\$8,300	\$129,500	\$139,200
<b>Provincial Share of Costs</b>	\$7,900	\$105,000	\$122,300
<b>Rides per Hour</b>	n/a	7.0	8.0
<b>Cost per Ride</b>	\$3.77	\$10.76	\$8.92

\* The number of vehicles includes provision for one in service vehicle plus one spare. With approval of BC Transit's Vehicle Asset Management team and the RDN, this number could potentially be reduced by sharing a spare with the existing RDN Transit fleet. This sharing arrangement would mean that the Gabriola bus would swap out on a routine basis with identical buses from Nanaimo Regional Transit for regular maintenance and on an as-needed basis due to mechanical failure. Reducing the number of vehicles required from two to one would represent a \$26,300 reduction to the Net Local Share of Costs and Total Costs.

## 6.2 SERVICE OPTION CONCLUSIONS

Based on the findings of this report, Service Option 2 or 3 could serve the community well, potentially complemented by Option 1 "Taxi Saver Program." Option 3 appears to offer a more attractive level of service for a marginal increase in cost. However, Option 2 could actually be a more cost-effective introductory option depending on what operating arrangements are established through an implementation process. If the community wishes to pursue transit service, it would be wise to budget on the basis of Option 3 and make a final decision on service levels once operating arrangements (see Section 7.0) and community input on scheduling and routing trade offs (see Appendix D) have been confirmed.

## 7.0 INTEGRATION AND IMPLEMENTATION

BC Transit has consulted with staff at the Regional District of Nanaimo (RDN) regarding integration of the Gabriola Transit system into existing transit services and programs within the region. This section was prepared with their assistance.

### Integration

Gabriola Island falls within Electoral Area B of the Regional District of Nanaimo (RDN). BC Transit's funding model requires a local government partner to sponsor service. Since Gabriola Island is not its own municipality (such as Bowen Island) and is instead part of the RDN, from a jurisdictional perspective it is appropriate and recommended that any new cost-shared service on Gabriola be implemented as an expansion to the existing RDN / BC Transit funding partnership, subject to confirmation of timing and funding availability.<sup>4</sup>

This jurisdictional arrangement means that to obtain BC Transit cost-shared transit services, it is BC Transit's understanding that Electoral Area B would need to enter into the RDN's transit function and would provide taxation revenues accordingly for this function when provincial funding for expanded transit is confirmed. By entering into this transit function, it is BC Transit's understanding that Electoral Area B would become a member of the RDN's Transit Select Committee and its Area Director would have an ability to participate in transit system decision making as part of that Committee.

From a passenger perspective, the more that systems can interconnect seamlessly, the easier they are to use and the more attractive they are to potential passengers. Therefore, it is also advisable that any new cost-shared service on Gabriola integrate with the Nanaimo Regional Transit System's trip schedules, fares and passenger information materials such as printed Rider's Guides and web-based schedules. The key benefit to integrating schedules and passenger information is that riders would not need to look in two different places to coordinate off-island trips. Integrated fares would enable Gabriola passengers to transfer to and from other Nanaimo Region Transit Services at no extra charge.

It is from the operating perspective where the RDN and BC Transit may want to consider a hybrid model. In most BC Transit systems in the province, a private transit management company is contracted to operate transit services. In the case of the Nanaimo Regional Transit System, that contracted operating company is actually the RDN itself (under the RDN's Transit Services department). RDN Transit Services operate out of a garage facility at 6300 Hammond Bay Road.

The operating solution that probably provides the best balance between customer service and cost efficiency would be to make use of centralized RDN services where it makes the most administrative sense (transit telephone information, handyDART administration, fleet and vehicle maintenance services, fare collection, transit system scheduling and oversight) but to set up a separate operating facility and Gabriola-based transit staff on Gabriola Island itself, either through contract to the RDN or as a RDN function.

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<sup>4</sup> Salt Spring Island services were implemented as separate from the Victoria Regional Transit System (VRTS) because the local government transit partner for the VRTS is the Victoria Regional Transit Commission. The Capital Regional District (CRD)—under which Salt Spring Island falls as an electoral area—is not a member of the Commission. Therefore, in Salt Spring's case, the CRD acts as a separate sponsoring local government.

Given access to the RDN Transit fleet and maintenance facility and an ability to fuel at the local Gabriola gas station, a Gabriola operating facility would just need to provide vehicle storage and a secure indoor space for lost and found, fare storage, daily cleaning and servicing supplies, and office amenities. This operating facility could be acquired by the RDN or could be leased from a third party as part of an operating contract.

Similarly, transit staff for the service could be RDN staff who are residents of the Island or could be set up as a separating operating contract, either through taxi supplement or other contract. There is precedent for this second option. For instance, the City of Powell River (which operates the conventional portion of the Powell River Transit System) cost shares handyDART services that are operated by a private contractor. Similarly, the RDN already makes use of Taxi Supplement arrangements with private taxi operators within the Nanaimo Region to deliver services.

These operational options and integration recommendations would need to be further discussed by BC Transit and the Regional District of Nanaimo prior to proceeding further with the implementation of any cost-shared service on Gabriola.

### Implementation

There are a number of issues related to implementation that should be highlighted:

- **RDN support** – As this feasibility study was conducted on behalf of the RDN through that organization's existing transit partnership with BC Transit, this report must be formally received by the Regional District. The Transit Select Committee is the RDN body that would provide a recommendation to the Regional District Board on next steps. Board approval and direction would be required to move forward on any of the cost-shared proposals.
- **Resident support** – While the resident transportation survey conducted by the Gabriola Public Transit Committee gathered a substantial amount of information, it does not explicitly gather any input on resident appetite to pay for transit through property taxes. If the RDN Board is supportive of the transit options provided in this report, it would be useful to undertake a public consultation process to gather resident feedback on the plan's service options and their appetite to enter into the transit funding function. This consultation could also provide information on the supplementary service concepts presented in section 5.0 (those that don't require BC Transit or RDN participation) and gage resident support for these concepts on an ongoing or interim basis.
- **Funding** – Under the BC Transit Act, funding for transit systems must be cost shared between BC Transit and the sponsoring local government at a prescribed rate, with passenger revenues used to offset the local share of costs. This funding arrangement means that both parties must come to the table with funding before service can be implemented. For instance, if a local municipality has funding for new transit services but the corresponding provincial share is not available, then service cannot be implemented.

BC Transit receives its funding on an annual basis from the provincial government. This annual funding arrangement means that BC Transit cannot confirm a timeframe for service implementations over the long term. Typically BC Transit receives more expansion requests than available expansion funding and as such BC transit cannot

accommodate all expansion requests. The current economic picture may also constrain the availability of provincial funding for transit over the next few years.

Similarly, any new service would also require provision within the RDN's budgets.

- **Prioritization** – BC Transit uses a number of transit service performance and land use criteria to prioritize available funding for service expansions between transit systems. Therefore, moving ahead on any of the Gabriola transit services represented would require both available provincial funding and sufficient ranking against other requests for services within the RDN as well as among other communities.
- **Detailed Implementation Plan** – Once funding was confirmed, BC Transit would work with the RDN to create a detailed implementation plan. This plan could include issuing a request for proposals to operate services and would also undertake the detailed operational planning to confirm routes and schedules.

## 8.0 RECOMMENDATIONS

If the community wishes to pursue transit service, it is recommended that Option 3 "Scheduled commuter trips plus three midday flex-routed trips" as well as potentially Option 1 "Taxi Saver Program" be the service options used for budgeting purposes and that a final decision on service levels be made once operating arrangements (see Section 7.0) and community input on scheduling and routing trade offs (see Appendix D) have been confirmed. It also recommended that the issues presented in Section 7.0 Integration and Implementation be considered and addressed.

**It is recommended that the Regional District of Nanaimo:**

- **Receive this report as information and provide comment.**

BC Transit  
November 2010

## APPENDIX A: BC FERRIES NANAIMO – GABRIOLA ISLAND SCHEDULE

Schedule in Effect: May 27, 2010 to June 28, 2011

Sailing times are daily unless otherwise indicated.

*On Christmas Day and New Years Day, service will commence with the 7:40 am sailing from Gabriola and the 8:15 am sailing from Nanaimo Harbour.*

Leave Nanaimo Harbour	Leave Gabriola Island
5:55 am Daily except Sun and Dec 25/Jan 1	5:25 am Daily Except Dec 25/Jan 1
7:00 am Daily Except Dec 25/Jan 1	6:30 am Daily except Sun and Dec 25/Jan 1
8:15 am	7:40 am
9:30 am	8:50 am
10:45 am Daily except Wed are (DC)	10:05 am
12:00 pm	11:30 am
1:15 pm	12:35 pm
2:30 pm	1:50 pm
3:45 pm	3:10 pm
5:00 pm	4:25 pm Daily except Wed are (DC)
6:10 pm	5:35 pm
7:20 pm	6:45 pm
8:35 pm Daily Except Wed	7:50 pm
10:25 pm	8:55 pm Daily Except Wed
11:30 pm	11:00 pm

(DC) Wednesday sailings will be replaced by Dangerous Cargo sailings. No other passengers permitted.

## APPENDIX B: SCHOOL DISTRICT 68 GABRIOLA ISLAND SCHOOL BUS SCHEDULE



### Bus Route 13

#### **Trip 1 Gabriola Island to NDSS (new schedule as of May 27, 2010)**

South Road & Coats Road - 6:32 a.m.  
South Road & Stokes Road - 6:37  
South Road & Shaw Road - 6:40  
South Road Fire Hall - 6:41  
South Road & Price Road - 6:42  
South Road & Degnan Bay Road - 6:43  
Silva Bay - 6:47  
North Road & Dragon's Lane - 6:49  
North Road & Tamala Lane - 6:50  
North Road & Cappon Lane - 6:51  
North Road & Seawind Drive - 6:52  
North Road & Tait Road - 6:54  
North Road & Buttercup Road - 6:57  
North Road & Brydie Road - 6:58  
Whalebone Turnaround - 7:02  
Barrett Road & Broadview - 7:03  
Barrett & McClay - 7:05  
North Road & Horseshoe Road - 7:07  
North Road & Bertha Road (drop off at oversize parking) - 7:08  
Berry Point Road & Gillen Road - 7:14  
Norwich Road & Clarendon Road - 7:16  
Spruce Road & Hemlock Road - 7:17  
Hemlock Road & Chelwood Road - 7:20  
Berry Point Road & Seagrit Road - 7:21  
Berry Point Road & Fin Road - 7:22  
Berry Point Road & Ricardo Way - 7:23  
Berry Point Road & Malaspina Road - 7:24  
GABRIOLA FERRY TERMINAL - 7:27

Return on Bus 13

Mon., Tues., Wed., Thurs. - 4:05 p.m.  
Friday - 2:50

#### **Trip 2 North & South Roads to Gabriola Elementary**

South Road & Crestwood Road - 7:38 a.m.  
South Road & Coats - 7:40  
South Road & Elverano Drive - 7:44  
South Road & Stokes Road - 7:45  
South Road & Shaw Road - 7:48

South Road & Fire Hall - 7:49  
South Road & Price Road 7:50  
South Road & Cooper Road 7:51  
South Road & Degnan Bay Road 7:52  
South Road & Martin Road 7:53  
Silva Bay 7:55  
North Road & Marvin Road 7:57  
North Road & Dragon's Lane 7:58  
North Road & Cappon Lane 7:59  
2125 North Road - 8:01  
North Road & Tait Road - 8:02  
North Road & Colleen Road - 8:05  
North Road & Brydie - 8:06  
Whalebone Turnaround - 8:10  
Barrett Road & Broadview Road - 8:11  
Barrett Road & McClay Road - 8:13  
GABRIOLA ELEMENTARY - 8:18

Return on Bus 13  
Mon., Tues., Wed., Thurs. - 3:20 p.m.  
Friday - 2:15

#### **Trip 3 Berry Point Road to Gabriola Elementary**

Berry Point Road & Gillen Way 8:23 a.m.  
Norwich Road & Clarendon - 8:25  
Spruce Road & Hemlock - 8:27  
Hemlock Road & Chelwood - 8:29  
Berry Point Road & Seagirt Road - 8:31  
Berry Point & Fin Road - 8:32  
Berry Point Road and Ricardo Way - 8:33  
Malaspina Road & Taylor Bay Road - 8:35  
GABRIOLA ELEMENTARY - 8:40

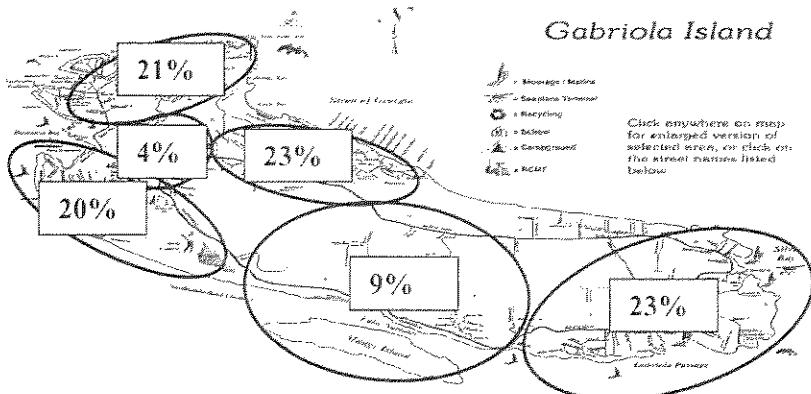
Return on Bus 13  
Mon., Tues., Wed., Thurs. - 2:55 p.m.  
Friday - 1:55

## APPENDIX C: TRANSPORTATION SURVEY

### Gabriola Transportation Survey Results<sup>5</sup>

The Gabriola Transportation survey was mailed to Gabriola households September, 2008. The survey was also available on-line and copies were available at the local Library. Four hundred households responded, representing 799 residents. This response indicates that responses are accurate within + or - 4.3%. Population estimates are based on 2006 census plus 7.5% growth for a total of 4354. The results were as follows:

#### 1. Street Address or Nearest Intersection



#### 2. Describe uses of transportation for each person in your household:

Purpose	%	Gabriola residents (estimate)
Attend School	11%	479
Attend Post Secondary	3%	131
Work outside the home full time	18%	784
Travel to community activities	72%	3135
Travel to work	33%	1437
Travel for shopping & medical appoint.	87%	3788

#### 3. What time do you arrive at your Gabriola destination (if going to Nanaimo – time for ferry that you would catch)? If your time is always different leave blank.

263 left this question blank, 136 responded. The following describes the commuter hours for those that responded:

Time	% of respondents	Gabriola residents(estimate)
5:20ish	5.6%	41
6:45ish	18%	133
7:50ish	54.7%	405
8:55ish	21.7%	161

<sup>5</sup> Courtesy Gabriola Public Transit Committee

4. *What approximate time do members of your household arrive home for the day? If your time is always different leave blank.*

274 left this question blank 125 responded. The commuter hours for those that responded:

<i>Time</i>	<i>% of respondents</i>	<i>Gabriola residents (estimate)</i>
3-3:25	9%	61
3:30-3:50	13%	88.5
4-4:20	16%	108
4:30ish	19%	129
5ish	12%	82
5:15-5:45	23%	156.5
6-6:30	7%	48

5. Describe the most common type of transportation used by each person

Type	Number resp.	%	Gabriola residents (est.)
Vehicle (driver)	586	73%	3178
Vehicle (passenger)	327	41%	1785
Bicycle	144	18%	784
Walk	256	32%	1393
Taxi	32	4%	174
Hitchhike	49	6%	261
Elementary School bus	37	4.5%	196
Motorcycle/scooter	45	5.6%	244
Secondary school bus	20	2.5%	109

6. *What are the most common destinations for travel outside of the home for each person? (select more than one if necessary)*

<i>Location</i>	<i># of respondents</i>	<i>%</i>	<i>Gabriola residents (estimate)</i>
Village area 97%	384	97%	4223
Twin beaches 35%	137	35%	1524
South end 32%	129	32%	1393
Rollo park 6%	24	6%	261
Nanaimo (no transp. req.)	184	46%	2003
Nanaimo (transp. req.)	230	60%	2612

7. Does someone in your household have a disability that requires door to door transportation?

94.3%: No 5.7%: Yes

*8. If public transit was provided to your area, how often would your family use it?*

	never	2-3 times per month	1-3 times per week	every work day	every day
%	23.6%	26.7%	37%	8.3%	4.4%
estimate	1070	1163	1611	361	192

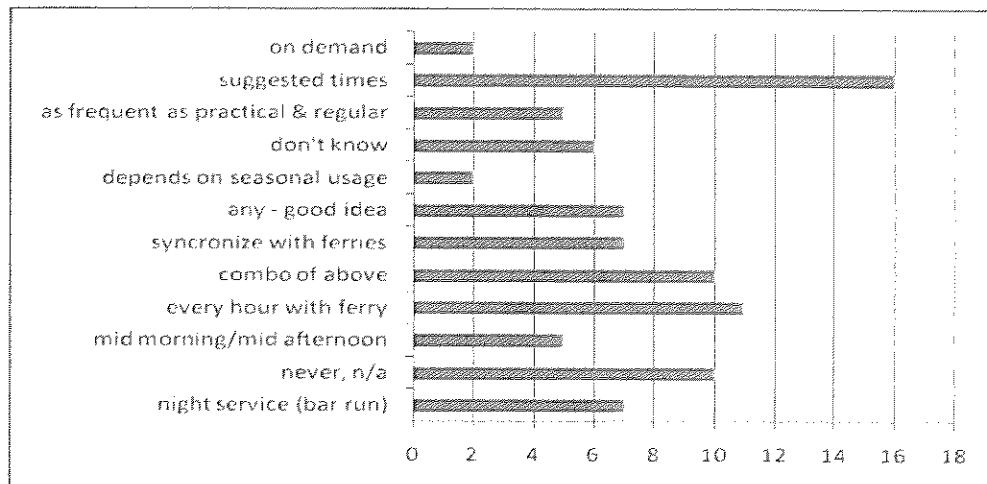
*9. What days of the week would members of your household use transit?*

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
%	57%	66%	65%	67%	63%	58%	41%

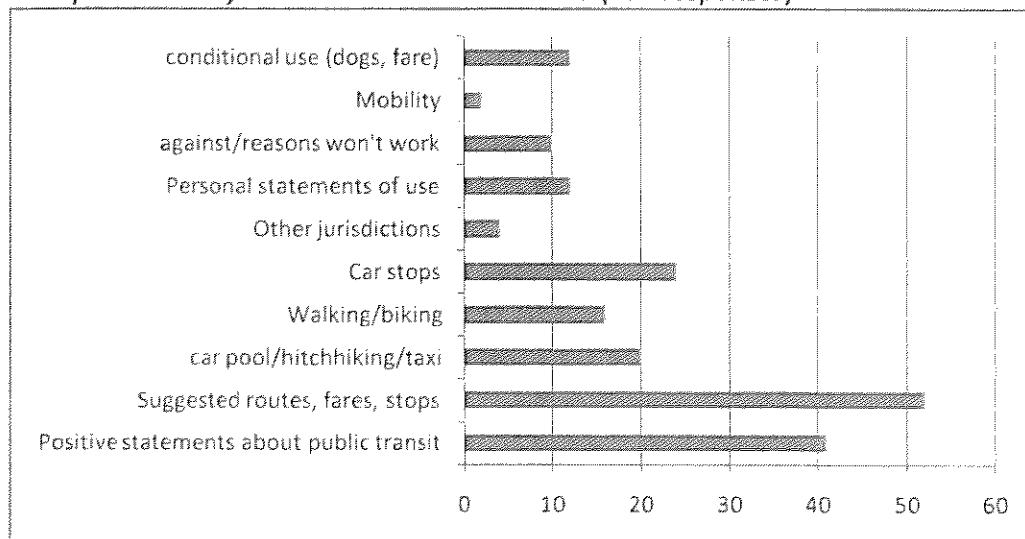
*10. How often should a bus run if provided to your community*

	Every 2 hrs	Midday only	Am/pm commuter	Evening	Other comments
%	66%	4.6%	44%	9%	31%

Other comments



*11. Please feel free to use the space below to include any additional comments on transit and transportation in your area and Gabriola island (193 responses)*

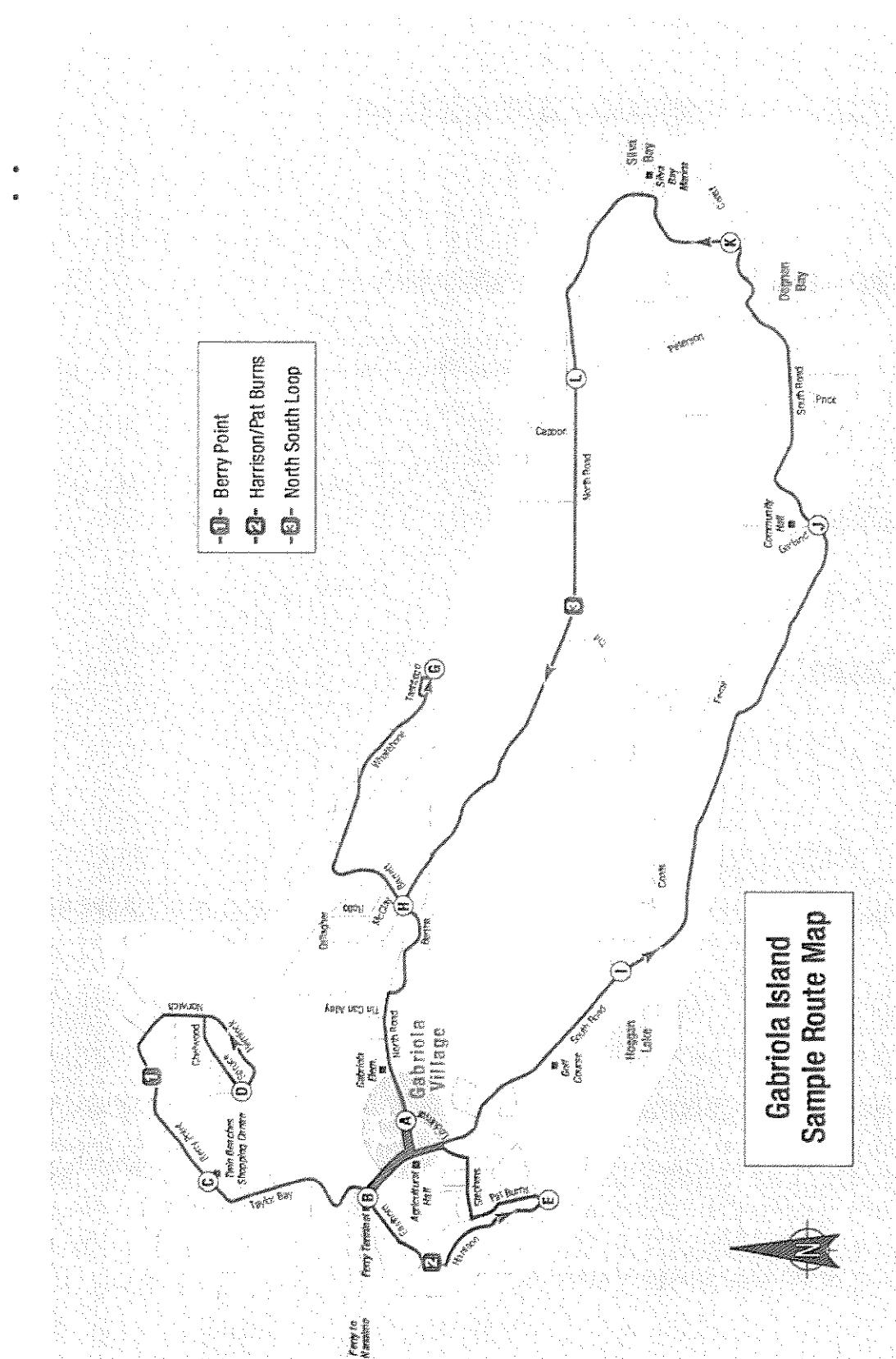


## APPENDIX D: SAMPLE ROUTE MAP AND SCHEDULE

The following section provides an example of what transit routing and schedules could look like to serve Gabriola Island. These sample schedules were developed to cost the service options presented in this report. **However, it should be emphasized that prior to implementation a detailed implementation plan would be developed by BC Transit to confirm schedules and routing with the community.**

As part of detailed implementation planning, the community would need to provide input on a number of trade offs that affect transit system cost and consistency:

- **Direction of Coordination with Ferries:** The draft schedules emphasize coordinating transit trips with ferries leaving Gabriola in the morning and arriving on Gabriola in the afternoon. The trade off for this is that transit schedules to serve the opposite travel movements are less convenient. Residents need to confirm that this coordination pattern makes sense.
- **Midday Service Priorities:** Residents need to determine whether the priority for midday travel should be enabling seniors, people with disabilities and others to access shops and services on Gabriola or to connect with ferries. The trade off to be considered by the community is how conveniently transit schedules line up with ferry schedules versus ensuring that there is enough time to adequately serve disabled residents' needs.
- **Consistency of Schedules:** The sample schedules show what could be done if trying to provide an equal level of trips to all areas of the island. However, it is difficult to fulfill this objective with one bus in service while also maintaining consistent routing and schedules and meeting the current ferry leave times. For instance, the sample schedule combines some commuter trips on routes 2 and 3 in order to meet ferry departures and arrivals. One way to provide more consistent and reliable scheduling would be to make some trips on the 3 North South Loop serve only the more populated Gabriola Village and Whalebone areas. In other words, some trips would serve the entirety of North and South Roads while others would only serve the Whalebone/Village areas. Community comments on where this balance should lie would be helpful.
- **Consistency of Routing:** In general, consistent routings are most attractive to new passengers. For loop routes, this means consistently routing in the same direction around the loop. However, depending on where population is massed, it may be useful to reverse afternoon commuter routes. As examples, the sample schedule for route 2 Harrison / Pat Burns shows what a schedule looks like when it reverses the direction of afternoon commuter trips while the sample schedule for route 3 North South Loop does not reverse. Again, community dialogue would be helpful in making the choice between these two approaches when developing an implementation plan and detailed routing and schedules.



**Sample Schedule for Option 2:**  
**Scheduled Commuter Trips with Two Midday Flex-Routed Trips**  
 (Presented as examples only; please see notes on page 40).

1 Berry Point								
	A	B	C	D	C	B	A	
	Lv. Folklife Village	Lv. Ferry Turnaround	Lv. Twin Beaches Shopping Centre	Lv. Spruce at Hemlock	Lv. Twin Beaches Shopping Centre	Ar. Ferry Turnaround	Ar. Folklife Village	
<b>Monday to Saturday</b>								
M-F	6:55	7:03	7:06	7:11	7:17	7:21	7:25	
	8:15	8:23	8:26	8:31	8:37	8:41	8:45	
	10:30	10:33	10:36	10:51	10:57	11:01	11:14	
	2:10	2:13	2:16	2:31	2:37	2:41	2:45	
	4:10	4:13	4:16	4:21	4:27	4:31	4:40	
	5:30	5:33	5:36	5:41	5:47	5:51	6:00	

M-F: Trip operates Monday to Friday only.  
 Door to door service available for people with disabilities.

2 Harrison/Pat Burns						
	A	B	E	B	A	
	Lv. Folklife Village	Lv. Ferry Turnaround	Lv. Pat Burns at Harrison	Ar. Ferry Turnaround	Ar. Folklife Village	
<b>Monday to Saturday</b>						
M-F	6:55	-	7:00	7:03	7:25	
	8:15	-	8:20	8:23	8:45	
	9:56	10:05	10:08	10:13	10:18	
	1:40	1:45	1:48	1:53	1:58	
	4:10	4:32	4:35	-	4:40	
	5:30	5:52	5:55	-	6:00	

M-F: Trip operates Monday to Friday only.  
 Door to door service available for people with disabilities.

3 North South Loop												
	B	A	I	J	K	L	H	G	H	A	B	
	Lv. Ferry Turnaround	Lv. Folklife Village	Lv. South Road at Golf Course / Coats Rd.	Lv. South Road at Community Centre	Lv. South Road at Coast	Lv. North Road at Peterson	Lv. North Road at Barrett	Lv. Whalebone Turnaround	Lv. Barrett at North Rd.	Ar. Folklife Village	Ar. Ferry Turnaround	
<b>Monday to Saturday</b>												
M-F	-	6:09	6:12	6:19	6:24	6:29	6:37	6:43	6:50	6:55	7:03	
	7:25	7:29	7:32	7:39	7:44	7:49	7:57	8:03	8:10	8:15	8:23	
	8:45	8:50	8:53	9:00	9:15	9:20	9:28	9:34	9:51	9:56	9:59	
	12:30	12:34	12:37	12:44	12:59	1:04	1:12	1:18	1:35	1:40	1:43	
	4:32	4:40	4:43	4:50	4:55	5:00	5:08	5:14	5:21	5:26	5:29	
	5:32	6:00	6:03	6:10	6:15	6:20	6:28	6:34	6:41	6:46	-	

M-F: Trip operates Monday to Friday only.  
 Door to door service available for people with disabilities.

**Sample Schedule for Option 3:**  
**Scheduled Commuter Trips with Three Midday Flex-Routed Trips**  
 (Presented as examples only; please see notes on page 40).

1 Berry Point								
	A	B	C	D	C	B	A	
	Lv. Folklife Village	Lv. Ferry Turnaround	Lv. Twin Beaches Shopping Centre	Lv. Spruce at Hemlock	Lv. Twin Beaches Shopping Centre	Ar. Ferry Turnaround	Ar. Folklife Village	
<b>Monday to Saturday</b>								
M-F	6:55	7:03	7:06	7:11	7:17	7:21	7:25	
	8:15	8:23	8:26	8:31	8:37	8:41	8:45	
	10:30	10:33	10:36	10:51	10:57	11:01	11:14	
	12:40	12:43	12:46	13:01	13:07	13:11	13:15	
	3:00	3:03	3:06	3:21	3:27	3:31	3:35	
	4:10	4:13	4:16	4:21	4:27	4:31	4:40	
	5:30	5:33	5:36	5:41	5:47	5:51	6:00	

M-F: Trip operates Monday to Friday only.

Door to door service available for people with disabilities.

2 Harrison/Pat Burns						
	A	B	E	B	A	
	Lv. Folklife Village	Lv. Ferry Turnaround	Lv. Pat Burns at Harrison	Ar. Ferry Turnaround	Ar. Folklife Village	
<b>Monday to Saturday</b>						
M-F	6:55	-	7:00	7:03	7:25	
	8:15	-	8:20	8:23	8:45	
	9:56	10:05	10:08	10:13	10:18	
	12:20	12:25	12:28	12:33	12:38	
	3:35	3:40	3:43	3:48	3:53	
	4:10	4:32	4:35	-	4:40	
	5:30	5:52	5:55	-	6:00	

M-F: Trip operates Monday to Friday only.

Door to door service available for people with disabilities.

3 North/South Loop											
	B	A	-	J	K	L	H	G	H	A	B
	Lv. Ferry Turnaround	Lv. Folklife Village	Lv. South Road at Golf Course / Coats Rd.	Lv. South Road at Community Centre	Lv. South Road at Peterson	Lv. North Road at Barrett	Lv. Whalebone Turnaround	Lv. Barrett at North Rd.	Ar. Folklife Village	Ar. Ferry Turnaround	
<b>Monday to Saturday</b>											
M-F	-	6:09	6:12	6:19	6:24	6:29	6:37	6:43	6:50	6:55	7:03
	7:25	7:29	7:32	7:39	7:44	7:49	7:57	8:03	8:10	8:15	8:23
	8:45	8:50	8:53	9:00	9:15	9:20	9:28	9:34	9:51	9:56	9:59
	11:10	11:14	11:17	11:24	11:39	11:44	11:52	11:58	12:15	12:20	12:23
	1:50	1:54	1:57	2:04	2:19	2:24	2:32	2:38	2:55	3:00	3:03
	4:32	4:40	4:43	4:50	4:55	5:00	5:08	5:14	5:21	5:26	5:29
	5:32	6:00	6:03	6:10	6:15	6:20	6:28	6:34	6:41	6:46	-

M-F: Trip operates Monday to Friday only.

Door to door service available for people with disabilities.

## APPENDIX B

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### Exhibit 7-8: Summary of Proposed Short Range Service Options (2009 & 2010)

	Service Description	Service hours	Additional vehicles	Additional rides	Total cost	Net RDN cost
<b>2009 - March</b>		<b>5,000</b>	<b>2</b>	<b>117,000</b>	<b>\$452,000</b>	<b>\$135,000</b>
S1	5-Fairview/6-Harewood 30-minute peak period service	4,200	2	105,000	\$388,000	\$112,000
S2	90-Intercity Connector & 10-Lantzville additional peak period trips (includes review of connections to Departure Bay and Nanoose)	800	0	12,000	\$64,000	\$23,000
<b>2009 - September</b>		<b>9,400</b>	<b>3</b>	<b>215,000</b>	<b>\$828,000</b>	<b>\$241,000</b>
S3	8-South/9-North 30 minute peak period service	1,600	1	40,000	\$154,000	\$49,000
S4	Earlier Morning Start	2,300	0	57,500	\$183,000	\$34,000
S5	2-Hammond Bay route restructuring	3,300	1	66,000	\$289,000	\$97,000
S6	New route Hammond Bay to Hospital and Malaspina	1,500	1	37,500	\$146,000	\$46,000
S7	7-Cinnabar/Cedar 3 additional trips per day	700	0	14,000	\$56,000	\$15,000
<b>2010 - September</b>		<b>10,100</b>	<b>5</b>	<b>222,100</b>	<b>\$937,000</b>	<b>\$316,000</b>
S8	15-Mal U Connector - extend to South Parkway Plaza (60-minute service)	2,500	1	62,500	\$225,000	\$61,000
S9	Extend 3-Hospital to Woodgrove	3,800	2	83,600	\$356,000	\$122,000
S10	90-Intercity Connector 60-minute daytime service & increased evening service	3,800	2	76,000	\$356,000	\$133,000
<b>Total Short Range Service Options</b>		<b>24,500</b>	<b>10</b>	<b>554,100</b>	<b>\$2,217,000</b>	<b>\$692,000</b>

## APPENDIX B

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### Exhibit 7-9: Summary of Proposed Medium Range Service Options (2011-18)

	Service Description	Service hours	Additional vehicles	Additional rides	Total cost	Net RDN cost
M1	Bus Rapid Transit Phase 1 15-minute peak/30-minute midday, evening, & weekend service	13,800	5	414,000	\$1,233,000	\$233,000
M2	Extend BRT to Malaspina UC	2,000	2	60,000	\$213,000	\$66,000
M3	Parksville Qualicum Beach 60-minute local service	3,500	1	70,000	\$305,000	\$101,000
M4	Downtown-Departure Bay-Country Club Shuttle	4,600	1	92,000	\$393,000	\$125,000
M5	5-Fairview/6-Harewood 30-minute midday & Saturday service	3,800	0	95,000	\$303,000	\$57,000
M6	1-Woodgrove, 2-Hammond Bay, & 3-Hospital 15-minute peak period service	7,500	6	187,500	\$757,000	\$260,000
M7	10-Lantzville 60-minute service	1,100	1	22,000	\$114,000	\$48,000
M8	7-Cinnabar/Cedar increased service frequency	2,600	1	52,000	\$233,000	\$81,000
M9	Increased Evening Service	7,900	0	158,000	\$630,000	\$174,000
M10	15-Mal U Connector increased service frequency	4,700	2	117,500	\$428,000	\$119,000
M11	90-Intercity Connector 30-minute peak period & 60-minute evening service	3,800	2	76,000	\$356,000	\$133,000
M12	44-Malaspina UC 10-minute peak period frequency	2,800	2	70,000	\$277,000	\$92,000
M13	Bus Rapid Transit Phase 2 15-minute weekday service	5,500	0	165,000	\$439,000	\$45,000
M14	7-Cinnabar/Cedar 30-minute peak period service	2,300	1	46,000	\$210,000	\$75,000
<b>Total Medium Range Service Options</b>		<b>65,900</b>	<b>24</b>	<b>1,625,000</b>	<b>\$5,891,000</b>	<b>\$1,609,000</b>