



# Exploring Public Transportation on Haida Gwaii

**Haida Gwaii Transportation Feasibility Study**  
*Exploring School District 50 and Public Transportation Opportunities and Synergies*

Prepared for: The Village of Port Clements

Prepared by: Co+Host

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## About Co+Host

Co+Host is a partnership of freelance facilitators who have come together as a collective in order to share skills and resources. Based on Haida Gwaii, we provide co-facilitation as way to combine our experience, skills and local knowledge.

For more information, see <http://www.cohostcollective.ca>. or e-mail [cohostcollective@gmail.com](mailto:cohostcollective@gmail.com)

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### Disclaimer

All the information included in this feasibility study is based on data/information gathered from various secondary and primary sources and certain assumptions. Although due care and diligence has been taken in compiling this document, the contained information may vary due to changes in the environment. The prospective user of this document is encouraged to carry out her/his own due diligence and gather any information she/he considers necessary

Co+Host and consultants Lindsay Seegmiller, Jennifer Dysart, Allison Smith and Kara Seivewright cannot be held liable for the outcomes of decisions made as a result of this study.

# Terminology & Abbreviations

**Commercial Passenger Vehicle:** means a motor vehicle operated on a highway by or on behalf of a person who charges or collects compensation for the transportation of passengers in that motor vehicle

**CHN:** Council of the Haida Nation

**CVSE:** Commercial Vehicle Safety and Enforcement

**Demand-Responsive System:** A transportation system that allows users to book trip in advance. Schedules and routes are flexible, and service is often door-to-door.

**General Authorization:** means a commercial passenger vehicle when it is not operated as an inter-city bus or as a passenger directed vehicle;

**MIEDS:** Misty Isles Economic Development Society

**Para-transit System:** A flexible and personalized transit system often used in smaller communities with a range of vehicles. This system may be entirely demand-responsive, but it may also include some fixed-route, fixed-schedule services.

**School Bus:** means a commercial passenger vehicle used by, on behalf of, at the request of or under a contract with the authority in charge of a school to convey students

(a) to or from the school, or

(b) to or from a school sponsored event;

**SD50:** School District 50

**S.H.I.P.:** Skidegate Haida Immersion Program

**Special Authorization:** when used in relation to a motor vehicle, means an authorization to operate the motor vehicle as

(a) an inter-city bus, or

(b) a passenger directed vehicle;

**Taxi Saver:** A program that allows certain clients the option to buy taxi coupons, which are applied to future travel, at a discounted rate.

# Haida Gwaii Transportation

## Feasibility Study Executive Summary

### Purpose of the study:

To examine potential synergies between school bus services, other transit service providers, and the need for public transit options on Haida Gwaii.

### Community profile

- Population of 4370 (in 2011)
- 8 communities (7 on Graham, 1 on Moresby) each governed by a different elected body.
- Majority of services (schools, medical services, grocery stores, banking services, social services) concentrated in the north and south ends.

### SD50 Profile

- 554 students enrolled across 6 schools (K-12)
- FirstBus Canada Ltd has provided school bus service since 2004. This includes organizing and maintaining busses, co-ordinating drivers and determining routes.
- The FirstBus contract costs approximately \$500,000 annually and SD50 is interested in reducing that amount.

### Current methods of transportation include:

Private vehicles, walking, cycling, BC Ferries, airports, Eagle Transit bus, rental cars, Northern Health Connections bus, Sandspit Community Society, health centre shuttles, taxis, water taxis, ridesharing, private charters, hitchhiking



### Research Methods

- Literature Review & Environmental Scan:**  
What's working here, and what's working elsewhere?
- Stakeholder Interviews:**  
What assets and interest do we have on Haida Gwaii?
- Community Survey:**  
What does the public need for transportation?

This study was contracted by the **Village of Port Clements** with support from the **BC Rural Dividend Fund**. The study was conducted by **Co+Host**.

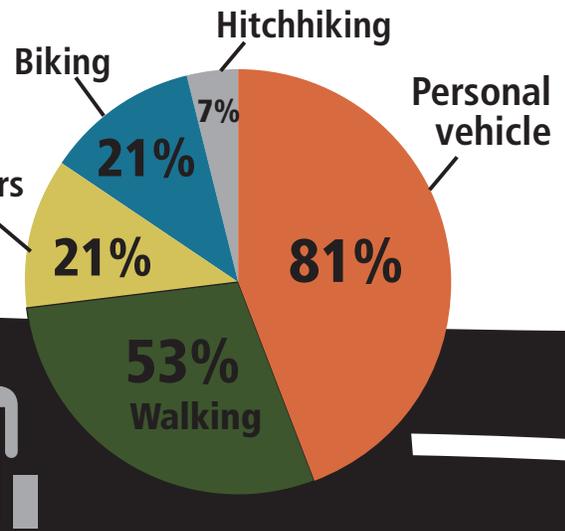


# Community Survey Findings

The primary transportation for Haida Gwaii residents is currently:



Friends/  
neighbours



Respondents said they would use **public transportation** for **running errands, social activities and work.**

Destination preferences showed the need for both, **short haul routes** and **long haul routes.**

Only **7.3%** of respondents stated they would not use public transportation

The top 3 most important attributes of public transportation system were:

1. Reliability
2. Price
3. Frequency

**83%** of respondents preferred **centralized bus stops** rather than door-to-door

The greatest motivation for utilizing public transportation is wanting to reduce their **environmental impact (32%)**, and wanting to **save money (21%)**.



**Many local organizations already provide some form of transportation to students, patients, Sandspit residents, etc.**



**Some local organizations are well-positioned to support broader transportation systems.**

## Additional community benefits:

- Reduced drinking and driving
- Reduced youth and elderly isolation
- Increased youth engagement in school extracurricular activities
- Environmental sustainability
- Enhanced tourist mobility and access to all island communities
- Increased accessibility for individuals living on low-income
- Planning for future transportation needs as they age

## Challenges of providing public transportation on Haida Gwaii

- Profitability
- Current habits of residents
- Competition with local businesses
- Cost incurred by riders
- Availability of qualified drivers
- Licensing requirements
- Service provider vs. public needs
- School bus timing & remote communities
- After-hours transportation



# SD50 School Bus Service Solutions:

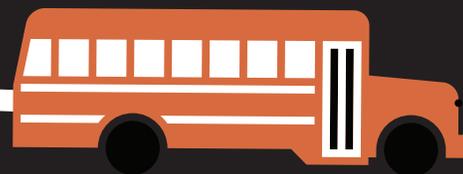
**Solution 1:** Keep existing contract with FirstBus Limited

**Solution 2:** On island contractor provides exclusive school bus service

**Solution 3:** SD50 provides exclusive school bus service

**Solution 4:** On island contractor provides public transportation system

**Solution 5:** BC Transit provides public transportation service



## Additional Public Transportation Options:

**Option 1:** Northern Health Connections Bus Adjustment

**Option 2:** Evening Water Taxi

**Option 3:** Short Haul Routes Pilot Project

**Option 4:** Taxi Saver with Existing Providers



## Recommendations

### Recommendation to SD50:

On island contractor provides exclusive school bus service

### Recommendations for Public Transportation:

A combination of the following:

**Option 1:** NH Connections Bus Adjustment

**Option 2:** Evening Water Taxi

**Option 3:** Short Haul Routes Pilot Project

**Option 4:** Taxi Saver with Existing Providers

AND

**Solution 5:** BC Transit provides public transportation service

### Additional Recommendations:

■ Transportation committee

■ Collaborative communication

■ Software for scheduling

■ List of on island drivers



# Introduction

At the request of the Village of Port Clements, and with funding from the BC Rural Dividend Fund, this study was conducted by consultants from Co+Host to examine potential synergies between school bus services, existing transportation service providers and public transportation needs on Haida Gwaii. This study focuses on the communities of Graham and Moresby Islands.

The primary objectives of this study are outlined below:

- Examine the existing SD50 bus service contract
- Identify on island transportation assets that are underutilized
- Assess the feasibility of contracting an alternative bus service provider for exclusive SD50 school bus services
- Identify public transportation needs in all island communities
- Explore synergies between SD50 service needs and public transportation needs
- Develop service options and outline associated costs
- Provide service option recommendations

This report presents the findings of this study and outlines service option recommendations.

## Section 1: Community Profile

The study area included the communities of Graham and Moresby island of Haida Gwaii.

**Population:** Haida Gwaii is an archipelago of over 150 islands, 100 km off the north west coast of British Columbia. Haida Gwaii has a population of approximately 4,370 people (Statistics Canada, 2011). The majority of the population resides on Graham Island in the following 7 communities: Queen Charlotte, Skidegate, Tlell, Port Clements, Masset, Old Massett and Tow Hill. Of the total population, 297 individuals live in the community of Sandspit on Moresby Island.

**Demographics:** The median age of residents is 40.7 years old, with a median income of \$51,019. Education attainments include: 33.7% with less than a high school diploma, 24.8% with a high school diploma, 15.8% with a college/university certificate, 13.2% university bachelor's degree and 12.4% with apprenticeship/ trade certificate (Misty Isles Economic Development Agency, 2011)



Figure 1: Map of Haida Gwaii (gohaidagwaii.com)

**Political Structure:** Haida Gwaii is unceded Haida territory and the Council of the Haida Nation (CHN) collectively holds Hereditary and Aboriginal Title and Rights to Haida Gwaii. It includes several small villages, each administered by a different elected body. The band members of Skidegate are governed by the Skidegate Band Council, and the band members of Old Massett are governed by the Old Massett Village Council. Haida Gwaii is also part of the North Coast Regional District previously known as the Skeena-Queen Charlotte Regional District. The North Coast Regional District is comprised of the Village of Queen Charlotte, the Village of Port Clements, the Village of Masset, Electoral Area D - Rural Graham Island (Miller Creek, Lawnhill, Tlell, Nadu, Tow Hill) and Electoral Area E - Sandspit.

**Economy:** Haida Gwaii's primary employment by industry is: tourism, forestry & logging, and government services (Misty Isles Economic Development Agency, 2011). Misty Isles Economic Development Society (MIEDS) is the economic development agency for 3 municipalities and the 2 regional districts on Haida Gwaii. The Haida Enterprise Corporation, HaiCo, is the economic development arm of the CHN and was created to manage, grow and govern the business enterprises of the Haida Nation with the goal of developing a sustainable economy.

**Community Amenities:** Haida Gwaii's main services are located in the north and south ends of Graham Island. These include grocery stores, libraries, post offices, medical services, visitor centres, banking services, social services, schools and museums. Services island-wide have limited hours of operation based on the community, with many services closing at 5:30PM, and with restricted hours on weekends.

The smaller communities of Port Clements and Sandspit both have grocery stores, elementary schools and some local jobs. However, many residents from these communities commute to the larger communities for work or secondary school.

**Education:** School District 50 provides k-12 education to the communities of Haida Gwaii. Students travel off island for secondary education. Distance learning is offered through the NorthWest Community College and periodic trades training from off island providers. The Skidegate Haida Immersion Program (S.H.I.P.) exists to preserve and revitalize Skidegate Haida Language through recordings and production of language resources. The Haida Gwaii Higher Education Society, in partnership with the University of British Columbia, provides two semester programs to on and off island students, and is based in Skidegate.

**Healthcare:** There are two Northern Health hospitals on island: Xaayda Gwaay Ngaaysdli Naay - Haida Gwaii Hospital and Health Centre in Queen Charlotte and the Northern Haida Gwaii Hospital in Masset. There are clinics, which include: Xaaynangaa Naay - Skidegate Health Clinic, Queen Charlotte Clinic, Masset Clinic, Port Clements Clinic and Old Massett Health Centre. Residents can travel via the Northern Health Connections for medical appointments. Residents travel off island for special services including emergency medical evacuation Helijet services.

## Section 2: School District 50 Profile

School District 50 (SD50) provides k-12 education to the students of Haida Gwaii. SD50 is governed by the Board of Education, which is made up of 5 elected local representatives, and is a member of the BC School Trustee Association. There were 554 students enrolled in SD50 in the 2015/16 school year and the projected enrolment for the 2016/17 school year is lower, at 544 students. SD50 includes the following six schools:

- Agnes L. Mathers Elementary in Sandspit
- Gudangaay Tlaats'gaa Naay Secondary in Masset
- Port Clements Elementary in Port Clements
- GidGalang Kuuyas Naay Secondary in Queen Charlotte
- Sk'aadGaa Naay Elementary in Skidegate
- Tahayghen Elementary in Masset

After school programming is provided by the teachers and in partnership with Haida Gwaii Regional Recreation Commission.

### Service Provider History

Previous to the current partnership with FirstBus Canada Limited (based in Kitimat, British Columbia), two on-island service providers were contracted to provide transportation to students: GRM Bus Services (no longer in operation) and O'Brien & Fuerst (O'Brien) Logging Ltd (currently in operation). Routes offered were similar to what is currently provided. In addition, SD50 had a budget of \$15,000 for local shared-ride taxis in Masset-Old Massett and Queen Charlotte-Skidegate for students who stayed for after school activities.

In 2004 when the student transportation contract was put out to tender, O'Brien submitted a proposal to continue providing this service. However, SD50 selected a new company called FirstBus and O'Brien sold the assets previously used to deliver student transportation.

### Current Service Provider

SD50 currently contracts the school bus service provider, FirstBus Canada Limited. This most recent agreement took effect as of September 1st 2014, and expires June 30th 2018, with an optional negotiated 5th year at the discretion of the Board of Education. SD50 has been contracting FirstBus since 2004. As part of the contract, FirstBus provides school buses for the purpose transporting school children to and from schools within the SD50 region and for charter purposes. As part of the agreement, FirstBus provides the following:

- Provides and maintain dispatch services
- Provides and maintains yellow/black school buses

- Hires, coordinates and orientates bus drivers
- Ensure drivers comply with *Motor Vehicle Act*
- Determines routes and schedules, in cooperation with The Board of Trustees
- FirstBus at its own expense, keeps in effect automobile and liability insurance

Routes are planned by the contractor, FirstBus, with the aim that no student travel for more than 95 minutes at a time each way. Students are to arrive no more than 30 minutes, and no less than 10 minutes, prior to school start time, and depart no more than 30 minutes after dismissal. Ridership is limited to students, staff and/or contractor staff.

The current school bus routes include:

- Route 1: Port Clements to Masset & Tow Hill to Old Massett to Masset: 288 Daily Kms
- Route 2: Port Clements to Tlell and Tlell to Port Clements: 115.6 Daily Kms
- Route 3: Tlell to Queen Charlotte and Queen Charlotte to Skidegate: 241.6 Daily Kms
- Route 4: Skidegate to Queen Charlotte and Queen Charlotte to Skidegate: 100.6 Daily Kms

Annual Cost of Routes 1-4 based on 181 school days per year: \$414,708.88, paid in equal instalments. Any extensions or reductions are calculated at a \$2.65 per Km basis.

FirstBus provides 5 school buses, and drivers are based in Port Clements.

In addition, SD50 leases a 6<sup>th</sup> bus from FirstBus during the school year to act as an emergency tsunami evacuation bus at the north end. This costs \$70,000/year. There is no evacuation bus at ALM because there is enough staff to transport the students to the tsunami evacuation zone.

The Superintendent of SD50 holds the transportation portfolio within the district and acts as the liaison between SD50 and FirstBus.

Based on the drop off and pick-up limitations in the FirstBus agreement, students that stay after school for extracurricular activities do not have a school bus transportation option and rely on parent volunteers. There is currently no additional funding available for transportation for after school activities.

FirstBus routes do not operate on Moresby Island in the Sandspit community. In Sandspit, students are driven by parent volunteers to and from the Alliford Bay ferry terminal. In 2016, the Sandspit Community Society began negotiations with SD50 to provide school bus services on Moresby Island, dropping students at the Alliford Bay ferry terminal. They have yet to reach an agreement. These students are then picked up by Eagle Transit (ET) from the Skidegate Landing ferry and taken to GidGalang Kuuyas Naay Secondary School (GKN).

# Section 3: Public Transportation on Haida Gwaii, Past & Present

## History of Public Transportation on Haida Gwaii

Due to Haida Gwaii's remoteness and population sprawl, it faces unique transportation challenges.

In the 1960s and 1970s, a public bus operated island wide. The service was operated daily with paid drivers, and traveled from the Sandspit Airport to Masset. In addition to providing public transportation, the bus also transported mail across the islands.

In 1999, the Skeena-Queen Charlotte Regional District contracted BC Transit<sup>1</sup> to conduct a feasibility study (available upon request). This study recommended the following three options, each of which builds on the former:

1. Local & Regional Paratransit System
2. Paratransit, Sandspit and Masset based service
3. Paratransit, Sandspit and Masset based service, and a taxi supplement

Option 3 best met the objectives set forth by the community at that time, given its range of scheduled and demand-responsive travel options across the islands. However, it was also the most costly (\$122,000 annually in 1999) (BC Transit, 1999). The Regional District suggested that while this proposal was not adopted when the study was first conducted, the proposal could be possible if additional funding sources for the system were introduced.

Eagle Transit, a local passenger transportation service provider, has attempted a variety of service models to meet the public transportation needs on Haida Gwaii, including scheduled evening and weekend bus services. However, since these were not municipally or provincially subsidized services, the attempts were not financially sustainable and were discontinued. The primary challenge was having an adequate volume of people traveling to the same place at the same time, in order to break even or make a profit. The previous owners noted that these attempts were made prior to the introduction of Facebook, and were marketed by posters and word of mouth. They also noted that residents' wants and behaviours do not always align. Although at the time Haida Gwaii wanted public transportation system, few individuals actually used it as they would prefer to travel with family and friends.

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<sup>1</sup> In order to receive financial and logistical support from BC Transit, an interested community or area must formally request a feasibility study through a local government resolution. The costs of this study are shared equally between the two bodies. A full study typically costs approximately \$20,000; however, elements of the former Haida Gwaii Feasibility Study may still be relevant. The exact cost would need to be negotiated directly.

## Current Transportation Systems

The current transportation methods on Haida Gwaii are diverse, and meet some (but not all) of public transportation needs. A list of current transportation providers, routes and vehicle list is provided in Appendices A and B.

**Roadways:** Communities on Graham Island are connected via the Yellowhead highway 16 which stretches 110 km from north to south. Roadways are under the Ministry of Transportation and Infrastructure jurisdiction.

**Walking and Cycling:** Walking and cycling are primary methods of transportation within communities, rather than among. There are no formal bike or walking paths linking the communities of Skidegate and Queen Charlotte, therefore cyclists travel on the narrow highway shoulder. The Village of Queen Charlotte is currently pursuing a bike route feasibility study. A walking path connects the communities of Masset and Old Massett.

**BC Ferries:** BC Ferries sail from Prince Rupert to Skidegate twice a week, both ways, in the fall and winter season. Additional sailing times are added in the spring and summer. Sailing times are approximately 7 hours in length. BC Ferries also operates the ferry connecting Alliford Bay to Skidegate Inlet. This sails from 7:20AM until 6:10PM, with no evening schedule.

**Airports:** Haida Gwaii has two airports, one in Sandspit, and the other in Masset. Air Canada Jazz flies from Vancouver International Airport to the Sandspit Airport once a day, and twice a day in the summer season. In Masset, Pacific Coastal Air flies daily scheduled flights from the Vancouver South Terminal. HeliJet provides charter flights from Sandspit and Masset to fishing lodges. Inland Air is a commercial seaplane that provides charters between Prince Rupert, Haida Gwaii and Gwaii Haanas. Inland Air has a daily scheduled route from Masset to Prince Rupert Monday - Friday, and provides air cargo and delivery services.

**Eagle Transit:** Eagle Transit is a private business that holds a passenger transportation license to provide taxi, charters and freight delivery. They provide curb-to-curb airport shuttle transportation between Queen Charlotte, Skidegate, and the Sandspit Airport. The Masset Airport Shuttle provides transportation from all Graham Island communities to the Masset Airport with advanced reservation, with curb-to-curb service. The Island Ferry Connector provides transportation from the north end to the Skidegate landing for the Prince Rupert ferry. Both the Masset Airport Shuttle and the Island Ferry Connector rates are dependent on the number of passengers, with a minimum \$150 per trip to operate. As a demand-responsive service, advance reservations are required. In partnership with the Northern Health Authority, Eagle Transit operates a long haul route detailed below. Finally, Eagle Transit is available for hire for private charters and island wide taxi services. In 2016 Calvin and Debra Crosby purchased the business. See Appendix C for schedule.

**Northern Health Connections:** North Health Connections, a branch of the Northern Health Authority, contracts Eagle Transit to provide transportation to individuals with out-of-town medical appointments. The curb-to-curb service travels from Queen Charlotte to Masset and back once a day, Monday - Friday, and must be booked in advance over the phone. The service costs \$10 per direction for patients. Non-medical travelers are able to book a seat on the bus, space permitting, for \$30 per direction. This service also transports materials between hospitals. There is extremely limited local knowledge about this service and it appears to be underutilized.

**Rental Cars:** Budget Rent-A-Car (offices at Sandspit Airport and in Queen Charlotte), National Rent-A-Car (office at Masset Airport at Longhouse Gift Shop in Skidegate), and Rustic Rentals (office in Queen Charlotte) provide rental car options to locals and tourists. Rental cars are prohibited from traveling on logging roads.

**Sandspit Community Society:** In 2016 the Sandspit Community Society purchased 3 vehicles (14-seater, 19-seater and a Minivan) to serve the Moresby Island public transportation taxi, charter and school bus needs. At present, the service is available on-request. They are currently in discussions with SD50 regarding the provision of transportation services to high school students traveling to Graham Island. They also hope to provide a scheduled transportation service between Alliford Bay and Sandspit for the public. This is the only transportation service available for Sandspit residents.

**Health Centres:** Skidegate Health Centre owns and operates several private shuttles to support their programs and clients. The Old Massett Health Centre also owns a van and provides transportation mainly to clients of homecare. The Adult Day Program in Old Massett has a larger bus with an on-demand service for anyone who attends programs.

**Taxi Services:** Numerous private taxi companies currently service the communities of Masset/Old Massett (Haida Time), Queen Charlotte/Skidegate (Gwaii Taxi and Tours - 2 taxis), and Sandspit (Sandspit Community Society). A ride from Queen Charlotte to Skidegate (approximately 9 kilometers) costs approximately \$20; within either community, a ride costs approximately \$10. While taxis can drive passengers anywhere on the island, they are restricted from picking up passengers outside of their given areas, as dictated by their special authorization licenses. In 2016, Gwaii Taxi and Tours' license expanded, enabling them to pick-up passengers at both of Haida Gwaii's airports.

**Water Taxi Services:** Since the Alliford Bay ferry discontinued the evening ferry schedule, residents from Moresby Island are unable to travel Graham Island for evening events, and vice versa. Sasha Jones provides on-call water taxi service between Sandspit (Bridgeview Marine docks on the Alliford Main), Skidegate (BC Ferries dock) and Queen Charlotte (main docks).

**RideSharing:** Ridesharing occurs between friends and family. As well, an informal ridesharing network exists on Facebook called [Rides on Haida Gwaii](https://www.facebook.com/groups/220260274789032) (see: <https://www.facebook.com/groups/220260274789032>).

**Private Charters:** A number of local operators offer private charter options to locals and tourists. This includes Gwaii Taxi and Tours, which has one 15-seater bus with a general authorization license in 2016, enabling them to provide custom tours and transportation. The Sandspit Community Society provides private charter services on Moresby Island to tour and school groups, and they provide day tours of Graham Island to tourists staying in Sandspit.

**Hitchhiking:** Hitchhiking between all communities on Haida Gwaii is practiced by some locals and tourists throughout the year.

**Tourists:** Haida Gwaii has experienced an increase in the number of Canadian and International tourists. Based on the 2015 Visitor Exit Survey conducted by MIEDS, the primary method of transportation to Haida Gwaii is BC Ferries. Secondary methods of transportation to Haida Gwaii are Air Canada and Inland Air. While on island, tourists rely on rental vehicles, hitchhiking and private charters to travel between communities.

## Section 4: Methodology

### Focus, Framing & Limitations

The primary focus of this feasibility study was to help SD50 reduce their annual spending on student transportation. A secondary focus was to improve transportation options for people on Haida Gwaii, including but not limited to youth, elders, commuters, and the most rural communities. As a result, certain considerations including tourist transportation preferences, environmentally conscious transportation technologies and alternative methods of transportation such as bike routes, were beyond the immediate scope of this study. They do however warrant future consideration.

Certain biases should also be noted when reviewing this study. Many efforts were made to ensure equal representation across communities and demographics on Haida Gwaii. However, south-end (Queen Charlotte and Skidegate) participation is marginally higher, putting emphasis on the needs of these communities. There is also a higher representation of individuals with computer access, which may bias results towards younger residents with middle and high incomes.

### Methods

To understand transportation assets and needs on Haida Gwaii, Co+Host conducted a literature review and environmental scan, and administered a series of stakeholder interviews and a broad public survey.

## Literature Review & Environmental Scan

Co+Host conducted a literature review and an environmental scan to contextualize this study within provincial, national, and global systems.

During the literature review, Co+Host examined a series of rural transportation case studies. The systems within these studies catered to both the general public and particular subsections of the community who face specific transportation challenges. During the environmental scan, Co+Host reviewed legislation and regulations related to the provision of school bus and public transportation. This included conversations with the Regional District, BC Transit, School District 50, The Passenger Transportation Board and departments within the Ministry of Transportation and Infrastructure.

## Stakeholder Interviews

Co+Host conducted fourteen 30-minute semi-structured interviews with key stakeholders across Haida Gwaii. These interviews built a preliminary understanding of the transportation landscape on Haida Gwaii, including an inventory of current assets (physical, human and financial), current informal and formal collaborations, and perceived needs and opportunities.

Stakeholders selected were those who provide some type of transportation service to residents on Haida Gwaii, with vehicles they own or lease. This included private companies (taxis, tour buses), public services (hospitals, schools, health centres), and non-profits that require frequent transportation.

See Appendix D for questions asked and stakeholders consulted.

Following these preliminary interviews, Co+Host conducted a series of in-depth unstructured interviews with select stakeholders from whom more detailed information was obtained.

## Public Survey

Co+Host administered a survey to the general public on Haida Gwaii, in order to understand island wide needs related to public transportation. The survey was distributed online and through paper copies at various distribution points, with the intention of reaching 5% of the local population. Co+Host selected distribution partners with connections to particular demographics and locations to ensure a diversity of respondents reflective of the local population as a whole.

The survey was divided into the following sections:

- Demographic Information: To build a basic profile of respondents.
- Current Transportation Habits: To understand current modes of transportation.

- Public Transportation Preferences: To understand local needs related to public transportation.
- Public Transportation Values: To understand what elements of public transportation are most important to local residents.

All who responded were provided the option of entering a draw for one of two \$50 gift certificates to the Co-Op.

The survey questions are available in Appendix E.

## Section 5: Findings

### Public Transportation Assets

Table 1 summarizes the opportunities and limitations associated with various transportation assets on Haida Gwaii. For a detailed list of vehicles and their respective sizes, owners and licenses, see Appendix A.

**Table 1. Service Provider Opportunities and Limitations**

Organization	Experience	Opportunities	Limitations	Interest in Supporting Public Transportation
Northern Health Connections	Offers a daily shuttle from South - North for patients, supplies and (space permitting) general public	Increase public awareness of services, reduce rates, alter/expand schedule	Schedule must meet particular needs between hospitals (ie. pharmacy deliveries)	Low - for alterations to existing service High - if schedule remains as is.
Sandspit Community Society	Provides demand-responsive transportation solutions to Sandspit	Has experience coordinating local charters and public transportation, has administrative capacity	Primary focus is on serving Sandspit residents and tourists, financial sustainability of fixed route service	High
Gwaii Taxi and Tours	Provides private taxi service to Queen Charlotte, Skidegate and airports. Also offers demand-responsive chartered bus services.	Could offer afterschool taxi service with taxi saver (coupon) reimbursement from SD50, funding bodies, and/or municipalities and band councils	Price, availability,	Medium
School District 50	Contracts a third party to provide daily bus service for all students on Haida Gwaii	Could use buses when not being used by students and/or combine public & student bus use	Preference is for buses to be exclusively reserved for students in morning and afternoon, schedule must meet student needs first	High, to reduce spending and support local school bus service provider

Haida Gwaii Higher Education Society	Currently leases a bus for student commute and field trip needs	Would like avoid offering transportation to students and have them ride a public transportation bus with a student bus pass, lease bus for field trips only	Organization does not have capacity to provide anything more than basic support to any public transportation solutions developed, student schedule	Low - in organizing a system.  High - interest in utilizing
Eagle Transit	Over 22 years of operation experience on Haida Gwaii, leading local public transportation provider	Has physical assets and experience necessary for various transportation solutions	Has recently been acquired by new management and may not have administrative capacity	Medium
O'Brien	Local business that previously held SD50 bus contract	Has experience providing student transportation service; has administrative capacity	No longer owns necessary vehicle fleet to provider transportation solutions	High - Willing to investigate acquiring a new fleet of vehicles

## Community Needs

### Demographic Information

Over the 5-week period, 245 surveys were completed, with 191 completed online and 54 completed in-person. Old Massett had the lowest representation with 2.4% of the community completing the survey. Regional District E (Sandspit) had the highest community representation, with 9.8% of the community completing the survey. Overall, 6% of the total population on Haida Gwaii was surveyed.

**Table 2.** A comparison of community population and survey completion rate among all island communities.

Community	Population (2011)	Surveys Completed	Percentage of Community
Queen Charlotte	944	62	6.57%
Skidegate	709	38	5.36%
Port Clements	378	21	5.56%
Old Massett	614	15	2.44%
Masset	884	40	4.52%
Regional District D (Lawn Hill, Miller Creek Tlell, Tow Hill)	524	38	7.25%
Regional District E (Sandspit)	317	31	9.78%
<b>Total</b>	<b>4370</b>	<b>245</b>	<b>5.61%</b>

Survey respondents were primarily between the age of 30-55, with 17% between 19-29 and 18% between 56 - 70. There was low representation of individuals 71 and over.

There was approximately equal representation from income brackets within the \$0 - \$100,000 range, with only 5% of respondents having an income greater than \$100,000. It should be noted that those that were in the \$0-\$10,000 range were primarily youth between the ages of 0-18.

### Current Transportation Habits

The primary methods of transportation were identified as:

- 81% personal vehicle
- 53% walking
- 21% friends/neighbours
- 21% biking
- 7% hitchhiking

Driving was the primary mode of transportation, with 83% of respondents having regular access to a vehicle. However, 67% of respondents from Old Massett do not own their own vehicle, in contrast to 100% of respondents in Tow Hill owning a vehicle. Additional methods of transportation noted included Eagle Transit and family members.

6% of respondents required some method of transportation assistance. Of those that identified needing assistance, they required primarily visual and mobility assistance. Two respondents needed assistance with oxygen and chemo-therapy.

### Public Transportation Preferences

Overall, public transportation was identified as being primarily used for running errands, social and work activities. Only 7.3% of respondents stated they would not use public transportation. Additional reasons for using public transportation included: health benefits, transportation for their children, and to visit family.

83% of respondents preferred centralized bus stops rather than door-to-door service and 6 individuals identified they would use it to travel to airports and the ferry terminals.

79% of respondents between 0-18 stated they would use public transportation to travel to school and 71% of which would prefer

Would you use public transportation on Haida Gwaii?

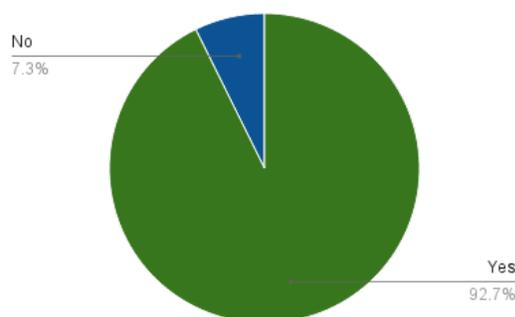


Figure 1: Percentage of population that would use public transportation.

What kind of bus stop would you prefer?

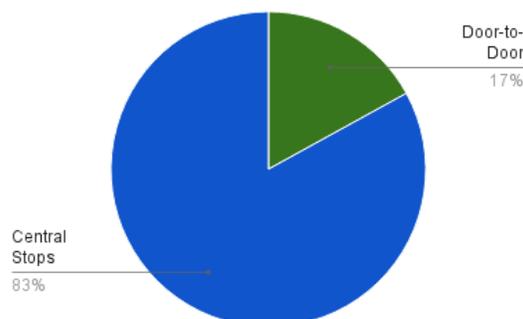


Figure 3: Public transportation system style preferences.

centralized bus stops. These individuals are primarily from Sandspit, Masset and Old Massett. 71% of these individuals do not have a driver's license or have access to a vehicle. These individuals also state that they are unable to participate in school activities, are dependent on others for transportation, or have difficulty getting around.

Based on destination preferences two distinct needs were apparent: short haul routes and long haul routes.

See Appendix F for community destination preferences.

The primary short haul routes included:

- Queen Charlotte - Skidegate
- Old Massett - Masset - Tow Hill
- Sandspit - Queen Charlotte/Skidegate

The long haul route included:

- Masset - Port Clements - Tlell - Lawn Hill - Miller Creek - Skidegate - Queen Charlotte

Overall, only 23% of respondents would use public transportation every day, with 32% stating they would use it once a week and 32% stating sporadically. However, depending on why public transportation was being used, there were differences in frequency of use.

- Primarily for work (105 individuals), 40% stated they would use it everyday
- Primarily for social (153 individuals), 35% stated they would use it once a week
- Primarily for errands (134 individuals), 39% stated they would use it once a week
- Primarily for school (47 individuals), 43% stated they would use it everyday

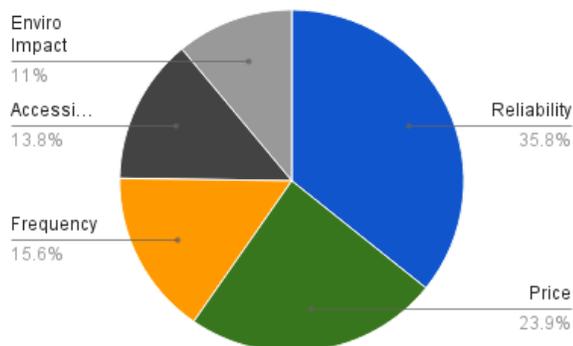
## Public Transportation Values

Reliability, price and frequency were identified as the top 3 most important attributes of public transportation respectively.

Overall, the greatest motivation for utilizing public transportation is wanting to reduce their environmental impact (32%), and wanting to save money (21%).

Those that were not motivated to use public transportation (4.9%) were primarily within the income bracket of \$50,000 and up, with 100% owning their own vehicle and required no travel

**What is the most important attribute of a public transportation system for you?**



**Figure 4:** Important attributes of a public transportation system

assistance. They stated that they would never or sporadically use public transportation and are not affected by the lack of transportation. However, some see it as an opportunity to save money, support youth, and limit their environmental impact.

The *lack* of public transportation has impacted respondents in the following ways:

- Drive more frequently than would like to
- Reliant on friends and family
- Lack of independence
- Youth social isolation
- Disengagement from community
- Lack of transportation to work, school, community amenities
- Limits job opportunities
- Increased gas expenses
- Increased environmental impact
- Tourist isolation

A primary value that emerged was the importance of community engagement in social events and work. Respondents were willing to support a public transportation system, even if they had their own vehicle, so that those individuals that do not have a vehicle could engage with the community. Island wide connection, engagement and attendance at community events was important to respondents.

Due to the geography and location of communities, some community members, especially elderly and youth, experience isolation. Sandspit students are reliant on parent volunteers to carpool them to the Alliford Bay ferry terminal, and are not able to engage in after school programming on Graham Island since the ferry does not operate in the evenings. Island-wide, students rely on carpooling and/or walking to participate in after school activities.

Respondents also perceived additional community benefits in having public transportation, which include:

- Reduce drinking and driving
- Reduce youth and elderly isolation
- Increase youth engagement in school extracurricular activities
- Enhanced tourist mobility and access to all island communities
- Increased accessibility for individuals living on low-income
- Planning for future transportation needs as they age
- Environmental sustainability

Additional Public Transportation solutions emerged, which included:

- Social services provide travel vouchers for taxi's and Eagle Transit
- Electric public transportation system
- Need for safe bike lanes
- Exploration of a train system integrated with roadway
- Reduced rates and/or bus passes for locals
- Surf shuttle between Tow Hill and Queen Charlotte
- Transportation to Rennell Sound

**Below are public transportation preferences and values by community:**

**Table 3. Queen Charlotte Preferences**

Queen Charlotte	
Reason	Social, Work
Frequency Use	Sporadically, Once a week
Destination	Skidegate, Masset
Willing to Pay Short Route	\$2.00 - \$4.99
Willing to Pay Long Route	\$10.00 - \$14.99
Most Important	Reliability
Greatest Motivation	Reduce Environmental Impact

**Table 5. Sandspit Preferences**

Sandspit	
Reason	Social, Errands, School
Frequency Use	Once a week, Everyday
Destination	Queen Charlotte, Skidegate
Willing to Pay Short Route	\$2.00 - \$4.99
Willing to Pay Long Route	\$15.00 - \$19.99
Most Important	Frequency, Price
Greatest Motivation	I want to save money

**Table 4. Skidegate Preferences**

Skidegate	
Reason	Social, Work
Frequency Use	Once a week, Everyday
Destination	Queen Charlotte, Masset, Sandspit
Willing to Pay Short Route	\$2.00 - \$4.99
Willing to Pay Long Route	\$20.00 - \$29.99
Most Important	Reliability, Price
Greatest Motivation	Reduce Environmental Impact

**Table 6. Old Massett Preferences**

Old Massett	
Reason	Social, Work,
Frequency Use	Everyday, Once a week
Destination	Masset, Skidegate, Port Clements
Willing to Pay Short Route	\$2.00 - \$4.99
Willing to Pay Long Route	\$35.00 - \$50.00
Most Important	Price
Greatest Motivation	I want to save money

**Table 7. Masset Preferences**

Masset	
Reason	Social, Errands
Frequency Use	Sporadically, Once a week
Destination	Queen Charlotte, Tow Hill
Willing to Pay Short Route	\$2.00 - \$4.99
Willing to Pay Long Route	\$20.00 - 29.99 or \$10 - \$14.99
Most Important	Reliability
Greatest Motivation	Reduce environmental impact

**Table 8. Port Clements Preferences**

Port Clements	
Reason	Errands
Frequency Use	Sporadically
Destination	Tlell, Queen Charlotte, Masset
Willing to Pay Short Route	0 - \$1.99 or \$2.00 - \$4.99
Willing to Pay Long Route	\$15 - \$19.99
Most Important	Reliability
Greatest Motivation	Reduce environmental impact and other (unable to drive, unreliable vehicle, prefer not to drive)

**Table 9. Tow Hill Preferences**

Tow Hill	
Reason	Social, Errands
Frequency Use	Sporadically
Destination	Masset
Willing to Pay Short Route	\$2.00 - \$4.99
Willing to Pay Long Route	\$10 - \$14.99
Most Important	Environmental Impact
Greatest Motivation	Save money, reduce environmental impact

**Table 10. Tlell Preferences**

Tlell	
Reason	Social, Work
Frequency Use	Sporadically
Destination	Queen Charlotte
Willing to Pay Short Route	\$2.00 - \$4.99
Willing to Pay Long Route	\$10 - \$14.99 or \$20 - \$29.99
Most Important	Reliability
Greatest Motivation	Other (prevent drinking & driving, health)

**Table 11. Lawn Hill Preferences**

Lawn Hill	
Reason	Social, Errands
Frequency Use	Once a week
Destination	N/A
Willing to Pay Short Route	\$2.00 - \$4.99
Willing to Pay Long Route	\$15 - \$19.99
Most Important	Reliability
Greatest Motivation	Reduce Environmental Impact

## Challenges

In reviewing local assets and needs, a number of challenges emerged related to transportation on Haida Gwaii. These challenges have been considered when drafting delivery options and recommendations.

**Profitability:** Haida Gwaii has a small resident population with seasonal tourist influxes, large distances between communities and a high cost of fuel. The combination of these factors means that providing public transportation is a costly undertaking. Current transportation providers have responded to these challenges by offering demand-responsive travel routes rather than fixed schedules. Some also share costs between services, and by pay staff a commission rather than a salary.

**Cost incurred by Riders:** A primary concern was the potential cost incurred by riders, and that the current Eagle Transit fees were too high.

**Competition with Local Businesses:** Community members identified the need for regular, affordable transportation island wide and to both airports. However, the implementation of a public transportation system could compete with the local business Eagle Transit, who currently provides door-to-door shuttle services.

**Current Habits of Residents:** The majority of residents on Haida Gwaii are accustomed to using a personal vehicle for travel. 81.8 % of survey respondents use a personal vehicle as a primary mode of travel (75.6% own a vehicle), and 21.5% rely on friends. Although only 7.3% of respondents indicated that they would not use public transportation on Haida Gwaii, current reliance on personal vehicles suggests that a significant behavioural change must occur if residents are to successfully transition to public transportation options. There appears to be an appetite for public transportation; however, the system must accommodate the variety of user preferences if it is to become more appealing than personal vehicles.

**Availability of Qualified Drivers:** Numerous businesses currently providing transportation services cited recruitment and retention of qualified drivers as a primary challenge.

**Licensing Requirements:** The Passenger Transportation Branch approves and administers a variety of licenses required for transporting the public, and is legislated by the Passenger Transportation Act.<sup>2</sup> These licenses stipulate requirements regarding vehicle size, maintenance and allowable activities and fall within three commercial passenger vehicle categories: General Passenger Vehicle (General Authorization), Passenger Directed (Special Authorization) and

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<sup>2</sup> For additional information on licenses and regulations, see: <http://www.th.gov.bc.ca/rpt/>. For additional information on qualifications for auxiliary licenses, see:

[http://www.th.gov.bc.ca/rpt/Documents/Aux\\_Pass\\_Vehicle\\_Exempt.pdf](http://www.th.gov.bc.ca/rpt/Documents/Aux_Pass_Vehicle_Exempt.pdf).

For additional information on school bus permits and the Commercial Vehicle Safety and Enforcement, see: <http://www.cvse.ca/> For additional information on [Division 11 of the Motor Vehicle Act](#).

Inter-city Bus (Special Authorization). Eagle Transit is the sole company on-island that currently has the appropriate license to offer scheduled public transportation.

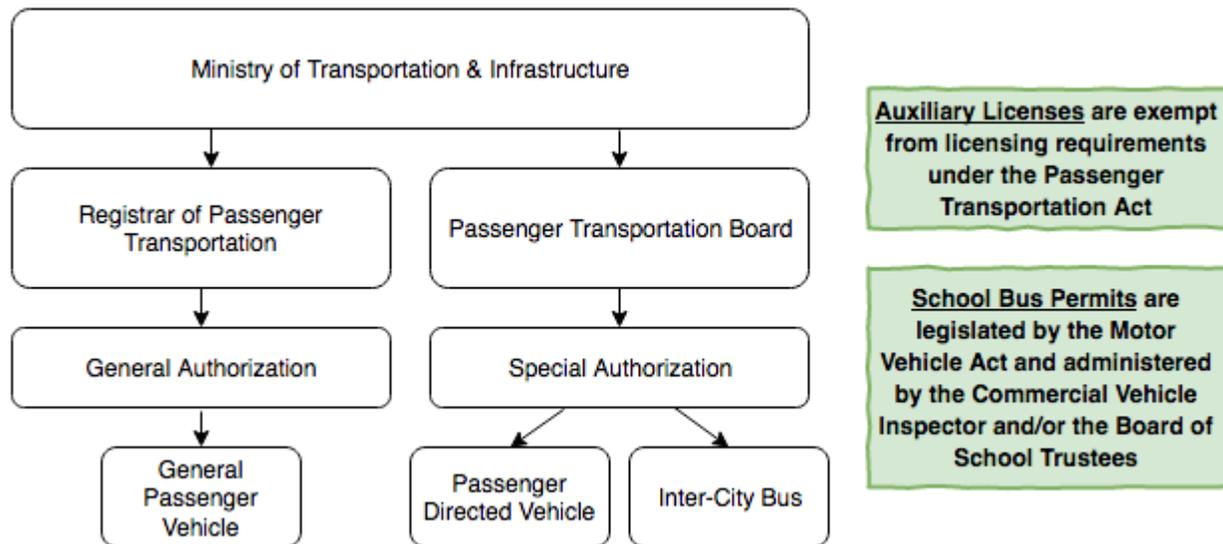


Figure 5. Passenger Transportation Licenses

**Service Provider Versus Public Needs:** The organizations currently providing transportation to subsets of the population have a variety of highly specific needs that do not necessarily align with the general public demand indicated through survey results. For example, the buses operated by SD50 must be reserved for exclusive student use in the mornings and afternoons. The bus operated by Northern Connections vis-a-vis Eagle Transit must have a schedule that aligns with pharmacy and hospital timing. Within the general public, there are equally diverse needs (timing, destinations) within a small population which makes coordinating solutions that work for many extremely difficult, particularly in regards to evening travel.

**School Bus Timing & Remote Communities:** Students traveling from Port Clements and Tlell to school spend a substantial amount of time on the school bus. FirstBus mandates that students spend no more than 95 minutes on the bus each direction, and that they arrive between 30 and 10 minutes before school start time. These regulations, combined with a small population of students who live across a large geographic area, means that some elementary students from Tlell and Port Clements will bypass their school in Skidegate to collect students in Queen Charlotte before returning to Skidegate in time for their class. They spend nearly the maximum allowable time on the bus in each direction.

**Community Events:** Annual community events are held within each community, and attract all island residents. Transportation to and from events is either coordinated by the event organisers or is the responsibility of attendees. Volunteers often provide designated driver services. Lack of safe evening public transportation can be a barrier for individuals to engage in community events island wide, if the organizers have not arranged for service.

**After Hours Transportation:** Many community members expressed a desire to have evening and late night transportation options that would run both independently and in conjunction with community events. This could increase community participation at events and lead to safer road conditions.

## Section 6: SD50 School Bus Service Solutions

This study outlines 5 SD50 School bus service solutions, and their strengths and challenges.

### Service Solution 1: Keep Existing Contract with FirstBus Limited

**Table 12.** Service Solution 1

Provider	FirstBus Limited
License	School Bus Permit
Funding Model	SD50 operations budget
Estimated Cost	\$414,708.88 + tsunami bus and any added student travel
Estimated Cost Reduction	\$0 with potential of cost increase in subsequent contract negotiations.
Service Routes	Same as existing routes
Staff Requirements	5 drivers, Superintendent Liaison
Vehicle Requirements	5 school buses + 1 tsunami evacuation bus

#### Strengths:

- FirstBus has years of experience delivering transportation to students across the province and on Haida Gwaii.
- SD50 has an existing relationship with FirstBus.
- First Bus has infrastructure (physical and administrative) to deliver a complete school bus transportation system.

#### Challenges:

- Associated costs are higher than other options.
- As a large off-island provider that manages multiple school bus systems, some local student needs are not accommodated for and there is less flexibility for change.
- School bus services cannot be altered to accommodate public transportation needs.

## Service Solution 2: On island contractor provides exclusive school bus service

Some local businesses have expressed interest in providing an exclusive school bus service and have stated that they could likely provide the service for less than the current contract. For this solution, SD50 would need to coach local providers on the contract requirements prior to expiration (June 2018). The coaching component is essential to building local understanding of needs and opportunities. SD50 would then put the contract out for tender and review all bids.

**Table 13.** Service Solution 2

Provider	Eagle Transit, O'Brien or alternative
License	School Bus Permit
Funding Model	SD50 operations budget
Estimated Cost	To be negotiated with providers; contingent on organizational capacity and assets. Actual cost must be determined on a case-by-case basis.
SD50 Estimated Cost Reduction	15 - 30%. <sup>3</sup>
Service Routes	Same as existing routes or created with potential provider
Staff Requirements	Number of drivers and administrators to be determined with specific provider.
Vehicle Requirements	Number of buses to be determined with specific provider.

### Strengths:

- Financially appealing contract for on island service provider.
- Significant investment into the local economy.
- SD50 and local service provider may be able to better coordinate service to cater to student needs, as this would be the only student transportation contract the service provider is responsible for.
- Estimated cost savings of 15 - 30% for SD50. Firm figures must be negotiated with local service provider.

### Challenges:

- Would not be open to public ridership, thus limiting broader public benefit.

<sup>3</sup> This range is based on conversations with prospective providers, historical financial data, and future projections.

- No potential contractors have the capacity to currently bid, but could prepare to bid on the contract. Would need to collaborate with prior to help with preparedness.
- A tsunami evacuation vehicle will need to be available.

### Service Solution 3: SD50 provides exclusive school bus service

SD50 could create a position internally or re-organize its current structure in order to support the delivery of transportation solutions to schools on island. SD50 would need to purchase 6 new buses.

**Table 14.** Service Solution 3

Provider	SD50
License	School Bus Permit.
Funding Model	SD50 Operations budget
Estimated Cost	\$416,042 per year, with an initial investment of \$810,000 to purchase 6 buses
SD50 Desired Cost Reduction	0%
Service Routes	Same as existing routes
Staff Requirements	5 Drivers <sup>4</sup> 1 Full Time Administrator
Vehicle Requirements	5 buses in operation + 1 bus for tsunami evacuation

**Strengths:**

- Maximum flexibility for SD50 and the students.
- SD50 retains total control over costing, no profit margin incorporated into the budget.

**Challenges:**

- Union restrictions may limit staffing opportunities.
- SD50 has no experience providing transportation services; could make operations less efficient and more costly.
- Administrative responsibilities are substantial and start-up costs are extensive.
- Vehicle depreciation and maintenance will be the responsibility of SD50.
- Vehicles may need to be replaced every 7-10 years.

<sup>4</sup> SD50 could re-organize the transportation system from its current model, which could allow for staffing reductions.

- Vehicles need to pass annual school bus inspection by the commercial vehicle safety and enforcement.
- Can be difficult to receive a school bus permit if it is not a yellow/black school bus.
- If vehicles are used for purposes outside of student transportation, they will need appropriate licenses and approval.

## Service Solution 4: On Island Contractor provides public transportation system

In this solution, SD50 does not operate a school bus system. Instead, SD50 helps subsidize a third party (business or not-for-profit organization) to provide an inter-city bus that is open to the public and students to ride, but would be primarily modeled around SD50 needs.

**Table 15.** Service Solution 4

Provider	Regional district contracts on-island provider
License	Special Authorization Inter-city Bus License
Funding Model	<ul style="list-style-type: none"> <li>• Subsidized by Regional District, Municipalities and Band Councils.</li> <li>• Further potential subsidies from local funders and service providers.</li> <li>• SD50 Taxi Saver</li> <li>• Pay-per-ride for the public.</li> </ul>
Estimated Cost:	<p>\$554,890 per year for operational expenses.            \$194,016 generated per year from user fees (conservative).</p> <p>Therefore, it would cost \$360,874 per year to operate this system.</p>
SD50 Estimated Cost Reduction:	SD50 would contribute a percentage of the total system cost to cover student ridership. This percentage would need to be negotiated with service providers.
Service Routes:	See <u>Option 3: Short-Haul Pilot Project</u> in Public Transportation Options section (below) for detailed potential routes in Old Massett, Masset, Tow Hill, Skidegate, Queen Charlotte and Sandspit. Additional stops would be needed in Port Clements, Tlell and Lawn Hill to accommodate all students.
Staff Requirements	5 Drivers, 1 Full Time Administrator

Strengths:

- Potential cost savings for SD50.
- Added social value by providing public transportation.
- Locally-owned public transportation solution allows for schedule coordination that accommodates SD50 needs and other specific community or tourist needs.
- Opportunities for municipality, band council and/or regional district financial support for the public service.

Challenges:

- Finding a contractor to provide this that does not compete with private businesses.
- Not likely a profitable venture; contractor would be heavily subsidized and perhaps required to be a non-profit organization.
- Infrastructure maintenance (bus stops, signage) requires additional financial and logistical support.
- Students would not be door-to-school, but would be picked up at identified bus stops.
- Parents are reluctant to have a school bus service that is open to the public.

**Student-Only Alternative:** This solution could be altered to restrict ridership around school hours to students only. This would limit public use of the transportation system to non-school hours, thereby making the system inaccessible to commuters and others who wish to travel in the morning and afternoon. This alteration would better accommodate the wishes of local parents, but would likely require a greater financial contribution from SD50 given that the system would generate less revenue through public ridership and have less of a island wide benefit.

## Service Solution 5: BC Transit provides public transportation service

In this solution, SD50 does not operate a school bus system. Instead, students take advantage of an island-wide public transportation system organized by BC Transit, which include a fixed route service and a paratransit system with taxi saver options as initially proposed in the 1999 feasibility study. SD50 could contribute financially to this system and in exchange, students could receive a discounted fare.

**Table 16.** Service Solution 5

Provider:	Regional District, BC Transit and a contracted local transportation company <sup>5</sup>
License:	<ul style="list-style-type: none"><li>● Special Authorization Inter-city Bus</li></ul>
Funding Model	<ul style="list-style-type: none"><li>● Subsidized by BC Transit<sup>6</sup>, Regional District, Municipalities and</li></ul>

<sup>5</sup> For details on a BC Transit partnership and the division of roles and responsibilities, see: <https://bctransit.com/cowichan-valley/about/funding-and-governance/regional>.

	<p>Band Council through tax increases.</p> <ul style="list-style-type: none"> <li>• Further subsidized through local partners who would benefit from public transportation such as SD50, Gwaii Trust and smaller business and organizations</li> <li>• SD50 Taxi Saver (bus passes for students)</li> <li>• Pay-per-ride public</li> </ul>
Estimated Cost	Like Service Option 4, SD50 would contribute a percentage of the total cost. Specifics to be determined by BC Transit feasibility study.
Estimated Cost Reduction	Determined by BC Transit through a feasibility study.
Service Routes	Determined by BC Transit through a feasibility study.
Staff Requirements	Determined by BC Transit through a feasibility study.

Strengths:

- Cost savings for SD50
- Added social value providing public transportation
- Substantially subsidized by BC Transit
- BC Transit plans, funds and markets the system. They also provide transit vehicles and professional services.

Challenges:

- Given the small ridership and the low revenue from fares, this system would place a heavy, if not impossible, financial burden on the Regional District. Added financial support from SD50 and other local funding partners is essential to bringing this system into fruition.
- Students would not be door-to-school, but would be picked up at identified bus stops.
- Students would ride the bus with the public. Parents are reluctant to have a school bus service that is open to the public.
- The service would be subject to BC Transit rules and regulations and may, as a result, be less flexible to local needs and options.
- This service could compete with Eagle Transit.

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<sup>6</sup> The British Columbia Transit Act and the British Columbia Transit Regulation stipulate cost sharing regulations between BC Transit and the Regional District. Currently, BC Transit funds 46.69% of conventional transit systems and 66.69% of paratransit systems. The Regional District share is made up of revenue from fares, local property taxes and other local contributions (funding partners, advertising).

## Section 7: Public Transportation Options

While exploring transportation solutions for SD50, public transportation needs and opportunities also surfaced. The following options could be adopted in addition to the SD50 solutions to better serve the general public of Haida Gwaii.

### Option 1: Northern Health Connections Bus Adjustment

Eagle Transit is currently contracted by Northern Health to provide daily service to and from Queen Charlotte to Masset. This service is under utilized, with few community members aware of the service. In addition, based on the community survey all island transportation at a reliable and affordable rate was identified as a need. A few options could be implemented to better utilize the Northern Health Connect service and better meet the community's needs:

- A. Increase promotion and awareness of daily service;
- B. Provide a resident rate or pass for frequent users;
- C. Explore opportunities to alter Northern Health Connections times to better match community needs.

### Option 2: Evening Water Taxi

Sandspit residents are unable to participate in community events and school activities in the evenings due to the lack of transportation from activities to the ferry terminal, and the ferry not operating in the evening. A solution could include a regular evening water taxi from the Skidegate ferry landing or Queen Charlotte harbour to Moresby Island. Currently, Sasha Jones provides this service on-demand.

Band Councils, Municipalities and SD50 could help subsidize this service for students and community members traveling in the evening.

### Option 3: Short Haul Routes Pilot Project

There is a high demand for local short routes in the south and north end, that would be frequently used. Short-haul routes could also inspire a shift away from relying on personal vehicles, since many individuals indicated that reducing their environmental impact was central to their motivation for using public transportation.

Short haul routes were identified as primarily being used for work and social purposes, and respondents indicated that \$2.00 - \$4.99 would be an appropriate price point for a one-way trip. Municipalities and Band Councils would be responsible for subsidizing short routes to offer as a public service and improve quality of life. These routes could include:

- Queen Charlotte - Skidegate
- Old Massett - Masset - Tow Hill

- Sandspit - Queen Charlotte/Skidegate

A pilot project should include 5 - 10 stops in each community on a fixed route, and it should have a minimum of 3 round trips per day (morning, mid-day, evening). These routes could be completed with smaller buses or vans. Potential stops in each community *could* include the following:

- **Sandspit:** Airport, Moresby Explorers, Golf Course, Bridgeview Marina, Alliford Bay Ferry Terminal
- **Skidegate:** Skidegate Ferry Terminal<sup>7</sup>, Haida Heritage Centre at Kay Llnagaay, Longhouse Gift Shop, S.H.I.P., Co-Op, Sk'aadga Naay Elementary School, Skidegate Super Heights
- **Queen Charlotte:** GidGalang Kuuyas Secondary School, Sun Studio, City Centre, Northern Savings Credit Union, Existing Bus Stop near Forestry Hill, Boat Launch
- **Old Massett:** Masset Hospital, Old Masset Village Council, Sara's Gift House, Old Massett Youth Centre, Gin Kuyaas, Massett Hospital
- **Masset:** Northern Savings Credit Union, Teal Blvd, Masset Grocery, Copper Beach House, The Ground
- **Tow Hill:** Tow Hill Community Sign

## Option 4: Taxi Saver with Current Providers

In order to provide transportation to the segments of the population without reliable personal transportation (non-drivers, individuals without personal vehicles), some small and remote communities adopt a taxi saver program (McCue, Tolentino, & MacDonald, 2014). In this style of program, individuals that meet a list of pre-established criteria receive subsidized transportation with current providers, namely taxis (land and water). Typically, eligible participants are able to buy a book of coupons with a face value of \$50 for \$25, for example. Transportation providers are fully compensated by system funders. They can then apply these coupons to future travel as needed. Some communities place restrictions around when coupons can be used, and how many can be used per month.

In the case of Haida Gwaii, this program would provide support to students who participate in extracurricular activities (particularly those in Sandspit), to the elderly, and to low-income individuals or families.

Funding for the program could come from a variety of sources including Band Councils and local governments, social service organizations, the school district and local funding bodies. It would require the development of partnerships with local transportation providers.

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<sup>7</sup> Stops at the ferry landing would need to be coordinated with Skidegate - Alliford Bay ferry departures. See: <http://www.bcferries.com/m/schedules/inside/absk-current.php>

# Service Recommendations

## 1. SD50 School Bus Service Recommendations:

### **Service Solution 2**

## 2. Public Transportation Recommendations:

### **A combination of the following**

- Option 1: Northern Health Connect Adjustment
- Option 2: Evening Water Taxi
- Option 3: Short Haul Routes Pilot Project
- Option 4: Taxi Saver with Existing Providers

### **AND**

### **Service Solution 5**

## Additional Public Transportation Recommendations:

The following list includes options that could be easily implemented in the short-term, and could precede and/or facilitate recommended service solutions and options.

**Transportation Committee:** A key component to the success of public transportation on Haida Gwaii will be finding a local champion or group of individuals to move this initiative forward. This committee could be responsible for initiating the recommendations.

**Collaborative Communication:** Based on the survey feedback, community members are unaware of the diversity of transportation options currently available. In addition, there is not a clear, unified location for tourists or residents to find transportation information. A collaborative communication effort to disseminate this information, and that is updated regularly could be created. This could include:

- A two page public transportation brochure updated annually, which could include graphics from the Executive Summary and/or Appendix B.
- A webpage housed on the village(s) websites with current information
- A webpage housed on GoHaidaGwaii

**List of on island drivers:** Many of the service providers on island identified the challenge of finding and hiring qualified bus drivers on island. A comprehensive list of qualified drivers could be developed by the transportation committee or potentially local employment agencies.

**Coordination of Designated Drivers:** Community members are concerned by the lack of transportation options available in the evenings to prevent drinking driving. However, a public transportation system is unlikely able to accommodate this need on a scheduled basis. There could be a coordinated and intentional effort by community members to arrange for volunteer designated drivers after events. As well, a greater responsible could be placed on event organizers to have public transportation available.

**Software for scheduling:** Various technologies have been developed that aid multiple partners deliver a cohesive transportation system to rural communities. These technologies (see Trapeze Novus Transportation Management System for an example) include web-based scheduling options, and various management systems.

# Implementation Plan

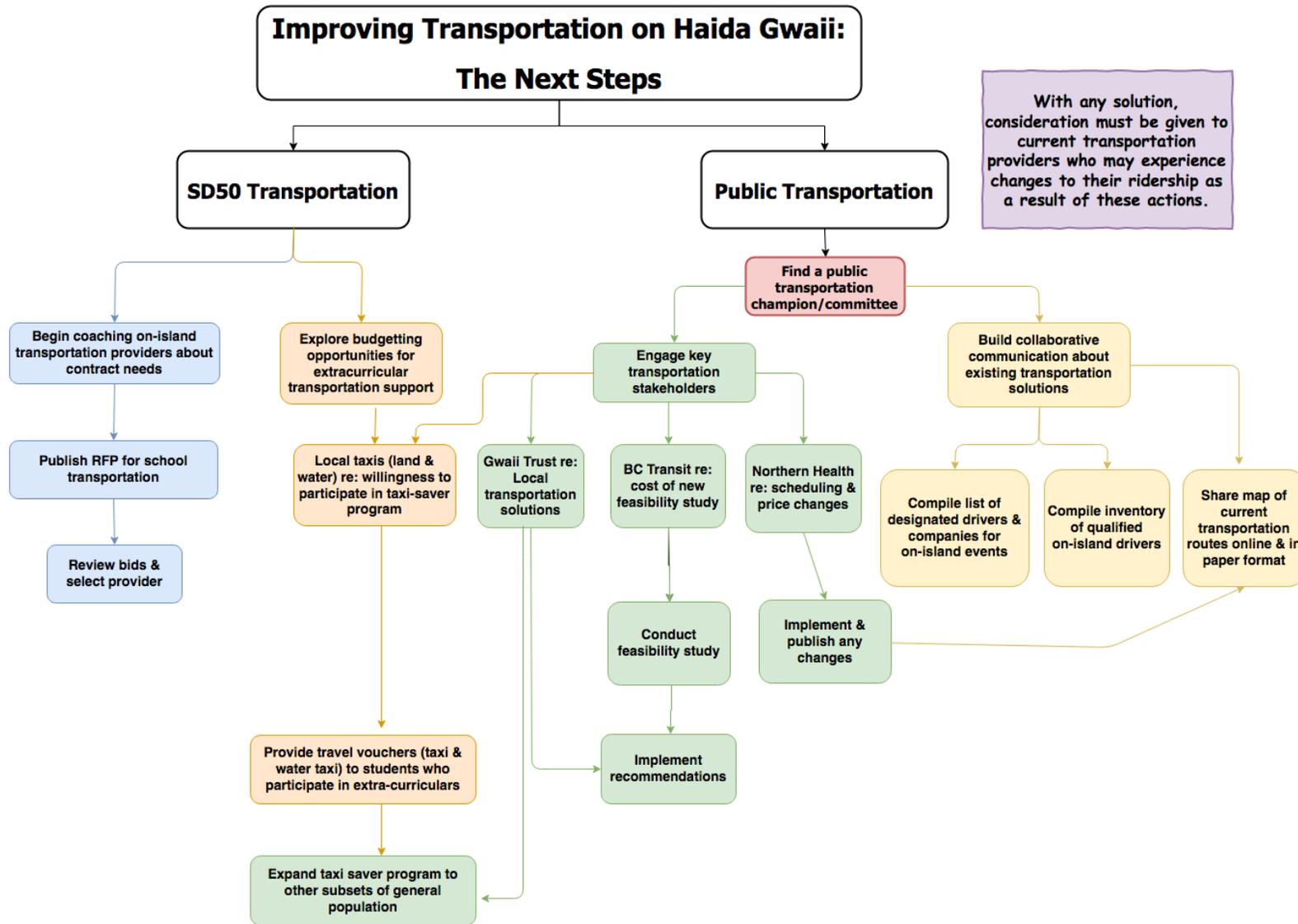


Figure 6. School Bus Service and Public Transportation Service Implementation Plan

## References

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# Appendices

## Appendix A: Inventory of Haida Gwaii Transportation Assets

**Table 17.** Inventory of Haida Gwaii Transportation Assets

<b>Owner/Operator</b>	<b>Model</b>	<b># of Seats</b>	<b>Licences</b>	<b>Primary Purpose</b>	<b>Primary Region</b>	<b>Available for Rent?</b>	<b>Contact</b>
Moresby Explorers	Van	15 passenger	Auxiliary License	Tourism	Sandspit	No	Heron Weir
Moresby Explorers	Van	15 passenger	Auxiliary License	Tourism	Sandspit	No	Heron Weir
Moresby Explorers	Van	15 passenger	Auxiliary License	Tourism	Sandspit	No	Heron Weir
Moresby Explorers	Van	15 passenger	Auxiliary License	Tourism	Sandspit	No	Heron Weir
Eagle Transit	Bus	24 passenger	General Authorization and/or Special Authorization	Charters	All Island	Yes	Debbie Crosby
Eagle Transit	Bus	24 passenger		Charters	All Island	Yes	Debbie Crosby
Eagle Transit	Bus	40 passenger		Charters	All Island	Yes	Debbie Crosby
Eagle Transit	Bus	14 passenger		Charters	All Island	Yes	Debbie Crosby
Eagle Transit	Bus	16 passenger		Charters	All Island	Yes	Debbie Crosby
Eagle Transit	Van	10 passenger		Charters	All Island	Yes	Debbie Crosby
Eagle Transit	Car	4 passenger		Charters	All Island	Yes	Debbie Crosby
Sandspit Community Society	Van	14 passenger		General Authorization	Taxi/Tourism	Sandspit	Yes
Sandspit Community Society	Bus	19 passenger	General Authorization	Taxi/Tourism	Sandspit	Yes	Hudson McLellan
Sandspit Community Society	Sienna Minivan	7 passenger	General Authorization	Taxi/Tourism	Sandspit	Yes	Hudson McLellan
Haida Style	Van	14 passenger	Auxiliary License	Tourism	QC & Skidegate	No	James Cowpar

Gwaii Taxi and Tours	Taxi	4 passenger	Special Authorization	Taxi	QC & Skidegate	No	Bob Stratton
Gwaii Taxi and Tours	Taxi	4 passenger	Special Authorization	Taxi	QC & Skidegate	No	Bob Stratton
Gwaii Taxi and Tours	Bus	15 passenger	General Authorization	Taxi/Tourism	QC & Skidegate	Undecided	Bob Stratton
HGHES (leased from QC Tire)	Bus		Auxiliary License	Private	QC & Skidegate	No	Carlos Ormond
Haida Gwaii Discovery Day Tours	Bus	17 passenger	Auxiliary License	Tourism	All Island	No	Andrew Merilees
Haida Gwaii Discovery Day Tours	Van	13 passenger	Auxiliary License	Tourism	All Island	No	Andrew Merilees

# Appendix B: Current Transportation Routes on Haida Gwaii

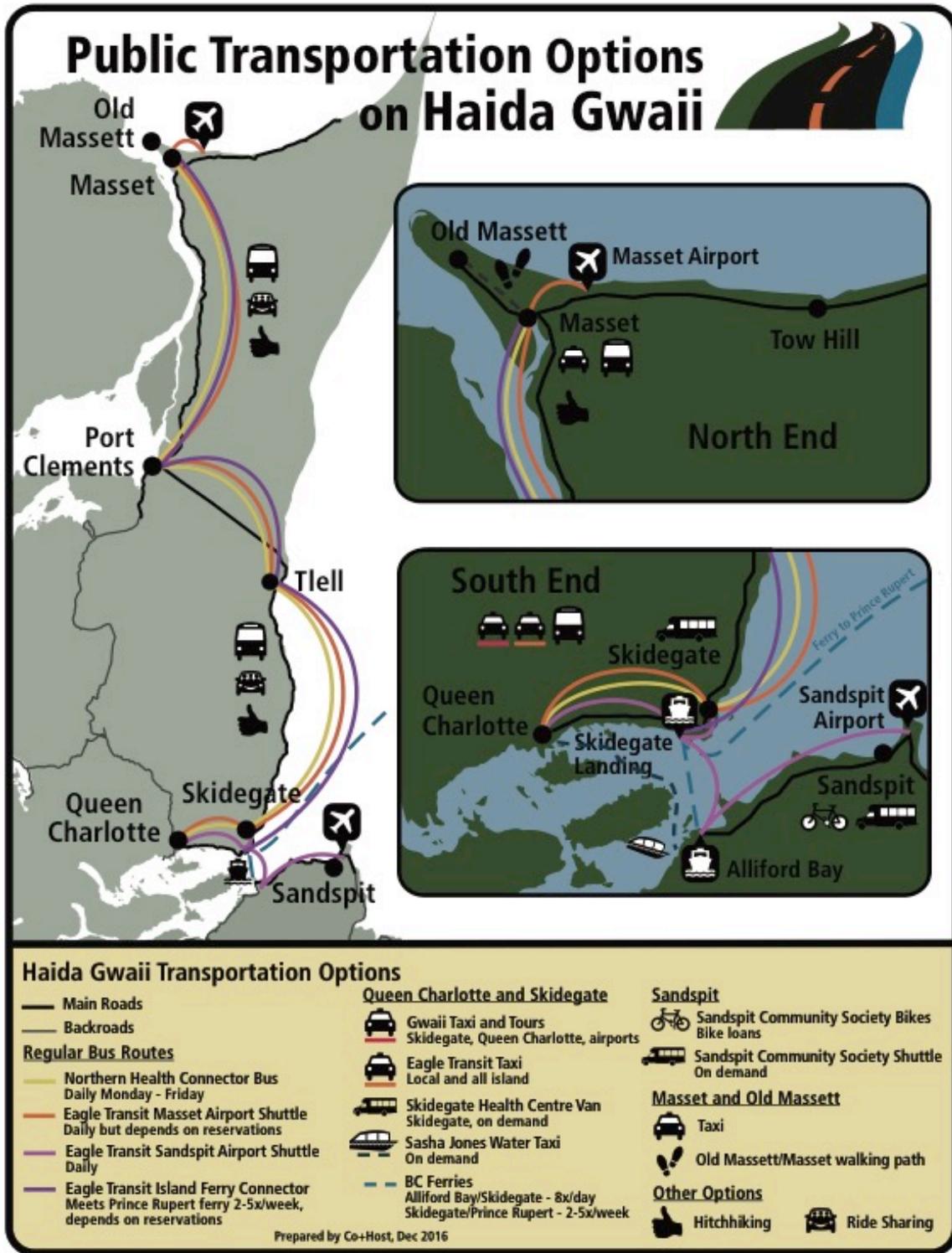


Figure 7: Public Transportation Options on Haida Gwaii

# Appendix C: Eagle Transit Schedule between Queen Charlotte and Masset

## EAGLE TRANSIT TRANSIT SERVICES BETWEEN QUEEN CHARLOTTE and MASSET

September 15, 2016 to February 7, 2017								
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Depart Queen Charlotte	A	11:15 a.m.						
	B	8:30 a.m.	9:15 a.m.	9:15 a.m.				
	C				6:00 p.m.			
Arrive Masset	A	1:00 p.m.						
	B	9:50 a.m.	10:45 a.m.	10:45 a.m.				
	C				7:30 p.m.			
Depart Masset	A	1:15 p.m.						
	B	9:50 a.m.	11:45 a.m.	11:45 a.m.				
	C				7:30 p.m.			
Arrive Queen Charlotte	A	3:00 p.m.						
	B	11:15 a.m.	1:00 p.m.	1:00 p.m.				
	C				9:00 p.m.			

- A NH Connections Haida Gwaii
- B Masset Airport Shuttle
- C Island Transit Ferry Connector

**Figure 8.** Eagle Transit Transportation Schedule (Queen Charlotte and Masset)

Note: Route A has a maximum of 3 passengers per direction with 1 piece of luggage each. Routes B and C do not operate if there are no advance reservations. This schedule does not include the regularly scheduled route between Queen Charlotte, Skidegate and the Sandspit Airport.

## Appendix D: Stakeholders Consulted & Interview Questions

### Stakeholders Consulted (Interviews):

- Area E (Mike Racz)
- Village of Queen Charlotte (Lori Wiedeman)
- Sk'aadgaa Naay Parent Council (Jo Brunsdan)
- Northern Health (Ellen Cranston)
- Sandspit Community Society (Hudson McLellan and Heron Weir)
- Gwaii Taxi and Tours (Bob Stratton)
- School District 50 (Johnson Day)
- Port Air Cargo (Leah Croft)
- Eagle Transit (Debbie Crosby and Marilyn Wilkens)
- Village of Port Clements (Kim Mushynsky)
- Haida Gwaii Higher Education Society (Carlos Ormond)
- Moresby Explorers (Heron Weir)
- Haida Style (James Cowpar)
- Haida Gwaii Discovery Day Tours (Andrew Merilees)

### Stakeholders Consulted (Conversation):

- North Coast Regional District (Doug Chapman)
- BC Transit (Chris Fudge)
- Passenger Transportation Inspector, PT Branch (Margaret Lovell)
- Roads, Ministry of Transportation and Infrastructure (Brian Lomas, Area Manager)
- Commercial Vehicle Safety and Enforcement (Joe Cordeiro)

**Table 18.** Stakeholder Interview Questions

Question	Rationale
How are you providing transportation (to the public or to your client)? Tell us about it.	Assets - Physical, Human
Who are you doing it with (contract? informal)? Tell us about it.	Collaborations & Relationships with the System
What are your challenges?	Needs and Opportunities
How could you benefit from public transport in HG?	Perceived Value
What opportunities do you see related to public transportation?	Opportunities
What attempts have been made to provide public transportation in the past? Tell us about it.	Context and Improvements
Would you be interested in collaborating on a public transit system? What role do you see yourself playing?	Collaboration and Assets

# Appendix E: Public Survey

## Your Demographics

*These questions help us build an anonymous demographic profile about the people answering this survey. It helps us make sure we are getting a cross-section of the population participating, and may help with grant applications in the future.*

1. Which community are you a member of?
 

<input type="checkbox"/> Sandspit	<input type="checkbox"/> Port Clements
<input type="checkbox"/> Skidegate	<input type="checkbox"/> Masset
<input type="checkbox"/> Queen Charlotte	<input type="checkbox"/> Old Massett
<input type="checkbox"/> Lawn Hill	<input type="checkbox"/> Tow Hill
<input type="checkbox"/> Tlell	
  
2. How old are you?
 

<input type="checkbox"/> 0-18	<input type="checkbox"/> 56-70
<input type="checkbox"/> 19-29	<input type="checkbox"/> 71+
<input type="checkbox"/> 30-55	
  
3. What is your annual income?
 

<input type="checkbox"/> 0 - \$10,000	<input type="checkbox"/> \$50,000 - \$100,000
<input type="checkbox"/> \$10,000 - \$30,000	<input type="checkbox"/> \$100,000+
<input type="checkbox"/> \$30,000 - \$50,000	

## Your Current Transportation Habits

*These questions help us understand how people are currently getting around Haida Gwaii.*

4. What are your 2 primary methods of transportation on Haida Gwaii?
 

<input type="checkbox"/> Biking	<input type="checkbox"/> Personal Vehicle
<input type="checkbox"/> Walking	<input type="checkbox"/> Friends/Neighbours
<input type="checkbox"/> Hitch Hiking	<input type="checkbox"/> Taxi
<input type="checkbox"/> Other: _____	
  
5. Do you have regular access to a vehicle?
 

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------
  
6. Do you own a vehicle?
 

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------
  
7. Do you require the following while traveling? Please check all that apply.
 

<input type="checkbox"/> Visual assistance	<input type="checkbox"/> Hearing assistance
<input type="checkbox"/> Mobility assistance	<input type="checkbox"/> No assistance needed.
<input type="checkbox"/> Other: _____	

11. How often do you think you would use public transportation?
 

<input type="checkbox"/> Every day	<input type="checkbox"/> Sporadically
<input type="checkbox"/> Once a week	<input type="checkbox"/> Never
<input type="checkbox"/> Once a month	
  
12. Is there a time of year you would use the public transportation system more frequently (select all that apply).
 

<input type="checkbox"/> Winter	<input type="checkbox"/> Summer
<input type="checkbox"/> Spring	<input type="checkbox"/> Fall
  
13. What is the most you would pay for public transportation per short-distance ride (ie. Skidegate – QC, Masset – Old Massett)?
 

<input type="checkbox"/> \$0 - \$1.99	<input type="checkbox"/> \$10 - \$20
<input type="checkbox"/> \$2 - \$4.99	<input type="checkbox"/> NA
<input type="checkbox"/> \$5 - \$9.99	
  
14. What is the most you would pay for public transportation per long distance ride (ie. Skidegate to Masset)
 

<input type="checkbox"/> Less than \$9.99	<input type="checkbox"/> \$30 - \$34.99
<input type="checkbox"/> \$10 - \$14.99	<input type="checkbox"/> \$35 - \$50
<input type="checkbox"/> \$15 - \$19.99	<input type="checkbox"/> NA
<input type="checkbox"/> \$20 - \$29.99	

## Your Public Transportation Values

*These questions help us understand what you value in a public transportation system, and what motivates you to use it. These responses will also help us create recommendations around design.*

15. What is the most important part of public transportation to you? Please rank, using 1 as most important and NA for factors that do not matter to you.
  - Price: \_\_\_\_\_
  - Reliability: \_\_\_\_\_
  - Frequency: \_\_\_\_\_
  - Accessibility: \_\_\_\_\_
  - Environmental Impact: \_\_\_\_\_
  
16. What would be your greatest motivation to use public transportation on Haida Gwaii?
 

<input type="checkbox"/> I do not have access to a vehicle
<input type="checkbox"/> I do not have a driver's license.
<input type="checkbox"/> I want to reduce my environmental impact.
<input type="checkbox"/> I want to save money.
<input type="checkbox"/> I am not motivated to use public transportation.
<input type="checkbox"/> Other: _____



Your Public Transportation Preferences

These questions help us understand what you need from a public transportation system on Haida Gwaii. They will contribute to our recommendations around appropriate system design.

8. If Haida Gwaii had public transportation, what would you use it for? Select all that apply.

- Work
- School
- Business Activities
- Social
- Other: \_\_\_\_\_
- Errands (shopping, banking, etc.)
- I would not use it.

9. In a public transportation system, do you want:

- Door to door service that you organize as-needed
- Centralized bus stops with a set schedule
- NA

10. Where would you want the public transportation system to go?

	Old Massett	Masset	Tow Hill	Port Clements	Tlell	Skidegate	QC	Sandspit
Sandspit to...								XXX
QC to...							XXX	
Skidegate to...						XXX		
Tlell to...					XXX			
Port Clements to...				XXX				
Tow Hill to...			XXX					
Masset to...		XXX						
Old Massett to...	XXX							
Comments or route preferences:								



17. How does not having access to public transportation on Haida Gwaii affect your daily activities? Please describe.

18. Is there anything else you would like to tell us about public transportation on Haida Gwaii?

## Appendix F: Destination Preferences

Table 19. Community Destination Preferences

	Old Massett–	Masset–	Tow Hill–	Port Clements–	Tlell–	Skidegate–	Queen Charlotte–	Sandspit–
–Sandspit to..	37.98%	49.61%	30.23%	37.98%	35.66%	58.91%	74.42%	16.28%
–Queen Charlotte to..	50.34%	73.10%	37.93%	57.24%	57.93%	70.34%	28.97%	46.21%
–Skidegate to..	60.87%	68.70%	39.13%	53.91%	52.17%	24.35%	73.91%	49.57%
–Tlell to..	50.48%	68.57%	38.10%	64.76%	27.62%	60.95%	78.10%	40.00%
–Port Clements to..	56.12%	83.67%	45.92%	25.51%	63.27%	64.29%	73.47%	45.92%
–Tow Hill to..	61.70%	80.85%	22.34%	45.74%	38.30%	42.55%	48.94%	38.30%
–Masset to..	62.83%	25.66%	58.41%	60.18%	50.44%	60.18%	71.68%	41.59%
–Old Massett to..	28.71%	84.16%	50.50%	55.45%	47.52%	57.43%	55.45%	43.56%

	Northern Short Haul Route
	Sandspit Short Haul Route
	Southern Short Haul Route
	Long Haul Route

## Appendix G: Financial Projections

**Table 20:** Costing Projections for Option 3: SD50 provides exclusive school bus service

OPERATING EXPENSES							
<b>Fuel Expenses</b>							<b>Notes</b>
Current fuel cost	1.40	\$/L					Current cost of diesel on Haida Gwaii (Dec. 2016)
Average fuel burn rate	3.5	km/L					(FreightMetrics.com, n.d.)
<b>Distance and Driver expenses</b>							
Driver wage	23	\$/hr					Based on average rate in BC
School Bus Route (homes - schools)	5	drivers	6	hours/driver	750	km	7 - 10am, 2-5pm
Operating days	181	days/yr					
<b>Financing bus purchase</b>							
Bus purchase (first year only)	135,000	\$/bus	6	780,000			(New EFX Model, FirstTruck BC)
Financing bus purchase (for 7 years)	26,472	\$/year		Per bus			Based on interest rate of 9.5% and a loan period of 7 years (RBC)
<b>Fixed costs</b>							
Insurance (yearly)	2,000	\$/vehicle					Based on estimation from KeyWest Insurance and bus calculator
Licences (yearly)	200	\$/vehicle					Based on conversation with Vehicle Inspector Officer
Registration (yearly)	500	\$/vehicle					Based on ICBC quote
Mobile phone cost (yearly)	720	\$/vehicle					
Office Expenses	500	\$/yr					
Administration	40,000	\$/yr					1 Full time position hired by SD50
<b>Service and Maintenance costs</b>							
Vehicle service and maintenance	15,000	\$/yr					(About Money, 2016)
Cleaning	2,000	\$/yr					(About Money, 2016)
<b>OPERATING EXPENSES</b>	<b>\$416,042</b>	<b>per year</b>	<b>Note: In Year 1, this amount would also include \$810,000 for the purchase of 6 buses.</b>				

**Table 21: Financial Projections for Option 4: On Island Contractor provides public transportation system**

<b>OPERATING EXPENSES</b>							
<b>Fuel Expenses</b>							<b>Notes</b>
Current fuel cost	1.40	\$/L					Current cost of diesel on Haida Gwaii (Dec. 2016)
Average fuel burn rate	3.5	km/L					(FreightMetrics.com, n.d.)
<b>Distance and Driver expenses</b>							
Driver wage	23	\$/hr					Based on average rate in BC
School Bus Route (homes - schools)	5	drivers	3	hours/driver	750	km	7 - 10am
Short Haul Route A (QC - SKG & M - OM) <sup>8</sup>	2	drivers	1	hours/driver	15	km/day	10 - 11am
Short Haul Route B (SKG - QC & OM - M)	2	drivers	1	hours/driver	15	km/day	11am - noon
Short Haul Route C (QC - SKG & M - OM)	2	drivers	1	hours/driver	15	km/day	12 - 1pm
Short Haul Route D (SKG - QC & OM - M)	2	drivers	1	hours/driver	15	km/day	1 - 2pm
School Bus Route (schools - homes)	5	drivers	3	hours/driver	750	km	2 - 5pm
Operating days	181	days/yr					
Weekend/Summer Short Route E (OM - M - OM and QC - SKG - QC in AM & PM)	2	drivers	2	hours/driver	60	km/day	7:30 - 8:30am, 5:30 - 6:30pm
Weekend/Summer Short Route F (QC - SKG - QC and OM - M - OM at lunch)	2	drivers	1	hours/driver	30	km/day	11:30 - 12:30pm
Weekend/Summer Long Route A (OM - QC - OM and QC - OM - QC) <sup>9</sup>	2	drivers	4	hours/driver	480	km/day	9 - 11am, 3 - 5pm (based on 120km between Old Massett and QC)
Operating days	184	days/yr					
<b>Financing bus purchase</b>							
Bus purchase (first year only)	135,000	\$/bus					(New EFX Model, FirstTruck BC)
Financing bus purchase (for 7 years)	26,472	\$/year		Per bus			Based on interest rate of 9.5% and a loan period of 7 years (RBC)
<b>Fixed costs</b>							
Insurance (yearly)	2,000	\$/vehicle					Based on estimation from KeyWest Insurance and bus calculator
Licences (yearly)	200	\$/vehicle					Based on conversation with Vehicle

<sup>8</sup> Long haul option on school days could be provided by Northern Health Connections.

<sup>9</sup> Long haul routes assume short stops in small communities

							Inspector Officer
Registration (yearly)	500	\$/vehicle					Based on ICBC quote
Mobile phone cost (yearly)	720	\$/vehicle					
Office Expenses	500	\$/yr					
Administration	40,000	\$/yr					1 Full time position hired by SD50
<b>Service and Maintenance costs</b>							
Vehicle service and maintenance	15,000	\$/yr					(About Money, 2016)
Cleaning	2,000	\$/yr					(About Money, 2016)
<b>OPERATING EXPENSES</b>	<b>\$554,890</b>	<b>per year</b>					<b>Note: In Year 1, this amount would include approximately \$810,000 for the purchase of 6 buses.</b>
<b>REVENUES: HIGH ESTIMATE</b>							
Short Haul Route A (QC - SKG & M - OM)	3	riders/ route	4	\$/rider			These ridership and fees are estimations based on Haida Gwaii's population and survey results. These are conservative projections
Short Haul Route B (SKG - QC & OM - M)	3	riders/ route	4	\$/rider			
Short Haul Route A (QC - SKG & M - OM)	3	riders/ route	4	\$/rider			
Short Haul Route B (SKG - QC & OM - M)	3	riders/ route	4	\$/rider			
<b>Short haul revenues</b>	<b>57,920</b>	<b>\$/year</b>					
Weekend/Summer Short Route A (OM - M - OM and QC - SKG - QC in AM & PM)	7	riders/ route	20	\$/rider			
Weekend/Summer Short Route B (QC - SKG - QC and OM - M - OM at lunch)	7	riders/ route	20	\$/rider			
Weekend/Summer Long Route A (OM - QC - OM and QC - OM - QC)	10	riders/ route	20	\$/rider			
<b>Long haul revenues</b>	<b>176,640</b>	<b>\$/year</b>					
<b>REVENUES GENERATED</b>	<b>\$194,016</b>	<b>per year</b>					
<b>DIFFERENCE</b>	<b>-\$360,874</b>						

# Available On Request

- Consolidated survey data
- BC Transit Haida Gwaii Feasibility Study