

Powell River Transit Service Review

Summary

March 2022



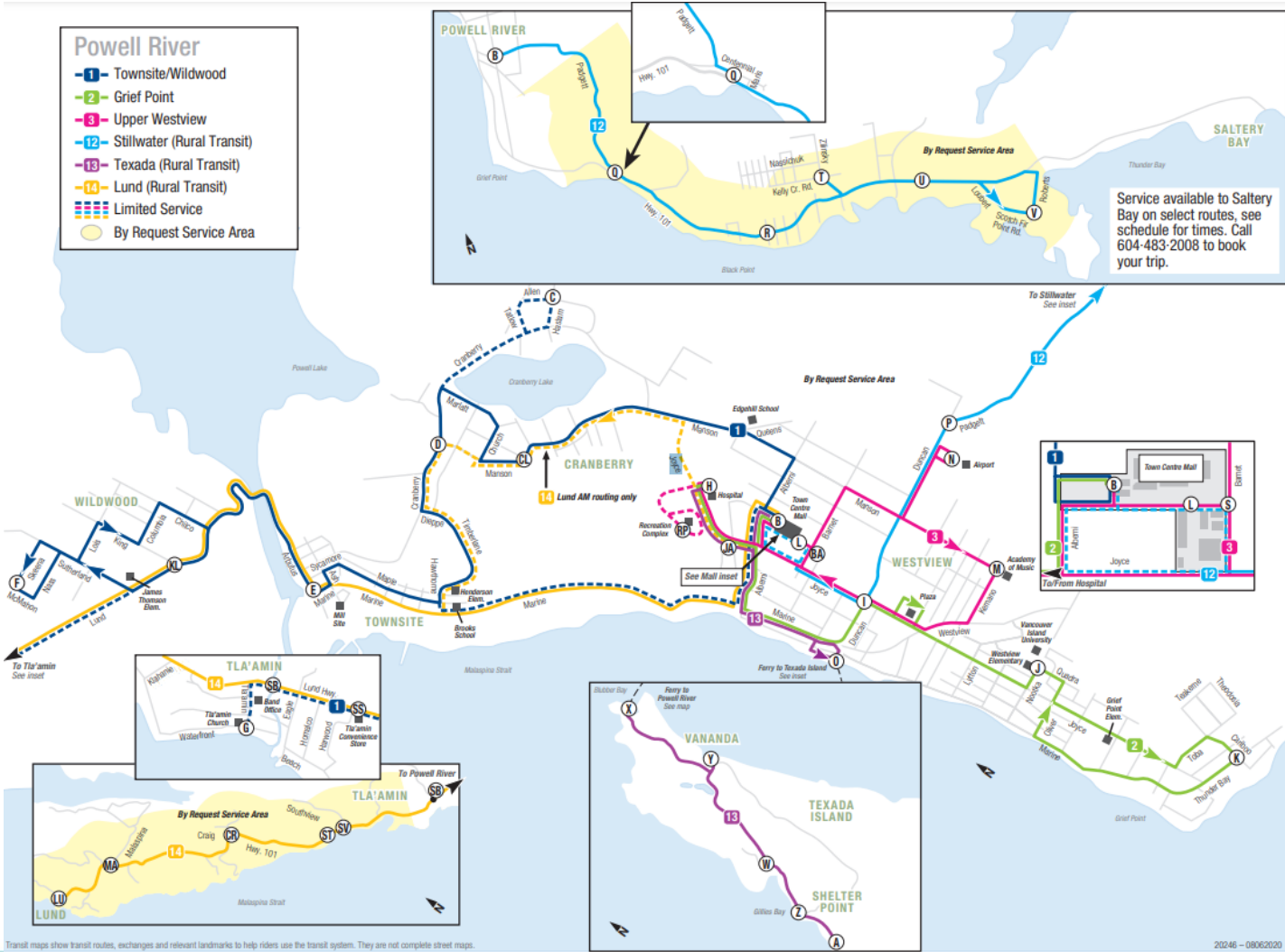
Appendix B





Scope of this study

- 1) Overview of existing conditions (demographics, transportation, land use planning and developments)
- 2) Assessment of the existing fixed-route transit service within the City of Powell River (Routes 1, 2, 3)
- 3) Analysis of Zunga On-Demand Service and recommend next steps for the program
- 4) Updating of the City's short and long term transit direction



What we learned – Service Planning Considerations

Unintuitive fixed-route transit service

- Uneven frequencies and round trip times
- Infrequent trips for bespoke purposes (e.g. Cranberry Lake)
- Focus on school service

Transit Service Hours have held steady at 11k annual hours.

- Ridership pre-pandemic: 18 pass/hr
- Ridership during pandemic: 11 pass/hr

Unique operating model within the BC Transit Municipal Systems Program which has provided more autonomy in service decisions.

First On-demand service in BC with high level of community support

Transit travel times need to compete with other modes: 70% of trips within the community are under 15 minutes in duration

Community Considerations

- Transportation is the second highest household cost after housing
- Lack of affordable transportation options were cited as a barrier to accessing education and essential services
- The Ending Poverty Strategy lists On-Demand transit as one of Powell River's assets to support resident's well-being, this was identified as a positive by survey respondents.

Key demographics within the City of Powell River

- 44% of the City's households have an income less than \$50k
- 36% of the City's population is over 60 years old
- 19% of the City's population is under 20 years old

Goal

- Grow Ridership
- Be direct and connect the community centres



How this plan achieve this goal?

- Invest in transit service that increases access for all residents
- Realign bus routes to enhance connectivity and reduce travel time



Future

- Frequency improvements in multiple time periods to key destinations throughout Powell River
- New high frequency crosstown route directly connecting key destinations

Goal

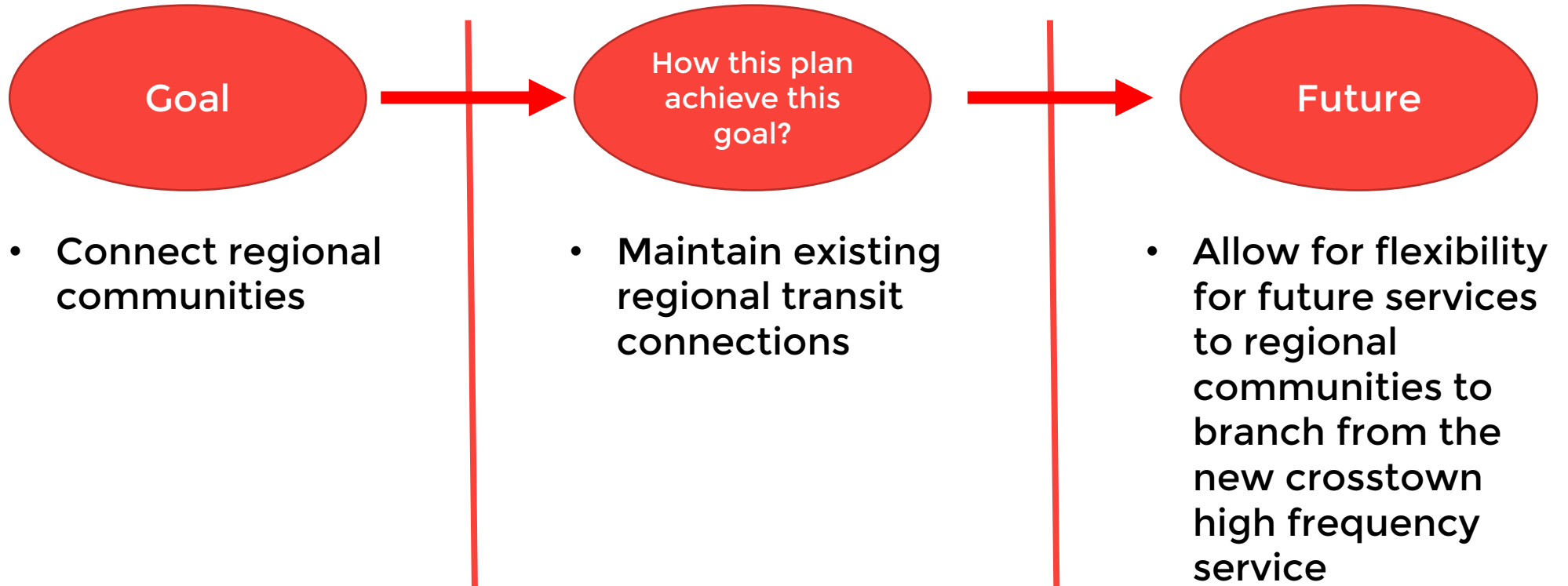
- Be efficient and cost effective
- Work efficiently with other transportation options
- Be technologically innovative and customer responsive

How this plan achieve this goal?

- Reduce duplication
- Improve the legibility and convenience of the transit system to make it more attractive to residents
- Harness stop level data to inform future service decisions; leverage on-demand transit

Future

- Replace Route 3 Westview with an enhanced Zunga On-Demand service
- A refreshed transit service with consistent routing, frequencies and level of service
- An engagement process driven by data; using the strengths of new transit technology



City of Powell River

- Sets Routes and Service Levels
- Approves Local Funding
- Establishes Fares and Receives Transit Revenue
- Maintenance and Operations of Transit Fleet
- On-Street Supervision for Operations and Incident Management
- Implementation/Maintain Bus Stop Facilities

BC Transit

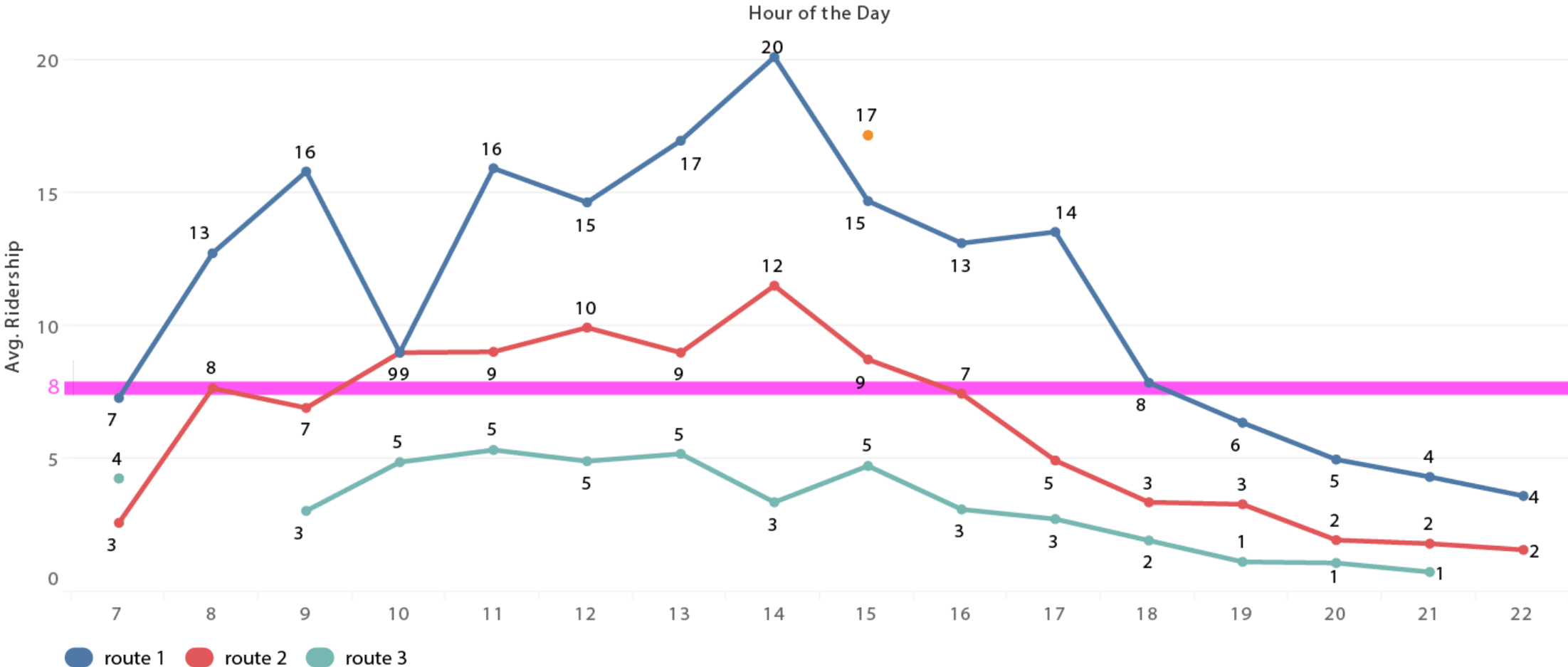
- Provincial Operating and Capital Funding Support
- Transit Planning and Scheduling
- Confirm Conventional Transit & Custom Transit Service Hours for scheduling
- Procurement and Provision of Transit Fleet
- Capital Planning
- Marketing Services

Annual Operating Agreement

Transit Service Delivery Model Comparison

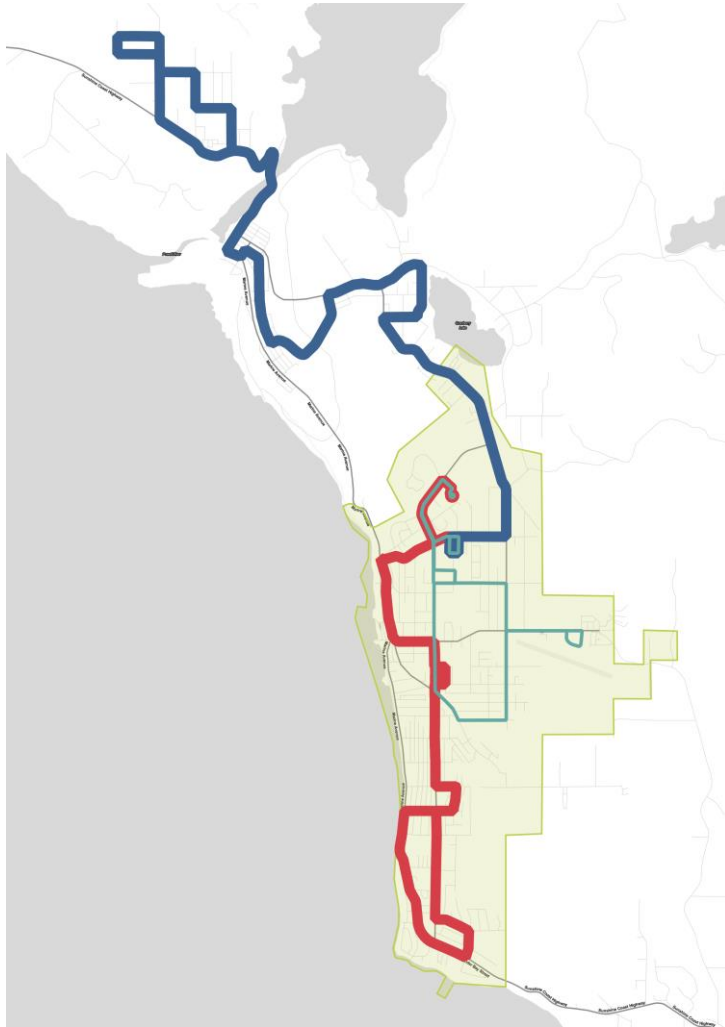
	Fixed-route	On-demand
Appropriate Use(s)	Connecting major trip generators or hubs; longer-distance trips. Minimal meandering to provide coverage.	Covering a lower-density but continuously developed area where trip patterns are less obvious or predictable. Replacing under-performing fixed-routes, or supplementing fixed-routes at low demand times.
Benefits	<p>More Passenger Capacity</p> <p>Schedules and routes are consistent and predictable.</p>	<p>On-demand software collects data, informs future transit plans.</p> <p>Operational flexibility, service can be scaled up and down.</p> <p>Wait times and travel times are often superior to coverage fixed-route service.</p>
Limitations	<p>Buses run according to schedule, even if empty.</p> <p>Typically can not cover all parts of a community with frequent / desirable service for a reasonable cost.</p>	<p>Size of coverage area is limited: not suitable for long distance travel patterns.</p> <p>Not suitable for high-demand situations.</p> <p>Cellular connectivity required. May be concerns about technology accessibility.</p>

2021 Average Boardings by Hour – Fixed Route

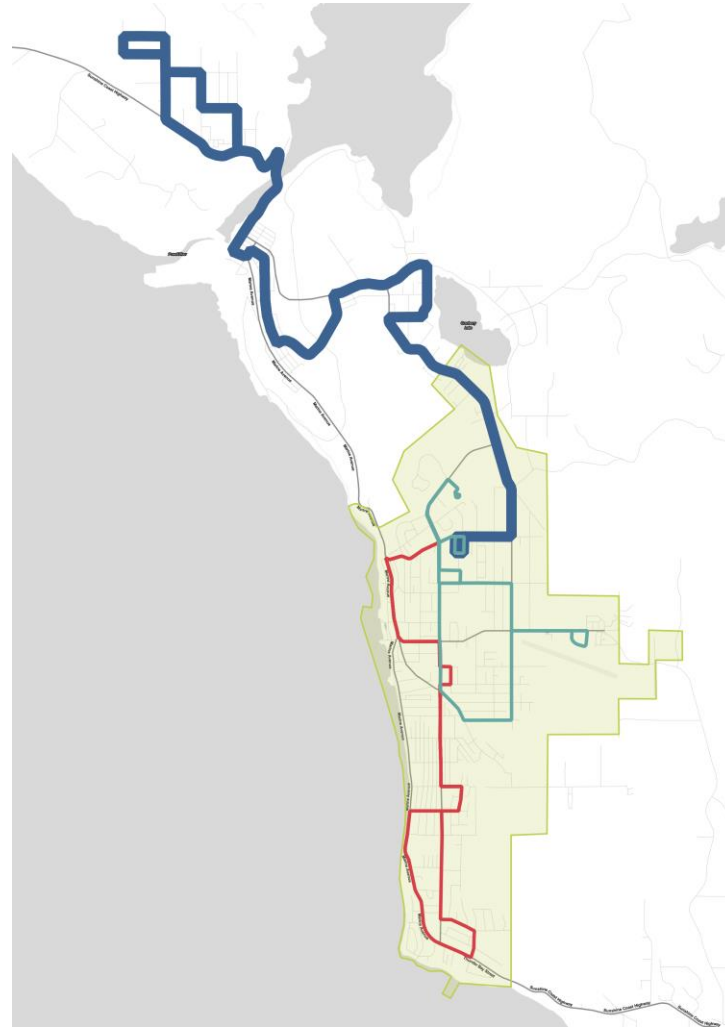


2021 Weekdays

start of service - 6pm

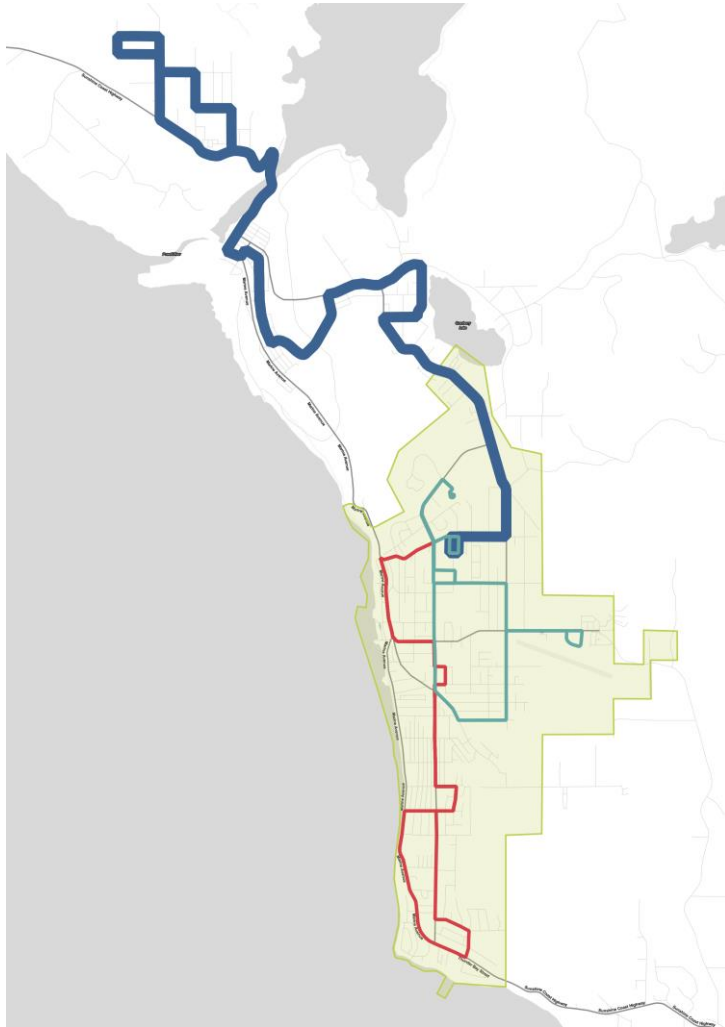


6pm - end of service

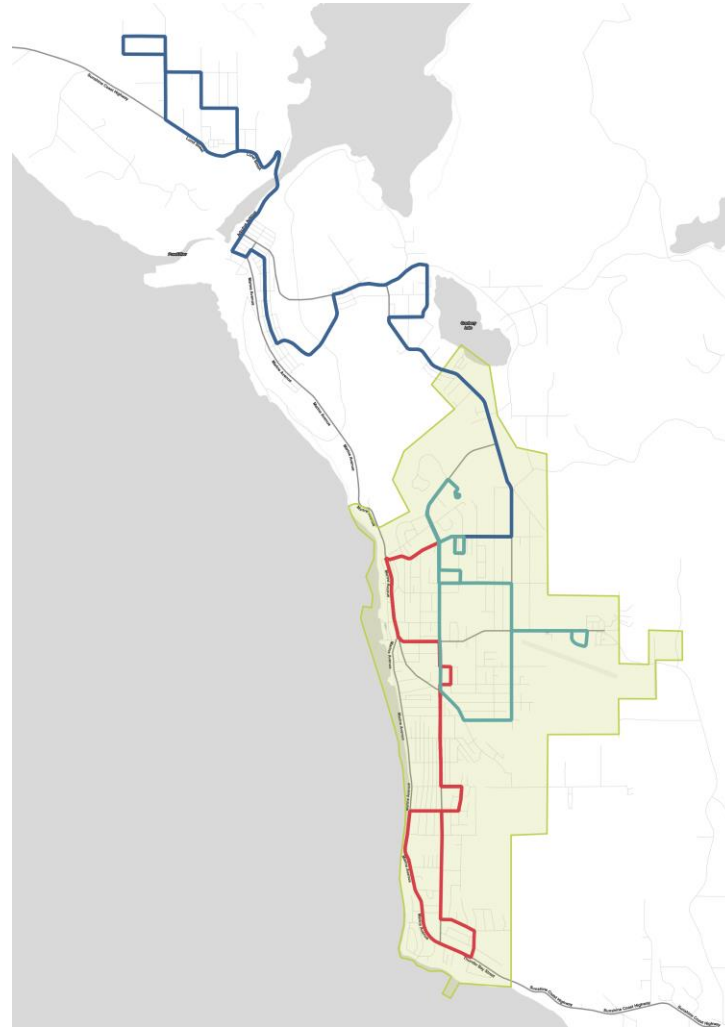


2021 Saturdays

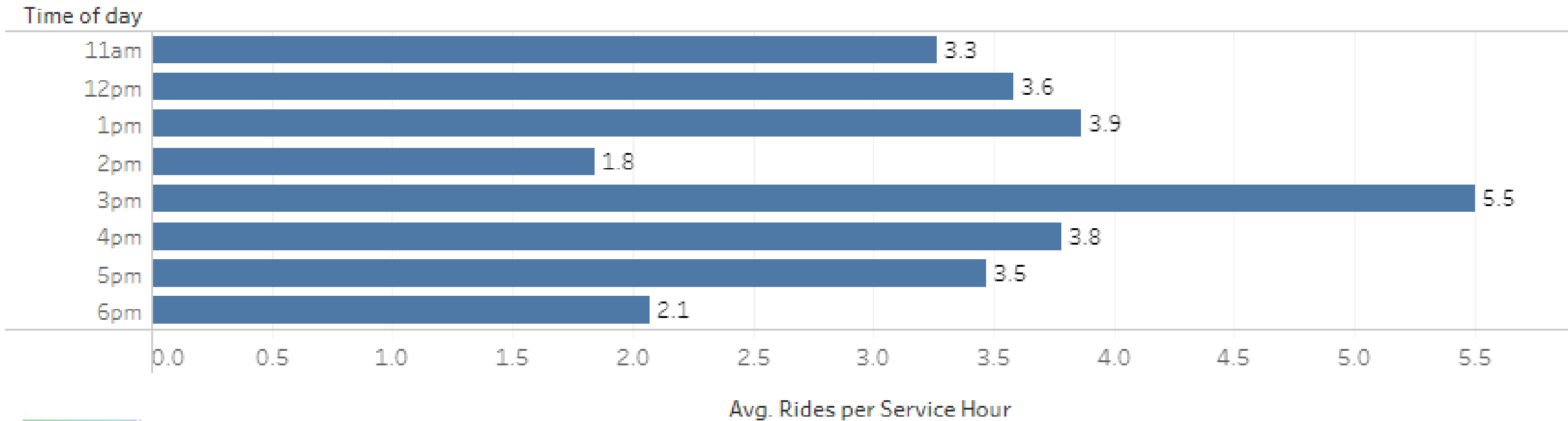
start of service - 6pm



6pm - end of service



Zunga Bus - Average Rides Per Service Hour - Fall 2021



Service Planning Recommendations

- 1) Improve the transit experience and level of service for customers
- 2) Reduce transit service duplication
- 3) Simplify and streamline the transit experience in the near term
- 4) Maximize the benefit of on-demand transit
- 5) Align resources for future system enhancements in the longer term

Short Term Planning Actions (next 6 months)

Keep 1 Zunga Bus in operation with the same service hours while undertaking the following steps:

- 1) Assess stop level boarding and alighting data for all fixed route service. BC Transit is scheduled to install Automatic Passenger Counters on the transit fleet in Spring 2022
- 2) Identify under-utilized stops to inform future service adjustments
- 3) Engage the public on the consolidation of Route 3 Westview into an expanded Zunga Bus service and during lower ridership times for Routes 1 and 2

Medium Term Planning Actions

- 1) Monitor BC Transit's progress with the Provincial Digital On-Demand Transit Framework and lobby BC Transit to fund the Zunga Bus Service subsidy to be similar to the paratransit level in other communities, which is between 47-67%
- 2) Lobby BC Transit to retain the local branding of the Zunga Bus in future service agreements
- 3) Continue to coordinate with the Tla'amin community and the Regional District to define responsibilities and governance pertaining to service provision to the Tla'amin area

Zunga Service Projects (Short Term)

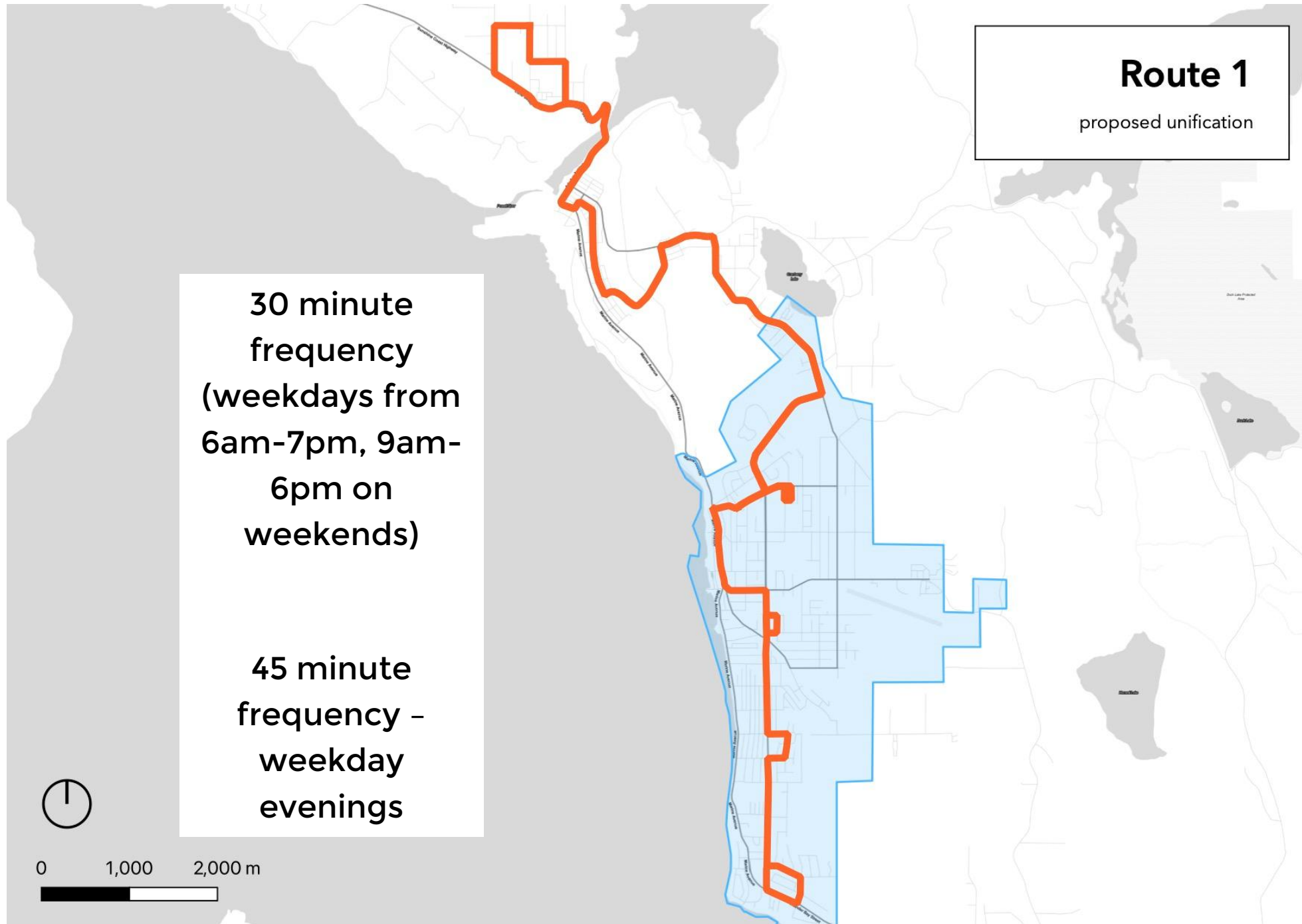
Zunga Bus Service Projects	Annual Service Hours	Total Service Cost (Before Subsidy)	Interim Cost To City (% City Pays)	Expected Cost To City with On-Demand Subsidy (% City Pays)	Potential Revenue	Net New Cost to City with On-Demand Subsidy, after Revenue
Total Zunga Bus Service Hours Required	6,250	+ \$406,300	+ \$406,300 (100%)	+ \$134,100 to \$174,700 (33%-43%)	\$42,000 to \$84,000	
Eliminate Route 3	(-) 2,100	- \$231,000	- \$122,400 (53%)	- \$122,400 (53%)	-\$21,000	
Net New On-Demand Service Hours and Costs	4,150	\$175,300	\$283,900	\$11,700 to \$52,300	\$21,000 to \$63,000	\$31,300 to -\$51,300



Medium Term Service Actions - Fixed Route

1) Implement a frequent transit route (combining Routes 1 & 2) serving **key destinations** on a **consistent headway** to improve service, **legibility** and the **customer experience**

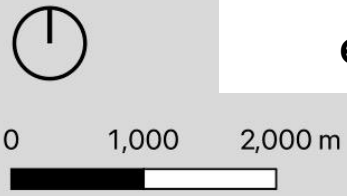
New Combined High Frequency Route



Route 1
proposed unification

30 minute
frequency
(weekdays from
6am-7pm, 9am-
6pm on
weekends)

45 minute
frequency -
weekday
evenings



Fixed Route Service Projects (Medium Term – Incremental Implementation)

Service Project Total	Annual Service Hours	Total Service Cost (Before Subsidy)	Total Cost To City (53%)	Potential Revenue	Total Cost to City After Revenue
Existing Route 1 and 2 service Hours or Costs	8,700	\$957,000	\$507,200	\$195,800	\$311,400
Combination of Routes 1 & 2 to create a new crosstown high frequency service	15,410	\$1,695,100	\$889,900	\$347,000	\$542,900
Net New Service Hours or Cost	6,710	\$738,100	\$382,700	\$151,200	\$231,500



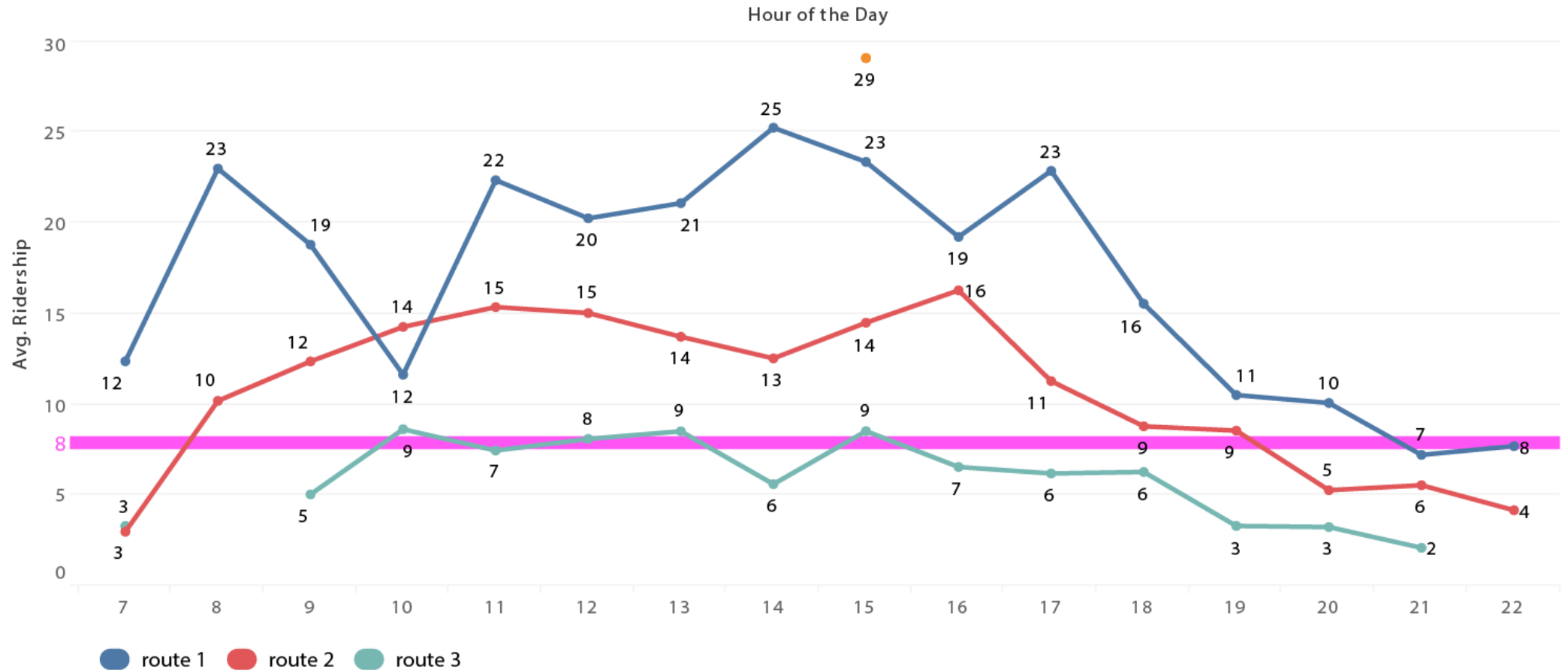
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Appendix Slides

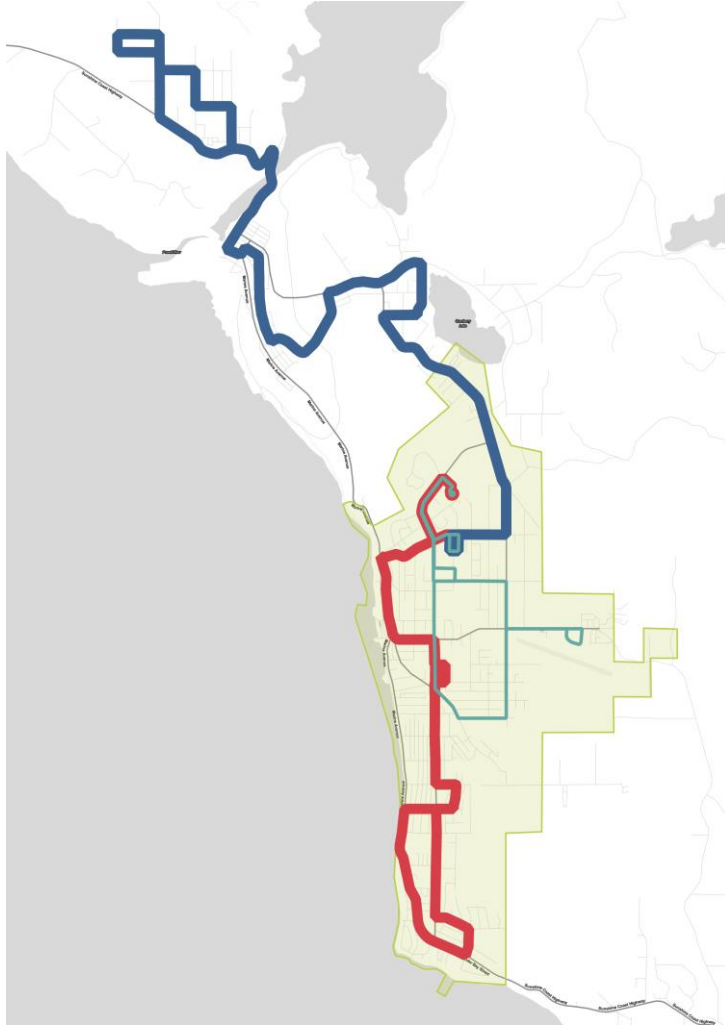


2019 Average Boardings by Hour - Fixed Route

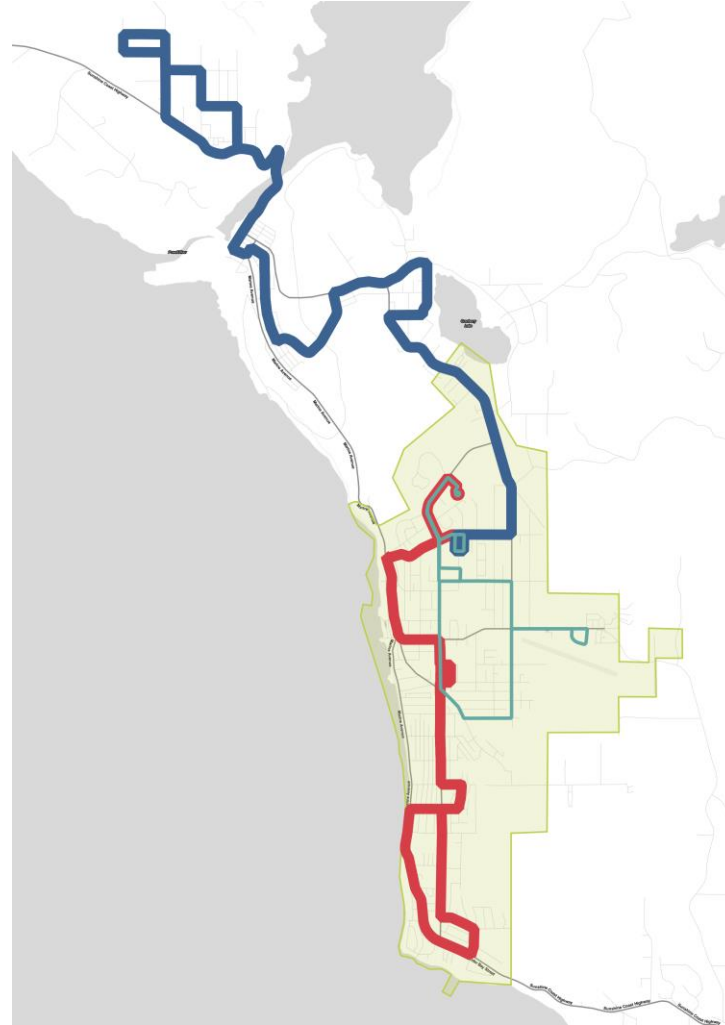


2019 Weekday

start of service - 6pm

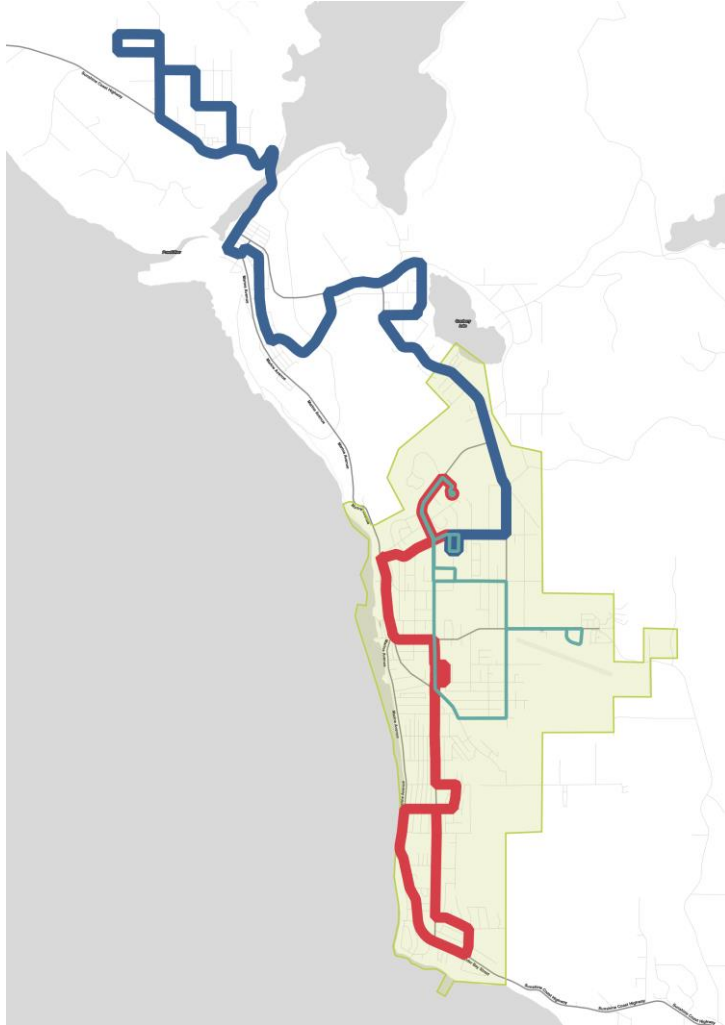


6pm - end of service

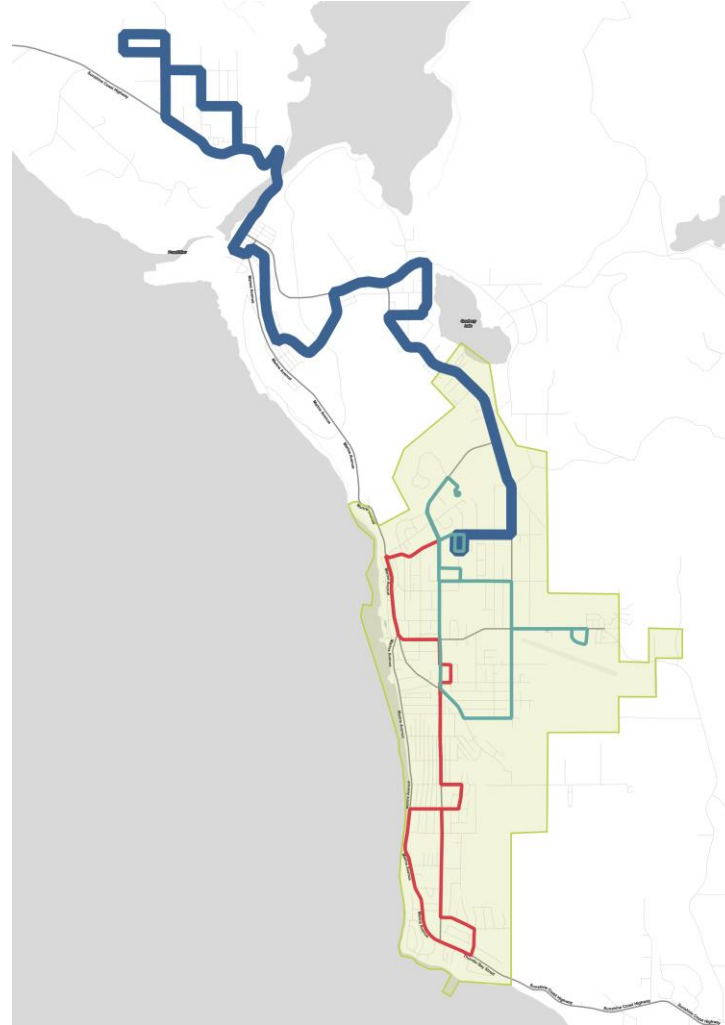


2019 Saturdays

start of service - 6pm

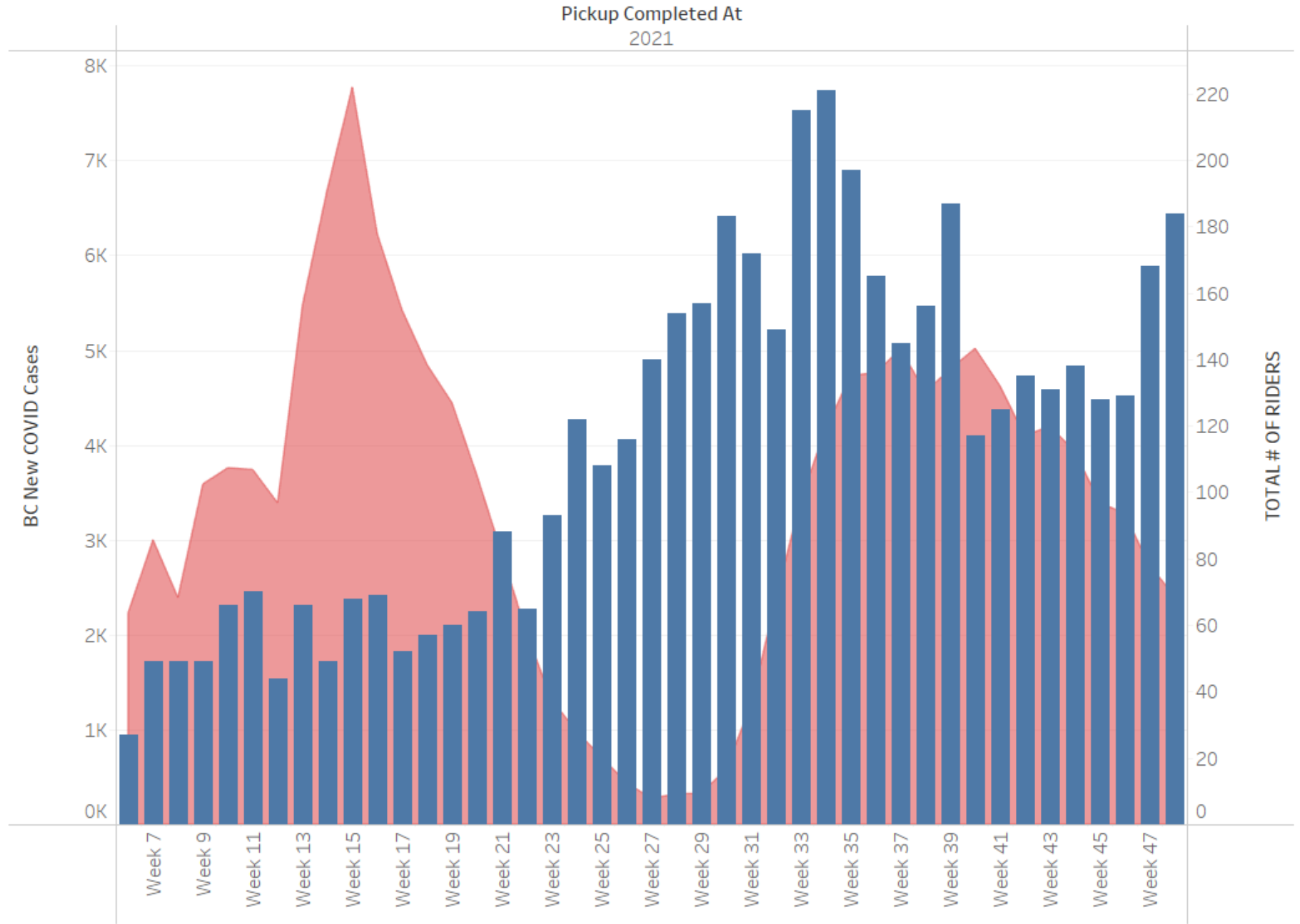


6pm - end of service



2021 Zunga Bus Ridership by Week vs BC Covid Cases

2021 Zunga Bus Ridership



Zunga Service Projects

Zunga Bus Service Projects	Description	Annual Service Hours	Total Service Cost (Before Subsidy)	Interim Cost To City (% City Pays)	Expected Cost To City After Subsidy (% City Pays)	Potential Revenue	Net New Cost to City after Revenue
Existing Zunga Bus Service	On-Demand Service (11am-6:30pm, 7 days a week)	2,900	+ \$188,500	+ \$188,500 (100%)	+ \$62,205 to \$81,055 (33%-43%)	On-demand: 3 to 6 passengers per service hour	
Conversion of Route 3 to Zunga Bus Service	Eliminate of Route 3 - Westview, replace with Zunga Bus for all time periods	(-) 2,100 (elimination of Route 3)	- \$231,000	- \$122,430 (53%)	- \$122,430 (53%)	\$2.25 per passenger	
		1,750 (new Zunga Bus service during weekday evenings, Saturdays and Sundays)	+ \$113,750	+ \$113,750 (100%)	+ \$37,540 to \$48,900 (33% -43%)	Route 3: 8 passengers per hour	
Addition of Second Zunga Bus during higher ridership time periods	Deployment of 2 nd Zunga Bus during higher ridership times (weekdays from 10am to 4pm)	1,600	+ 104,000	+ 104,000 (100%)	+ \$34,320 to \$44,720 (33% -43%)	\$1.25 per passenger	
Net New Service Hours and Costs	Net network hours for the expanded Zunga Bus Service	4,150	\$175,200	\$283,820	\$11,630 to \$52,260	\$21,000 to \$63,000	
							\$31,300 to -\$51,300

Fixed Route Service Projects (Medium Term – Incremental Implementation)

Service Project Total	Description	Annual Service Hours	Total Service Cost (Before Subsidy)	Total Cost To City (53%)	Potential Revenue	Total Cost to City After Revenue
Existing Route 1 and 2 service Hours or Costs		8,700	\$957,000	\$507,200	\$195,800	\$311,400
Combination of Routes 1 & 2 to create a new crosstown high frequency service	30 minute frequency (weekdays from 6am-7pm, 9am-6pm on weekends)	8,300 - Weekdays (7am-6pm)	\$913,000	\$483,900	18 Passengers per hour \$1.25 per trip (combination of cash fare and passes)	542,900
		3,000 - Weekday evenings	\$330,000	\$174,900		
		3,000 - Weekends (9am-6pm)	\$330,000	\$174,900		
	45 minute frequency - weekday evenings	460 - Branch service to Tla'amin (3 weekday trips plus 1 additional trip on Fridays)	\$50,600	\$18,300 - Cost partially covered through contract with Tla'amin (~\$8,500)		
		650 - Branch service to Cranberry Lake (weekday school trips)	\$71,500	\$37,895		
		Total: 15,410 hours	Total: \$1,695,100	Total: \$889,900	Total: \$347,000	
Net New Service Hours or Cost		6,710	\$738,100	\$382,700	\$151,200	\$231,500