island solutions

Transit for Gabriola?

A review of progress and alternatives

Draft Report

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Transit for Gabriola?

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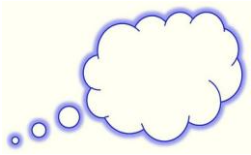
Note :

This report draws upon evidence from a number of published sources and provides the author's perspective on the conclusions to be drawn. The views expressed in this report are those of the author, and do not necessarily reflect the views of the Gabriola Transportation Association or any other body.



Transit for Gabriola?

1 : Background

Transit for Gabriola? was commissioned by the Gabriola Transportation Association (GTA) in November 2011 to examine the likely current status of proposals to establish a public transit service on Gabriola.

This report reflects on the findings of previous research into the demand for public transit on the island, including the 2008 Transportation Survey commissioned by a public transit committee (comprised of representatives from Island Futures Society, The Gabriola Transportation Association and the Gabriola Commons Foundation) and the Transportation Alternatives Survey carried out by Vancouver Island University (VIU) in 2009 on behalf of the Gabriola Ferry Advisory Committee.

Both surveys provided useful pointers towards the likely scale of demand for public transit on Gabriola, the current travel patterns of island residents and their preferences for different travel modes and destinations. These findings helped shape the subsequent Transit Feasibility Study produced by BC Transit in November 2010 and considered by the Regional District of Nanaimo (RDN) in April 2011.

Transit for Gabriola? offers the author's perspective on the transportation objectives contained in the Community Sustainability Plan and on Objective 3 and the associated transportation policies proposed in the Official Community Plan, as well as on the surveys themselves. It also provides an examination of some alternative transport options already being piloted in rural communities around BC.

The author

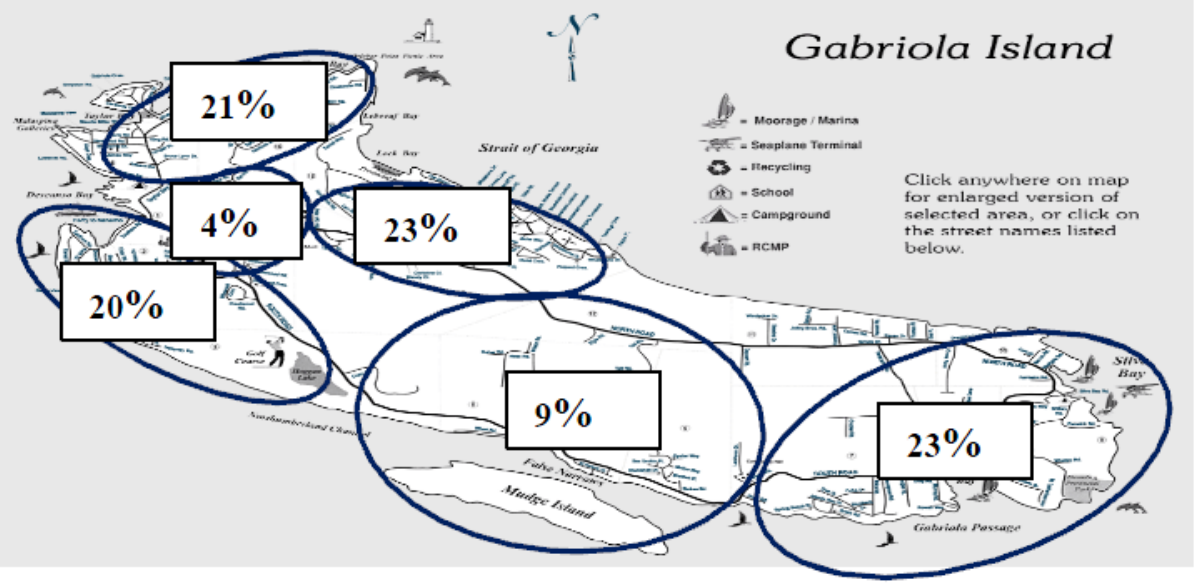
John Hodgkins is the Director of Island Solutions Ltd., a UK based independent transport consultancy established in 2008. He has been a homeowner on Gabriola for the past three years and a long-term visitor to the island before that.

His career spans more than 40 years in transportation planning and the management of public transit operations in the UK. He has over 10 years' experience in managing bus operations, and has held several senior local government posts, most recently as Transport and Accessibility Manager for Buckinghamshire County Council, responsible for public transport, school transportation and developing sustainable travel options.

John qualified as a Member of the Chartered Institute of Transport and is a past Chairman of the UK Association of Transport Co-ordinating Officers. He has served on several working groups with the Local Government Association and the UK Department for Transport focussing on the development of bus performance and efficiency measures, also on the implementation of the English National Concessionary Bus Travel scheme.

2 : Gabriola Transportation Survey (2008)

During September 2008, some 400 households (representing 800 residents) responded to a questionnaire circulated by mail and on-line by a public transit committee comprising the Island Futures Society, GTA and the Gabriola Commons Foundation. Respondents were distributed across the whole island, with the majority (around two-thirds) living at the western end, nearer the village and ferry.



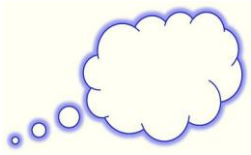
Source : Gabriola Transportation Survey

The analysis revealed a wide range of transport needs on the island, most prominent among which were the need to access shopping, medical appointments and leisure activities. More than two-thirds of respondents identified one or more of these as their primary reason for travel. Not surprisingly, given the higher than average age-profile of island residents and the propensity for home-based businesses, the number of respondents indicating a need to commute regularly for work was significantly lower at just 33%.

More than three-quarters of journeys were made by car, with the overwhelming majority made to the village centre or by ferry to Nanaimo. 60% of journeys into Nanaimo required access to transport to complete the journey once leaving the ferry.

There is no reference to the type of transport used, though observations would suggest that the majority of onward travel involves the use of a car, even to destinations that are relatively close to central Nanaimo.

In order to encourage car users to consider transit as an alternative on Gabriola, there needs to be convenient and reliable connections for onward travel by bus in Nanaimo. For many journeys, the existing transit schedule in Nanaimo fails to deliver an acceptable alternative to the ease and convenience of using a car. Section 8 compares typical travel times by car and bus from the ferry terminal in Nanaimo Harbour to Departure Bay Ferry Terminal, Vancouver Island University, Nanaimo Regional General Hospital, Nanaimo North (Rutherford Mall) and Woodgrove Centre.



The 2008 survey also sought to identify the likely frequency with which a transit service on Gabriola would be used. The projections contained in the survey (below) have been extrapolated in Table 1 to indicate the equivalent annual number of one-way trips (a measure adopted by BC Transit in its feasibility study)

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

Source : Gabriola Transportation Survey

Table 1 : Extrapolation of survey data into annual trip rates

frequency of travel	2-3 times per month (assume 2.5)	1-3 times per week (assume 2)	Every work day (assume 5 days)	Every day (assume 6 days)
Survey estimate (a)	1163	1611	361	192
Factor applied	11 months/year	47 weeks/year	47 weeks/year	47 weeks/year
Annual frequency (b)	27	94	235	282
Equivalent number of one-way trips per year (a) x (b) x 2	62,802	302,868	169,670	108,288
Projected number of one-way transit rides per year	643,628			

Given the chance of securing a new transit service, it is to be expected that survey respondents will over-estimate the number of times they will use the service. Experience suggests that this projection needs to be reduced by a factor of 10 (minimum) to translate into actual trips that would be made by transit once the new service is in place.

It can also be assumed that up to 50% of these journeys may only be made by transit in one direction, with the other direction being made as a car passenger – accompanying a friend or neighbour, or as a result of simply being offered a ride. This would suggest that the annual transit ridership projected in Table 2 will probably translate into no more than 43,000 transit rides annually – assuming that the transit service is available at a time "convenient" to every passenger wishing to travel.

However, since even the most frequent service option considered by BC Transit offered only 7 transit trips per day on any route (effectively half the number of ferry departures) it would also be realistic to assume that up to 50% of potential users would not regard the service offered as sufficiently "convenient" to encourage them to make their journey by bus – thereby potentially reducing the annual transit rides projection further to around 22,000. Only at this point does the estimate become comparable to BC Transit's annual ridership projection of 21,800 (for Option 2) and 27,200 (for Option 3). But are BC Transit's projections for Option 3 still too optimistic?

In their responses to the survey, almost 90 comments were made on the completed questionnaires. Up to a third of those who commented expressed concern that a public transit system was not affordable or sustainable, or that it would prejudice the viability of the island's taxi service. Many thought that, as a first step, a lift-share scheme would be more appropriate. Examples of such schemes are described in the case studies later in this report.

3 : Gabriola Transportation Alternatives Survey (2009)

The Gabriola Ferries Advisory Committee approached Vancouver Island University to conduct a survey to determine which transportation alternatives the residents of Gabriola Island wish to have investigated further. In mid-May 2009 548 questionnaires were sent to a sample of households listed in the 2009 Gabriola Community Directory. 292 valid surveys were returned, resulting in an overall response rate of 53.3%. **Top of the priorities identified by residents (61%) for further investigation was the integration of the ferry with the regional transit system.**

The most frequent reason for riding the ferry was identified shopping (85%), medical (75%) and leisure (68%). About equal numbers travelled for work (34%), and scheduled activities (33%). Only 5.5% went for either post-secondary or other types of schooling. The preferred modes of travel for each of these journeys was also identified, reinforcing the current level of dependence on car use – especially for trips which involve carrying goods back to the island.

		Commercial activities	Medical visits	Unscheduled activities	Organized activities	For work	School and Education
Car/Truck	1st choice	65.1% (190)	48.3% (141)	45.2% (132)	21.9% (64)	20.9% (61)	3.1% (9)
	2nd choice	11.6% (34)	18.8% (55)	18.2% (53)	8.9% (26)	7.2% (21)	0% (0)
Walk on	1st choice	6.8% (20)	7.9% (23)	11.6% (34)	9.2% (27)	12.0% (35)	-
	2nd choice	24.3% (71)	18.5% (54)	27.7% (81)	11.3% (33)	5.5% (16)	2.7% (8)
Other (Bicycle & Motorcycle)	1st choice	3 -	-	2.4% (7)	1.7% (5)	-	0% (0)
	2nd choice	7.5% (22)	4.1% (12)	9.9% (29)	2.7% (8)	3.8% (11)	-

Whilst this research focused primarily on future options for the ferry service, it strengthens evidence that it is the “whole journey” experience that influences modal choice and not just one element of it.

The preference for car use reflects the convenience that most people take for granted –

- Door to door transport whenever we want it
- Our own ‘personal space’ throughout the journey
- Ease of transporting shopping and larger items
- Certainty and control over the whole journey (except the ferry of course)
- High confidence of reliability of arrival time.

Delivering an integrated transportation alternative that can match these aspirations requires more than the ability to buy a through ticket. Convenience and confidence are top priorities as well.

Much remains to be done if we are to achieve a truly integrated transit and ferry network.

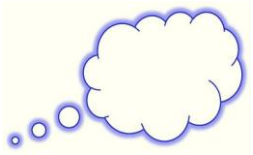


Table 2 (below) compares typical travel times by car and bus from the ferry terminal in Nanaimo Harbour to Departure Bay, Vancouver Island University, Nanaimo Regional General Hospital, Nanaimo North (Rutherford Mall) and Woodgrove Centre. Transit schedules changed in March 2012, improving some onward connections, but worsening others. The March 2012 transit services are shown in red in the table.

Table 2 : Comparison of travel times to local destinations in Nanaimo by car and transit

Ferry departs Gabriola		0630	0740	0850	1005
Ferry arrives Nanaimo Harbour (see note 1)		0650	0800	0910	1025
Arrive Departure Bay	**car**	**0705**	**0815**	**0925**	**1040**
	transit	*(0712)*	*(0825)*	*(0935)*	*(1045)*
Arrive VIU	car	**0710**	**0820**	**0930**	**1045**
	transit	*(0725)*	*(0850)*	*(0935)*	*(1110*)*
Arrive Hospital	car	**0715**	**0825**	**0935**	**1050**
	transit	*(0715)*	*(0825)*	*(0935)*	*(1120)*
Arrive Nanaimo North	car	**0720**	**0830**	**0940**	**1055**
	transit	*(0740)*	*(0850)*	*(1000)*	*(1145)*
Arrive Woodgrove Centre	car	**0725**	**0835**	**0945**	**1100**
	transit	*(0750)*	(0900)	*(1000)*	*(1140)*

Note 1 – Transit option assumes minimum 10 minutes for connections at Port Place or Front Street bus stops

* - Transit option departs from Prideaux Exchange (minimum 20 minutes allowed for connections)

Source : Google Maps and BC Transit

Although the March 2012 transit schedule changes improved travel times on a number of connecting bus routes, there is often no allowance for delayed ferry arrivals. Additionally. some routes (particularly Route 9 North to Woodgrove) no longer serve Port Place Mall, resulting in a longer walk from the Gabriola ferry to the nearest transit stop outside the Service Canada building on Front Street.

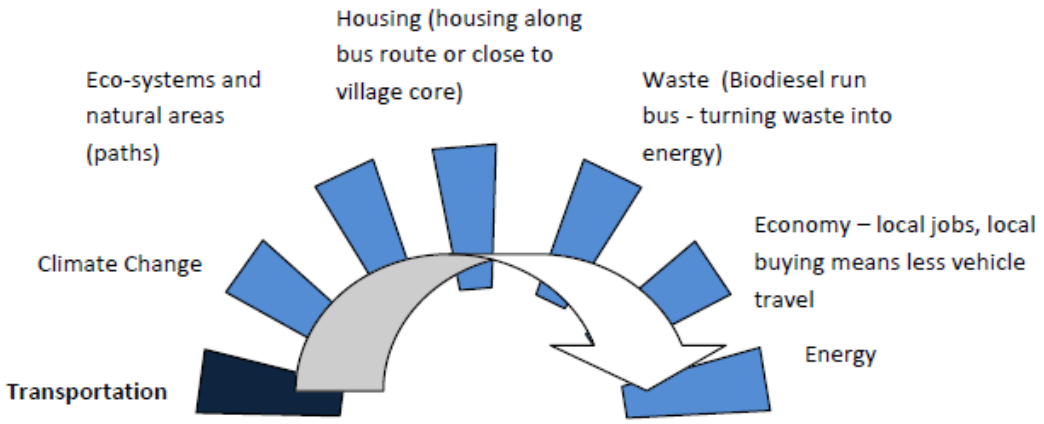
Travel times for the return journey compare less well, as no transit routes serve Front Street on their inbound journey, resulting in either a 15-20 minute walk from Prideaux Exchange or a transfer to a connecting bus. This presents a significant deterrent to potential transit users and RDN/BC Transit should be urged to consider a change to the route pattern in order to improve connectivity with the Gabriola ferry.

4 : Community Sustainability Plan (2010)

In August 2010, following three public meetings, **Sustainable Gabriola** – a group established to identify and develop the sustainability objectives of our diverse community) – brought together its current vision for a sustainable future in the Community Sustainability Plan (CSP), a working document reflecting the comments and responses from Gabriola Residents at that point in time. The CSP set out five principles that should guide the vision for a sustainable Gabriola:

- *Recognition of the interdependence of life in all its forms and that the decisions we make today will have an effect on future generations;*
- *Recognition that resources are finite and that living within our resources means there are limits to growth;*
- *A commitment to weigh the costs and benefits of decisions fully, including the long-term costs and benefits to future generations;*
- *The belief that sustainability requires the exercise of individual rights and responsibilities in the context of the greater community good;*
- *Notwithstanding that Gabriola is part of the larger world community; we believe that Gabriolans are entitled to have democratic control over decisions that impact their community.*

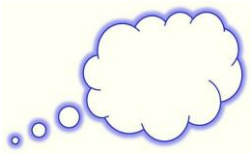
One of the themes examined in the CSP is Transportation. The Plan identifies the need to develop improved transport infrastructure as integral to the future sustainability of the community, contributing to (or resulting from) the objectives highlighted in other parts of the Plan.



The CSP identifies the need for basic lifestyle change and increased energy efficiency through:

- *More walking and use of bicycles, motorbikes, and scooters*
- *More car-pooling and ride-sharing*
- *Introduction of a Public bus*
- *Less long-distance travel*

Alongside these objectives is the need for further work to develop alternative energy sources, including new sources of fuel such as biodiesel (produced from waste vegetable oil), solar energy, energy from waste and new technologies to utilise methane and hydrogen for use in fuel cells.



The CSP sets out a Transportation goal aimed at increasing Zero to Low GHG emission travel while at the same time reducing the need for vehicle travel. The target is to achieve a 30% reduction in GHG emissions from vehicle fuel sold on Gabriola between 2008 to 2015 through:

- ***Increasing low-emission travel as form of transportation***

Indicator: *% of people using low to zero emission forms of transportation*
Baseline: *0 public transit on Gabriola, 6% hitchhike, 7% school bus, 5.6% motorcycle/ scooter*

- *Establishing a **public transit** system on Gabriola – public transit was strongly supported in the 2008 survey; a proposed route has been developed and supported in public forums. BC Transit has produced their own feasibility study to determine if they can provide a funding contribution. Community has indicated preference for biodiesel fueled bus and a locally managed system.*

- *Establishing **Ride-Share**, **Car stops** and a **Taxi-supplement** program to complement bus system*

- *Encouraging **Low-speed vehicles (LSVs)** through flexible and relevant regulatory change – recognizing the evolving technology of low to zero emission travel.*

- *Encouraging alternative fuels for vehicles. Support the provision of biodiesel from waste vegetable oil for vehicles.*

Actions:

a) To facilitate implementation of on-road and off-road cycle paths and a public transit system

b) Each transportation mode should contain provisions for transportation to and from other forms (i.e. bike racks on buses, at bus stops, etc)

c) Map markers include bike and walking trails (and bus route when it happens), not just roads.

d) Ensure connections and supports on Nanaimo side: schedule for bus allows easy access to Departure Bay ferry and University of Vancouver Island; and, bike racks at Gabriola ferry.

A key element of the plan for any transit or ride-share system on Gabriola is the need to ensure that efficient and reliable connectivity is available with the transit network in Nanaimo – and that accessibility to other transport modes (mainland ferries, long-distance buses and trains, floatplane services and regional air services at Nanaimo Airport) is possible for those wishing to travel to or from Gabriola without a car.

While many of these onward travel modes are outwith the regulatory remit of local government or BC Transit, the transportation objectives of the CSP can only be fully delivered alongside an integrated approach to regional – as well as local – transport services in the area. Thus there is a need to encourage wider dialogue with agencies such as BC Ferries, Greyhound Canada, Nanaimo Airport and VIA Rail as well as the RDN, Islands Trust, MOTI and BC Transit. Such dialogue would ideally be brought together at a Provincial level, though a local initiative instigated by the Islands Trust or RDN might sensibly be encouraged to kick-start the process.

5 : Gabriola Island Official Community Plan (2011)

The Official Community Plan (OCP) endorses the need to improve transportation on Gabriola through a combination of measures including the following land transportation objectives relating to public transit:

- ***Objective 3*** *: To support alternative transportation initiatives that reduce dependency on private automobile use and reduce greenhouse gas emissions, including, but not limited to, public transit, car stops, neighbourhood zero emission vehicles, car shares, bicycle routes, and walking trails that link population to services; and*

- ***Objective 6*** *: To support the initiation of a practical and efficient public transportation system;*

The OCP also provides a steer on how the provision of a public transit service might be taken forward and, significantly, identifies that the provision of a service for people with disabilities should be included.

- *BC Transit and the Regional District of Nanaimo are encouraged to consider providing a limited mini-bus transit service, including for handicapped persons.*

Acknowledging the importance of public transit into the future, the OCP further identifies a need to take account of any new transit provision in future consideration of land use and planning matters.

- *When the public transit bus route for Gabriola is in place, it should be referred to when considering land use and planning decisions.*

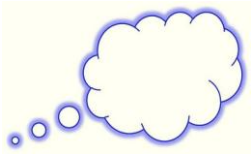
In the final analysis, the OCP does not set out to differentiate or prioritise between the two quite separate outcomes that a public transit service on Gabriola could deliver. Those two outcomes are:

- Outcome 1 : To provide an attractive alternative that will reduce dependency on the private car and thereby reduce greenhouse gas emissions; and

- Outcome 2 : To improve accessibility to local services for people without use of a car, including people with disabilities.

These outcomes are not, of course, mutually exclusive and in an ideal world a public transit system that delivers both outcomes would remain the objective. However, should the achievement of both outcomes be unattainable, which outcome should be prioritised?

The BC Transit Feasibility Study (see Section 6) examined the different characteristics associated with these two distinct outcomes and suggests that the greatest **need** is found among those who do not have access to a private car, notably young people, seniors and people with disabilities. The potential **demand** for transit is, however, *low* to *medium* within these groups, given the relatively low density of population across the island. The highest **demand** for transport is from students attending school either on the island, or in Nanaimo, for whom the **need** is already met by the school bus service.



6 : BC Transit Feasibility Study (2010)

At the request of the RDN, BC Transit undertook a feasibility study into the potential for establishing a public transit service on Gabriola, completed in August 2010 and considered by the RDN in April 2011. The study built on the earlier research projects as well as information from the Islands Trust and demographic data from Statistics Canada to develop a range of options for the provision of a transit facility on the island.

BC Transit's forecasts for potential demand for a transit service on Gabriola show the following potential demand characteristics:

- *The potential market for **people with disabilities** for transit service is **low** (based on population) **to medium** (based on potential usage). The potential **seniors** market for transit service is **medium** based on a combination of population and potential usage. Typical trips that would be undertaken by seniors and people with disabilities are to daytime medical / dental appointments and shopping trips either on Gabriola or to Nanaimo.*

- *The potential market for transit service among **young people** is **low** (based on population) **to medium** (based on potential usage). Typical trip patterns that might be expected to meet the demand from young people (particularly those in the 15-19 age range) would include services in the late afternoons and on Saturdays connecting to the ferry and Village destinations. Evening services would also be beneficial from a recreational and employment standpoint but these are typically more costly to provide and should be considered only after daytime options are running and established.*

- *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 some of the businesses stay open later in the evening to serve commuters on their way home from the ferry.*

- *The potential market for transit service for **adults** is judged to be **low** for midday trips but **medium** for commuter services. 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 among whom many currently drive (or are driven by others) to and from the ferry.*

Potential demand may therefore be expressed in the following table:

	Morning peak	Off-peak daytime	Afternoon peak	Evening	Saturday
Students	High	-	High	Low	Medium
Young adults	Medium	Low	Medium	Medium	Medium
Adults	Medium	Low	Medium	Low	Low
Seniors	Low	Medium	Low	Low	Low
People with disabilities	Low	Medium	Low	Low	Low

BC Transit also highlighted some of the key demographic factors that would influence the sustainability of a transit operation on the island:

- Gabriola's population is growing almost twice as fast as the rest of the Nanaimo district, and three times faster than the province as a whole;

- The population's age profile is higher 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.

- Only 72% of the private dwellings on the island were permanently occupied (in 2006)

- Population density on the island is lower than the Nanaimo region as a whole (70 persons per sq km in 2006) and less than one-tenth of the population density in Nanaimo itself. *(Gabriola's population density is almost the same as Bowen Island and about 20% higher than that of Salt Spring Island – the two gulf islands that currently have transit services.)*

- Population is most heavily concentrated at the western end of the island, with smaller clusters of housing off both North Road and South Road. Relatively little of the housing is directly on North Road or South Road, and although many of these properties are located within 400m* walking distance of one of these roads, sizeable parts of the Berry Point, Harrison Way and Whalebone areas fall significantly outside of this measure.
  (400m is a measure adopted by BC Transit and RDN as a reasonable walking distance to a public transit service)*

BC Transit's Conclusions

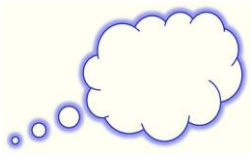
Two distinct markets emerge for transit on Gabriola: commuter services that would attract younger adults, commuting adults, and youth travelling home from after school activities in Nanaimo and midday services targeted to the specific needs of seniors and people with a disability. Overall, the potential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

Transit Service Design Concepts

BC Transit examined a range of possible service concepts, based upon services provided to similar sized communities elsewhere in BC.

1 : Taxi Supplement
Taxi Supplement schemes use 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. 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. In essence, this is similar to the service that Island Taxi currently provides for the Lion's Club and Gabriola seniors on Thursdays.

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 down time between trips.



2: 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.

In smaller 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 registered client uses the coupons to pay the full meter rate of taxi fare. 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.

3 : 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.

Paratransit service could take three possible forms on Gabriola (or a combination of forms):

- ***On-Demand Paratransit*** *operating only when passengers request service and providing 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*** *operating 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.*
- ***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.*

BC Transit proposed three alternative service options, as shown in the following table:

	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
Vehicles Required	0	2*	2*
Service Hours	n/a	3,110	3,630
Ridership	4,300	21,800	27,200
Total Revenue	$0	$33,800	$42,200
Total Cost*	$16,200	$268,300	$303,700
Net Local Share of Costs*	$8,300	$129,500	$139,200
Provincial Share of Costs	$7,900	$105,000	$122,300
Rides per Hour	n/a	7.0	8.0
Cost per Ride	$3.77	$10.76	$8.92

7 : Regional District of Nanaimo response (2011)

The Transit Select Committee of the RDN considered BC Transit's Feasibility Study at their meeting on March 17, 2011 and made the following recommendation to the RDN Board on April 26.

> *"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".*

This recommendation was carried unanimously.

During the course of the discussion, it was also proposed that the School Board be contacted to determine whether there is some way that running conventional buses and school buses could be made compatible. It was confirmed that whilst school buses are for the exclusive use of students, students can use conventional transit buses as well. Previous discussions with the School Board had not delivered any success in achieving integration, though it was pointed out that if a deal could be done with the School Board, it would give the transit service guaranteed ridership for ten months of the year.

The RDN Transit Business Plan

The RDN Transit Business Plan was last published in April 2008 and is due to be reviewed during 2012. The Business Plan provides a long-term strategic vision for transit in the Nanaimo region and is prepared by BC Transit in conjunction with the RDN.

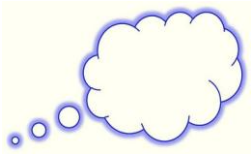
The primary goal of the plan is to encourage greater transit ridership in the Nanaimo region by providing transit and other sustainable transport options that improve mobility (accessibility) for people with few other transportation options and offer an attractive alternative for car users.

The Business Plan contains a range of service expansion proposals throughout the Nanaimo region for phased introduction over the coming 10 years, with the objective of doubling transit ridership by 2020. These proposals envisaged an additional 10 transit buses being introduced to the network by 2010 and a further 24 buses by 2018.

The full plan foresees ridership on the transit network increasing by 2.2 million passenger trips per annum by 2020 – equating to 65,000 extra passengers for each additional bus in the transit network. This should be compared with the 21,000 to 27,000 extra passenger trips projected in the feasibility study for Gabriola.

The recommendation adopted by the RDN Board authorises staff to work with BC Transit to prioritise the proposed service increase (for Gabriola) alongside other expansion proposals in Nanaimo. Given the disparity between the projected uptake in Gabriola (circa 27,000) and that which is projected elsewhere in Nanaimo (circa 65,000 per bus) the chances of securing support through the RDN seem limited at best – and realistically non-existent, at least in the current plan period.

To clarify this statement, the following section examines the procedures adopted by BC Transit for evaluating service expansion proposals.



8 : BC Transit Scheme Appraisal

BC Transit has developed a process for evaluating service expansion proposals based upon a Multiple Account Evaluation (MAE). A detailed description of the MAE process was published by BC Transit at http://www.bctransit.com/workshop/2011_pen/ppt/Transit_Improvement.ppt

The MAE process uses as scoring matrix to evaluate proposals for service expansion based upon the projected performance of the new service against a standard basket of measures. Each proposal is evaluated according to its performance efficiency, financial implications, planning and land use implications, vehicles and facilities required, and the extent to which the service meets policy, social and operational objectives. Once the proposals have been scored, they are rated against other service expansion proposals both from within the same municipality and also against proposals from other similar transit networks. For this purpose, proposals from Nanaimo Regional Transit are rated alongside others from the Central Fraser Valley, Campbell River, Nelson, Kootenay Boundary, Port Alberni, Terrace and Chilliwack.

The top scoring proposals from across this group of municipalities are allocated available BC Transit resources and the municipalities are then asked to confirm that they have the match funding available to underwrite the required level of operation. Only once that is confirmed does the scheme progress into the BC Transit Annual Service Plan.

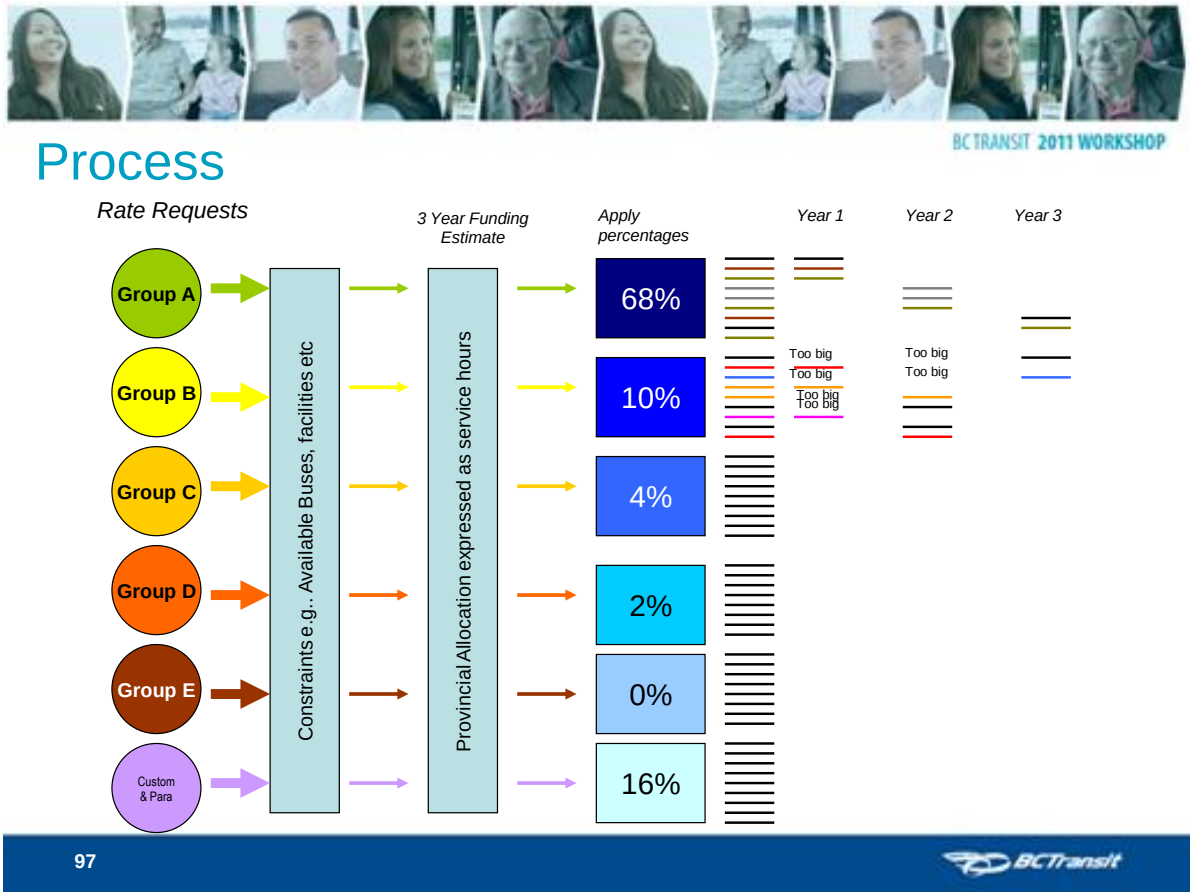
The following measures are considered in the scoring matrix:

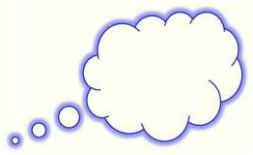
Theme	Measure	Scoring applied
Efficiency	Passengers per service hour	Up to 20 points
	Passengers per service kilometre	
Cost effectiveness	Cost per passenger	
	Cost recovery (fare / operating cost)	
Relative service performance	Passengers per capita	
	Critical system fix or not?	
Planning and land use	Master plan compatability	Yes = 2 points No = 0 points
	OCP policies supporting transit	
	Transit supportive land use	
	Supports the Provincial Transit Plan	
Vehicles and facilities	Fleet expansion accommodated?	Yes = 1 point No = 0 points
	Vehicle utilisation in system improved?	
	Is garage large enough?	
	Can terminals accommodate expansion?	
Policy	Public commitment of funds?	Yes = 1 point No = 0 points
	Contractual adjustments?	
	Improve public or employee safety?	
Social and operational	Improves accessibility?	Yes = 1 point No = 0 points
	Community links to health, social or education?	
	Community support?	
	Operational reliability or crowding improved?	
Total expansion score		**???**

Applying this methodology allows BC Transit to measure the return and benefits from every service expansion proposal on an equitable basis – and to rank each proposal against others from within the same municipality and others in the same peer group. Funding for service expansion is ring-fenced by peer group, with Group B (including Nanaimo) receiving 10% of the annual service improvement budget.

Within each peer group, the funding is prioritised according to the MAE scoring, subject to local government match funding being confirmed for each project. If local funding is not available for a particular project, the funding will be offered to the next ranked project within the group.

The proposal for a transit service on Gabriola will therefore be evaluated not only against other service expansion proposals in Nanaimo, but also from across the Peer Group B. Only the top scoring proposals from across the peer group will make it into the BC Transit Annual Service Plan.





9 : Potential for success

The BC Transit MAE scoring process takes account of the anticipated cost and efficiency of the proposed service. As the table below demonstrates, points are awarded on a graduated scale depending on the relative performance of the proposal. Schemes scored at the bottom end of the scale in each measure are regarded as net contributors to greenhouse gases.

Performance Criteria and Threshold Scoring

	Points				
	4	3	2	1	0
Boardings per service hour	**> 35.0**	**30.0 - 34.9**	**25.0 - 29.9**	**12.0 - 24.9**	*<12*
Boardings per service kilometre	**>1.5**	**1.15 - 1.50**	**0.9 - 1.149**	**0.50 - 0.89**	*<0.5*
Cost per Boarding	**<$2.50**	**$2.51 - $3.00**	**$3.01 - $4.00**	**$4.01 - $7.00**	*>$7.00*
Cost recovery	**>35%**	**29% - 34.9%**	**26% - 28.9%**	**15% - 25.9%**	*< 15%*
Passengers per Capita	**>30**	**20-29.9**	**15-19.9**	**10-14.9**	*<10*

GHG contributing

Using the data from the BC Transit Feasibility Study (see page 12) the relative scores that would be achieved by even the most cost-efficient proposal (Option 3) are as follows:

- **Boardings per service hour** **7.5** **score = 0**
- **Boardings per service kilometre** **0.25** **score = 0**
- **Cost per boarding** **$8.92** **score = 0**
- **Cost recovery** **13.8%** **score = 0**
- **Passengers per Capita** **6** **score = 0**

Using BC Transit's assessment tool, the project to implement a transit service on Gabriola is not only unlikely to succeed in securing provincial funding, but it would also be regarded by BC Transit as a net contributor to greenhouse gases.

Even if the proposal were to be accepted by BC Transit, the cost to be met by local government (up to $140,000 each year) could represent additional property taxes of around $70 per annum, which may or may not be accepted by the local community.

The remainder of this report therefore considers what alternatives might offer better value for money, given the high probability that the transit proposal will not achieve provincial backing.

10 : Alternatives to the BC Transit proposal

The following options have been considered:

Option A	Do nothing
Option B	Car Stops / Lift Share
Option C	Voluntary Car / Van scheme
Option D	Shared taxi (taxi supplement) scheme
Option E	A limited cross-water transit link to and from Nanaimo
Option F	Hybrid scheme integrating transit with school transportation on Gabriola.

Option A : Do nothing

All of the previous research has acknowledged that the community has a strong self-help ethic, which can be demonstrated through the existence of community organisations such as the Lions Club, Gabriola Commons and People for a Healthy Community (PHC). Across the island, there is a general willingness of car drivers to offer rides to those who do not have a vehicle of their own, but are sufficiently able-bodied to contemplate walking for some or all of their journey.

Equally evident though are the number of car trips that are made to and from the village and the ferry – often involving two round trips to the ferry to transport those travelling as walk-on passengers to Nanaimo. Parking at the ferry terminal is at a premium, with terminal parking usually full by 6.30am, and alternative parking lots sometimes full, resulting in cars being left for long periods along the margins of Eastholm Road in particular.

Recent over-inflation increases in ferry fares have forced a downward pressure on the number of commuters routinely taking their car on the ferry and this has further exacerbated the pressure on parking spaces close to the ferry terminal.

Perhaps the most significant implication of a 'do-nothing' scenario is, in fact, the one which is most difficult to quantify – the extent to which hardship is caused to disadvantaged people in the community who can either not afford to run a car, or (though age or ill-health) are dependent on others to enable them to make even the shortest of trips to the village or ferry. An inability to access basic health facilities, food shopping and care or support services can seriously impact on quality of life, yet there is little evidence that such hardship is widespread, or exists at all on Gabriola.

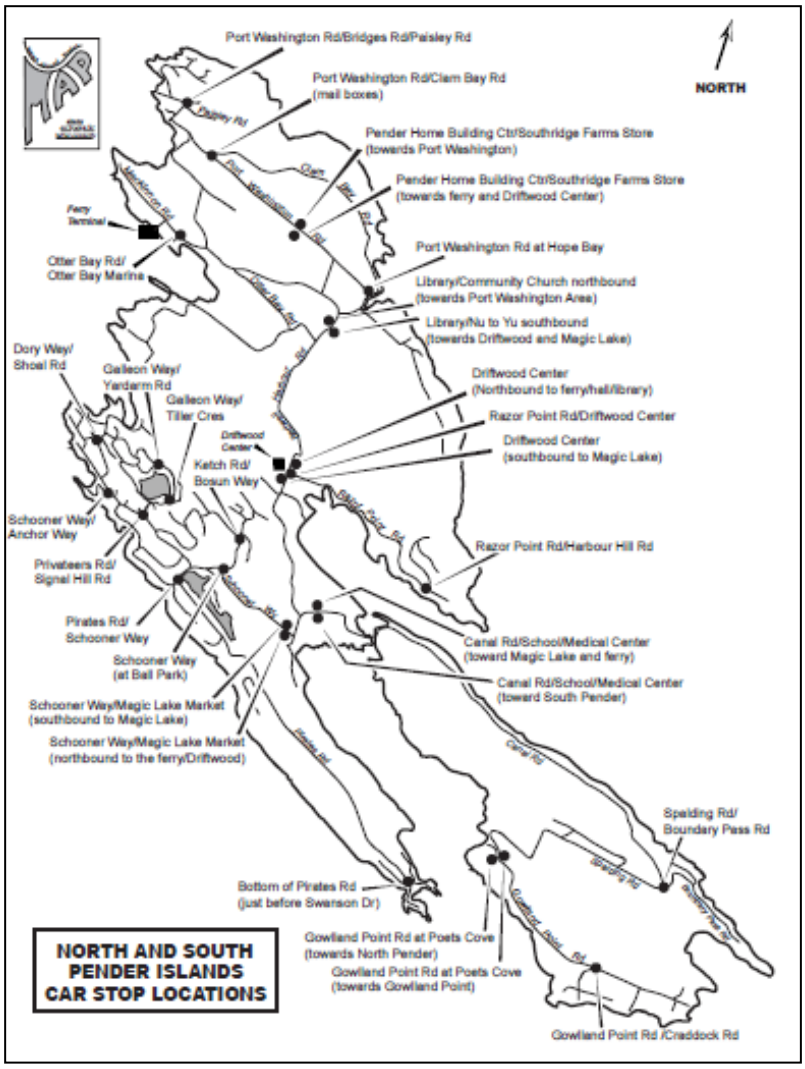
What is undeniable is that the age profile of Gabriola's population is increasing steadily and in the coming years there will be a growing demand for access to basic services from members of the community who no longer wish to drive – or indeed are no longer able to drive.

However strong the move towards self-sufficiency within the community, there will always be those who rely on being able to access shops, health and support services – and accessibility demands the need to travel. Right now, it seems that there is sufficient mutual help available on the island that no-one should be unable to get about; all of the signs however point towards a growth in dependence on others that the community may find it difficult to sustain in the future.

Option B – Car Stops / Lift Share

Across the gulf islands, there is a steady drive to establish self-help car sharing schemes – aimed either at reducing the demand for car travel (especially for regular commuting) or as a no-cost alternative to public transit where no such service exists.

Two examples are becoming widely recognised as good practice : the Car Stops scheme on **Pender Island** (see map) and the Bowen Lift scheme on **Bowen Island**. As the name suggests, the **Pender Car Stop** scheme promotes a number of recognised locations around the island from which car rides may be obtained or offered.



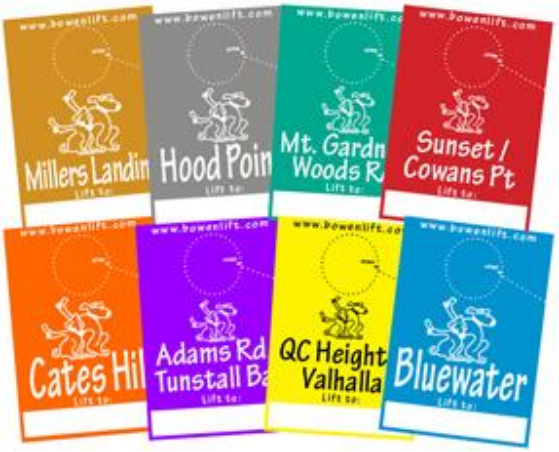
Car Stops are signs placed at strategic places around the island that provide recognized places for people to wait and get a free ride if available. The concept of Car Stops is to promote community transportation that is simple, free and safe. The project provides an alternative to single occupancy cars, and results in less traffic congestion at commercial centres, a reduction in the overall carbon footprint and a chance for people to make new friends.

The most important idea is that Car Stops are entirely voluntary: people take rides and give lifts as they see fit. There is no coercion on either side, no bureaucracy and no cost.

Car stops have generally been established at locations where it is possible to safely pull off the road to stop – often at mailbox locations – and while there is, in theory, no limit to the number of car stop locations, the scheme clearly works best if locations are on busier traffic routes close to junctions with residential side streets.

Like both Bowen and Gabriola, Pender's main ferry terminal is located at one end of the island, with housing scattered at low density off a network of roads making it difficult to match riders with potential offers of a ride for the return journey. As in Gabriola, there is a range of possible destinations for drivers leaving the ferry terminal that will make some potential riders reluctant to depend on finding a car going in their direction.

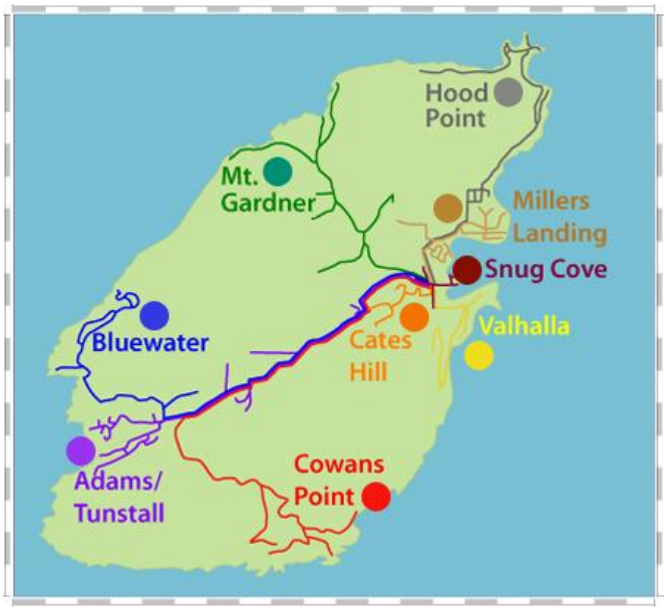
On **Bowen Island**, the community has set out to address this problem in the **Bowen Lift** lift-share scheme with the promotion of neighbourhood lift-sharing tags for drivers to place on their dashboard or hang from the rear-view mirror.



Car owners can download and print their own mirror tags from the Bowen Lift website.

Drivers are encouraged to display the tags when returning on the ferry, or when driving around the island, to signify that they are prepared to offer a ride along the way to that neighbourhood.

This feature would be particularly helpful to establishing a ride-share scheme on Gabriola, where walk-on ferry passengers routinely walk through the car deck to leave the ferry – and where it would be easy to identify the direction of cars leaving the ferry terminal or the Village car park.



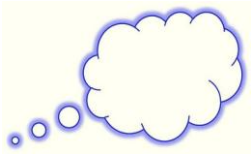
Mirror tags have been designed for each of the neighbourhoods on Bowen Island; each incorporates a space for the driver to add the name of the street or locality where they actually reside. Thus, for example, a mirror tag designated 'Whalebone' on Gabriola could have 'Moby Dick' added for clarity.

Bowen Island is also introducing Lift Stops (similar to Pender's Car Stops) at prominent locations across the island to assist potential riders.

Concerns have been expressed about the legal and insurance implications of formalised lift-share schemes. Strictly, hitchhiking is illegal in BC, but this is generally only enforced along motorways. Informally, the RCMP has indicated that they do not view the car stop system as presenting a problem. To ensure there are no additional insurance liabilities, ICBC require that no money is exchanged in return for the ride – not even to cover the cost of gas.

With these concerns in mind, both schemes incorporate information signs to ensure that the community does not incur any liability as a result of the scheme.

The cost of establishing a lift-share scheme can therefore be minimal, with a low-cost (or free) website and voluntary promotion of the scheme through local businesses and local media. The only fixed costs are associated with signage for car stops. On Pender Island, funding for the initial batch of signs was secured by means of grants from the Capital Regional District and the Lions Club of Canada.



Option C – Voluntary Car / Van Scheme

Voluntary transport schemes typically utilise owner-driven vehicles to provide transport on an ad-hoc basis for someone who does not have access to transport of their own. Such schemes are commonplace in the provision of transport for elderly people attending medical or care facilities – and also for parents providing occasional transport to students attending out-of-school activities.

Regulations surrounding using of a private passenger vehicle to convey passengers are complex, but in essence the Insurance Corporation of British Columbia (ICBC) considers drivers to be "volunteers" as long as they are reimbursed only for reasonable expenses. If you are paid a wage or are reimbursed for your time, you no longer would be considered a "volunteer" and the vehicle would need to be rated for business use.

If a passenger vehicle (car) is used to provide a passenger-directed service for the public at large, the operation falls within the scope of the Passenger Transportation Act and, under the Act, it becomes as Commercial Passenger Vehicle, subject to special requirements for driver licensing and authorisation for operation as a 'Passenger Directed Vehicle' in the same way as if it were a taxi.

However, there are a limited number of exemptions that allow a small passenger vehicle (capable of carrying a driver and no more than 11 passengers) to provide a public transportation service with exemption from the requirements of the Passenger Transportation Act so that it can be operated without the need for a special authorisation or an enhanced drivers licence.

Those exemptions apply if it is:

- a commercial passenger vehicle operated solely by a municipality or regional district, when that vehicle is being operated within the boundaries of the municipality or regional district;

- a commercial passenger vehicle operated by a society for a primary purpose of the society, or by a charitable association for a primary purpose of the charitable association, if passenger transportation is not a primary purpose of the society or charitable association;

- an auxiliary passenger vehicle.

The potential exists for a passenger vehicle to provide a service to the community on Gabriola using volunteer drivers under one or more of these exemptions. Examples of each could be:

- A passenger vehicle owned by and operated on behalf of the **Regional District of Nanaimo** and driven either by volunteer drivers or in this case, paid drivers, to provide a community transport service on Gabriola Island

- A passenger vehicle owned by or donated to a charitable organisation (such as the **Lions Club of Canada** or the **Gabriola Commons Foundation**) used to support a primary purpose of the charity – providing a service to the community – and driven by volunteer drivers.

- An auxiliary passenger vehicle owned by and operated on behalf of a business enterprise (such as **BC Ferries** or **a local Gabriola business**) whose primary purpose is not the provision of road transportation, and driven on behalf of that business enterprise by volunteer drivers.

In each of the foregoing examples, the use of volunteer drivers would imply a commitment by the local community to recruit, train and co-ordinate a panel of volunteers who, between them, can guarantee the delivery of a service that will meet defined local transportation objectives. The precise nature of those objectives would be determined by the community, and could include either a regular scheduled para-transit service, a flexible door-to-door transport service, or a combination of the two.

To the community, the advantage of a voluntary car/van scheme over a lift-share scheme is that it enables the sponsoring organisation to provide an appropriate vehicle (ideally one which is adapted to carry people with disabilities) and to ensure that the vehicle is at all times properly insured and roadworthy. Such schemes do, however, depend on a grant, donation or initial funding in order to source a suitable vehicle in the first place and on a commitment by the sponsoring organisation (or an agent acting on their behalf) to oversee and co-ordinate the operation of the transport service.

It should be noted that the operation of an auxiliary passenger vehicle by a business enterprise **does not** permit a charge to be made for the provision of the transport service, whereas a vehicle owned and operated on behalf of either the Regional District or a Charity it is possible to charge for the transport, providing the charge is used to meet the operating costs of the vehicle and not to generate a profit.

Other exemptions do exist from the Passenger Transport Act, though the use of a vehicle under these exemptions is usually more restrictive, for example :

- A passenger vehicle used as a school bus, which may only transport students
- A passenger vehicle owned by a community care facility, which may only carry clients attending that facility
- A passenger vehicle used as a connector bus, which may only carry passengers to or from a ferry terminal or airport
- A passenger transportation pool vehicle, which may only be used to carry passengers to or from a common destination or place of work.

Whilst the detail contained in this section has been carefully researched, the agreement of the Passenger Transportation Branch of the Ministry of Transportation and Infrastructure should be sought before any exemption from the requirements of the Passenger Transporation Act is claimed.

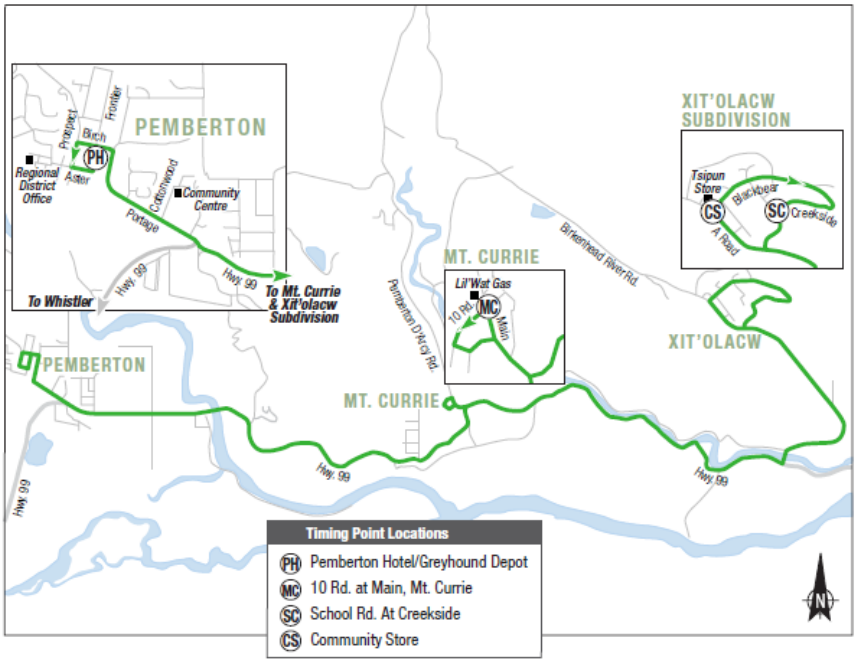
Option D – Shared Taxi (Taxi Supplement) Scheme

Taxi Supplement uses a private vehicle owner (normally a taxi operator) to provide transit services.

Typically, Taxi Supplement trips are managed by 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 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 Lions Club and Gabriola seniors on Thursdays is already operating much like a Taxi Supplement service.

Examples of existing BC Transit services that are operated as Taxi Supplement schemes include:



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 map alongside)*

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.

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.

A further advantage to a community such as Gabriola is that a service provided under contract by the local taxi operator, whilst being more costly to run than a voluntary car/van scheme, does not depend on the availability of volunteers since the driver(s) are paid employees of the taxi operator. The service actually provides a net income stream to the taxi operator, thus protecting the operator's business rather than being seen as a potential threat to it.

If adequate funding was available, additional 'taxi saver' fares could be offered to assist people with disabilities needing to access taxi services at times outside the regular service schedule.

Option E – A limited cross-water transit link to and from Nanaimo

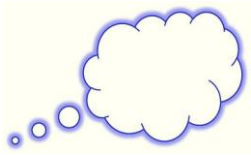
A possible alternative to a conventional transit service based on Gabriola is a less frequent transit link with Nanaimo itself, on which the bus travels on board the ferry to provide a direct, through service to key destinations in Nanaimo. Such a service currently operates each Thursday between Texada Island and Powell River, running directly to the Town Centre mall and Powell River Hospital.

To make this service attractive to users, BC Transit negotiated priority boarding onto the Texada ferry so that the bus can arrive at the ferry terminal just 15 minutes before the ferry departs, often making the journey to town shorter – and considerably cheaper - than travelling by car. Applying the same principle to Gabriola, a possible schedule could look like this:

Nanaimo Harbour	*0815*
Gabriola ferry terminal	*0835*
Folklife Village	0845
South Road, Community Centre	0855
Silva Bay	0905
North Road at Peterson	0915
Whalebone Turnaround	0930
Gallagher Way	0938
Folklife Village	0945
Gabriola Ferry Terminal	*1005*
Nanaimo Harbour	*1025*
Nanaimo Hospital	1040
Country Club Mall	1050
North Nanaimo Mall	1100
Woodgrove Mall	1110

Woodgrove Mall	1330
North Nanaimo Mall	1340
Country Club Mall	1350
Nanaimo Hospital	1400
Nanaimo Harbour	*1430*
Gabriola ferry terminal	*1450*
Folklife Village	1500
Gallagher Way	1507
Whalebone turnaround	1515
North Road at Peterson	1530
Silva Bay	1540
South Road Community Centre	1550
Folklife Village	1600
Gabriola ferry terminal	*1625*
Nanaimo Harbour	*1645*

There would be insufficient time within this schedule to provide a service to all parts of the island, however it would also be possible on one or more days of the week for the bus to remain on the island to provide a shuttle service to and from the village centre and ferry between 9am and 4pm, providing the semi-scheduled door-to-door services proposed in BC Transit's Option 3 (below).



Option F – Hybrid service integrating transit with school transport

Potentially the most cost-effective island-based transit option is the creation of a hybrid service using a suitable transit bus (or buses) capable of delivering the existing school transportation needs as well as providing a transit service to the community at other times. This model may be unusual in North America but it is widely adopted in the UK and much of Europe and although it reduces operating costs though better utilisation of buses and drivers, it offers a more restricted transit service since the capacity of the bus may be fully committed when the students are travelling.

The essential element of a successful hybrid scheme is an agreement between the transit authority and the school board on joint funding. In reality, the simplest approach is for the transit authority to levy a daily charge to the school board for the number of seats provided. This will usually provide a saving to the school board as well as a guaranteed income stream to the transit authority. The transit authority will then supply appropriate vehicle(s) and driver(s) to ensure the capacity needs of the school board are met.

A hybrid service on Gabriola has the potential to offer transit services at the following times:

Pre-0620	Transit service for early commuters if demand exists
0630-0900	School transportation (spare seats may be available for transit users)
0900-1400	Transit service (similar to BC Transit Option 2 proposal)
1430-1700	(1600 Fridays) School transportation (spare seats may be available for transit users)
1700 onwards	Transit service for evening commuters
Saturdays	Transit service

Although much of the capacity of the bus will be taken by students at school times, observations would suggest that there are vacant seats on the existing school bus that would allow a full-size transit bus (with fewer seats) to be substituted. The potential for farepaying passengers to utilise the secondary school bus run is however likely to be very limited.

A hybrid service of this sort will require the use of a large bus throughout the day, which will constrain the ability to offer flexible routeing for passengers with disabilities. An alternative option is to provide two smaller buses at school times, one of which would then be available for use during the daytime to provide flexibly routed services. A detailed comparison of capital and running costs would need to be undertaken to determine the feasibility of such an option.

As with the conventional transit option, the hours of operation may well demand the need for more than one driver to provide an all-day service. Such costs would also need to be factored into any hybrid scheme. Typical costs for each full-time driver employed by the School Board are approximately $50,000 per annum. Community Transit driver costs are broadly similar.

11 : Executive Summary and Conclusions

The demand for transit

A demand for some form of transit on Gabriola has been clearly demonstrated through the research undertaken both locally and by BC Transit. However, the financial projections undertaken by BC Transit do not suggest that a conventional transit service is sustainable on the island, for a number of reasons:

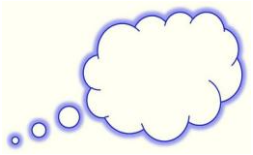
- The population base is less than two-thirds of the average population per bus for rural paratransit schemes (average population 6,400 per paratransit bus)
- The population density is low (at 70 per sq/km) – though similar to Bowen and Saltspring Islands, where existing transit schemes already operate.
- The age profile of Gabriola's population is around 10 years higher than is typical for BC communities, with many more retired people than average and only half the average number of young adults (15-24) elsewhere across BC.
- The demand for transit will be lower in Gabriola than either Bowen or Salt Spring because a higher proportion of Gabriola's population is concentrated close to the ferry terminal and village centre.
- At least 60% of journeys into Nanaimo require the availability of transport after leaving the ferry. Whilst the transit system in Nanaimo is improving, connectivity with the Gabriola ferry is not good and travel times to most destinations are substantially longer than by car.

Operating costs

In comparison to most conventional transit schemes, projected cost recovery (ie the proportion of costs recovered from users) is low at just 13.8% for Gabriola, compared to 43% on Saltspring Island and 38% across the Nanaimo region. Cost recovery is much closer to that of most custom transit (door to door) services which average 12.8%, but where the cost per passenger is almost four times higher than on conventional transit. The proportion of cost that falls upon local government (and therefore on property taxes) is substantially higher as a result.

Since 45% of the projected cost of a transit service on Gabriola would be met from provincial funding, BC Transit uses a rigorous scheme appraisal process to measure the potential costs and benefits of each proposal against other expansion bids in similar size communities. BC Transit's process indicates that the proposal for Gabriola would be measured against other bids from both within Nanaimo and elsewhere. **Given the low economic return, the potential for securing provincial funding for Gabriola is remote**. Without provincial funding, the full cost of the scheme would have to be met locally. There is no indication that the Regional District of Nanaimo would consider funding transit on Gabriola without the Provincial contribution.

It seems inevitable therefore that Gabriola will, for the foreseeable future at least, only secure a public transportation service if it can be provided at substantially lower lost than conventional transit.



Measuring need

Most of the earlier research has focused on measuring potential **demand** for transit, as distinct from identifying unmet transport **need**. BC Transit's feasibility study analysed the **demand** for transit in the following terms, acknowledging that the most concentrated demand patterns were associated with school travel – for which the school bus currently meets the much of the **need**.

	Morning peak	Off-peak daytime	Afternoon peak	Evening	Saturday
Students	High	-	High	Low	Medium
Young adults	Medium	Low	Medium	Medium	Medium
Adults	Medium	Low	Medium	Low	Low
Seniors	Low	Medium	Low	Low	Low
People with disabilities	Low	Medium	Low	Low	Low

Transport **need** can be broadly defined by reference to the achievement of one of two **outcomes**:

- Achieving greater **sustainability** through more economic use of transport resources – primarily reducing the need for private car use, or
- Achieving greater **accessibility** to basic goods and essential services for those who do not currently have access to suitable private transport.

There is no evidence that any local research has sought to prioritise one need over the other; the stated objective of the **Official Community Plan** is to deliver more sustainable transport options; the **Community Sustainability Plan** focuses on delivering less environmentally harmful transport and reducing the need for travel. Both documents assume that the **need** for transport is – by whatever means – being met. Yet evidence on the ground suggests otherwise, with a higher than typical dependence on informal lift-giving and an ageing, less mobile population for whom dependence on others will inevitably grow. Both the **OCP** and **BC Transit** acknowledge that people with disabilities are particularly disadvantaged and that their transport needs should be afforded some priority.

If, as seems likely, there are insufficient resources to meet all of the potential transport **demand** on the island, it becomes necessary to prioritise the objectives and more robustly measure transport **need**. Ironically, the focus of the OCP and CSP on sustainability and environmental responsibility do not appear to be delivered by BC Transit's project assessment, which suggests that even the most cost-efficient transit option would have a negative effect on greenhouse gas emissions. That being so, perhaps the priority should move towards meeting unmet transport **need**.

Options for meeting transport need

The options examined in this report range from ad-hoc ride share schemes, through voluntary transport schemes, formalised taxi-share or van-share schemes to more limited transit options using Nanaimo-based buses or a service integrated with the school transportation on the island.

As with any transport scheme, the most significant cost element will be driver wages. BC Transit's Annual Operating Agreement with the RDN indicates that driver costs and benefits account for almost 48% of the total operating cost of conventional transit. Other direct running costs (fuel, tyres

and maintenance) together account for a further 22%. Whilst any form of transportation will incur running costs, the potential savings to be derived from any scheme that uses volunteer drivers are obvious.

As a community, Gabriola relies significantly on voluntary and self-help services to meet a wide range of local needs; the community has demonstrated an ability to resource a range of provision from a mix of volunteer support, grants and donations. The range of skills and experience among island residents is such that few, if any, community projects have failed through a lack of local voluntary support. The potential for delivering a sustainable voluntary transport service therefore appears to be high.

It must be recognised however that no conventional or voluntary transport scheme can hope to meet all of the island's transport needs, let alone satisfy the potential demand for commuting or optional leisure travel. Some of that demand will continue to be dependent on the private car – or on the island taxi – yet there is only one taxi and the viability of the taxi business is probably marginal at best. Any new public transportation service has the potential to further erode the viability of the taxi business and this needs to be considered as part of the equation.

Options for consideration

	Sustainability objectives met?	Accessibility objectives met?	Financial implications	Community implications
Public Transit (BC Transit scheme)	Reduces car use. Unlikely to reduce GHGs	Improves access for those without use of a car	High annual cost. Uncertainty of BCT/RDN contributions	Increased property taxes inevitable
Car stops/ lift share scheme	Reduced car use. Positive GHG impact	Limited benefit to people with mobility needs	Small set-up cost. No ongoing costs	Small input to co-ordinate and promote scheme
Voluntary car/ van scheme	Small reduction in car use. Unlikely to reduce GHGs	Improved access for those without use of a car	Initial purchase and low running costs – no driver cost.	Substantial commitment to find and manage volunteer drivers
Shared taxi/ Taxi Supplement	Small reduction in car use. Unlikely to reduce GHGs	Improved access for those without use of a car	Onging cost of operation would require financial support	No volunteer resource. Improves viability of taxi business
Limited cross-water Transit service	Small reduction in car use. May reduce GHGs on and off island	Some benefit for those without use of a car.	Ongoing cost of operation would require financial support	Improves access to shops and hospital facilities in Nanaimo
Hybrid transit and School bus service	Small reduction in car use. Possible GHG benefits	Improves access for those without a car if suitable vehicle is used	Ongoing cost of operation would require less support from BCT and School Board	May increase property taxes. More efficient use of resources