
To: Regional Parks Committee

From: Steve Schaffrick, Division Manager, Central Area, Regional Parks

Date: May 11, 2022 Meeting Date: June 8, 2022

Subject: **təmtəxʷtən/Belcarra Regional Park – Joint City of Port Moody and MVRD Bedwell Bay Road Traffic Study results**

RECOMMENDATION

That the Regional Parks Committee receive for information the report dated May 11, 2022, titled "təmtəxʷtən/Belcarra Regional Park – Joint City of Port Moody and MVRD Bedwell Bay Road Traffic Study results."

EXECUTIVE SUMMARY

In 2021, Metro Vancouver partnered with the City of Port Moody to commission a traffic study for the section of Bedwell Bay Road adjacent and leading up to təmtəxʷtən/Belcarra Regional Park. Ongoing traffic congestion and safety concerns during peak park visitation days, and the desire for an active transportation connection to the park have established a need for safety improvements along this stretch of road.

The traffic study provides recommendations for development of a multi-use path, reconfiguration of the White Pine Beach Access Road and Tum-tumay Whueton Dr. intersections, and establishment of dedicated parking at the float walk access area, to enhance existing roadside parking restrictions and digital traffic signboard and social media communication strategies.

The traffic study findings have been endorsed by the City of Port Moody Transportation Committee, and will be presented to Port Moody Council for endorsement.

PURPOSE

To provide the Regional Parks Committee with a summary of the high level recommendations arising from the City of Port Moody and MVRD's joint traffic study for Bedwell Bay Road, and to outline next steps in implementation of these recommendations.

BACKGROUND

Traffic congestion on Bedwell Bay Road around the entrance to təmtəxʷtən/Belcarra Regional Park's White Pine Beach has been an ongoing pattern during the peak summer season over the past several decades, as park visitors have used the roadside for parking after park parking lots have filled. Vehicles have also caused congestion along the road when waiting for parking spaces to open up, and have performed illegal u-turns along the road upon discovering that no parking is available.

In 2019, in response to concerns about congestion and pedestrian safety as users walk within travel lanes alongside parked vehicles, the City of Port Moody instituted parking restrictions along Bedwell Bay Road; these restrictions have been expanded in subsequent years. Also starting in 2019, MVRD

partnered with the Village of Anmore, City of Port Moody, the Village of Belcarra, and BC Hydro (operators of Buntzen Lake Recreation Area) to establish a series of digital traffic signboards warning would-be park visitors in advance of full parking lots. The signboards function in conjunction with a social media strategy communicating the same information with a suggestion that park visitors explore public transit options for travel to and from the parks.

In 2021, the MVRD Board adopted the *Regional Greenways 2050* strategy which identified a greenway route along Bedwell Bay Road north from Ioco Road. This route is supported by Port Moody and is a priority for HUB Cycling, a non-profit cycling advocacy group who have communicated with Port Moody a wish to have safe cycling options in this area.

In light of ongoing safety concerns along Bedwell Bay Road and the desire to enhance active transportation in the area, in July 2021, MVRD and the City of Port Moody signed a contribution agreement to jointly fund hiring of a consultant by Port Moody to conduct a traffic study of Bedwell Bay Road. MVRD committed to funding up to \$50,000 which was the majority cost of the study.

This consultant study set out to evaluate traffic and safety concerns for the area of Bedwell Bay Road adjacent and leading to təmtəxʷtən/Belcarra Regional Park, and provide recommendations to improve safety and congestion, including concept designs and Class D cost estimates, while enhancing active transportation and alternative transportation opportunities.

BEDWELL BAY ROAD TRAFFIC STUDY

The City of Port Moody hired Associated Engineering in Fall 2021 to carry out the traffic study. During fall/winter 2021 the consultants gathered data and interviewed City, MVRD staff, and Coast Mountain Bus staff to explore issues along the road and suggested improvements. Emergency services representatives were also consulted by MVRD staff. Options development and final review took place in spring 2022.

Traffic study results

The traffic study defined the problems to be remedied along Bedwell Bay Road as the following:

- People walking along the middle of the road.
- People riding bikes do not feel safe riding along the corridor due to vehicle speeds and lack of separated bike facilities.
- People parking their vehicles illegally and unsafely.
- People illegally stopping on the side of the road to wait to be allowed into the park and block Bedwell Bay Road and/or the White Pine Beach Road access for emergency vehicles, transit, and other vehicles.

Four main improvement areas were identified, for which the consultants developed concept options:

Improvement Area 1: Pedestrian / Cyclist Facilities along Bedwell Bay Road - The study presents two options for separated cycling/pedestrian facilities along Bedwell Bay Road, between Ioco Road and Tum-tumay Whueton Dr. Option 1b, a bi-directional paved multi-use path alongside the westbound travel lane, is the recommended option.

Improvement Area 2: White Pine Beach Access Road Intersection - The study presents two options for improvements to the White Pine Beach Access Road intersection. Option 2b is the recommended option. This option involves reconfiguring the intersection to include a mini-roundabout—facilitating turn-arounds and reducing vehicles speeds—as well as new pedestrian crossings, and new bus pull-outs with pedestrian waiting areas.

Establishment of a park-and-ride within the loco Townsite is recommended to complement the roundabout turn-around, allowing would-be park visitors to park their vehicles at loco and use existing transit connections to access the park.

Improvement Area 3: Float Walk Access - The study presents a recommendation for improvements to the float walk access area north of Tum-tumay Whueton Dr., including dedicated parking for around 25 vehicles, and a pedestrian sidewalk.

Improvement Area 4: Tum Tumay Wheuton Drive Intersection - The study presents two options for improvements to the Tum-tumay Whueton Dr. intersection. Option 4a is the recommended option. This option involves minor realignment of the intersection to better resemble a t-intersection, new directional arrow pavement markings, enhanced directional signage, and new street lighting around stop signs.

Municipal review and consultation

The draft study findings were taken by Port Moody staff to the Port Moody Transportation Committee in April 2022, and were endorsed by the committee. The committee provided some detailed comments on improvements to the roadway, including painted bus lanes, and use of high concrete barriers alongside the separated pathway. Staff also noted at the committee meeting that police presence may be required to enforce traffic rules in the area.

The study recommendations will also be presented to staff from the Villages of Anmore and Belcarra at a meeting in late May 2022.

Next steps toward implementation

Staff noted at the Port Moody Transportation Committee presentation that the project, including the recommended improvements at each of the four improvement areas, can begin following Port Moody Council's endorsement and contingent on available funding. The budget for the project is estimated at \$8 Million. It is anticipated that funding sources beyond the City of Port Moody will be required, such as senior level government grants.

Detailed design for intersection improvements at the White Pine Beach intersection will be required, and the Bedwell Bay Road multi-use path will require extensive engineering due to challenging and restricting roadside terrain. Should Port Moody Council approve the project, such pre-construction work may be expected to begin in 2023.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

All costs incurred for the consultant study were within approved budgets for 2021 and 2022. MVRD will continue to collaborate with the City of Port Moody to identify potential funding sources. As the greenway is identified in the *Regional Greenways 2050* strategy MVRD may be able to provide a contribution towards capital construction. The improvements to the White Pine intersection almost exclusively benefit Metro Vancouver's ability to manage traffic into the park, and as such it is anticipated we would provide funding for this improvement area.

Any MVRD contribution toward these improvements would be thoroughly reviewed and considered.

CONCLUSION

As a result of ongoing concerns regarding traffic congestion and safety along the stretch of Bedwell Bay Road leading up to and alongside təmtəxʷtən/Belcarra Regional Park, the City of Port Moody and MVRD partnered to commission a traffic study to define issues and design high-level solutions.

Recommended solutions include establishment of a separated multi-use path along the road, providing a safe cycling and walking facility; reconfiguration of the White Pine Beach Access Road intersection to include a mini-roundabout, pedestrian crossings, and dedicated bus pull-outs and pedestrian waiting areas, providing safe facilities for transit and providing safe turn-around for vehicles when park parking is full; installation of alignment and signage enhancements at the Tumtumay Whueton Dr. intersection to improve wayfinding and reduce risk of collision; and establishment of around 25 dedicated parking spaces at the float walk access area.

The total project is estimated at \$8 Million, and following Port Moody Council endorsement, detailed design and engineering work could begin in late 2022.

Attachment

City of Port Moody Final Report – Bedwell Bay Road Corridor Improvements Transportation Study - May 2022

Reference

[Regional Greenways 2050](#)

52717703

REPORT

City of Port Moody Final Report

Bedwell Bay Road Corridor Improvements Transportation Study



MAY 2022

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1 Introduction

Associated Engineering (AE) was retained by the **City of Port Moody (PoMo)** in partnership with and by the joint funding of the **Metro Vancouver Regional District (MVRD)** to conduct a transportation corridor study for Bedwell Bay Road and 1st Avenue.

Due to the use of Bedwell Bay Road for access to the təmtə́míxʷtən/Belcarra Regional Park and White Pine Beach, MVRD is a major partner in the project. Specifically, MVRD Parks is interested in improvements to the traffic operations and configuration of the təmtə́míxʷtən/Belcarra Regional Park entrance intersection to White Pine Beach.

MVRD has also identified the Bedwell Bay Road corridor as part of the Regional Greenway Network in the Regional Greenways 2050 strategic plan. At present, during peak summer usage, the parking demand at the park exceeds parking supply. This parking demand backs up on Bedwell Bay Road and causes significant traffic flow and parking issues during the peak visit periods. Overflow vehicles park illegally along the shoulder for multiple kilometers, and causes safety issues for vehicles, pedestrian, and cyclists.

1.1 Project Objectives

The key objectives of this study are to recommend improvements to the intersections and roadways within the study area, specifically:

- Á Improve the safety of the corridor for all users.
- Á Develop a permanent solution to the on-street parking issue.
- Á Address the need for inclusion of active transportation within the corridor.

1.2 Study Area

The study area is defined as 1st Avenue between the intersection of Ioco Road and Sunnyside Road, and Bedwell Bay Road from Sunnyside Road to the municipal boundary of the Village of Belcarra. **Figure 1-1** shows the study area. Bedwell Bay Road and 1st Avenue are classified as a Major Road Network (MRN) and are two lane undivided roadways with a rural cross section and a speed limit of 50 km/h. The roadways in the study area are mainly in the jurisdiction of Port Moody and provides access to the Village of Belcarra, təmtə́míxʷtən/Belcarra Regional Park at Sasamat Lake and the Village of Anmore.

The study area includes the access points and parking areas that serve təmtə́míxʷtən/Belcarra Regional Park and Sasamat Lake.

The zoning of the surrounding area is a mixture of M2: General Industrial, A1: Acreage Reserve, and Residential for a short stretch at Crystal Creek Drive. The Bedwell Bay Road study corridor is located in a rural setting in hilly terrain. The corridor is generally heavily forested on both sides with open ditches used for drainage.

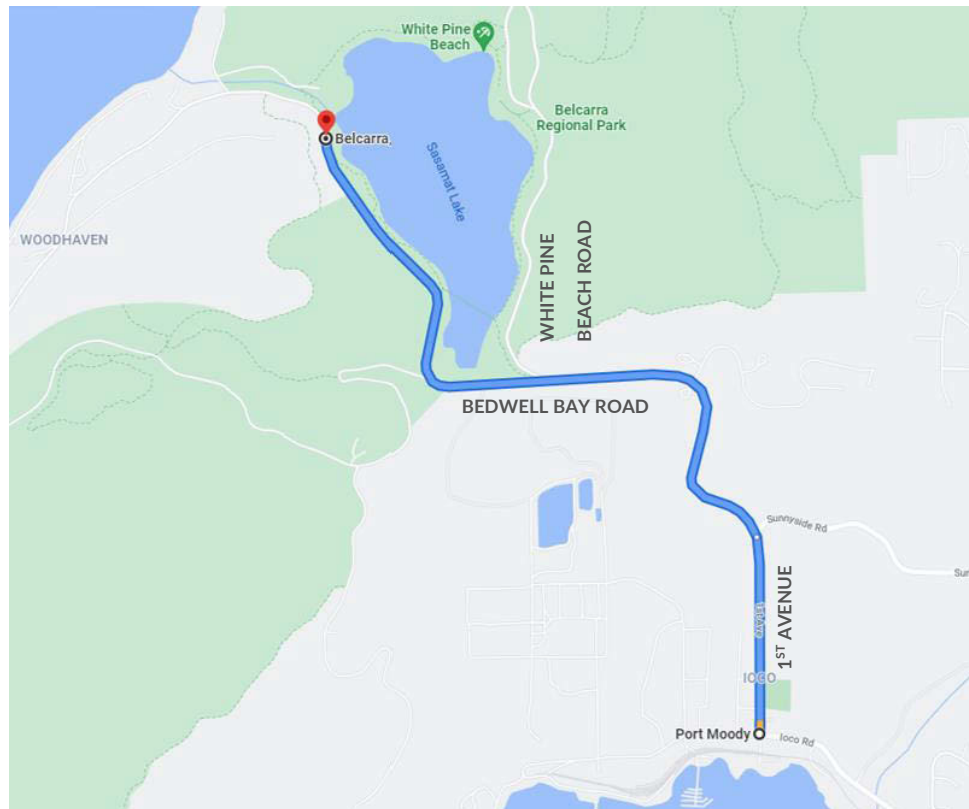


Figure 1-1
Bedwell Bay Road Study Corridor

1.3 Background Information

Several background information documents were reviewed as part of this study. Key information from the background reports are summarized in this section.

Belcarra Electronic Traffic Signboard Standard Operating Procedures, Metro Vancouver, 2021:

- Á təmtəxʷtən/Belcarra Regional Park has total of three electronic boards. Two are shared between Village of Anmore, Village of Belcarra, Port Moody and Metro Vancouver to warn motorists when the parking lots are full.
- Á The third sign board is located at the Bedwell Bay Road pullout west of the Floatwalk to help minimize traffic and illegal parking in Village of Belcarra.
- Á Includes recommended messaging for sign boards.

City Council Reports: At its meeting held on June 13, 2019 City Council carried a recommendation that “plastic delineator posts be installed in the recently signed parking restriction areas along Bedwell Bay Road.” The report to Council indicated that there was poor compliance of the parking restrictions that were put in place in spring 2019. At its meeting held on September 25, 2018, City Council carried a recommendation that parking restrictions along Bedwell Bay Road be implemented to address a number of specific concerns including:

- Á Vehicles parked on the shoulder edge that protrude over the white edge line limiting sightlines and available travel portion of the roadway.
- Á Vehicles parked on the shoulder of Bedwell Bay Road that force pedestrians to walk on the traveled portion of the roadway while carrying various large items for park use.

- Á Unmarked steep slopes adjacent to the road shoulder that can make access difficult and potentially unsafe. Activity in these areas can also increase erosion of steep slopes adjacent to the roadway.
- Á Vehicles searching for parking spaces that make frequent U-turns on Bedwell Bay Road.

In a prior Council report, dated May 24, 2011, City Council defeated a recommendation to install no parking zones on Bedwell Bay Road and instead carried a motion that staff consult with Metro Vancouver on potential locations within Metro Vancouver lands to increase off-street parking for White Pine Beach/Sasamat Lake.

In a prior closed Council session, concrete barriers were installed in locations along Bedwell Bay Road in July 2021.

Conceptual Drawings, MVRD, 2021: Discussion sketches show potential drop-off zone and reconfiguration of the parking lots within White Pine Beach to help with traffic flow.

Metro Vancouver Regional Parks Pay Parking Analysis, G. P. Rollo & Associates, 2020: Identified that the parking at the Sasamat Lake parking lot appeared to be oversupplied on average. The study also identified the anticipated revenue generated by implementing paid parking and the costs associated with implementation and operation. It also identified that there were 774,915 visits in 2019 and 721 parking stalls located within the park.

Regional Greenways 2050, Metro Vancouver, 2020: Identified the Bedwell Bay Road Corridor and White Pine Beach Road as part of the Regional Greenway Network in the 30-year vision for recreational trails. It also identified the corridor's Regional Greenway Network Operational Status as "Planned". The corridor is a proposed future route identified in the existing plans of active transportation development. A planned route will require some combination of conceptual planning, land acquisition, detailed design, funding and construction to transform it into a future greenway.

Regional Parks – Traffic Management Plan for tæmtæmíx"tæn/Belcarra Regional Park, Metro Vancouver, 2021: Identified the amount of parking supply in as well as outlines the traffic management strategy used during peak park demand periods.

Sasamat Greenway – Safe Active Transportation Corridor, HUB Cycling, 2021: HUB has requested a safe active transportation greenway or route from April Road to White Pine Beach that is all ages and abilities accessible. The Sasamat Greenway concept would align with HUB, PoMo, and MV long-term priorities. The Sasamat Greenway concept is shown in Figure 1-2.

Traffic Data: Traffic tube counts and turning movement counts at various locations along the study corridor were obtained by PoMo. MVRD also maintains several magnetic count stations throughout the corridor including two on Bedwell Bay Road, one at

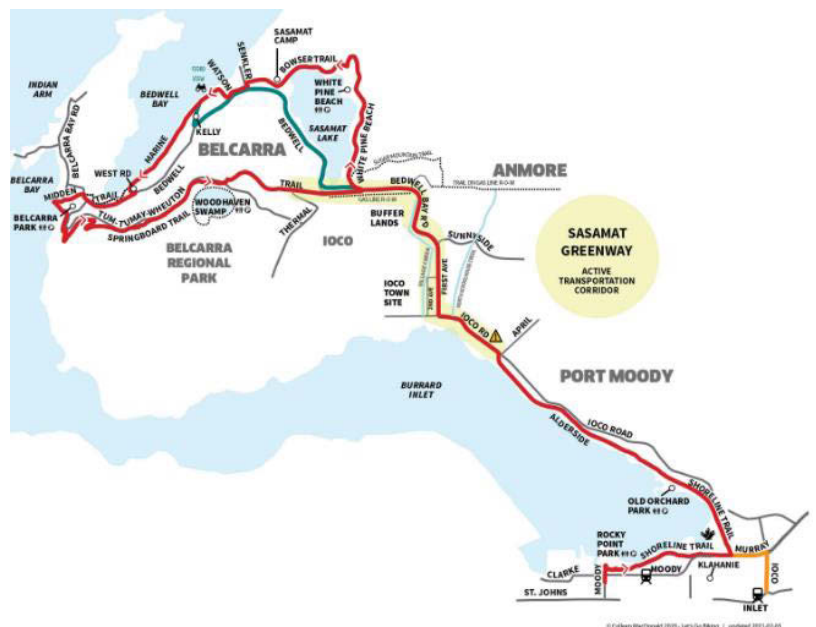


Figure 1-2
Sasamat Greenway Concept

the village entrance, one at Crystal Creek Drive, and one on White Pine Beach Road. The findings are discussed in [Section 2.4](#).

Variable Message Sign Implementation, City of Port Moody Email Discussions, 2018:

- Á VMS signs installed at Heritage Mountain Boulevard – Ioco Road and David Avenue and Forest Park Way W
- Á Both signs indicate when Buntzen Lake and White Pine Beach are full based on observation and phone communications.
- Á Cost sharing is between multiple agencies including PoMo, MV, and Buntzen/Hydro.
Sign only used annually from May long weekend to September long weekend. It appears that the VMS signs are having a low impact on travel behaviours.

White Pine Beach Entrance Improvements Tech Memo, ISL Engineering, 2013: Recommended traffic and safety improvements at the intersection of Bedwell Bay Road – White Pine Beach Road including extending the existing median barrier and relocating object marking sign, installing a gate device at the east end of the median, relocate delineators to the east, paint new pavement markings, add “local and bus traffic only” sign. Most of these recommendations were implemented and reflect the current configuration of the road.

1.4 Site Visit

A site visit was completed along Bedwell Bay Road on November 8, 2021 with representatives from AE, PoMo, and MV. It was noted that there are four key locations where traffic issues occur:

- 1)Á Congestion at the entrance to the White Pine Beach park.
- 2)Á Boardwalk trailhead adjacent to Bedwell Bay Road has no formal parking.
- 3)Á Turn around area towards Belcarra.
- 4)Á The turn-off to Anmore.

Discussion and observation onsite included the illegal parking and congestion along Bedwell Bay during peak times, no parking signs, white delineators installed in 2019, barrier installation, existing bus stop locations, and intersection operations and sight lines. Full details of the site visit are included in [Appendix A](#).

2 Existing Conditions Review

The existing conditions of the roadway are described in this section.

2.1 Study Area Roads

The project area includes 1st Avenue north of Ioco Road and Bedwell Bay Road from 1st Avenue, west to the Belcarra municipal boundary. There are several private accesses that tie into the road, and the following intersecting roads:

1st Avenue / Bedwell Bay Road / Sunnyside Road: Bedwell Bay Road and Sunnyside Road branch off 1st Avenue, with Sunnyside Road oriented as the stop-controlled, minor leg of the intersection. At the intersection, Sunnyside Road has narrow shoulders with a pin-on asphalt curb on the eastbound side of the roadway. .

Crystal Creek Drive / Forest View Lane: This Village of Anmore intersection has left-turn lanes from Bedwell Bay Road to both side street. North-eastbound has a channelized right-turn lane to Crystal Creek Drive. Forest View Lane is right-out only. The intersection is located on a horizontal curve and may have poor sightlines.

White Pine Beach Road: White Pine Beach Road intersects with Bedwell Bay Road at a complex T-intersection. Westbound Bedwell Bay Road has a right-turn only lane with approximately 70 m of storage and barrier separating the turn lane from through traffic. Eastbound Bedwell Bay Road has a left-turn lane into the park access and an acceleration lane that tapers for vehicles exiting White Pine Beach Road. White Pine Beach Road has a vehicle/bus turnaround with a bus stop. Due to the skewed angle of the intersection, vehicles leaving White Pine Beach Road either turn right via a channelized yield, or travel through to eastbound Bedwell Bay Road. **Figure 2-1** shows the existing layout of the intersection.

Tum Tumay Whueton Drive: Tum Tumay Whueton Drive intersects with Bedwell Bay Road along a horizontal curve with steep vertical slope on some approaches. The angle of intersection is skewed. These characteristics cause potential sightline issues. The intersection operates as a 3-way stop, with stop signs and bars located at all directions. **Figure 2-2** shows the existing layout of the intersection.

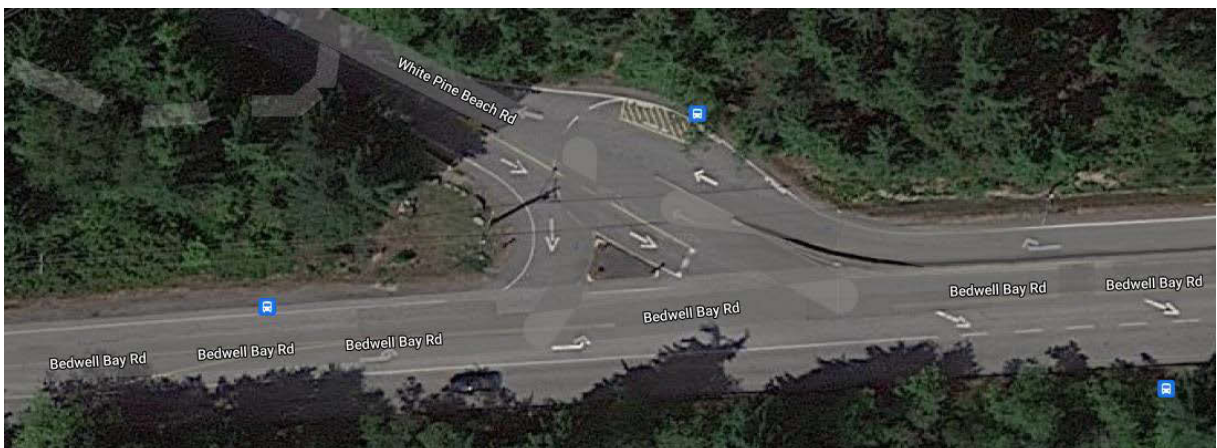


Figure 2-1
Bedwell Bay Road – White Pine Beach Road



Figure 2-2
Bedwell Bay Road - Tum Tumay Whueton Drive Intersection

2.2' Shoulder Widths

Bedwell Bay Road has a rural cross section within the study area. The shoulder widths vary throughout the corridor ranging from no shoulder to some shoulder. Shoulder widths are neither consistent through areas nor equal on both sides. AE developed a map of shoulder width classification throughout the corridor and is shown in **Figure 2-3**. For this project, the paved shoulder widths were estimated from google earth measurements. Walkable shoulders were classified as paved shoulders between 1.2 m to 2.4 m wide and shoulder widths less than 1.2 m were considered not suitable for walking. A “parkable shoulder” width was considered as a paved shoulder width of greater than 2.4 m. This map indicates that only two short sections have shoulder widths are wide enough for vehicles to be safely parked. Likewise, there’s a few sections of roadway that have shoulders not wide enough for them to be used for walking at least in single file along the road.

2.3 Safety

The historical collisions taken from the City's Traffic Accident System (TAS) database contains the police-reported collision data. It was summarized for the most recent five years of complete data from 2014 to 2018. The crashes have been mapped in **Figure 2-4**. Nine collisions listed the collision location as 2100 Bedwell Bay Road and there were a further three collisions that were reported on Bedwell Bay Road without a specific location given and not mapped. Collisions at Crystal Creek Drive are in the Village of Anmore jurisdiction and do not appear to be included in the collision data set. No collisions involving pedestrians or cyclists was reported in the data.



Figure 2-4
2014-2018 Police Reported Collisions

2.4 Traffic

Traffic counts were available from a number of sources including permanent count stations operated by Metro Vancouver and Tube Counts arranged by the City.

2.4.1 Traffic by Month and Day of Week

A more complete set of the data provided by MV was available from a permanent count station on Bedwell Bay Road immediately west of Crystal Creek Drive. This data, shown in **Table 2-1** shows the significant difference in the amount of traffic throughout the year, ranging from a low of 1,600 vehicles per day on Sundays in January to a high of nearly 12,000 vehicles per day on Sundays in July. This data is indicative of that pattern that the road serves local traffic going to and from the Village of Belcarra throughout the year and accommodates seasonal variations for traffic destined to all parts of təmtə́míxʷtən/Belcarra Regional Park, not just White Pine Beach at Sasamat Lake.

Table 2-1
Traffic on Bedwell Bay Road Between Crystal Creek Dr. and White Pine Beach Rd, 2020
Two Way Total Volume by Month and Day of Week (vehicles per day)

Month	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Average
Jan	1650	1720	1920	1800	1740	1860	1650	1770
Feb	2640	1890	2070	2060	2340	2570	2360	2290
Mar	2350	2240	3010	2520	2890	3800	3840	2940
Apr	3120	2790	2790	3150	3220	4150	4020	3300
May	5340	4150	4150	4480	6040	5330	5910	5130
Jun	5160	3240	4020	5380	4690	4950	7800	4980
Jul	8340	6300	5700	3920	4160	8050	11700	6660
Aug	4890	4490	4490	3540	3970	5080	6680	4810
Sep	3850	3230	3450	3760	3710	3190	3830	3560
Oct	2800	2560	3090	2770	2710	3500	2770	2900
Nov	2200	1980	2370	2180	2380	3270	3280	2540
Dec	2590	2460	2390	2520	2380	2990	2440	2530
Average	3740	3090	3290	3170	3350	4060	4690	3620

Table 2-2 shows the daily traffic volumes on White Pine Beach Road for the same time period as **Table 2-1**. This shows how much of the traffic travels to and from White Pine Beach Rd which is significantly less than the traffic on Bedwell Bay Road.

Table 2-2
Traffic on White Pine Beach Rd, 2020
Two Way Total Volume by Month and Day of Week (vehicles per day)

Month	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Average
Jan	90	90	160	110	100	210	180	130
Feb	290	110	140	120	250	460	290	240
Mar	230	220	340	260	340	620	610	370
Apr	430	380	360	440	440	690	690	490
May	900	830	860	910	1070	800	930	900
Jun	980	490	750	1130	990	1080	1400	970
Jul	1610	1230	1160	640	770	1200	1500	1160
Aug	930	960	860	680	800	890	910	860
Sep	470	570	660	720	650	560	620	610
Oct	370	280	410	440	430	590	410	420
Nov	180	130	240	170	200	510	540	280
Dec	380	300	290	300	290	460	360	340
Average	570	470	520	490	530	670	700	560

2.4.2' Traffic Along Bedwell Bay Road

Table 2-3, Table 2-4, and Table 2-5 provides a summary of traffic data that was collected using tube counters in October and November 2021. This data has vehicle counts, bike counts and vehicle travel speed.

Table 2-3
Vehicle Volumes Along Bedwell Bay Road
Two Way Total Volume by Day of Week (vehicles per day)

Between	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
1 st Ave and Sunnyside Rd (Nov 13 to 19, 2021)	2050	2800	2700	2450	3000	2450	1600
Crystal Creek Dr. and White Pine Beach Rd (Oct. 26 to Nov 1, 2021)	2050	1900	2100	1850	2300	3700	3450
White Pine Beach Rd and Tum Tumay Whueton Dr. (Oct 13 to 19, 2021)	1900	2250	1800	1750	1650	1500	1600
Tum Tumay Whueton Dr. and Belcarra Border (Oct. 26 to Nov 1, 2021)	1500	1500	1600	1500	1600	1700	1500

Table 2-4
Bicycle Volumes Along Bedwell Bay Road
Two Way Total Volume by Day of Week (Bikes per day)

Between	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
1 st Ave and Sunnyside Rd (Nov 13 to 19, 2021)*	2	17	6	0	3	2	0
Crystal Creek Dr. and White Pine Beach Rd (Oct. 26 to Nov 1, 2021)	4	0	6	0	11	65	63
White Pine Beach Rd and Tum Tumay Whueton Dr. (Oct 13 to 19, 2021)	17	49	0	1	1	2	4
Tum Tumay Whueton Dr. and Belcarra Border (Oct. 26 to Nov 1, 2021)	2	0	1	0	11	25	20

*Note: Count volumes are lower due to count being conducted in November

Table 2-5
Vehicle Travel Speeds Along Bedwell Bay Road (85th Percentile Speed)

Bedwell Bay between	NB 85% SPEED	SB 85% SPEED
Belcarra Border and Tum Tumay Wheuton Dr	71.5 km/h	75.8 km/h
Tum Tumay Whueton Dr and White Pine Beach Road	82.8 km/h	74.1 km/h
White Pine Beach Rd and Crystal Creek Dr	67.8 km/h	65.5 km/h
Crystal Creek Dr and Sunnyside Rd	63.3 km/h	66.9 km/h

Speeds were observed to be in excess of the posted 50 km/h speed limit at all tube locations. Higher directional travel speed corresponds to the road grade in the location of the loop. For example, for northbound travel from White Pine Beach to Tum Tumay Whueton, Bedwell Bay Road has a steep downgrade of greater than 10%, which may encourage higher travel speeds. High speeds along Bedwell Bay Road support the need for separation between vehicles and people walking and biking, as well as consideration for options that encourage slower travel speeds.

2.4.3 Historic Vehicle Volumes

Metro Vancouver provided the data in **Table 2-6** which shows monthly park entries of all parks in the area from January 2017 to August 2021 entering White Pine Beach. According to this data, people entering White Pine was highest in 2021, followed by 2020.

Table 2-6
Historic Traffic Volume Trends on White Pine Beach
Vehicle Entries by Year and Month (vehicles per month)¹

	2017	2018	2019	2020	2021
January	3,900	5,040	4,990	4,090	10,290
February	4,180	5,100	5,140	7,080	9,040
March	4,150	7,760	10,480	11,560*	12,730
April	7,230	7,960	7,890	14,570	19,810
May	15,460	18,110	15,900	28,020	21,590
June	18,560	16,400	19,860	26,720	33,700
July	35,140	31,880	27,570	35,020	39,250
August	29,800	24,230	27,780	26,890	29,260
September	13,400	8,880	10,990	18,240	13,660
October	9,150	6,260	8,210	13,200	10,730
November	3,660	4,740	5,940	8,570	6,910
December	3,820	3,880	5,550	10,340	5,800
TOTAL	148,500	140,240	150,300	204,300	212,800

*Note: The Covid-19 pandemic took place beginning in March 2020 through 2021, which appears to have contributed to higher park usage in the summer of 2020 and 2021.

2.5 Parking

The 2018 City Council report identified criteria for allowing vehicles to park along the roadway:

- Á provide adequate sight distances for vehicles travelling on the roadway at the posted speed limit.
- Á maximize the amount of on-street parking available for visitors.
- Á maintain safety for pedestrians and general traffic on the roadway.
- Á provide minimum 2 m wide paved or gravel shoulder measured from the painted edge line.

At the time, the intention was to only remove the unsafe parking which reduced the parking supply from 380 on-street parking stalls to approximately 260 on-street parking stalls to be available to visitors along Bedwell Bay Road. During the site visit, it was indicated that City Council prohibited parking on all of Bedwell Bay Road and have installed multiple no parking signs including large signs such as that seen in **Figure 2-5**.

¹Belcarra traffic counts 2017-2021.xls provided by Metro Vancouver. Volumes represent White Pine (inbound) vehicle occupants.



Figure 2-5
No Parking Signage on Bedwell Bay Road

White Pine Beach parking lots have a total of approximately 412 parking stalls. Parking demand on peak days exceeds the available parking and has been a historical ongoing problem for many years. The reduction in parking without a replacement elsewhere has exacerbated the problem and may have contributed to the undesirable driving behaviour and illegal parking as people do not know where to park when the park gates are closed. Park staff and bylaw enforcement had noticed that park demand increased in 2020 and 2021 which was corroborated by the traffic count data. Based on the park usage data, it may be that a combination of increased parking restrictions, newly installed barriers and increased travel to the park contribute to the anecdotal deterioration of driving behaviour. Associated Engineering did a cursory assessment of which portions of the road are parkable based on whether the paved shoulder width is 2.4 m or greater. This width was selected as the target width for paved parkable shoulder based on the TAC² minimum width guidelines. As shown in **Figure 2-3**, there are few areas considered to be parkable. A parkable shoulder should provide enough space to safely park a vehicle completely outside of the travel lane with enough space to enter/exit the vehicle and for pedestrians to walk from their vehicles to their destination without needing to walk in the travel walk. Another consideration is whether pedestrian foot traffic or vehicles will erode the banks of the open ditches found along Bedwell Bay Road.

2.6 Active Transportation

Currently, the Bedwell Bay corridor has no formalized accommodations for people walking or biking other than roadside shoulders, which is common for rural settings. The two modes may share the shoulder space, however this becomes impractical when space is constrained or when vehicles are parked and occupying the space. As shown in **Figure 2-3**, there are several areas along the corridor where the paved shoulder width is below 1.2 m and considered to be too narrow to be walkable.

2.7 Transit

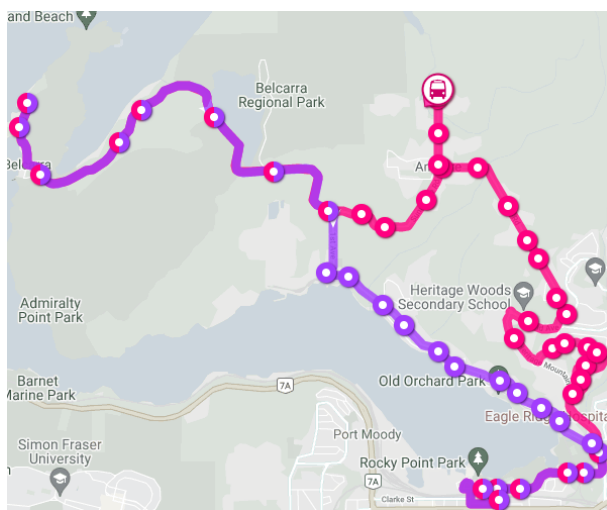
Currently, there are two year-round bus routes and one seasonal bus route that operates along Bedwell Bay Road by TransLink and Coast Mountain Bus Company (CMBC). Route 181 and Route 182 are shown in **Figure 2-6**.

Route 181 is a community shuttle route that connects Port Moody to Belcarra and Anmore via Bedwell Bay Road and Sunnyside Road. The inbound route runs northbound 1st Avenue, right onto northbound Sunnyside Road to Anmore and turns around. It travels southbound on Sunnyside Road. The outbound route travels east on Bedwell Bay Road to southbound on 1st Avenue into Port Moody to Moody Centre Station.

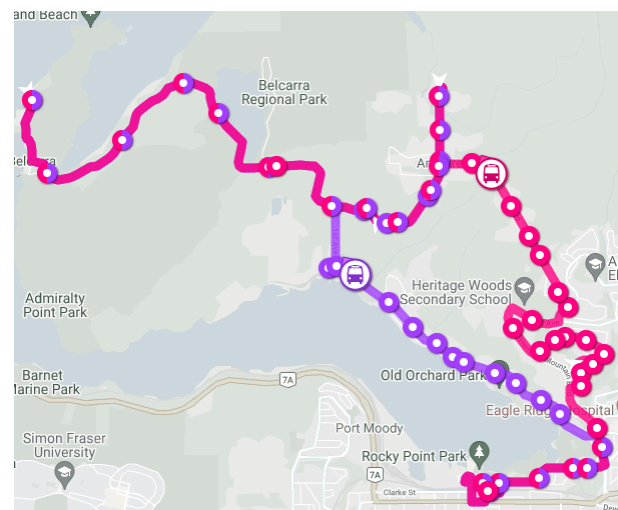
² TAC Geometric Design Guide, Section 4.3.2.4, Parking Lanes: Width is generally 2.4 m.

Route 182 is also a community shuttle route that travels from Moody Centre Station to Belcarra. The bus travels inbound northbound to Anmore, and travels southbound along Sunnyside Road to Bedwell Bay Road where it travels to Belcarra. The outbound trip travels east from Belcarra and north along Sunnyside Road to Anmore where it routes into Port Moody.

Coast Mountain Bus uses a “flag stop” system for Route 181/182 along Bedwell Bay Road except at White Pine Beach. In the westbound direction there is a stop located in the intersection turnaround area. In the eastbound direction a temporary stop was constructed opposite to the park entrance, however there is no formal crossing and no waiting area for passengers.



Note: Route 181 shown in purple; Route 182 shown in pink.



Source: <https://tripplanning.translink.ca/#/app/nextdepartures>

Figure 2-6
Route 181 & 182 Outbound (Left) and Inbound (Right)

Route 150 is a well-utilized summer shuttle from Coquitlam Centre SkyTrain station to White Pine Beach. The route utilizes an articulating bus and drops / picks up passengers inside the park before heading back into Port Moody. The bus stops along Bedwell Bay Road have minimal infrastructure. Generally, they are identified with only a bus stop sign on the side of the roadway shoulder. The only bus stop with a more robust stop is the White Pine Beach bus stop at the bus turnaround.

CMBC identified their concerns along the corridor during a discussion on December 7, 2021. They identified high ridership on all routes for access to the park during peak times. The main issues they identified are:

- **Á** The Route 150 bus stop at the White Pine Beach entrance needs improved facilities for waiting passengers. There is no bus stop pad and a lack of space for waiting passengers.
- **Á** There are no formalized bus stops along Bedwell Bay Road for Route 181/182 and instead passengers can flag the bus down at any point in the corridor.
- **Á** The temporary eastbound stop constructed in 2021 is not in an ideal location for passenger waiting and loading/unloading. Bedwell Bay Road has roadside barrier in the eastbound direction at White Pine Beach Road and passengers must either climb over them or wait in the travel lane for the bus. No crosswalk is provided and the bus is required to stop in the travel lane which impedes traffic.

- Á Location of the Route 150 stop inside the park for accessibility.

3 Location Specific Issues

3.1 White Pine Beach Road

The White Pine Beach Road and Bedwell Bay Road intersection was identified as a key area of interest for this study because it is the location that is affected the most by the travel demands and lack of parking supply at White Pine Beach. The problem statement for the intersection is stated below:

White Pine Beach Road Problem Statement: *Peak parking demand exceeds capacity for the parking lot, causing cars to illegally park on the shoulder of Bedwell Bay Road. Pedestrians walk from their parked cars to the park in the travel lane which is a safety issue. Vehicles cannot turn around at the intersection when vehicles block the turn lanes. The roadway has observed speeding concerns and the intersection skew causes visibility concerns.*

Error! Reference source not found. shows photos from the site visit of the intersection characteristics.

Metro Vancouver operates the park and administers traffic control at the park entrance. Paid parking is used for demand management. When the parking lot is full, an operator closes the entry gate and only allows entry of transit, emergency, taxi and local vehicles. Park gates are reopened when 50 parking spaces become available. Metro Vancouver wants to encourage parking turnover and reduce resources needed for traffic control.

The specific issues for the intersection are:

- Á Cars illegally park on the shoulder and in the turn lane of Bedwell Bay Road at the intersection
- Á Some people use belligerent behaviour towards park operators and traffic control personnel.
- Á Traffic on Bedwell Bay Road gets impeded by vehicles stopping to access the park when the parking lot is full.
- Á By law enforcement and the police find a high level of non-compliance to the parking bylaws, even with high amounts of ticketing and towing.
- Á Route 182 uses a “flag stop” system, which means that people can stand anywhere on the side of the road to flag down a bus to pick them up. Coast Mountain Bus has added a temporary bus stop that is not ideal because it is on a grade, narrow shoulders and insufficient space for transit users to wait.



White Pine Beach Road / Sasamat
Lake Entrance

Bedwell Bay Road facing west
towards Belcarra

Bedwell Bay Road facing east
towards IOCO townsite

3.2' Tum Tumay Whueton Drive

The Tum Tumay Whueton Drive and Bedwell Bay Road intersection was identified as a key area of interest for this study. The intersection is currently an all-way stop controlled intersection. The problem statement for the intersection is stated below:

The intersection of Bedwell Bay Road and Tum Tumay Whueton Drive is a skewed angle intersection located on horizontal and vertical curves. Low traffic control device compliance was observed with cars failing to come to a complete stop at the intersection. Police have recently indicated to the City at least one rollover collision has occurred, although the collision data does not show an excessive number of collisions at this location.

The intersection skew and curve can cause driver confusion to identify which road is Bedwell Bay Road and which is Tum Tumay Whueton Drive when approaching the intersection. It may appear that Bedwell Bay Road continues onto Tum Tumay Whueton Drive. The official route to access parks west of Belcarra is along Tum Tumay Wheuton Drive, however unclear signage does not convey this to people approaching the intersection. There is some directional signage for the westbound approach but not on all approaches. The intersection does not have street lighting, which is typical for a rural intersection. Bedwell Bay Road has more traffic than Tum Tumay Whueton Drive and cars on Bedwell Bay Road destined for Belcarra were observed to be rolling the stop sign instead of fully stopping.

3.3' Floatwalk Access

The Boardwalk Walk Access point serves a secondary area of the park and provides an alternate entry point for individuals desiring access to Sasamat Lake generally. The problem definition statement is as follows:

Parking is not supplied for the secondary park boardwalk area access causing cars to illegally park on the shoulder of Bedwell Bay Road where there is not enough space. Pedestrians walk from their parked cars to the boardwalk entrance in the travel lane which is a safety issue.

There is a secondary consideration for this access point as Port Moody Police are often deployed to patrol this area of the park. There is currently emergency vehicle only parking near the park entrance.

3.4' Bedwell Bay Informal Turnaround Area / Floatwalk Access

The informal turnaround point is located at the northern end of the study corridor near the Belcarra border and the west Floatwalk access. The area has a wide unpaved shoulder where there is currently an informal bus stop. The problem statement for the turnaround is as follows:

There is a lack of turn around opportunities on Bedwell Bay Road. An informal turn around location is not well defined or paved and cars must cross a double solid yellow line to turn around.

People walking on the road are mostly park goers walking in groups and carrying beach equipment. Parked vehicles are hazardous due to the narrow road and shoulder width. Cars have been observed parked on shoulder on top of delineators.

Issues related to park going activities requiring police presence in the boardwalk entrance.

Turn around opportunities are limited even after entering Belcarra. Drivers who are not familiar with the area may find this confusing especially when the road is busy.

4 Problem Definition

The root issue is that there is a greater demand than supply for parking inside the White Pine Beach on peak demand days. MV closes the park gates when the parking lots are full to keep its internal road system clear and in case of an emergency. This has impacts on the operations and safety of the roadway and intersections. The following problems occur on Bedwell Bay Road when the parking lots are full (and the park gates are closed):

- People walk along the middle of the road.
- People riding bikes do not feel safe riding along the corridor due to vehicle speeds and lack of separated bike facilities.
- People park their vehicles illegally and unsafely.
- People illegally stop on the side of the road to wait to be allowed into the park and block Bedwell Bay Road and/or the White Pine Beach Road access for emergency vehicles, transit, and other vehicles.

During off-peak times, although there is opportunity to better utilize the corridor to encourage White Pine Beach to be an active transportation destination. Providing adequate facilities to allow people to visit the area by bus, bike, or walking will help vitalize the area.

5 Options Development

Conceptual options have been developed to address key issues along five key improvement areas within the study area. The concepts were developed with considerations of affordability and value, environmental impact, effectiveness, physical constraints, and technical feasibility. The five key improvement areas are:

- **Improvement Area 1: Pedestrian / Cyclist Facilities along Bedwell Bay Road**
- **Improvement Area 2: White Pine Beach Road Intersection**
- **Improvement Area 3: Floatwalk Access**
- **Improvement Area 4: Tum Tumay Wheuton Drive Intersection**
- **Improvement Area 5: White Pine Beach Visitation and Circulation**

The groups of options have been developed and are detailed below. Full detailed sketches of the options are included in **Appendix B**.

5.1 Improvement Area 1 – Pedestrian / Cyclist Facilities

This group of options provides a dedicated active transportation connection between White Pine Beach and the loco Townsite to help address an existing safety issue and encourage a mode shift to cycling. Options are intended to provide a facility for cyclists and pedestrians to travel along Bedwell Bay Road.

Most of the people who are walking along the corridor are walking between their parked cars and White Pine Beach. With this option, people can park at the loco Townsite and either walk to White Pine Beach or ride transit to the site. There is currently a SB bus stop on 2nd Avenue to service Route 181 and a NB bus stop on 1st Avenue for Route 150 and 181. Updating the bus stop locations at the Townsite at 1st Avenue – loco Road would create transit connections to/from White Pine Beach and the townsite.

5.1.1' Option 1A – Bi-Directional Facility (North Side MUP)

In this option, the cross section of Bedwell Bay Road will be widened to include one 3.3 m vehicle travel lane in each direction and a 3.3 m bi-directional multi-use path separated by 1.2 m continuous concrete barriers on the north side. 3.3 m is the minimum width to accommodate transit on an MRN route³.

The clear separation of this facility through the use of continuous, concrete barriers will also eliminate illegal parking along the corridor. This option requires roadway widening, including adding retaining walls where steep slopes exist and rock blasting where rock outcroppings cause a width restriction. **Figure 5-1** shows this option.

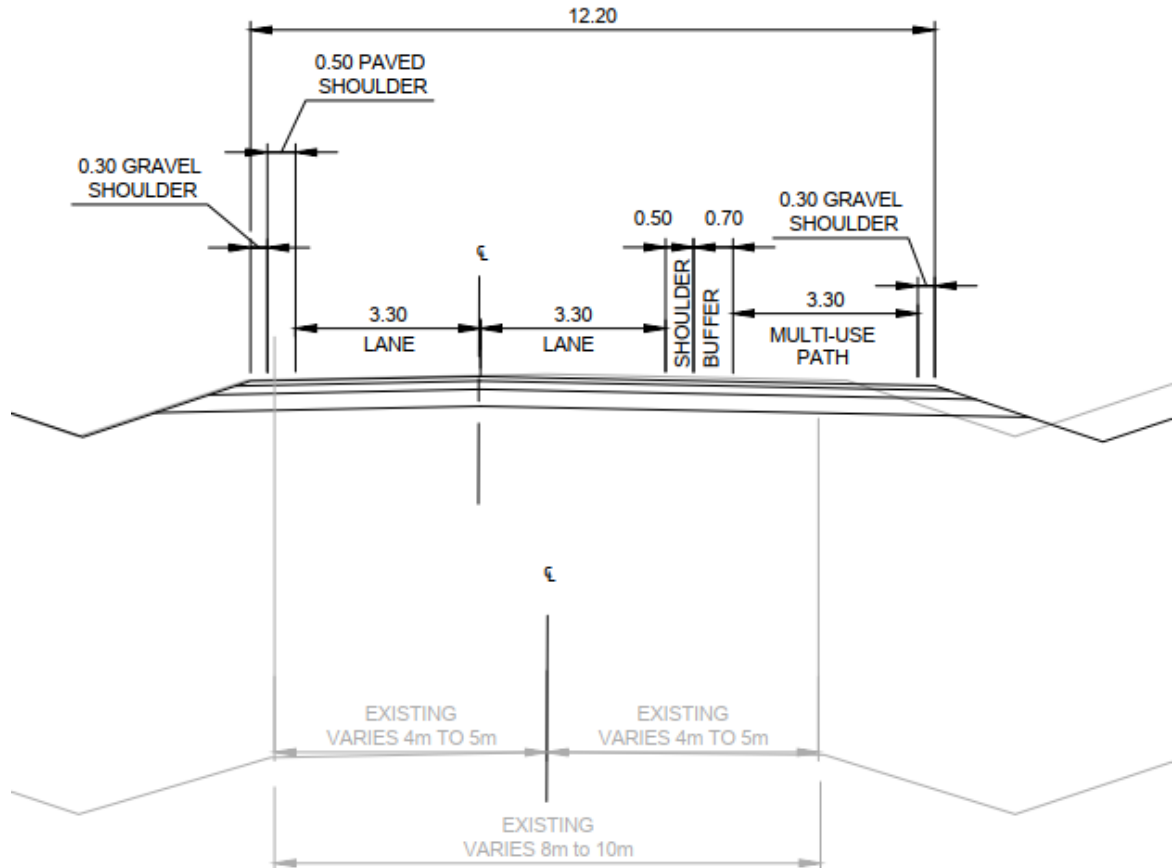


Figure 5-1
Option 1A – Bi-Directional Facility (North Side MUP)

5.1.2' Option 1B – Uni-Directional Facility (Delineated Buffered Shoulders Both Sides)

In this option, the cross section of Bedwell Bay Road will be widened to include one 3.3 m vehicle travel lane and 1.8 m unidirectional pedestrian and cyclist path separated by a 0.8 m buffer with on both sides. The overall cross-section width is similar to the width required in Option 1A, and once again while the preferred widths are 3.6 m lane width and 1.0 m shoulder, a reduced cross section is proposed due to the significant incremental cost to further widen the road.

³ Travel lane width 3.3 m to 3.7 m. Translink Bus Infrastructure Design Guidelines, Section 2.3: https://www.translink.ca/-/media/translink/documents/plans-and-projects/managing-the-transit-network/bus_infrastructure_design_guidelines-sept_2018.pdf#view=fitH

Because the barrier/delineation proposed will have gaps, there may be issues with compliance by vehicles, as it is observed today that some drivers drive over or around delineators to park on the shoulder. The configuration of this option encourages people to cycle in the same direction as traffic and having a non-continuous barrier (such as delineators), will allow cyclists to move from the roadway to the path depending on their preference. People walking will have access to either side of the roadway.

This option also requires roadway widening, including adding retaining walls where steep slopes exist and rock blasting where rock outcroppings cause a width restriction. **Figure 5-2** shows this option.

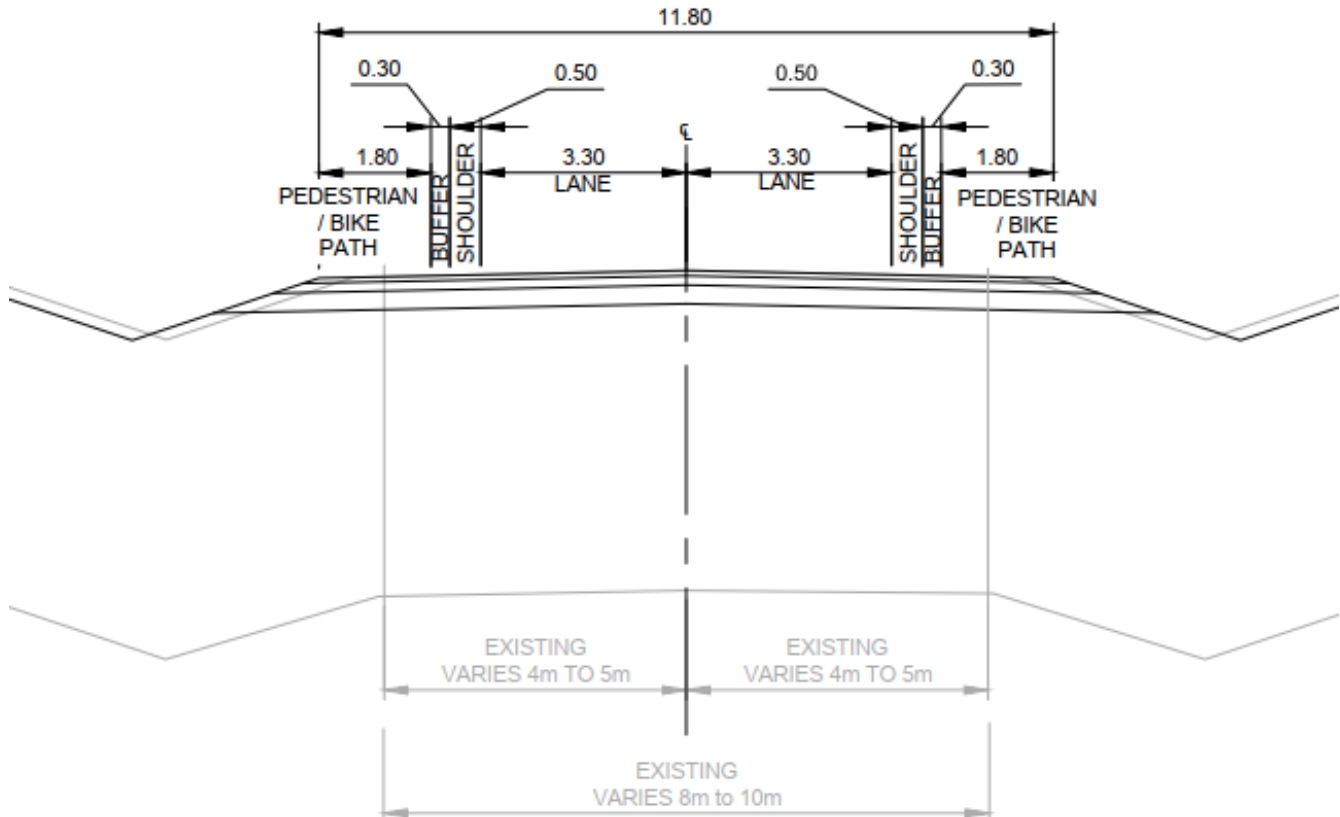


Figure 5-2
Option 1B – Uni-Directional Facility (Delineated Buffered Shoulders Both Sides)

5.2 Improvement Area 2 – White Pine Beach Road Intersection

The options for the area at Bedwell Bay Road and White Pine Beach Road intersection are intended to improve safety, facilitate transit operations, and enhance traffic operations at the intersection.

5.2.1 Option 2A – Formalized Transit and Pedestrian Facilities

In this option, the dedicated eastbound left turn lane will be removed to make room for an in-line bus stop with a passenger waiting area. A pedestrian activated cross walk with a rapid flashing beacon (RRFB) for enhanced visibility, will be placed on the west side of the intersection. Due to the steep grade west of the intersection, the bus stop is located east of the intersection, far enough away to avoid interference with intersection operations.

In the westbound direction, the right-turn lane is removed to make room for a passenger waiting area and pedestrian connection to the bus stop. The bus will no longer need to leave the travel lane, into the intersection bulb-out and back onto Bedwell Bay Road. Space in the bulb-out is maintained to allow for passenger vehicle turn-around in the event that the gate into White Pine Beach is closed.

An outbound bus stop is proposed to be located southbound on White Pine Beach Road for any passengers taking the White Pine Beach shuttle.

Pedestrian crosswalks provide pedestrians with a dedicated and visible place to cross the road and access bus stops. Buses will occupy the travel lane during boarding and alighting of passengers. Removal of the left and right turn bays are not anticipated to have a significant impact on traffic performance during peak hours as the current practice during peak usage is to block the lanes off using traffic cones to control park access. **Figure 5-3** shows this option.

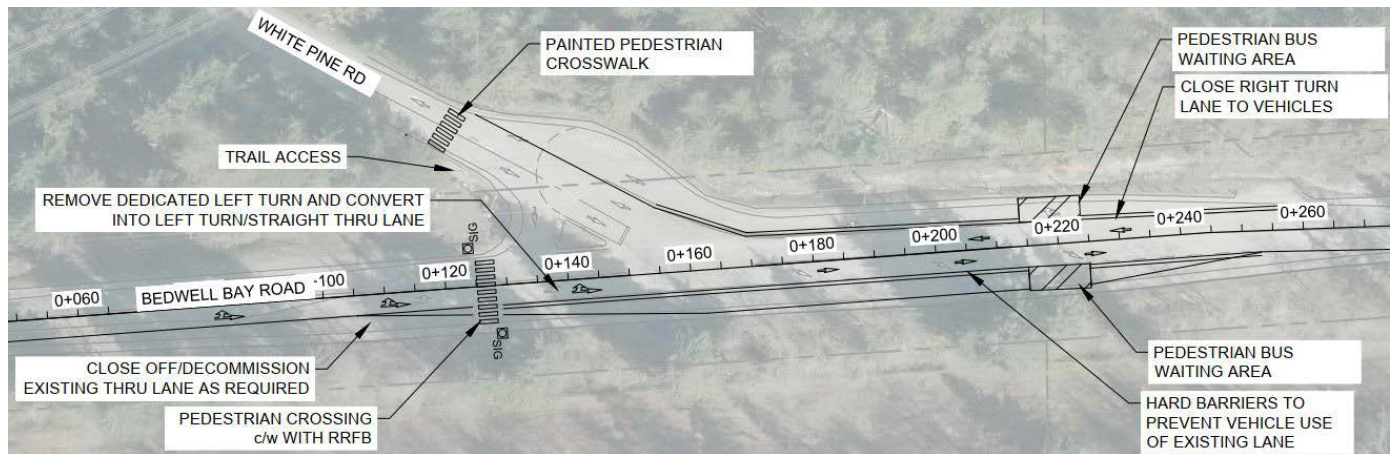


Figure 5-3
Option 2A – Formalized Transit and Pedestrian Facilities

5.2.2 Option 2B – Mini Roundabout with Formalized Transit and Pedestrian Facilities

In this option, the existing stop-controlled intersection of Bedwell Bay Road and White Pine Beach Road will be converted into a roundabout. The selection of a mini roundabout will minimize space requirement and the construction impact during implementation.

A pedestrian cross walk will be placed on the west side of the intersection and will provide pedestrians with a dedicated and visible place to cross Bedwell Bay Road and wait for the bus. Including RRFBs to cross Bedwell Bay Road will further help with pedestrian visibility. The roundabout will reduce the speeds of vehicles as they navigate the roundabout making it safer for pedestrians. Buses will be required to occupy the travel lane when loading and unloading passengers. The roundabout also improves the ease of making a left turn out of White Pine Beach Road. **Figure 5-4** shows this option.

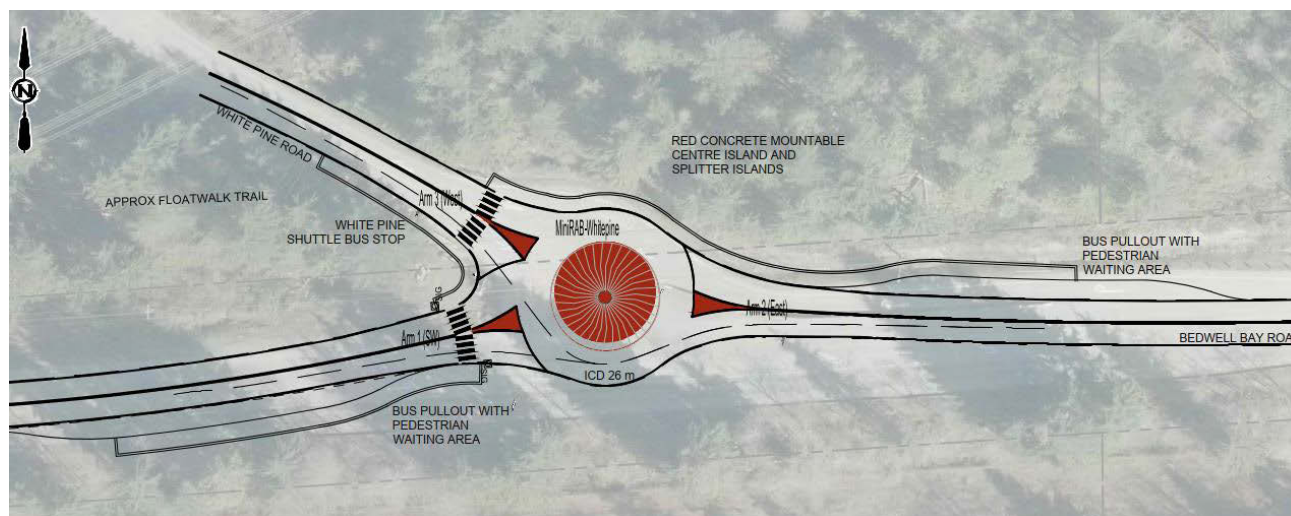


Figure 5-4
Option 2B – Mini Roundabout with Formalized Transit and Pedestrian Facilities

5.2.3' **loco Townsite Park-and-Ride**

In conjunction with the other options discussed, a park-and-ride facility located in the loco Townsite near loco Road – 1st Avenue could provide an overflow parking solution for vehicles that arrive when the White Pine Beach parking lot is at capacity. Drivers could drop off passengers at White Pine Beach and park at the townsite. The active transportation connection from the townsite to White Pine Beach would provide a connection for people to walk or bike to the beach. Transit stops at the facility would encourage park visitors to utilize transit as a mobility solution for accessing the park during peak times.

The feasibility of a park-and-ride at loco Townsite will require additional planning and reviews.

5.3' **Improvement Area 3 - Floatwalk Access**

Parking areas are proposed to be provided north of White Pine Beach Road for people accessing the floatwalk trail system. The roadway terrain will require widening to accommodate a cross-section that includes shoulder parking and a paved pedestrian sidewalk. The shoulder parking width will be enough to provide a buffer for vehicle occupants to open the doors. This option will provide parking for approximately 25 vehicles, with two spaces reserved for emergency service vehicles and one for MV staff. **Figure 5-5** shows the proposed plan and cross-section.

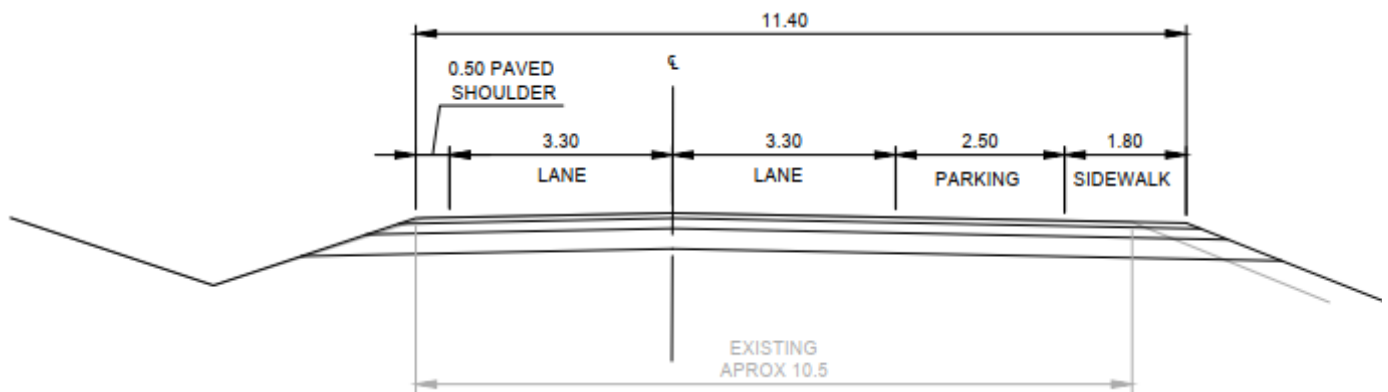
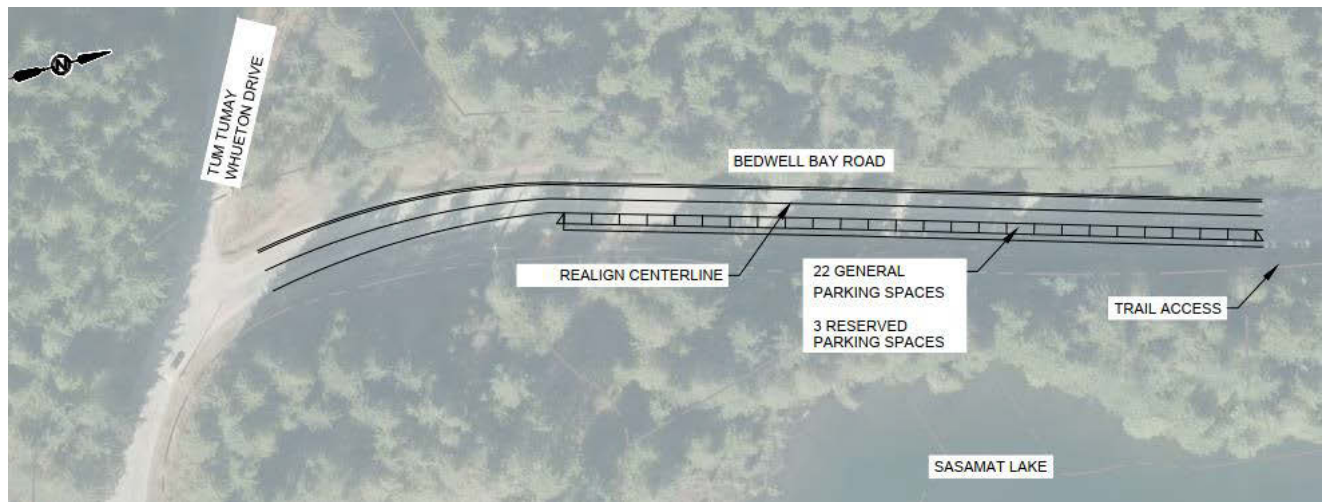


Figure 5-5
Floatwalk Parking

5.4' Improvement Area 4 – Tum Tumay Wheuton Intersection

To improve wayfinding, signage and intersection operations at the intersection of Bedwell Bay Road – Tum Tumay Wheuton Road, two options have been developed.

5.4.1' Option 4A - Improved Intersection and Lighting

The current intersection configuration creates a wide, skewed-angle has some existing westbound wayfinding signage, however, the multiple signs may be unclear. Adding pavement markings will better delineate and tighten up the intersection. Improving the wayfinding sign text and sign location may help drivers identify the correct direction to their destination. The existing stop signs may be difficult for drivers to see. Advanced warning signs and pavement markings would assist in visibility of stop signs and provide warning of the stop-controlled intersection. Adding streetlighting in the intersection will enhance visibility during the night. **Figure 5-6** shows the proposed intersection improvement plan.

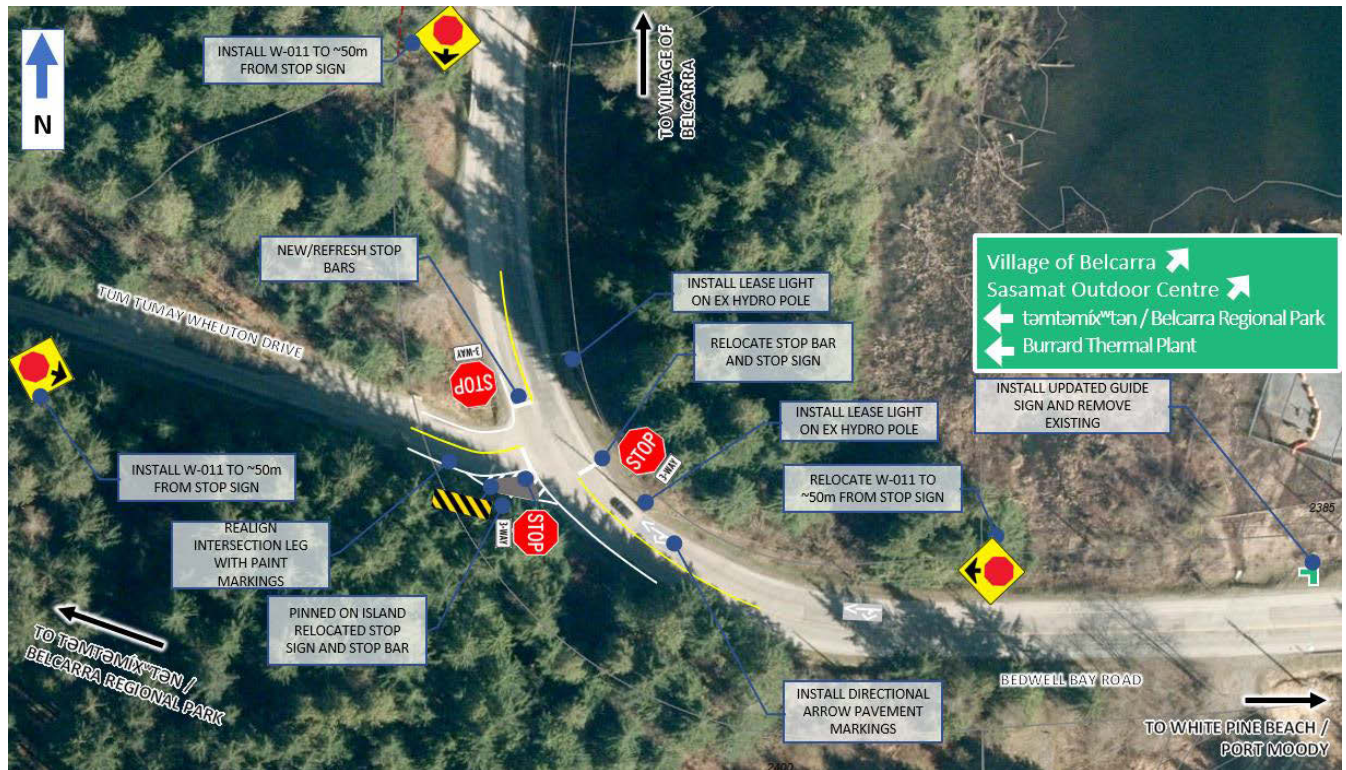


Figure 5-6
Improved Wayfinding Signage and Intersection Lighting

5.4.2 Option 4B - Mini Roundabout

In this option, the existing stop-controlled intersection of Bedwell Bay Road and Tum Tumay Wheuton Drive would be converted into a mini roundabout, similar to the proposed mini roundabout at the White Pine Beach intersection. Using a mini roundabout will minimize space requirement and the construction impact during implementation. A pedestrian cross walk could be placed on the east side of the intersection to provide pedestrians with a marked crossing of Bedwell Bay Road. The roundabout will reduce the speeds of vehicles as they navigate the intersection and help improve sight line restrictions that currently exist due to the skew of Tum Tumay Whueton Drive with Bedwell Bay Road.

Roundabout guide signage can be used in conjunction with the mini roundabout to inform drivers of which route to take into the Belcarra area. Furthermore, the use of a mini roundabout provides an additional turnaround point for drivers who are unable to access White Pine Beach due to parking lot gate closure. The roundabout concept was created to accommodate the swept path of a transit vehicle without mounting the islands. Large vehicles are able to mount the splitter or central islands to navigate the roundabout. **Figure 5-7** shows this option.

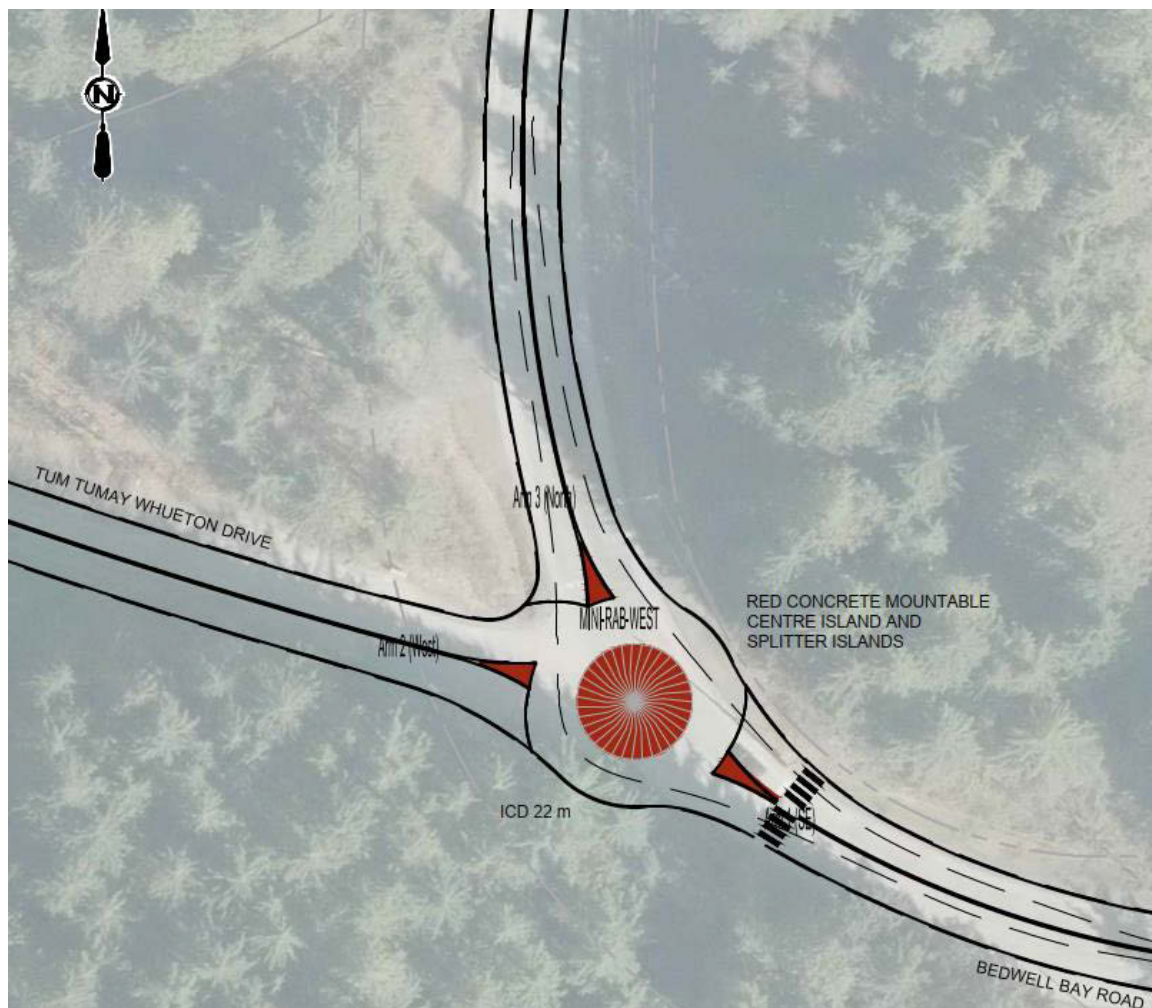


Figure 5-7
Tum Tumay Wheuton Mini Roundabout

5.5 Improvement Area 5 – White Pine Beach Visitation and Circulation

MVRD and PoMo use variable message signs to give advance warning that the park is at capacity, however, the inherent problem is that it is unclear what people should do if they arrive at the park and are not allowed in due to the parking lot reaching capacity. With the proposed removal of most parking along Bedwell Bay Road, many visitors have travelled long distances and understandably are determined to park where they can and walk in.

These options are related to improve transit flow and minimize delay within the White Pine Beach parking lot. It is recommended that in addition to potential operational improvements, travel demand solutions such as park permits, parking costs, improved ITS, and park status information should be considered to help inform potential visitors with up to date information.

The following options are provided for future study and discussion by MVRD and PoMo, and no further evaluation of the options will be conducted at this time.

5.5.1 Option 5A – Transit Routing, Parking Lot A and/or B

In this option, the drop off and boarding location for the transit vehicles will be relocated closer to the park entrance. This will reduce the travel time distance for buses and reduce the opportunity for them to be delayed by other vehicles and pedestrians within the park. Two variations were identified. Either utilizing Lot A as a transit stop and removing the parking spaces or utilizing Lot B as a transit stop and removing the parking spaces. In either of these options, the current transit stop near White Pine Beach would become a pedestrian drop-off/pick-up area.

Currently, CMBC has indicated that using the existing White Pine Beach stop and circulating around the entire loop road is working adequately. However, in the future, these proposed options may provide alternative routes to increase efficiency of the transit route. **Figure 5-8** shows this option.

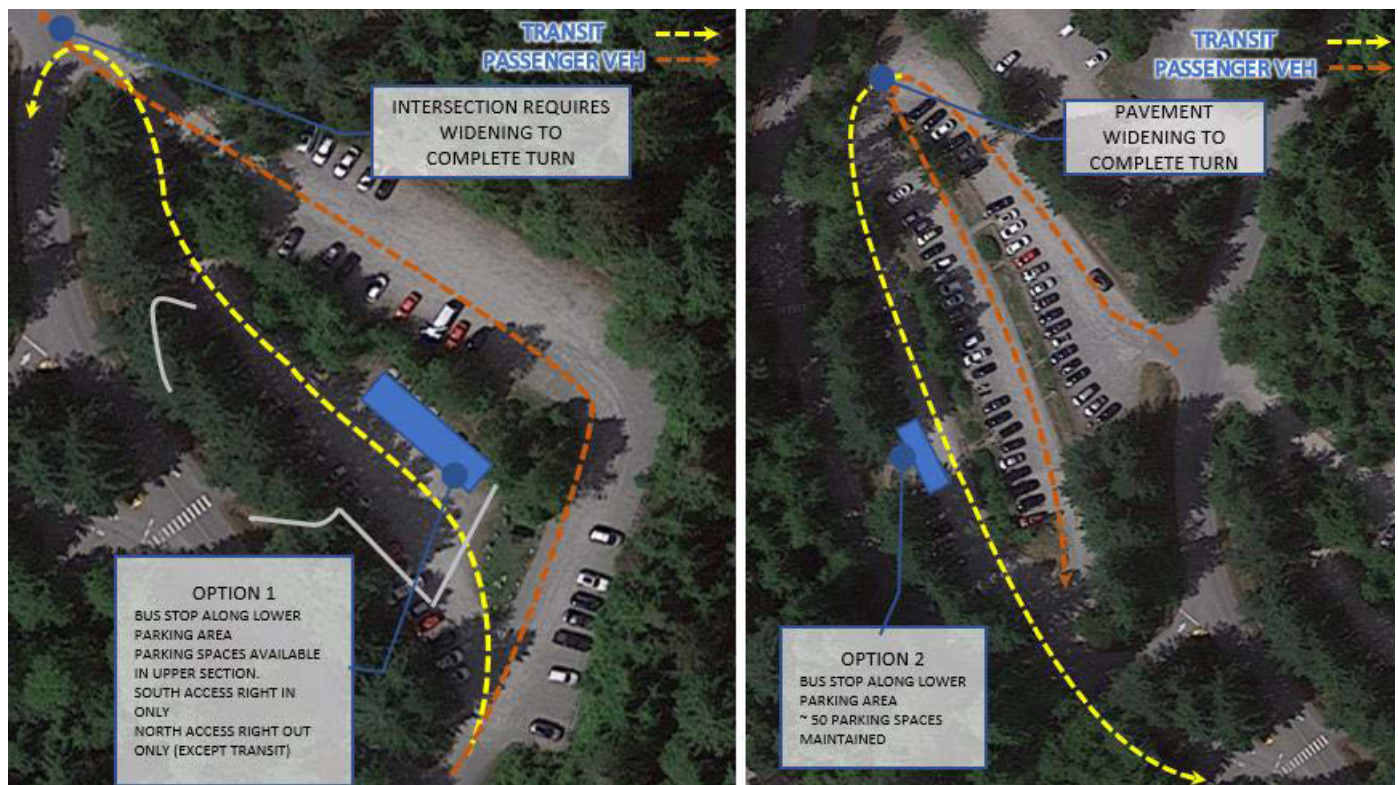


Figure 5-8
Option 3A – Transit Routing

6 Options Evaluation

6.1 Evaluation Framework

The options developed in each of the five improvement areas were compared using a qualitative 'stoplight' indicator framework to assist in the options evaluation process. The framework is used to evaluate the intersection improvements using the stoplight indicators; green for good, yellow for neutral, and red for poor. The evaluation completed for this study was preliminary based on the information available and stakeholder engagement. Due to the high-level nature of the study, most of the evaluation was qualitative rather than quantitative. The paragraphs below describe the evaluation criteria that were used in this evaluation. The Option Evaluation Framework is shown in **Appendix C**.

Order-of-magnitude opinions of probable costs (OPC) were prepared as supplementary information for each option but are not included as an evaluation item. They are provided in **Appendix D**.

6.2 Stakeholder Engagement

Metro Vancouver was consulted throughout the project as a project partner. Discussions were held with PoMo, MV and AE to identify existing issues and review proposed improvements.

Two sessions were held with CMBC to identify issues related to the transit routes, and to review proposed improvements. CMBC indicated support for the proposed options for Improvement Areas 1 and 2, and provided feedback that was incorporated into the options.

AE and PoMo met with HUB Tri-cities Cycling committee to review the bike improvement options along Bedwell Bay Road and confirm it supports the HUB mission of “to get more people cycling more often”. HUB indicated support for the project and provided their feedback and informal preference for the bi-directional facility.⁴

The HUB committee preference is for a bi-directional facility in Improvement Area 1 as it provides more flexibility with use of space. Single-sided facilities could be too narrow when space is constrained or when traveling downhill at speed. The MUP is also a good solution to restrict illegal parking.

A meeting was held to present the findings of the project to the Village of Anmore and the Village of Belcarra. Multiple other local authorities were also in attendance.

6.3 Option Evaluation

The evaluation of each Improvement Area compares options to each other and the existing condition using the evaluation framework to identify the expected performance of each option.

⁴ HUB April Meeting Minutes, https://wiki.bikehub.ca/sites/committees/index.php?title=April_2022

6.3.1 Improvement Area 1 – Pedestrian / Cyclist Facilities

Evaluation Criteria	Base Case	Option 1 Bi-Directional Facility	Option 2 Uni-Directional Facility
Traffic Operations and Mobility	During peak times, pedestrians are walking in the travel lanes after parking their vehicles on the shoulders.	Provides space to keep pedestrians and cyclists from traveling in roadway. Prohibition of parking reduces congestion.	Provides space to keep pedestrians and cyclists from traveling in roadway. Gaps in the delineation do not prevent pedestrians and cyclists from entering and/or crossing the road.
Road Safety	Vehicles, pedestrians, and cyclists share the same space. No separation.	0.7 m buffer is wide enough to accommodate continuous concrete barrier which provides better protection between vehicles and active transportation modes.	0.3 m buffers on either side of the roadway are wide enough to accommodate delineator posts. Cyclists can ride on the roadway or the paths in the same direction of travel depending on traffic and comfort level.
Parking Compliance	Despite targeted enforcement of no-parking signs, vehicles continue to park where prohibited.	Compliance is more effective when concrete barriers are used to restrict parking along the shoulder.	Compliance is less effective when delineators are used to restrict parking along the shoulder.
Active Transportation – Walking	Pedestrians walk on shoulder, or on roadway when the shoulder is blocked	MUP provides separate space from vehicles for pedestrian and cyclists to travel along the roadway. Provides a space for those who want to park at the loco Townsite and walk to the park. Wide MUP provides more space for groups to walk together and/or cyclists to pass peds.	Paths provide separate spaces from vehicles for pedestrian and cyclists to travel along both sides of the roadway. Provides spaces for those who want to park at the loco Townsite and walk to the park.
Active Transportation – Cycling	Cyclists ride in vehicle lane, or in shoulder if space is available	MUP separates vehicles from pedestrians and cyclists. During off peak times there is low pedestrian demand and the MUP accommodates cyclists of all abilities. During peak times pedestrian volumes may make it difficult for cyclists to use the facility.	Paths separate vehicles from pedestrians and cyclists. During off peak times there is low pedestrian demand and the paths accommodate cyclists of all abilities. Cyclists have the ability to move between the road and path depending on rider comfort level and how busy each facility is.
Road Cross-Section	Two-lane cross-section with painted shoulder spaces. Some roadside barriers due to steep terrain on both sides of ROW. Total width varies from 8-10 m.	Option 1 maintains two travel lanes and separated 3.3 m MUP with a continuous barrier. Total width of 12.2 m needed.	Option 2 maintains two travel lanes, with uni-directional paths on either side separated by delineators. Total width of 11.8 m needed.
Enviro/Tree removal	Rural setting in the right of way has steep side-slope grades and heavily treed areas.	Tree removal may be needed, ditches will need to be rebuilt to accommodate widened cross-section. Continuous barrier may affect drainage pattern.	Tree removal may be needed, ditches will need to be rebuilt to accommodate the widened cross-section.
Constructability	n/a	MUP construction will require retaining walls, reditching, and side slope stabilization	Bike/ped paths will require retaining walls, reditching, and side slope stabilization
Totals	N/A	4 Green 2 Yellow 2 Red	1 Green 5 Yellow 2 Red

The recommended option for a pedestrian and cyclist facility is the MUP. While very similar in terms of price and constructability, the MUP provides better safety advantages to pedestrians and cyclists, while providing a better barrier for parking compliance. Based on discussions with PoMo, MV, and HUB, the MUP is the preferred option along the north side of 1st Avenue / Bedwell Bay Road.

6.3.2' Improvement Area 2 – White Pine Beach Road Intersection

Evaluation Criteria	Base Case	Option 1 Transit Improvements	Option 2 Mini Roundabout
Traffic Operations, Mobility, Parking	Bedwell Bay Road – White Pine Beach Road intersection is wide, with turn lanes and skew. Two lanes at White Pine allow traffic control personnel to utilize one lane for priority vehicles to access park while passenger vehicles queue in the other. Vehicles queuing for entrance sometimes block travel on Bedwell Bay Road. EB buses utilize flag stop system and may stop in travel lane for passenger boarding.	Left and right turn lanes are removed and buses stop in the travel lanes both EB and WB. Vehicles queuing for entrance into White Pine Beach may also increase delay on roadway in the WB direction. Turn around area is maintained so vehicles can turn around back to loco Park and Ride. WB through traffic may be delayed by vehicles trying to access the park when park gates are closed.	Mini RAB fits within the existing intersection geometry. Mountable islands accommodate large vehicles, while design accommodates transit movements. Buses pull out of travel lane at bus stops and do not block flow of traffic. When the park gate is closed, vehicles have a way to turn around back to the loco Park and Ride. WB through traffic may be delayed by vehicles trying to access the park when park gates are closed.
Road Safety	Skew and vertical grades may reduce sightlines. Vehicles found to travel at excessive speeds on Bedwell Bay Rd.	Pedestrian paths and RRFB controlled cross walk help people cross Bedwell Bay Road and access transit more safely. Simplified intersection reduces confusion.	Mini RAB provides an intersection to help reduce speeds along Bedwell Bay Road. RAB eliminates skew angle and reduces the frequency and severity of collisions. Pedestrian paths and RRFB controlled cross walk help people cross Bedwell Bay Road and access transit more safely.
Active Transportation – Walking	Pedestrians walk on shoulder, or on roadway when shoulder is blocked	People have dedicated connections to transit stops and paths.	People have dedicated connections to transit stops and paths.
Active Transportation – Cycling	Cyclists ride on vehicle lane, or on shoulder if space is available	No Change	No Change
Transit	This route operates with a flag-stop system. There is one permanent WB transit stop in the intersection bulb-out, and a temporary EB transit stop across from White Pine Beach with no passenger wait area.	In-lane bus stops with adequate passenger wait areas improve accessibility while reducing delay time for bus. Designated bus stop is better than flag-stop for high passenger-demand locations within the corridor . Additional transit stop at floatwalk trail head allows additional passenger pickup location.	Pull-out* bus stops with adequate passenger wait areas improve accessibility, but may cause delay for buses to return to travel lane. Designated bus stop is better than flag-stop for high passenger-demand locations. Additional transit stop at floatwalk trail head allows additional passenger pickup location.
Road Cross-Section	Two-lane cross-section with painted shoulder spaces. Some roadside barriers due to steep terrain on both sides of ROW	Improvements can be achieved with no additional paving needed.	Mini Roundabout can be constructed within the footprint of the existing intersection. Turning radii of transit vehicles were accommodated in the design of the mini RAB.
Enviro/Tree removal	n/a	Construction is within the road ROW. Minimal environmental impacts.	Construction is within the road ROW. Minimal environmental impacts.
Constructability	n/a	Minimal reconstruction of road required.	Some roadway adjustments and reconstruction required.
Totals	N/A	5 Green 3 Yellow 0 Red	6 Green 2 Yellow 0 Red

*Roundabout design can be modified to include in-lane bus stops if CMBC desires.

The recommended option is the mini roundabout presented in Option 2A. The mini roundabout provides many improvements to pedestrian safety and accessibility while providing improved access to transit and transit operations. Although Option 2A has a higher expected cost, the mini roundabout also has the added benefits of controlling

vehicle speeds along Bedwell Bay Road, simplifying intersection operations while allowing for safe turnaround of would-be park visitor vehicles.

6.3.3' Improvement Area 3 – Floatwalk Access

Evaluation Criteria	Base Case	Option 1 Floatwalk Parking Area and Pedestrian Access
Traffic Operations, Mobility	During peak times, pedestrians are walking in the travel lanes after illegally parking their vehicles on the shoulders.	Pedestrians are no longer walking on the travel lanes.
Road Safety	Vehicles, pedestrians, and cyclists share the same space. No separation.	Pedestrian sidewalk separated by the parking provides a buffer space for pedestrians away from the road travel lane.
Parking Compliance	Despite targeted enforcement of no-parking signs, vehicles continue to park where prohibited.	Compliance is more effective when dedicated parking spaces are provided.
Active Transportation – Walking	Pedestrians walk on shoulder, or on roadway when the shoulder is blocked.	Sidewalk separates pedestrians from vehicles and provides access to the trail head leading to the float walk.
Active Transportation – Cycling	n/a	No Change
Transit	n/a	No Change
Road Cross-Section	Two-lane cross-section with painted shoulder spaces. Some roadside barriers due to steep terrain on both sides of ROW. Total width is approximately 10.5 m.	This option maintains two travel lanes, permitted parking space, and sidewalk area. Total width of 11.4 m needed.
Constructability	n/a	Parking and sidewalk will require minimal widening.
Totals	N/A	5 Green 2 Yellow 0 Red

The parking solution for the floatwalk is recommended as it will provide parking and pedestrian access to the floatwalk trailhead.

6.3.4' Improvement Area 4 – Tum Tumay Wheuton Intersection Improvements

Evaluation Criteria	Base Case	Option 1 Wayfinding Improvements	Option 2 Mini Roundabout
Traffic Operations, Mobility, Parking	Intersection has unclear wayfinding signage and stop signs are difficult to see	Simplifying and adjusting Updating wayfinding signage and providing warning signs will help clearly communicate to drivers of the intersection ahead.	Roundabout directional signage will provide information to drivers upon approach to intersection
Road Safety	Collisions have occurred at the intersection both during daylight and night.	Advanced wayfinding signage will help direct drivers along Tum Tumay Wheuton to the parks at the west end of Belcarra. Increased signage to warn drivers of stop ahead will help with stop compliance. Tightening up the intersection geometry using pavement markings will improve sightlines and improve intersection visibility.	Mini RAB provides an intersection to help reduce speeds along Bedwell Bay Road. RAB eliminates skew angle and reduces the frequency and severity of collisions.
Active Transportation – Walking	Pedestrians walk in shoulder, or on roadway when shoulder is blocked. No formal crossing facilities.	No Change	Crosswalk on the east leg of mini RAB facilitates pedestrians crossing from Bedwell Bay to access Tum Tumay Wheuton Drive.
Active Transportation – Cycling	Cyclists ride in vehicle lane, or in shoulder if space is available	No Change	No Change
Transit	Transit bus currently operates as a flag stop along Bedwell Bay Road to/from Belcarra	No Change	No Change
Road Cross-Section	Wide intersection with legs that intersect at skewed angles.	Improvements can be achieved with no additional pavement needed.	Mini Roundabout can be constructed within the footprint of the existing intersection. Turning radii of transit vehicles were accommodated in the design of the mini RAB.
Enviro/Tree removal	n/a	Construction is within the road ROW. Minimal environmental impacts.	Construction is within the road ROW. Minimal environmental impacts.
Constructability	n/a	Minimal reconstruction of road required.	Some roadway adjustments and reconstruction required.
Totals	N/A	4 Green 4 Yellow 0 Red	4 Green 4 Yellow 0 Red

The recommended option is the low-cost intersection improvement option, as it is sufficient to improve driver expectation and wayfinding and is appropriate for a location with a multi-way stop sign with a low collision history. The proposed pavement markings can improve the skew and space within the intersection. Maintaining a 3-way stop helps control speed along the Bedwell Bay corridor. A mini roundabout helps control speeds along Bedwell Bay Road, addresses the intersection skews and simplifies the intersection operations but at a greater cost.

7 Recommendations

The following recommendations are based on the review of the Bedwell Bay Corridor. They have been selected as the recommended options to improve the safety of the corridor for all users, resolve the on-street parking issues and address the need for inclusive active transportation along Bedwell Bay Road.

Improvement Area 1 – Bedwell Bay Road Pedestrian / Cyclist Facilities

- A bi-directional facility along Bedwell Bay Road to provide an active transportation connection for people walking and biking along Bedwell Bay Road from loco Road to White Pine Beach. Separation from the travel lanes using concrete barriers will provide separation between active transportation and vehicles while restricting parking along the Bedwell Bay Road.
- OPC \$9.7 mil.

Improvement Area 2 – White Pine Beach Road Intersection

- A mini roundabout at the intersection of Bedwell Bay Road and White Pine Beach Road would improve operations at the intersection, and help control vehicles arriving at White Pine Beach when the gate is closed.
- OPC \$420,000.

Improvement Area 3 – Floatwalk Access

- Additional parking at the south end of the floatwalk would provide parking and pedestrian access to the floatwalk trailhead.
- OPC \$140,000.

Improvement Area 4 – Tum Tumay Wheuton Intersection

- Improving the intersection at Bedwell Bay Road – Tum Tumay Wheuton Road by adding pavement markings and new signage is recommended to direct people driving to tæmtæmíx"tæn/Belcarra Regional Park identify the intersection.
- OPC \$50,000.

The conceptual improvement designs provided serve as a basis for the City of Port Moody to further develop designs and obtain funding to improve Bedwell Bay Road.

CLOSURE

This report was prepared for the **City of Port Moody** and summarizes the current traffic characteristics, operations, and needs for improvement along the Bedwell Bay Road study corridor. It explores improvement options and evaluated based on feasibility to recommend improvement options.

The services provided by **Associated Engineering (B.C.) Ltd.** in the preparation of this report were conducted in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty expressed or implied is made.

Respectfully submitted,

Associated Engineering (B.C.) Ltd.
Engineers & Geoscientists BC Permit Number 1000163

Prepared by:

Reviewed by:

Breanna Jackson, P.Eng.
Project Manager
Traffic Engineer

Monique Beaudry, P.Eng.
Project Engineer

BJ/MB/sn

APPENDIX A – SITE VISIT



Date:	November 8, 2021	File No.:	2021-2344-02
Time:	13:00-16:00	Location:	Parkview Meeting Room, Port Moody City Hall and along the study area
Client:	City of Port Moody	Project Name:	Bedwell Bay Road Transportation Study
Subject:	Site Visit Meeting	Project Number:	2021-2344-02
Attendees:	Monique Beaudry (AE) Justin Ng (AE)	Marcel LaBreche (MV) Tyler Courage (MV)	Jeff Little (PoMo) Geoffrey Keyworth (PoMo) Patrik Kolby (PoMo) Stephen Judd (PoMo) (City Hall only)
Distribution:	Those Present		

This Record of Meeting is considered to be complete and correct. Please advise the writer within one week of any errors or omissions, otherwise this Record of Meeting will be considered to be an accurate record of the discussions

Action by

Discussion:

1' BACKGROUND

Study Area is 1st Avenue from IOCO Road to Sunnyside Road, and Bedwell Bay Road from Sunnyside Road to the border of the Village of Belcarra. The meeting started at Port Moody City Hall with a boardroom meeting before a site visit by vehicle.

2' BACKGROUND INFORMATION:

- Á City Council directed that this project be initiated to address the parking issues along Bedwell Bay Road.
- Á On-street parking on Bedwell Bay Road has existed for an extended period of time prior to current restrictions
- Á An assessment was previously completed that identified pedestrians walking on the narrow roadway presented a safety concern that needed to be addressed.
- Á City had previously limited parking in 2019 and placed signage and white delineators.
- Á In 2020 Council passed resolution to ban parking on Bedwell Bay Road to limit demand for park usage during the early phases of the Covid-19 Pandemic.
- Á Parking did not become a major issue until Covid-19 Pandemic caused an increase in park popularity and user demand.
- Á There are hundreds of cars parked along Bedwell Bay Road on peak demand days
- Á The City has placed no parking signs, delineators and concrete roadside barriers to try and discourage parking along the corridor.
- Á Sasamat Lake also has an alternate access point via a boardwalk further west of White Pine Beach Road park entrance. MV indicated they haven't experienced problems there.
- Á There are two user groups of Sasamat Lake. One group are families and people looking to go to the park and beach to relax for a day trip. Second group are a younger demographic

November 8, 2021

City of Port Moody

Action by**Discussion:**

that engages in activity that often requires the presence of the Port Moody Police Department. The latter group usually access the park at the boardwalk entrance. The police sometimes will even have the police boat active at the lake to patrol and police cruisers looking for intoxicated drivers.

- Á The corridor has four pressure points where congestion builds:
 - ~Á Entrance to the park at White Pine Beach Road
 - ~Á At the boardwalk which has a trail head next to Bedwell Bay Road but no parking supply
 - ~Á At turnaround areas toward Belcarra
 - ~Á At the turnoff to Anmore

3' EXISTING TRAFFIC MANAGEMENT PRACTICES

- Á Traffic Management is currently coordinated by Metro Vancouver
- Á There is a message board operated by Metro Vancouver that indicates the parking lot status for Sasamat Lake and Buntzen Lake at the IOCO town site in the summer.
- Á Metro Vancouver has signed an agreement with a contractor to administer pay parking at the parking lot. This is MV's demand management tool. Parking is \$2 dollars an hour with an initial three-hour grace period of free parking.
- Á Traffic cones are set up upstream and downstream of the park entrance to restrict vehicular park access during busy days.
- Á The parking lot gate is closed once the parking lot reaches capacity and is closed until 50 parking spots are available again. This closing and reopening cycle can take between a few hours in the morning to every 15 to 30 minutes later in the day. In the summer, the park has been full and gates closed by as early as 8:00 AM. People use the taper lane to wait to get in even though they are told not to do that. Some vehicles partially block the travel lane while queuing. A question is whether a queuing lane should be provided.
- Á Emergency vehicles, residential access, buses, service vehicles and commercial vehicles are allowed into the park when the gates are closed. They need to pull up and signal or speak with traffic control who then opens the gate if access is permitted.
- Á Some people were parking near the IOCO townsite and taking the bus to the park. Route 181 /182 that comes from Moody Centre Station is a small bus that stops at the park gate. Route 150 is a large bus in the summer months from Coquitlam Central Station to go into the park. The City expects that if a formal park and ride is established at the IOCO townsite that it may overwhelm the area. The City also started encouraging people to use the bus starting in August and that seemed to help some of the parking issues. They also increased the bus service at this time.

4' EXISTING ENFORCEMENT

- Á No parking signs are placed throughout the corridor (with some exceptions) both on sign posts and large overhead signage.
- Á Parking fines were \$50 to begin with which council has doubled to \$100.

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City of Port Moody

Action by**Discussion:**

- Á The City has indicated that the parking tickets were not as much of a deterrent as they would have liked.
- Á The City has partnered with private towing companies in the past for enforcement. The City had set up a temporary tow yard in the IOCO townsite to maximize the number of vehicles towed and still could not keep up with illegal parking demand.
- Á The City has reported incidents of people stealing tickets off other vehicles and placing them on their own. This backfires on them because ticketed vehicles are the ones that towed.
- Á Metro Vancouver and the City mentioned that sometimes drivers will stop in the travel lane and refuse to move their vehicles to allow traffic flow. Metro Vancouver and bylaw enforcement have no authority here. The Port Moody Police would have authority to issue a moving violation.
- Á Belcarra is under RCMP jurisdiction. City Police and RCMP will cooperate.
- Á The City does not enforce no parking during off peak periods.

5' CONSIDERATIONS

- Á The City and Metro Vancouver would like a permanent solution that will require less enforcement and human resources.
- Á The City has had feedback that the parking restrictions in some locations in the corridor negatively impact non-park users in off peak times.
- Á The City and Metro Vancouver are not expecting the park to return to pre-pandemic usage levels
- Á MV has noticed that both Buntzen Lake and Belcarra fill up at the same time. That causes additional traffic as people look for alternate places to go once the parks are filled up.

6' SITE VISIT OBSERVATIONS

- Á The bus stop for the southbound direction is temporary. Since there is no layby, it stops in the driving lane for boarding and alighting.
- Á The furthest point parking is occurring for park usage is at the intersection of Sunnyside Road. Currently, no-parking signs are generally not posted on Bedwell Bay Road between Sunnyside Road and Crystal Creek Drive even though parking is prohibited for all of Bedwell Bay Road.
- Á Appears that there are more no parking signs on the south side of Bedwell Bay Road than the north side.
- Á Sight lines may be an issue on the corridor due to both vertical and horizontal curves
- Á There are multiple pinch points in the corridor restricted by grades and rock outcroppings
- Á Improvements to the intersection configuration of Bedwell Bay Road and White Pine Beach Road could be considered.

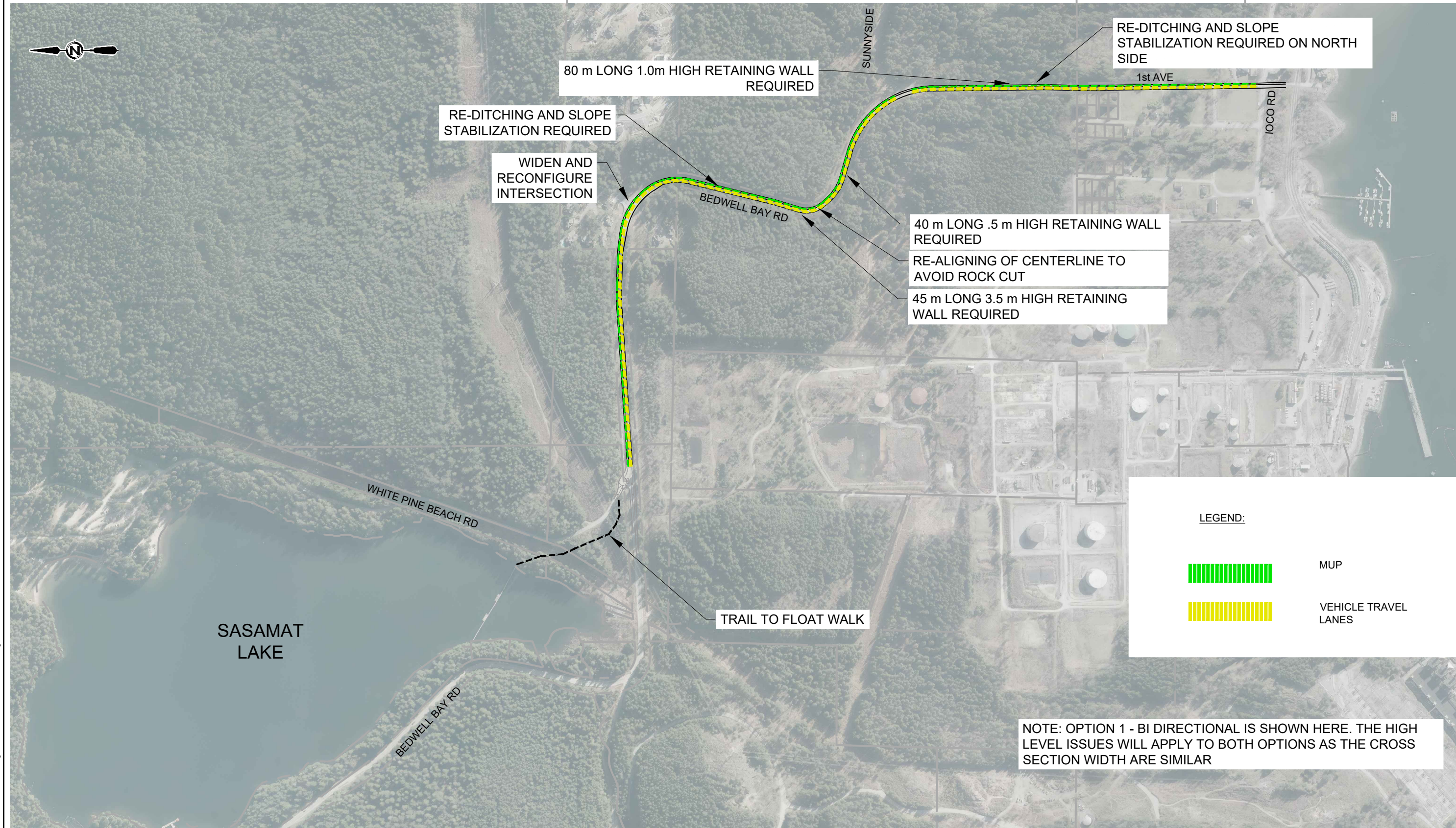
November 8, 2021

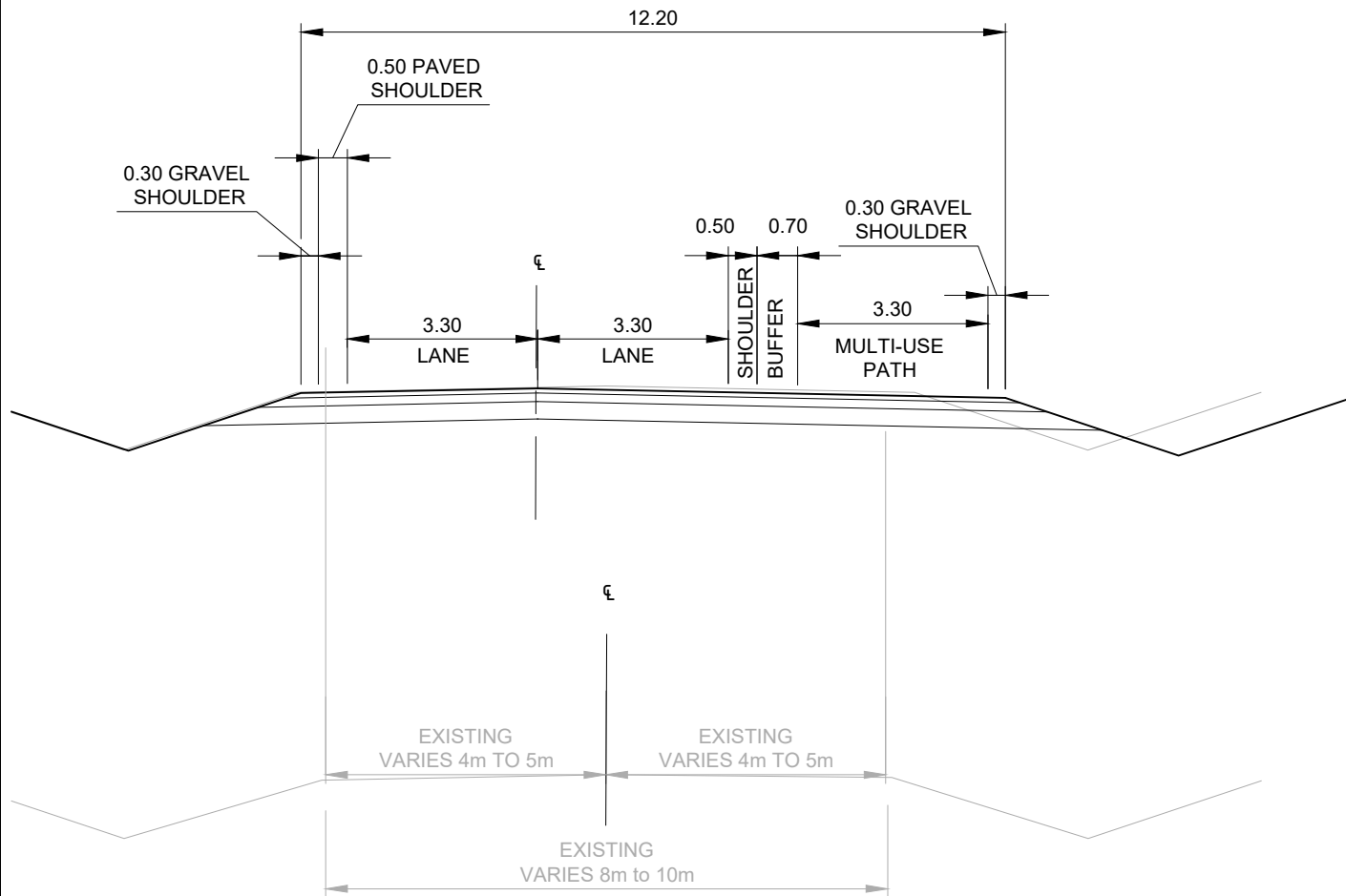
City of Port Moody

Action by**Discussion:**

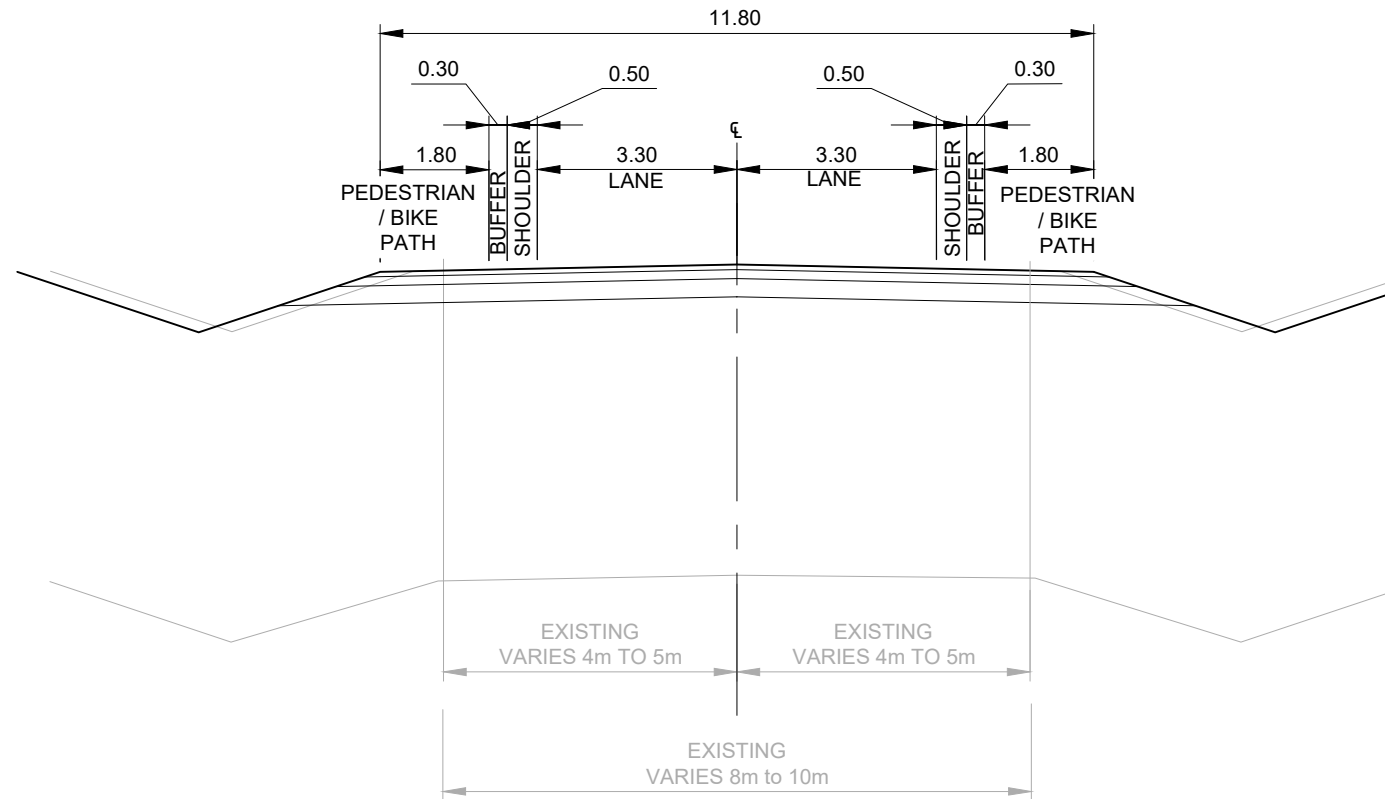
- Á Multiple white delineators, installed in 2019, appear to be missing or damaged near the trail head at the boardwalk. The City indicated that most of this was from drivers with off-road type vehicles running them over or parking on top of them.
- Á Bedwell Bay Road appeared to have more than expected traffic even during off peak times. With cars often coming in waves due to passing restrictions.
- Á There are limited places for cars to turn around on Bedwell Bay Road.
- Á Belcarra residents often complain about the delays caused by recreational traffic during peak times. The illegal parking and congestion around the park is affecting their ability to drive through the area when travelling to and from their homes. People who don't get into the park go into Belcarra to turn around which is a nuisance for local residents.
- Á The intersection of Bedwell Bay Road and Tum Tumay Whueton Drive may have sight line issues and low driver compliance of the 3 way stop controlled intersection as many vehicles were observed to have completed a rolling stop instead of a full stop at the intersection.
- Á Difficult wayfinding for drivers rerouted to Belcarra.
- Á Concrete barriers may make plowing more difficult along the corridor.

APPENDIX B - PROPOSED OPTION SKETCHES



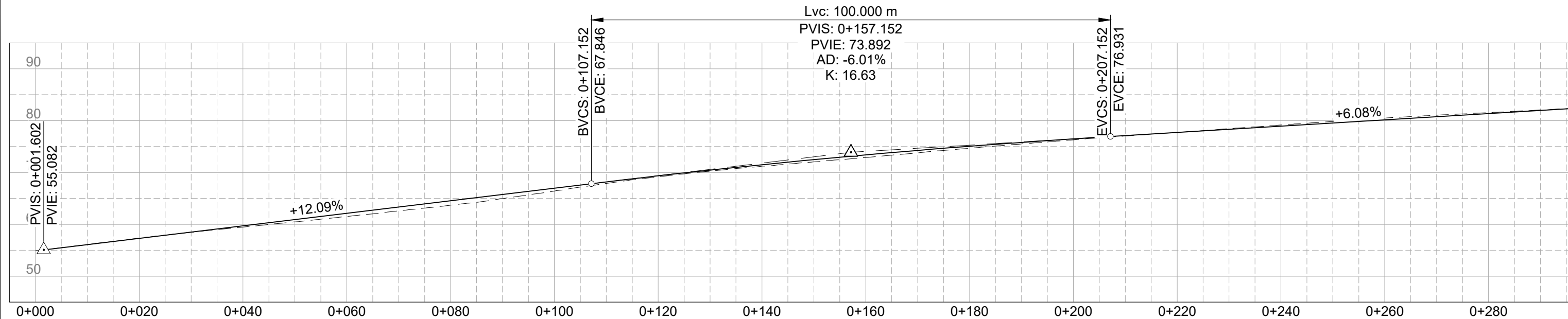
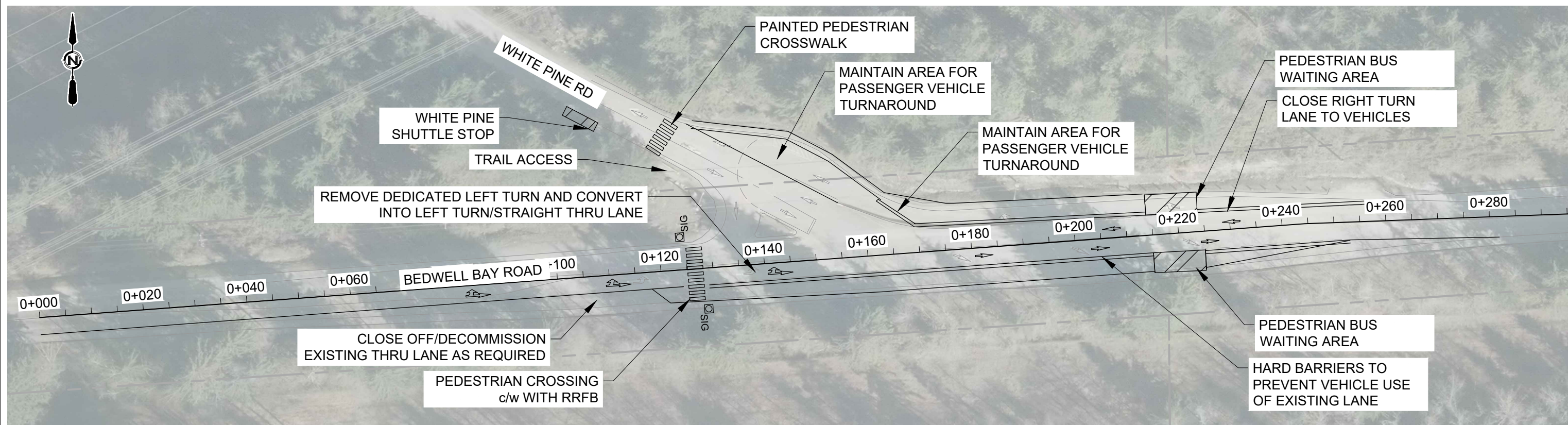


1 **TYPICAL SECTION** NTS
OPTION 1 - BI-DIRECTIONAL

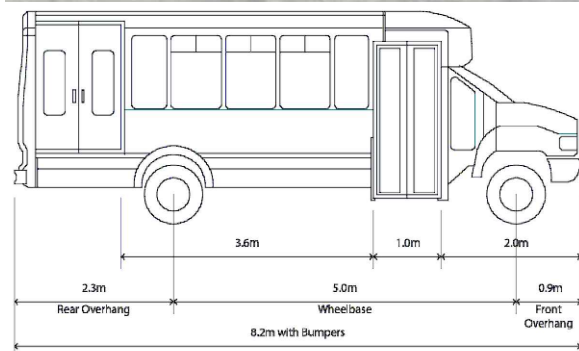
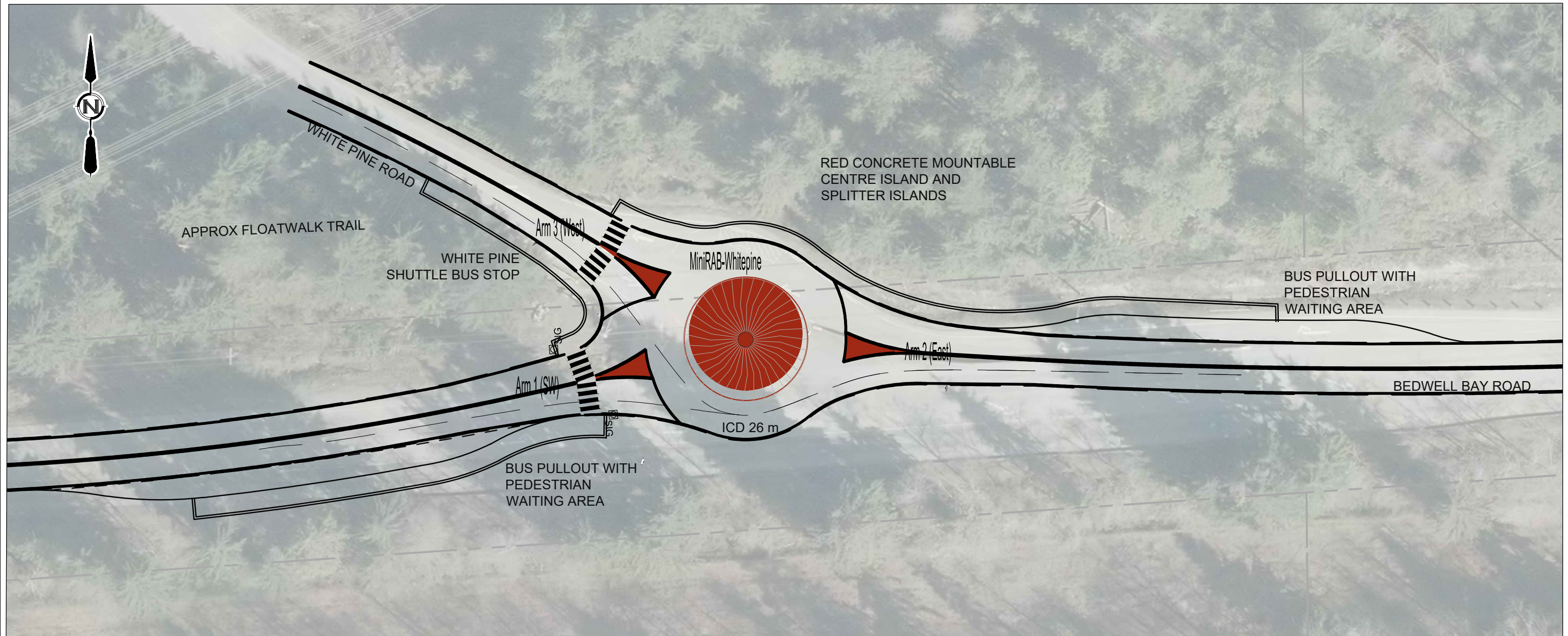


2 **TYPICAL SECTION** NTS
OPTION 2 - UNIDIRECTIONAL

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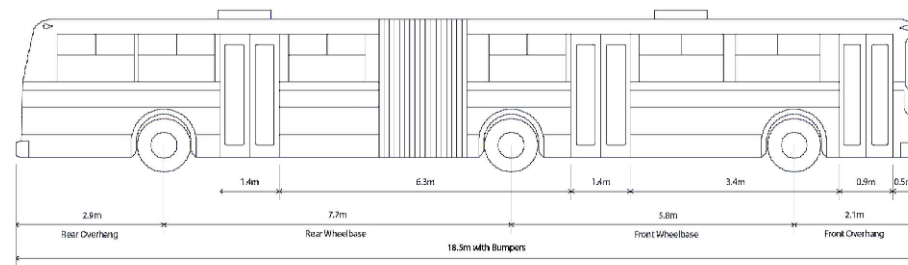


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RAB ACCOMODATES SWEEP PATH OF
TRANSLINK COMMUNITY SHUTTLE
WB BEDWELL BAY ROAD
EB BEDWELL BAY ROAD

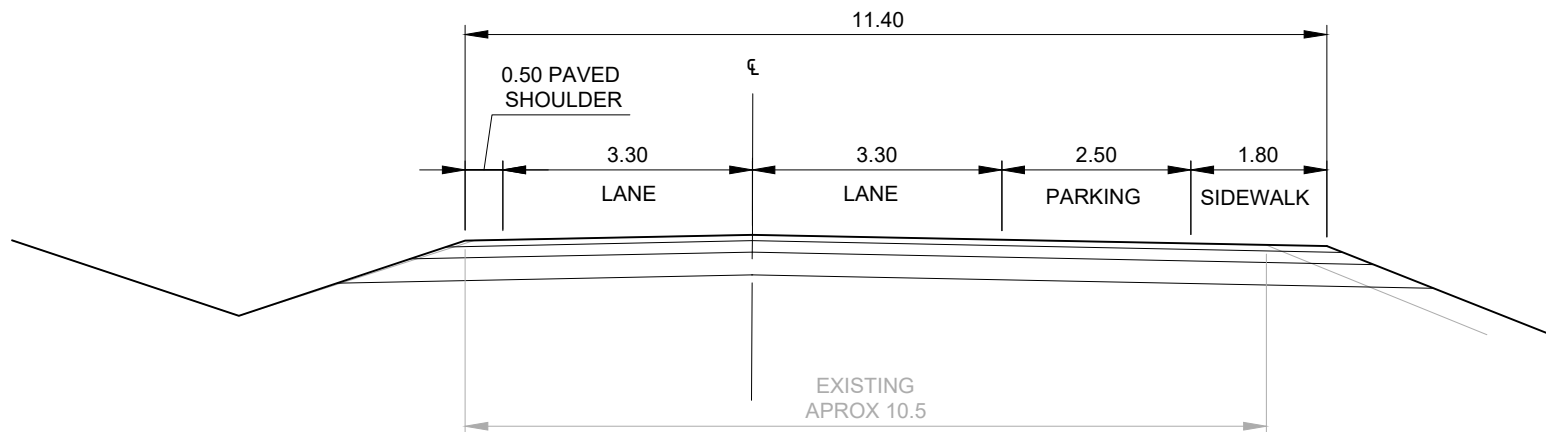
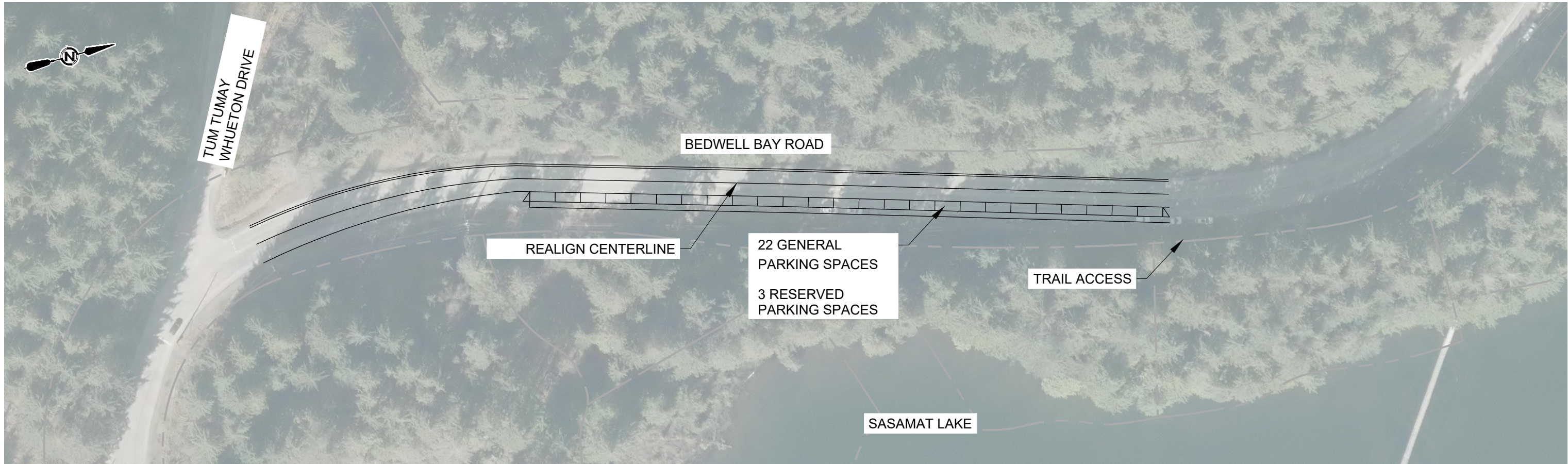
TRANSIT STOP EACH DIRECTION
ADJACENT TO ROUNDABOUT LEGS



TRANSLINK NEW FLYER ARTICULATED BUS
WHITEPINE BEACH SHUTTLE
WB BEDWELL BAY ROAD TO NB WHITEPINE BEACH
SB WHITEPINE BEACH TO EB BEDWELL BAY ROAD

SHUTTLE STOP AT FLOATWALK TRAILHEAD

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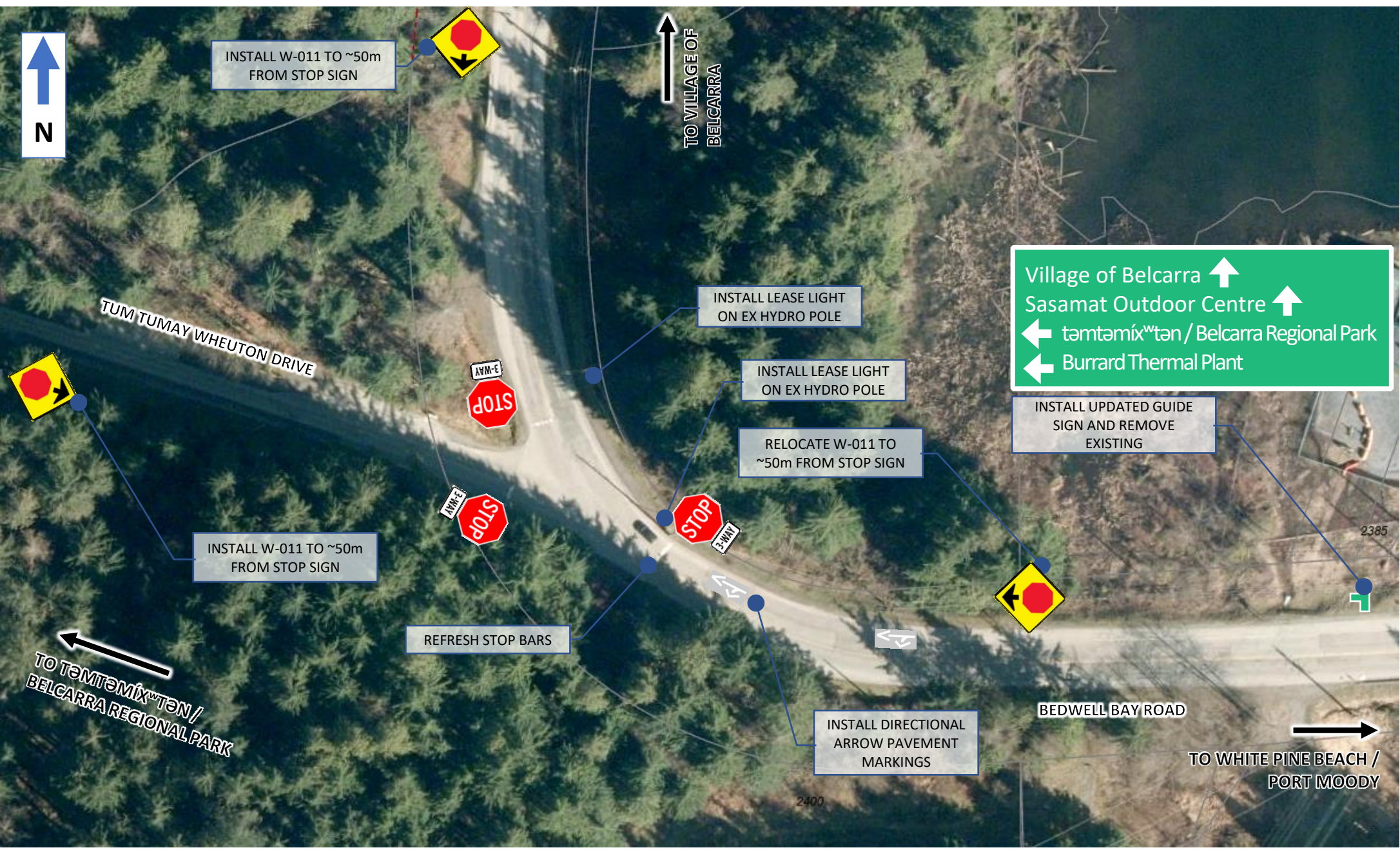
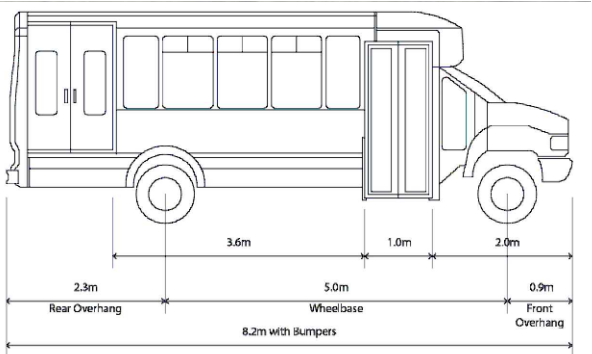
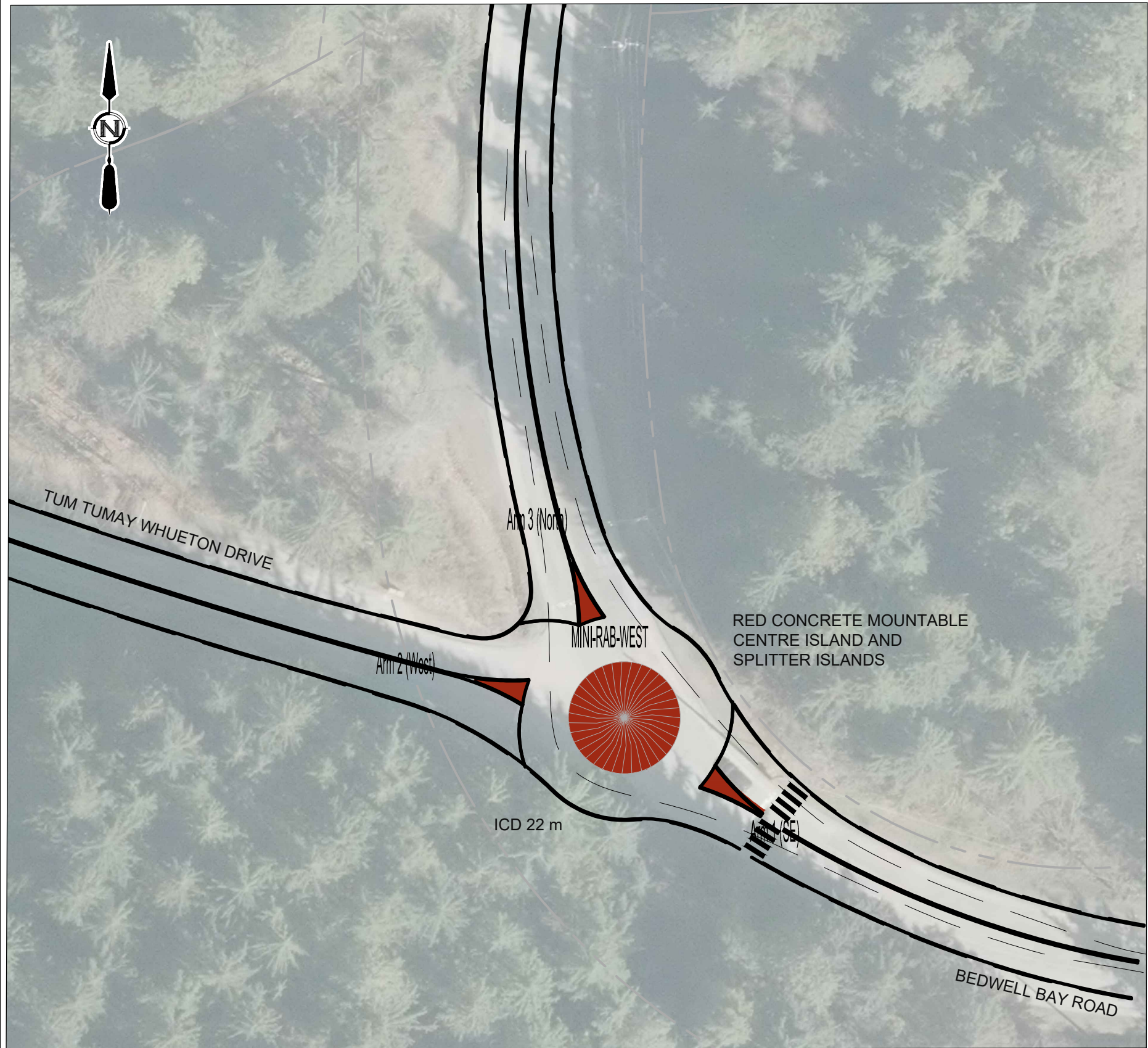


Figure 1-6
2022MAR29
City of Port Moody

Improvement Area 4
Tum Tumay Wheuton Dr
Improved Signage & Lighting



RAB ACCOMODATES SWEPT PATH OF
TRANSLINK COMMUNITY SHUTTLE
WB - NB BEDWELL BAY ROAD
SB - EB BEDWELL BAY ROAD

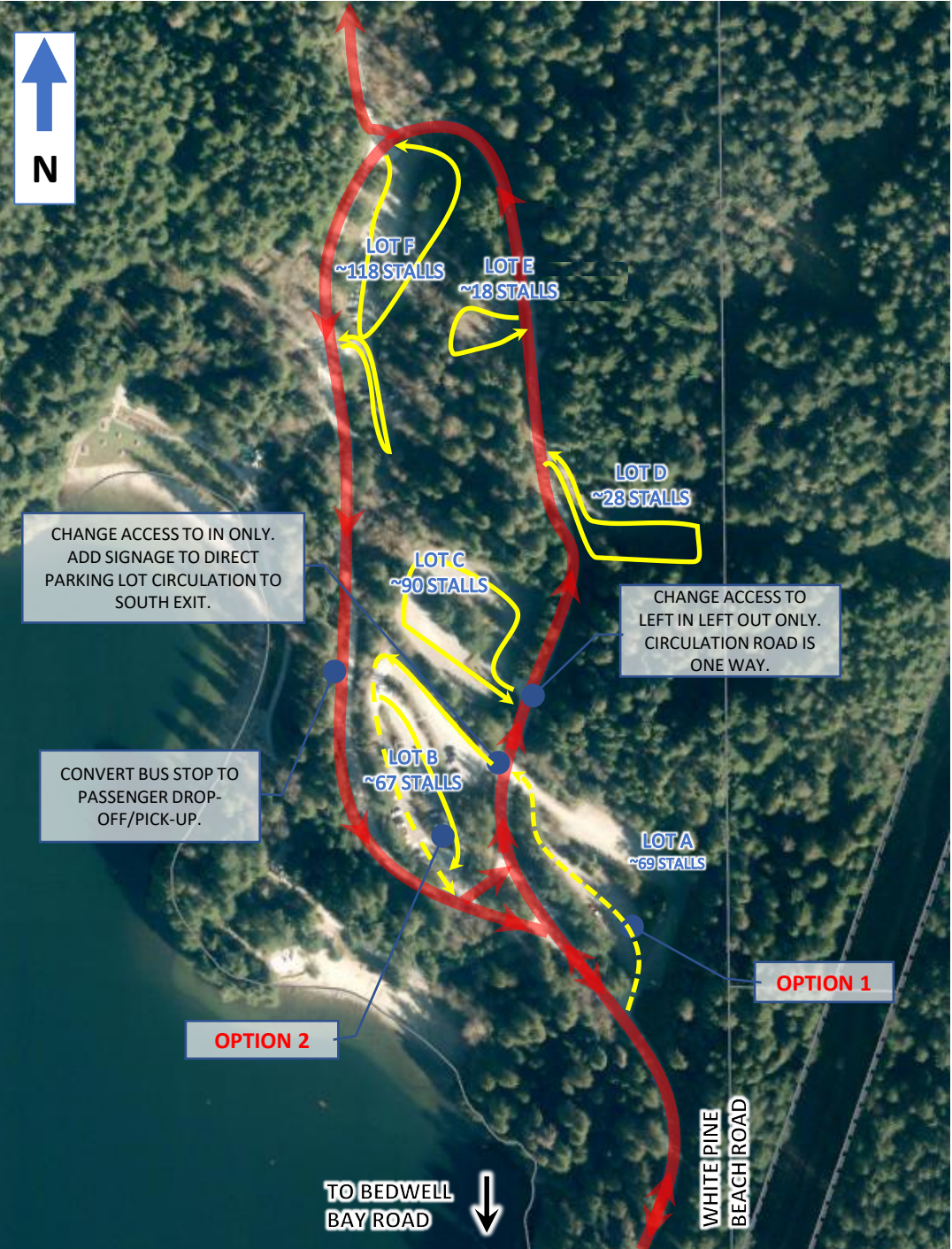
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SCALE	1:500
APPROVED	B. JACKSON
DATE	2022MAR29
REV	A
DESCRIPTION	ISSUED FOR INFORMATION

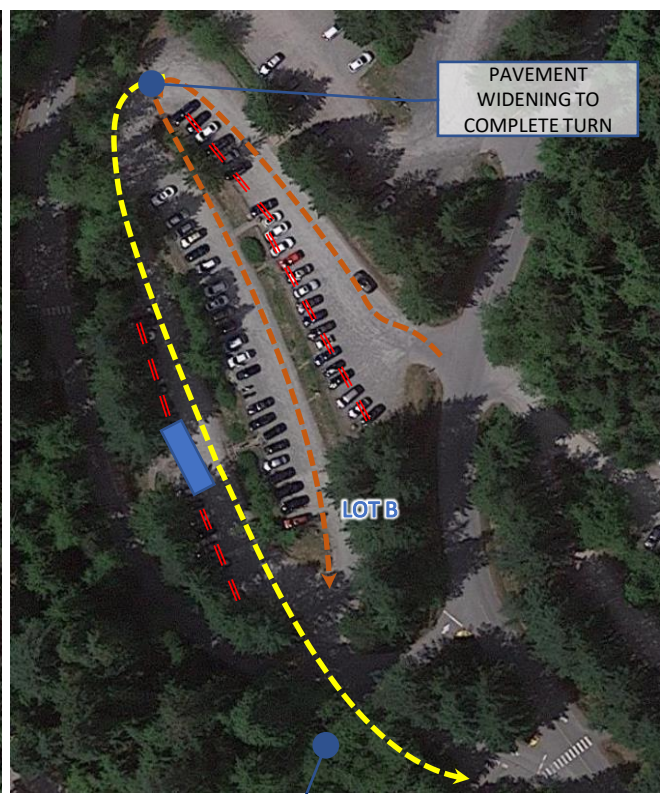
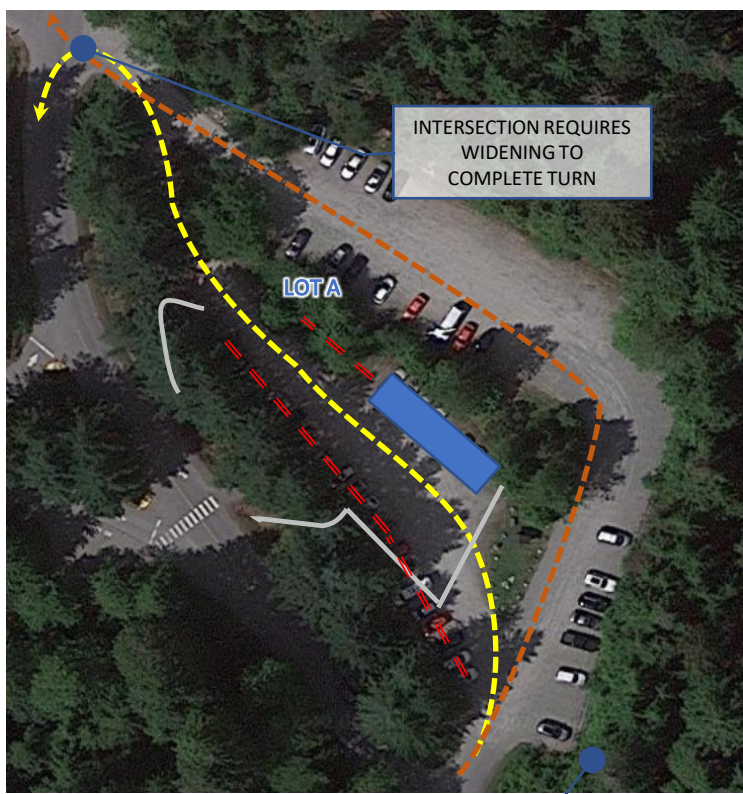
FIGURE 1-7

CITY OF PORT MOODY

CIVIL
PLAN
IMPROVEMENT AREA 4
BEDWELL BAY - TUM TUMAY WHEUTON
MINI ROUNDABOUT OPTION



TRANSIT 
 PASSENGER VEH 
 PARKING REMOVED 



OPTION 1 – LOT A
 BUS STOP ALONG LOWER PARKING
 AREA OF LOT A
 REMOVAL OF PARKING SPACES IN
 LOWER PARKING AREA TO PROVIDE
 SPACE FOR TRANSIT STOP
 LOT BECOMES ONE-WAY
 CIRCULATION
 PARKING SPACES AVAILABLE IN
 UPPER SECTION.
 SOUTH ACCESS RIGHT IN ONLY
 NORTH ACCESS RIGHT OUT ONLY
 (EXCEPT TRANSIT)

OPTION 2 LOT B
 BUS STOP ALONG LOWER
 PARKING AREA IN LOT B
 REMOVAL OF PARKING
 SPACES ALONG TRANSIT
 ROUTE TO PROVIDE SPACE
 FOR TRANSIT OPERATIONS
 LOT BECOMES ONE WAY
 OPERATIONS

Figure 1-8
 2022MAR29
 City of Port Moody

 Improvement Area 5
 White Pine Beach
 Alternate Transit Routes

APPENDIX C – EVALUATION CRITERIA

Qualitative Criteria	Good	Neutral / Fair	Poor
Traffic Operations, Mobility and Parking Identifies the impacts of each option on roadway mobility and the traffic operations and at intersections.	<ul style="list-style-type: none"> Improves traffic operations Improves roadway mobility. 	<ul style="list-style-type: none"> It does not impact traffic operations (It does not impact roadway mobility). 	<ul style="list-style-type: none"> Hinders traffic operations It negatively impacts roadway mobility.
Road Safety Identifies the affects of each option on road safety in terms of perceived safety, incident potential when compared to the base case.	<ul style="list-style-type: none"> Potential to decrease perceived safety concerns, increase separation between transportation modes, and reduce incident potential. 	<ul style="list-style-type: none"> Not expected to affect perceived safety concerns, transportation mode separation or reduce incident potential. 	<ul style="list-style-type: none"> Potential to increase perceived safety concerns, separation or increase incident potential.
Parking Compliance Identifies the impacts of each option on parking, including compliance to parking restrictions and provision of parking alternatives.	<ul style="list-style-type: none"> Improves compliance to parking by improving parking options and alternatives, or better enforcing existing parking restrictions. 	<ul style="list-style-type: none"> No change to parking operations, configuration or compliance 	<ul style="list-style-type: none"> Potential to have impact on parking to encourage parking where not permitted.
Active Transportation - Walking Identifies the impacts of each option on walking accessibility, mobility, and safety.	<ul style="list-style-type: none"> Improves active transportation safety and mobility 	<ul style="list-style-type: none"> No affect on active transportation safety and mobility 	<ul style="list-style-type: none"> Negatively impacts active transportation safety and mobility
Active Transportation - Cycling Identifies the impacts of each option on cycling accessibility, mobility, and safety	<ul style="list-style-type: none"> Improves active transportation safety and mobility 	<ul style="list-style-type: none"> No affect on active transportation safety and mobility 	<ul style="list-style-type: none"> Negatively impacts active transportation safety and mobility
Transit Identified the impact of each option on transit accommodation and accessibility.	<ul style="list-style-type: none"> Positive affect on transit operations and accessibility for passengers 	<ul style="list-style-type: none"> No affect on transit operations and accessibility for passengers 	<ul style="list-style-type: none"> Negative affect on transit operations and accessibility for passengers.
Geometry/ Road Cross-Section Identifies constraints for the project.	<ul style="list-style-type: none"> No geometric constraints. 	<ul style="list-style-type: none"> Minor geometric constraints. 	<ul style="list-style-type: none"> Significant geometric constraints.
Environmental Considerations Identifies the potential environmental impact of each option.	<ul style="list-style-type: none"> The option has no environmental impact. 	<ul style="list-style-type: none"> The option has some environmental impacts 	<ul style="list-style-type: none"> The option has significant environmental impacts
Constructability Identifies the potential construction challenges or benefits of each option	<ul style="list-style-type: none"> Construction of the option will likely remain within the existing right of way, impact traffic operations (e.g. traffic flow on the highway, access to surrounding land uses, etc.). Minor traffic management is required. 	<ul style="list-style-type: none"> Construction of the option will likely have minor impacts on traffic operations (e.g. traffic flow on the highway, access to surrounding land uses, etc.). Minor traffic delays due to construction. A moderate level of traffic management is required. 	<ul style="list-style-type: none"> Construction of the option will likely have major impacts on traffic operations (e.g. traffic flow on the highway, access to surrounding land uses, etc.). Major traffic delays due to construction. A significant level of traffic management is required.

APPENDIX D – OPINION OF PROBABLE COSTS

Order-of-magnitude opinions of probable costs (OPC) were prepared as supplementary information. Each OPC considered the following:

- Construction costs for each option included estimates for earthworks, pavement structure, pavement, signage and pavement markings, guide signage as needed, barriers, crash attenuators, street lighting, traffic signals and retaining walls.
- Some allowances in the construction OPC were included for rock excavation, utility relocations if known, traffic management during construction and construction contingency.
- 100% contingency which is higher than the 50% contingency typically used for Class D cost estimates due to the high-level conceptual nature of the options and the number of physical constraints in the area requiring further investigation. Construction costs have also been highly variable during this period of inflation related to the Covid-19 pandemic, rising fuel costs and global supply issues at this time.

The following are limitations of the order-of-magnitude OPCs prepared for each option:

- Property costs were not available at the time of this study and property is not expected to be required. Some options may have some impacts to individual properties but these impacts, if any, would be determined during preliminary and detailed design of the project.
- Costs related to geotechnical and environmental assessments have not been included.
- Soil remediation costs and utility relocation costs, if required, have not been included.
- Quantity estimates were based on the terrain model provided by the City.
- No allowance has been made to upgrade utilities, culverts and other infrastructure in the study area that is not affected by the option. Should the existing utilities, culverts and other infrastructure be affected by an option it may need to be upgraded or replaced.
- The long-term effects of the COVID-19 virus and recent global events on construction costs have not been evaluated and have not been included in the OPCs.

Table D-1, Table D-2, Table D-3, and Table D-4 summarize the opinion of probable costs for each option.

Table D-1
Improvement Area 1 OPC Comparison

Improvement Component	Option 1A	Option 1B
Road Widening(MUP/Path) (not including asphalt)	\$2,600,000	\$2,600,000
Barrier (Concrete/Delineators)	\$380,000	\$150,000
Mill and Overlay Asphalt*	\$1,700,000	\$1,700,000
100% Contingency	\$4,800,000	\$4,600,000
Total	\$9,700,000	\$9,500,000

Note: Mill and overlay along entire roadway to accommodate shift in road centreline.

Table D-4
Improvement Area 2 OPC Comparison

Option	Order of Magnitude OPC
Option 2A – Transit and Pedestrian Improvements	\$100,000
Options 2B – Mini Roundabout	\$420,000

Table D-3
Improvement Area 3 OPC

Option	Order of Magnitude OPC
Improvements	\$70,000
100% Contingency	\$70,000
Total	\$140,000

Table D-4
Improvement Area 4 OPC Comparison

Option	Order of Magnitude OPC
Option 4A – Improved Signage and Lighting	\$50,000
Option 4B – Mini Roundabout	\$300,000

Bedwell Bay Road Widening - Ioco Rd
to Whitepine Beach road

Summary Sheet

		Estimate	
Division	Title	Amount	Amount
01	General Requirements	\$ -	
03	Concrete	\$ 745,000.00	
31	Earthwork	\$ 625,000.00	
32	Roads and Site Improvements	\$ 3,450,000.00	
34	Transportation	\$ -	
	Contingency (100%)	\$ 4,820,000.00	
	Estimate	\$ 9,640,000.00	

Note: MUP and Path assumed to be same cost, except MUP has CRB barrier and the path has flexible delineator posts assumed (costs \$200,000 less).

Path Option Estimate: \$9,440,000

01 General Requirements							Sub Total		\$ -		
Section	Para	Specification Title	Unit	Neatline Qty	Quantity	Unit Price	Amount	Unit Price	Amount		
03 Concrete							Sub Total		\$ 745,000.00		
Section	Para	Specification Title	Unit	Neatline Qty	Quantity	Unit Price	Amount	Unit Price	Amount		
03 40 01 Pre-Cast Concrete											
	1.4.2	Concrete Block Retaining Wall	Square Metre	260	290	\$ 500.00	\$ 145,000.00				
	1.4.4	Deliniators	Lineal Metre	4000	4000	\$ 150.00	\$ 600,000.00				
31 Earthwork							Sub Total		\$ 625,000.00		
Section	Para	Specification Title	Unit	Neatline Qty	Quantity	Unit Price	Amount	Unit Price	Amount		
31 24 13 Roadway Excavation, Embankment and Compaction											
	1.8.4	Remove Existing Asphalt or Concrete Pavement,Curbs and Gutters,Sidewalks, Utility Strips, Driveways	Square Metre				\$ -				
	1.8.5	Common Excavation - On-Site Re-Use	Cubic Metre	3660	5000	\$ 50.00	\$ 250,000.00				
	1.8.5	Common Excavation - Off-Site Disposal	Cubic Metre	3593	5000	\$ 75.00	\$ 375,000.00				
32 Roads and Site Improvements							Sub Total		\$ 3,450,000.00		
Section	Para	Specification Title	Unit	Neatline Qty	Quantity	Unit Price	Amount	Unit Price	Amount		
32 11 16.1 Granular Sub-Base											
	1.4.2	Granular Sub-Base Variable Thickness for Roads or Sidewalks	Tonne	5671.68	8000	\$ 150.00	\$ 1,200,000.00				
32 11 23 Granular Base											
	1.4.1	Granular Base Variable Thickness for Roads or Sidewalks	Tonne	2840.32	4000	\$ 150.00	\$ 600,000.00				
32 12 16 Hot-Mix Asphalt Concrete Paving											
	1.5.1, 1.5.2	Asphalt Pavement	Tonne	8238.72	11000	\$ 150.00	\$ 1,650,000.00				

Bedwell Bay Road at White Pine Road
Bus Stop Addition

Summary Sheet

		Estimate	
Division	Title	Amount	Amount
01	General Requirements	\$ -	
03	Concrete	\$ 21,000.00	
31	Earthwork	\$ -	
32	Roads and Site Improvements	\$ 10,000.00	
34	Transportation	\$ 30,000.00	
	Contingency (100%)	\$ 31,000.00	
	Estimate	\$ 92,000.00	

01	General Requirements					Sub Total		\$	-		
Section	Para	Specification Title	Unit	Quantity	Unit Price	Amount	Unit Price	Amount			
03	Concrete					Sub Total		\$	21,000.00		
Section	Para	Specification Title	Unit	Quantity	Unit Price	Amount	Unit Price	Amount			
03 40 01		Pre-Cast Concrete									
	1.4.4	Deliniators	Lineal Metre	140	\$ 150.00	\$ 21,000.00					
32	Roads and Site Improvements					Sub Total		\$	10,000.00		
Section	Para	Specification Title	Unit	Quantity	Unit Price	Amount	Unit Price	Amount			
		Paint Markings									
		Paint Markings	LS	1	\$ 10,000.00	\$ 10,000.00					
34	Transportation					Sub Total		\$	30,000.00		
Section	Para	Specification Title	Unit	Quantity	Unit Price	Amount	Unit Price	Amount			
34 41 13		Traffic Signals									
	1.9	Two Pedestrian Activated Signals	Lump Sum	1	\$ 30,000.00	\$ 30,000.00					

**Proposed new non-medical cannabis retail store in the University Endowment Lands
Presentation to the Metro Vancouver Electoral Area Committee**

Thursday June 9, 2022

Presentation by Steve Dowsley, Co-founder & President, Burb Cannabis Corporation

About Burb Cannabis

As a BC-based private retailer of recreational cannabis, we are legacy minded and committed to ensuring that high quality craft cannabis continues to define the culture of BC both regionally and on a global level. We are inclusive, authentic and promote diversity and culture in all endeavours, and we are a living wage employer.

Burb currently operates four stores in Metro Vancouver three in the Tri-Cities, and one in Vancouver. We have operated for three years without incident and are a strong community member, demonstrated by letters of reference from the Mayors of Port Coquitlam and Port Moody, community associations, neighbouring businesses, residents, and others. We also have former RCMP officer, Randy Lines as our security consultant.

Steve Dowsley, the Co-founder and President of Burb is a father to four-year-old Ava and one year old Theo, and husband to Andrea. Steve has a proven track record of founding and operating successful businesses since 2007. His first business was a steel fabrication company, followed by a power distribution business. In 2018 Steve sold both businesses to start Burb Cannabis.

Pillars of Legalization

1. Provides safe access to cannabis products
2. Eliminates the black market - Legal cannabis (only available to those over 19 years of age) undermines the illegal cannabis trade. The illicit market is not regulated and is accessible to anyone, regardless of age.
3. Helps protect our youth – Legal cannabis retail requires ID checks, safe tested supply, and has strict rules to prevent product from getting in the hands of our youth. Illicit supply has no such regulations.

Proposed Retail Location

Our proposed retail location is at 5784 University Boulevard within the University Endowment Lands. In 2021, based on feedback from the community, the Minister of Municipal Affairs amended the UEL Official Community Plan to explore permitting a maximum of one Cannabis Retail Store within the University Hill Village area, subject to an approved application for rezoning. Earlier this year the Minister enacted bylaws to support cannabis retail in the UEL. Our proposed location is within the only area that is contemplated for cannabis retail in the Official Community Plan.

Many consumers rely on licensed cannabis retail stores for access to cannabis for therapeutic reasons and to improve their quality of life. In fact, you have received correspondence from at least one such individual who says that having a cannabis dispensary in his neighborhood would be a cost savings, an improvement on his quality of life, and would help him to avoid situations which could exacerbate his pain levels for weeks or months. There are no walkable cannabis dispensaries near the UEL (or within 2-1/2 km's). Our dispensary would be the only location that serves those with mobility issues.

Support in the Community

We recognize that some community members are opposed to cannabis, there are many community members, however who support our application. 2,029 people have signed a petition supporting Burb's efforts to bring a safe, accessible, education based legal retail outlet to the University Endowment Lands. Additionally, the UBC Alma Mater Society, the largest student union in Canada, has said that opening dispensaries on university grounds can encourage safe usage of cannabis as well as opportunities for education on cannabis. Cannabis is a legal and regulated recreational substance, similar in many ways to alcohol.

Community Safety

It is our top priority to provide a safe environment for our staff and customers and we take every possible precaution. As licensed retailers we are bound by the Cannabis Control and Licensing Act and the Liquor & Cannabis Regulation Branch's terms and conditions. Failure to comply with the provincial laws or terms and conditions may result in enforcement action including, but not limited to, a monetary penalty, suspension, or cancellation of our licence.

Here some examples of the precautions we take to ensure community safety:

- Cannabis, cannabis accessories and packaging and labelling of cannabis and cannabis accessories must not be visible to minors from outside the store.
- Youth under 19 years of age are banned from entering cannabis stores and cannot work in the cannabis industry.
- It is an offence to sell or supply non-medical cannabis to individuals under 19 and there are strict penalties.
- All packaging and labelling for cannabis is regulated by the federal government. Strict limits on the look and feel are intended to make it less appealing to youth.
- All of our display cases are locked – only our employees are permitted to handle our products
- In terms of store security, we have an audible fire alarm, intruder alarm, locked storage cases and security cameras running 24/7.
- Cannabis use is not permitted in-store.
- We must take all measures to prevent disturbances. This means taking measures like:
 - Installing adequate lighting outside the store and in the parking lot
 - Supervising parking areas
 - Posting signs asking patrons not to disturb the neighbours.
- When an incident occurs in or adjacent to a retail store or while delivering an order, the details must be recorded in an incident log. All incidents that adversely affect patrons, staff, people who live or work in adjacent buildings, or that affect the operation of the store must be recorded in the log and be available to an inspectors or peace officers.
- Unlawful cannabis is not allowed in our stores. We use a cannabis register and product transfer procedures to secure our products.

Cannabis is a legal and regulated recreational substance. Burb has operated for three years without incident in other cities, and we are a strong community member. It is our top priority to provide a safe environment for our staff and customers and we take every possible precaution. We also have the support of over 2000 community members. With these facts in mind, we are asking the Metro Vancouver Electoral Area Committee to approve our proposal for a new non-medical cannabis retail store in the University Endowment Lands.

Community Office:
2909 West Broadway
Vancouver, BC V6K 2G6
Phone (604) 660-1297
Fax (250) 387-4680



David Eby, MLA
(Vancouver-Point Grey)

February 16, 2022

To:
Electoral Area A Director McCutcheon areaajen@gmail.com

CC:
Metro Vancouver Chair Dhaliwal chair@metrovancover.org
Manager Dobrovolny jerry.Dobrovolny@metrovancover.org
UEL CAC and UEL Area D ADP uelcac@gmail.com, areadueladp@gmail.com

Re: Cannabis store in the UEL

Dear Director McCutcheon,

Please accept this letter from me in my role as the Member of the Legislative Assembly for the constituency of Vancouver Point Grey, which includes the University Endowment Lands section of Metro Vancouver's Electoral Area A. I write to share background on provincial government policy related to cannabis retail stores, and negative feedback I have heard from the community about a proposed cannabis retail store in the UEL community.

Background on cannabis policy

Under our province's cannabis policy, local governments make the decision about whether or not to permit cannabis stores in their communities. In the case of the UEL, the local government is Metro Vancouver. For communities that decide not to allow retail cannabis stores, cannabis can still be legally purchased by their residents through an online government store with delivery through Canada Post, or more recently, through a private cannabis store with delivery in their local service area. The policy aim of this approach is to respect community feedback about the desirability of local retail cannabis sales, while enabling local access to legal cannabis regardless of retail availability.

Local government is the decision maker about whether to allow cannabis retail stores

The UEL administration included the possibility of zoning for a cannabis store for a recent Official Community Plan for Area D of the University Endowment Lands, a mixed commercial/residential area. They did so fully aware that any decision on whether a store would actually be licensed to operate would be in the hands of Metro Vancouver as the relevant local government. The approach of the UEL administration is consistent with the provincial approach of enabling cannabis stores generally, while leaving the operational decision about whether to allow any particular store to the local decisionmaker. Further consistent with provincial policy of enabling local government choice, I understand that the Minister for Municipal Affairs recently approved site-specific rezoning for a cannabis store in Area D, conditional again on Metro Vancouver approval as the relevant local government.

Negative community feedback

As the decision about whether to permit this particular store in the UEL sits with Metro Vancouver, I wanted to share with Metro Vancouver consistent feedback I have heard from the community about this store proposal. I could summarize in two words the community reaction: extremely negative. Even constituents who themselves are participating in cannabis-related business opportunities and otherwise supportive of legal cannabis are not in favour of this proposed retail store in the UEL.

Constituents give an array of reasons for opposing a retail store. I will do my best to summarize this feedback I have received in person and in writing briefly here. Although there may be limited exceptions, I wish to underline that everyone I am aware of who has contacted me or my office has been opposed to this store. I have heard rumours of the proponent collecting UBC student signatures on a petition in favour of the store, but such a petition has not been shared with me if it in fact exists. The themes of the negative feedback I have received include:

- *Public health concerns* – Constituents are concerned that the well-established public health principle that correlates increased use with ease of access will apply to UBC students. Generally, with all legalized controlled substances, including tobacco, alcohol and cannabis, public health policy favours legal but restricted access to reduce consumption especially among vulnerable (younger) populations. A number of constituents articulated this principle in opposing the location of this store in a high traffic area for UBC students.
- *Overservice of market* – Currently UBC and UEL residents can access legal cannabis through online delivery, and through a retail store located in the Point Grey Village on 10th Avenue near Blanca. This store is 2.6km from the proposed site and 2km from campus. This store delivers to the entire UBC peninsula including the UEL “in 90 minutes or less” for free. Another store 5.8km from the proposed site advertises free same day delivery within 2 hours, 7 days a week. There are five cannabis stores west of Macdonald Street and North of King Edward on the West side of the City of Vancouver. Vancouver has established a policy of unlimited cannabis stores so long as the location meets certain requirements, so it is likely that even more stores will be approved on the west side in the years to come.
- *Other retail needs opportunity cost* – A number of constituents pointed out the limited number of retail spaces in a growing population area of campus. In particular, UBC has added hundreds of new student housing units in the immediate proximity of this retail strip mall, and the Area D community plan anticipates hundreds more student and non-student residents in the area. Taking up space for a cannabis store in a community that already has five cannabis stores serving residents means that space would not be available for some conspicuously missing service and retail areas in Area D and the UEL (and in some instances the entire UBC peninsula generally) including: hairstyling/nail salon; hardware; pet services; bike service/sales; furniture/home furnishings; toys/children’s goods/educational; and so on.

As a result of my constituents’ unambiguous advice to me, I do not support the establishment of yet another cannabis store for our community for the reasons listed above.

Yours truly,

A handwritten signature in black ink, appearing to read 'DEB', with a long horizontal flourish extending to the right.

David Eby MLA, Vancouver Point Grey

Randy Lines

██████████ Langley BC, ██████████
██████████

May 30, 2022

Attn : Electoral Area Committee, Board

Dear Board Members

I am writing a quick letter of support for Burb Cannabis who I understand has submitted an application for a retail cannabis store at 5784 University Blvd in the University Endowment Lands (UEL). As a former police officer, I am aware of the concerns for these businesses. I can assure you I had them as well. I can also advise you that my perception of the Cannabis industry has changed significantly over the past few years. I would like to quickly share three experiences that have changed my perception.

I work as a security consultant. When the Government of Canada legalized Cannabis, they provided strict regulations on security. My role was to ensure that Licensed Producers built and operated their security systems and operations in full accordance with Health Canada. I met Clayton Chessa, co-founder of Burb, in 2015 when he was responsible for compliance with the Narcotics Control Act and the transition to the Cannabis Act. I found Clayton to have a much higher than average attention to the regulations and a willingness to be fully compliant with all laws and regulations. I continued to work with Clayton and his team at Burb Cannabis when they entered the retail space. I have worked on approximately 25 retail applications all over the Province for many clients including successful retail stores in Vancouver. I have found Burb's attention to detail and compliance to be well above average.

One area, outside of compliance, where the Burb team stands out is in their community engagement. They have a licensed store in Port Coquitlam. My wife happens to work at an extended care home in PoCo and advised that Burb has been a valued supporter and donor to the elder care industry in PoCo. My understanding is that Burb is passionate about the communities they serve and have made donations to many of the smaller elder care facilities.

Finally, I have an elderly relative who has advanced MS. She fractured her hip however she is too fragile for surgery. The result is that she has experienced significant discomfort when trying to sleep. Traditional pain medication, although effective for the pain caused other side effects which resulted in her just living with the pain. My wife attended to the Burb Store in Port Coquitlam and after an informed conversation with staff, purchased a small quantity of edibles. Our relative was very reluctant to try and was very skeptical however she found she had the best sleep that she has had in months. She has become a return customer now for several months. I know that a single testimonial is far from definitive science however I can say that due to the informed information and service provided by Burb, that one senior citizen has a higher quality of life.

In short, I believe that you will find Burb Cannabis to be a store that prides itself on compliance, community engagement and professional service to clients. Please do not hesitate to call me should you wish to discuss further.

Have a Great Day



Randy Lines

Attn: Electoral Area Committee, Board

This letter of support is for Burb Cannabis in their application for a non-medical cannabis retail at 5784 University Blvd.

The AMS believes that it is important for our student community to have easy access to a safe and trusted cannabis supply, and Burb Cannabis employs a responsible retail model that will benefit our UBC community. When it comes to cannabis retailers, the AMS believes that education around responsible substance use is the most important consideration when evaluating community fit. We believe that the application from Burb Cannabis adequately meets our desired expectations for a retail operation of this nature.

In our opinion, Burb Cannabis is not like your stereotypical “pot shop”. Their store design is welcoming and inviting; and most importantly, they employ a diverse group of people that put education and health awareness at the forefront of their operations. Additionally, we also expect that a retail store like Burb will provide additional employment opportunities for students on campus. Burb also supports a wide range of community activities through their social charitable initiatives and event driven sponsorships; most notably supporting the annual AMS Block Party and the AMS Welcome Back BBQ in 2019 - which are huge community events and the largest university music festivals in Western Canada. Burb can reach many diverse groups, provide education, and sell trusted and tested government sealed products.

In a time where inclusivity and accessibility are more important considerations than ever, this application will create substantially better access to responsible cannabis use for over 60,000 young people. Right now, the nearest retailer to UBC is off campus, and off the University Endowment Lands. The proposed location at 5784 University Boulevard will significantly cut student travel times to access cannabis, and will additionally provide a local hub for cannabis-related education which currently does not exist in the University Endowment Lands. The area is in a commercial shopping centre where all kinds of retail businesses exist, including a liquor store.

The UBC student body deserves to have a safe space nearby, where purchasing cannabis is an accessible stress-free environment. Burb’s retail-model is also a community-friendly one, and we expect that this location will provide responsible access to cannabis with minimal risk to families and underage youth. Locations like these also further reduce illegal activity, which in turn creates a safer UEL community for us all.

The AMS is proud to support any operation that advances the collective interests of our membership. While cannabis use is not universal - education, responsible access, and safe communities are priorities that benefit everyone. We believe that this proposed development will bring collective benefits to students, families, and **beyond**.

Kind regards,

Rishavraj Das

AMS Events Manager

AMS Student Society of UBC Vancouver | ams.ubc.ca/leadership

Summary of my presentation to Electoral Area Committee meeting on June 9th, 2022

Name and about me: Connie Chen, UBC resident for 13 years, an active member of the Parent Advisory Council and Strata Council, Initiator of petition: Objection of the Cannabis retail at 5784 University Blvd. at UBC.

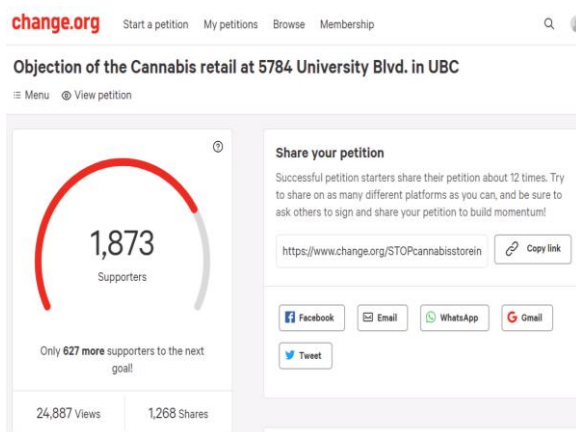
(<https://www.change.org/STOPcannabisstoreinUBC>)

Email: [REDACTED]

Subject: Please do not issue a non-medical cannabis retail store licence to Burb Cannabis Corporation at UEL.



a. My family has been living in UBC for 13 years, I am an active member of the Parent Advisory Council and Strata Council caring about many community issues. We, and many of our neighbors move to UBC for admiring its unique reputation of Education, Multiculturalism and Nature surroundings.



b. A petition was initiated on May 6, 2021 to oppose the opening of the cannabis retail store at the great UBC area (includes UBC Campus, University Endowment Lands and University Neighbourhood association Lands)

c. This petition was spread SPONTANEOUSLY amongst UBC related networks such as UBC students, residents and alumni, through emails and

social media. Since it was work/study from home time, signatories may be signed at the location rather than UBC. Whereas Burb cannabis used a \$1000 prize incentive for people to sign their petition.

d. On the public comment submission deadline June 09, 2021 for Change of Land use (Rezoning) application of the Cannabis retail store, the petition has collected 1263 signatures and 55 comments.

e. When the Rezoning application was approved on Feb. 21, 2022, another 142 new signatures were furiously added within 5 days.



f. Up to May 30, 2022, there are 1863 signatures and 80 comments, PDF files are attached in this email for your reference.

g. 1863 signatures represents 10% of 18296 UBC/UEL of Electoral Area A population (2021 Census, [http://www.metrovancouver.org/services/electoral-area-](http://www.metrovancouver.org/services/electoral-area-a/about/Pages/default.aspx)

Appendix 1	
Feedback on University Endowment Lands Change of Land Use District Application #1/20	
Burb Cannabis Corporation 5784 University Boulevard, Vancouver, BC	
Contents:	
1. Referrals	
UEL Community Advisory Council	Page 3
UEL Advisory Design Panel	Page 8
UBC	Page 17
2. General Comment Received	
In favour/no objection	Page 21
UEL Residents or Groups	Page 22
UBC Residents or Groups	Page 27
Other	Page 45
3. Opposed	
UEL residents	Page 49
UBC/UNA residents	Page 121
Other/unspecified address	Page 288
Opposed Petition	Page 467
4. Feedback received after deadline	
UEL Residents	Page 529
UBC/UNA residents	Page 531
Other	Page 538

a/about/Pages/default.aspx), this community engagement is not insignificant.

h. On the Appendix 1: there are 480 pages (Page 49-528) feedbacks of Opposition whereas only 28 pages (Page 21-48) feedbacks of In favour/ No objection on cannabis store change of land use application. Referrals (UEL CAC, UEL ADP UBC) and Local MLA David Eby has **NO positive Recommendation**.

i. In short, the community members has stated **EXTREMELY NEGATIVE responses** to this cannabis store loud and clearly! According to BC liquor and cannabis regulation, to approve and issue a non-medical Cannabis Retail Store (CRS) licence, the general manager of the Liquor and Cannabis Regulation Branch (LCRB) must have a positive recommendation from the Local government (<https://www2.gov.bc.ca/gov/content/employment-business/business/liquor-regulation-licensing/local-gov-indigenous-nations/role-of-local-governments-and-indigenous-nations-in-cannabis-retail-licensing>). **As our elected politician and decision maker, we are looking upon you to truly reflect the community's voice and have a negative recommendation on Burb Cannabis License application.**

Summary of presentation to Electoral Area Committee Meeting

Claire Huxtable, UEL ADP Community Representative and area resident

June 9, 2022

Slides:

1 – Recommendations from the University Endowment Lands Advisory Design Panel.

- The panel highlighted to the Minister of Municipal Affairs and the Liquor and Cannabis Regulation Branch (LCRB) that the Advisory Design Panel (ADP)'s comments on the referral do not equate to the ADP's support of the bylaw amendments or of cannabis retail in the UEL.
- The panel asked that the Minister provide guidance on future cannabis applications regarding Change of Use application for cannabis retail.
- The panel recommended that the Minister hear out the community's viewpoint and make a decision based on public input that is in the best interest of the community. As the Advisory Design Panel did not have access to all community feedback, it was not able to comment on that aspect but **extended its support to public input**.

2 – Basis of decision for granting a cannabis retail licence.

- The intent of the Provincial regulation is to give the **local** community a voice in licencing decisions
- To approve and issue a non-medical Cannabis Retail Store (CRS) licence, the general manager of the Liquor and Cannabis Regulation Branch (LCRB) **must have a positive recommendation** from the local government with **jurisdiction in the area of the proposed store**
- There has been **NO positive recommendation** from any level of government with jurisdiction in the area of the proposed store
 - Respecting and reflecting the overwhelmingly negative response from community members, there has been **NO positive recommendation from:**
 - The University Endowment Lands Community Advisory Council
 - The University Endowment Lands Advisory Design Panel
 - The University Endowment Lands Administration Office
 - Any of the three Ministers of Municipal Affairs who have touched this issue
 - Our local MLA David Eby
 - Additionally, there has been **NO positive recommendation** from UBC

Further notes:

- There are no mechanisms for bylaw enforcement in the UEL – no ticketing, no bylaw enforcement officers. **Our community is uniquely vulnerable.**
- There may be a view that acceptance of cannabis is part of a process of “education”. The Provincial regulation does not describe acceptable and not acceptable reasons to object to licencing, it simply says the applicant **must** have a positive recommendation from local

government. The applicant has failed to secure support within my community. If the applicant believed “education” was needed, that effort should have been made earlier in this process.

- Our community has never given permission for cannabis retail. The community only agreed – in good faith - to **explore** the possibility of cannabis retail, a type of retail that had not previously been included in the list of permitted uses. The topic has been explored through this process, and the community has given an overwhelmingly negative response.
- **We ask that the EAC respect the community’s response and NOT recommend that this licence be granted.**

Thank you.

Delegation Request

To: Board & Information Services (delegations@metrovancover.org)

Please accept this delegation request. Proposed delegation details follow.

Presentation Subject: Regional Invasive Species Management Support

Designated Speakers: Kevin Li and Tasha Murray

Presentation Summary: Invasive species are plants and animals that have been introduced to an area without the predators and pathogens from their native habitats that would help keep them in check. They can threaten property and recreational values, infrastructure, agriculture, public health and safety, as well as the ecological health and diversity of our natural environment. Successful control of invasive species requires concerted, targeted and collaborative efforts by many players. Invasive species have many competitive advantages, and are often more adaptable than native species in a variety of ecosystems, suggesting that their impacts will increase with changing climate conditions.

In 2014, Metro Vancouver retained the Invasive Species Council of Metro Vancouver (ISCMV) to work collaboratively with Metro Vancouver member jurisdictions and other partners to develop the '[Invasive Species Management Strategy for Metro Vancouver](#)'. The Strategy's purpose was to:

"To enhance the ability of local, provincial, federal and First Nations governments, working with homeowners, industry and environmental stewards, to prevent new invasive species from establishing in the region, and to contain and control established invasive species."

The Strategy called for shared responsibility and a unified region-wide response, with Metro Vancouver providing a leadership role in regional coordination. In response, Metro Vancouver created the Regional Planning Advisory Committee-Invasive Species Subcommittee (RPAC-ISS), which was successful in bringing together representatives from local governments, other large land managers, non-profit organizations, and businesses. The development of the [regional best management practices series](#) for high priority invaders is one example of an immensely valuable resource that was possible through the collective efforts of RPAC-ISS members, and the financial and administrative support of Metro Vancouver.

In January 2021, Metro Vancouver's Regional Planning staff announced "the intent to transition the RPAC-ISS to an independent, self-organized group on the basis that its primary purpose had been met and a growing need to re-allocate staff resources to other emerging environmental priorities". Despite concern raised by its members, the RPAC-ISS was formally dissolved in December 2021. A new 'Regional Invasive Species Working Group' (RISWG) has met twice in 2022, and although Metro Vancouver staff continue to participate in the RISWG, the burden of region-wide coordination has now fallen on local government staff and the ISCMV. Without Metro Vancouver's support, participation has declined. We feel this change has compromised the progress made by the RPAC-ISS on this important conservation issue from 2016 to 2021.

¹ Corresponding speaker; contact information: tmurray@iscmv.ca, 778-681-8358

It is important for Metro Vancouver to play a leadership role in this issue for several reasons:

- Existing Metro Vancouver policies support a leadership role for Metro Vancouver on invasive species management:
 - [Ecological Health Framework](#) (Strategy 1.4 Manage Invasive species, page 32); Metro Vancouver will:
 - “Continue to provide a forum for coordination and collaboration with member jurisdictions and other parties to develop best practices, ensure appropriate disposal options, and increase awareness of invasive species.”
 - “Develop and employ best practices in the management of invasive species on Metro Vancouver lands and promote their use region-wide.”
 - [Regional Parks Natural Resource Management Framework](#) (Strategy 1.6 Manage invasive species, page 20)
 - [Draft Climate 2050 Nature and Ecosystems Roadmap](#) (mentioned throughout, Strategy 1.8 Manage Invasive Species, page 82)
 - [Draft Metro 2050](#) (Action 3.2.6c and 3.2.7c)iii) currently being considered by member jurisdictions
- Other regional districts in BC provide support for regional invasive species management; some examples include:
 - [Squamish-Lillooet Regional District](#) (SLRD) supports management and control of invasive species throughout that region with \$75,000 annually, with the cost borne by taxable properties within the service area. The SLRD has passed two bylaws designed to help manage and minimize the threat of invasive species in that region. [Bylaw No. 1541-2017](#) enables the SLRD to contribute annual funding to external organizations that provide a variety of services.²
 - At least 13 other regional districts in the BC fund invasive plant management activities, including field operations, private land programs, regional coordination, and education and outreach. At least 10 other regional districts have enacted invasive species-specific bylaws. Some regional districts provide other services such as free disposal of invasive species, enforcement of Provincial invasive plant legislation or aquatic invasive species prevention programs³.
- Leadership from a regional government, representing multiple municipalities, may be a stronger voice in spurring the Provincial government to create or amend regulations that can better limit the sale and transport of invasive species, compared to advocacy from individual local governments or other agencies.

Invasive species management is a complex, integrated issue and to be successful across a region with many jurisdictions and pathways for the introduction of new invasive species, we need a strong government entity to ensure continued progress. On behalf of staff who manage invasive species within member jurisdictions, other land managers, contractors, consultants, stewardship groups, residents and all who have a role in invasive species management, **we request that Metro Vancouver a) provide administrative support for the Regional Invasive Species Working Group (RISWG), and b) work with the RISWG to explore innovative ways to better support regional invasive species management.**

² Existing MVRD bylaws (Bylaws [1164](#) and [1320](#)) use a similar model to provide mosquito control services for several member municipalities.

³ Statistics compiled by Regional Invasive Species Organizations from across BC (2021).

To: Climate Action Committee

From: Roger Quan, Director, Air Quality and Climate Change
Parks and Environment Department

Date: June 1, 2022 Meeting Date: June 10, 2022

Subject: **2022 Update on Regional District Sustainability Innovation Fund Projects**

RECOMMENDATION

That the Climate Action Committee receive for information the report dated June 1, 2022, titled “2022 Update on Regional District Sustainability Innovation Fund Projects.”

EXECUTIVE SUMMARY

This report provides an update on 21 projects that were approved for funding in 2018 through to 2021 under the Sustainability Innovation Fund. The projects cover a wide variety of sustainability topics from climate action, air quality monitoring, buildings emissions reduction, to environmental protection and natural asset management. Of the 21 projects, four are now complete, one has been discontinued, and the rest are in progress. Attachment 1 provides detailed updates on the projects.

PURPOSE

To provide an update on projects funded under the Regional District Sustainability Innovation Fund.

BACKGROUND

The Regional District Sustainability Innovation Fund (Fund) was created by the Board in 2004 to provide financial support to Regional District projects that contribute to the region’s sustainability. The MVRD Board adopted the *Regional District Sustainability Innovation Fund Policy* on June 27, 2014, with further amendments in 2016 and 2021, to guide the use and management of the Fund. The policy requires that the Climate Action Committee be updated on an annual basis on the deliverables, outcomes and measurable benefits of the projects receiving funding.

This report presents an update on projects that have not yet been reported as complete to the Climate Action Committee, including status, amount spent, and project outcomes.

STATUS OF SUSTAINABILITY INNOVATION PROJECTS (APPROVAL YEARS: 2018 – 2021)

The table below provides summary information on the status of each project. Additional details are provided in the attachment. Updates on a number of the projects have been provided to the Climate Action Committee on an individual basis in previous meetings.

Project	Approval Year	Amount Approved	Status
LumiAir: Lighting your path to Clean Air	2018	\$140,000	Complete
Air Aware: Air Quality and Citizen Science	2018	\$95,000	Complete
Climate Literacy Modules	2019	\$160,000	In progress
Targeted Invasive Plant Grazing in Metro Vancouver	2020	\$150,000	Discontinued
Using eDNA Sampling Technology in Regional Parks	2020	\$68,000	Complete
Preventing Smoke Emissions from Agricultural Waste Management	2020	\$140,000	In progress
Clean Air for Students and Schools (CLASS)	2020	\$200,000	In progress
Mobile Monitoring of Fugitive and Other Industrial Air Emissions with "Flying Labs"	2020	\$100,000	In progress
Building Resilience: Exploring the Potential of Renewable Energy Building Infrastructure	2020	\$200,000	In progress
Net-Zero Feasibility Study for Welcher Affordable Housing Development	2020	\$160,000	Complete
Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings	2020	\$90,000	In progress
Assessment of Carbon Capture Technology in the Metro Vancouver Region	2021	\$200,000	In progress
Lights, Camera, Climate Action!	2021	\$200,000	In progress
Sharing Data for Zero Emission Buildings (SDZEB)	2021	\$200,000	In progress
Responding to the Climate Emergency: Enhanced Stakeholder Engagement	2021	\$200,000	In progress
Social and Community Data Land Use Model	2021	\$60,000	In progress
Regional Land Use Assessment	2021	\$200,000	In progress
Housing Retrofit Evolution – Pembina Institute Reframed Initiative	2021	\$200,000	In progress
Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks	2021	\$300,000	In progress
Natural Asset Management in Regional Parks	2021	\$160,000	In progress
Promoting Peatland Recovery in Areas Affected by Wildfire in Burns Bog Ecological Conservancy Area	2021	\$199,000	In progress

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The projects summarized in this report had funding approved by the MVRD Board from 2018-2021. The disbursements of funds were made in accordance with the applicable *Sustainability Innovation Fund Policy* that governs the use and management of the Funds.

The table below outlines the funding approved and the amount spent to date for each project. Any unspent funds for completed projects remain in the Sustainability Innovation Fund reserve.

Project	Total Amount of Funding Approved	Amount Spent (as of April 30, 2022)
2018 Approval Year		
LumiAir: Lighting your path to Clean Air	\$140,000	\$133,609
Air Aware: Air Quality and Citizen Science	\$95,000	\$70,000
2019 Approval Year		
Climate Literacy Modules	\$160,000	\$100,000
2020 Approval Year		
Targeted Invasive Plant Grazing in Metro Vancouver	\$150,000	\$27,000
Using eDNA Sampling Technology in Regional Parks	\$68,000	\$68,000
Preventing Smoke Emissions from Agricultural Waste Management	\$140,000	\$112,000
Clean Air for Students and Schools (CLASS)	\$200,000	\$0
Mobile Monitoring of Fugitive and Other Industrial Air Emissions with "Flying Labs"	\$100,000	\$19,260
Building Resilience: Exploring the Potential of Renewable Energy Building Infrastructure	\$200,000	\$0
Net-Zero Feasibility Study for Welcher Affordable Housing Development	\$160,000	\$160,000
Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings	\$90,000	\$0
2021 Approval Year		
Assessment of Carbon Capture Technology in the Metro Vancouver Region	\$200,000	\$0
Lights, Camera, Climate Action!	\$200,000	\$18,396
Sharing Data for Zero Emission Buildings (SDZEB)	\$200,000	Est. \$20,000
Responding to the Climate Emergency: Enhanced Stakeholder Engagement	\$200,000	Est. \$20,000
Social and Community Data Land Use Model	\$60,000	\$55,452
Regional Land Use Assessment	\$200,000	Est \$25,000
Housing Retrofit Evolution – Pembina Institute Reframed Initiative	\$200,000	\$0
Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks	\$300,000	\$38,315
Natural Asset Management in Regional Parks	\$160,000	\$5,000
Promoting Peatland Recovery in Areas Affected by Wildfire in Burns Bog Ecological Conservancy Area	\$199,000	\$30,081

The balance in the Regional District Sustainability Innovation Fund at December 31, 2021 was \$11.5 million.

CONCLUSION

This report has provided an update on twenty-one projects funded under the Regional District Sustainability Innovation Fund. The projects cover a wide range of topics including climate action, greenhouse gas emissions reduction, environmental monitoring and protection, and natural asset management. The Sustainability Innovation Funds were created by the Board in 2004 to provide financial support to utility or Regional District projects that contribute to the region's sustainability.

Attachment

Update on Regional District Sustainability Innovation Fund projects

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UPDATE ON REGIONAL DISTRICT SUSTAINABILITY INNOVATION FUND PROJECTS

LumiAir: Lighting your path to Clean Air: Complete

The LumiAir project aims to engage and educate the public through a thought-provoking and accessible visual display of air quality. The display allows the public to see a visual representation of air contaminant levels collected at Metro Vancouver air quality monitoring stations in their community.

In the first phase of the project, preliminary designs were developed, and focus groups were conducted to obtain public feedback that was incorporated into the final design. The second and final phase included the build and configuration of the display, which includes a touchscreen interface, kiosk display, computer, and Metro Vancouver branding.

The first deployment of LumiAir was at Metro Vancouver's PNE display during the summer of 2021, which gave the public the opportunity to interact with it. The display shows real-time air quality monitoring data, and comparisons to scenarios that represent community exposure during a wildfire smoke day, a hot summer day with elevated ground-level ozone concentrations, and regional air quality from decades ago. Based on feedback from the public and staff, final changes were made to the display and the project is now complete.

Air Aware: Air Quality and Citizen Science: Complete

Air Aware aims to understand the strengths and limitations of small, low-cost, air quality sensors; support the public in the appropriate use of these sensors; and examine the sensors' potential to augment Metro Vancouver's air monitoring network. Both phases are complete: staff co-located sensors at Metro Vancouver's air quality monitoring stations to compare their performance to standard instruments used in Metro Vancouver's air quality monitoring network and then lent sensors to a number of volunteer residents to learn about their experience with them. Staff then created and published a website to provide guidance to anyone interested in using small air sensors. In parallel with the website, staff completed a technical report to summarize Metro Vancouver's research and evaluation of selected small sensors. The report will be posted on the Air Aware website this summer (2022).

Key outcomes:

- Deployed air sensors with 12 volunteers and gathered feedback on their experience;
- Completed first and second co-location of air sensors at Metro Vancouver's air monitoring stations;
- Completed technical report, including all data analysis; and
- Published Air Aware webpages: <http://www.metrovancover.org/services/air-quality/action/air-aware/Pages/default.aspx>

Using eDNA Sampling Technology in Regional Parks: Complete

Environmental DNA (eDNA) sampling is a relatively new survey technique that relies on the detection of genetic materials collected from water or soil and analyzed in a laboratory. This emerging method uses less effort than traditional sampling, is more cost-effective, and is far less invasive to sensitive fish and wildlife species. This project aimed to help better understand the presence and distribution of key aquatic species to inform park management and help further the use of this new technology to support ecosystem resilience in the region.

Over the two years the project took place (2020-2021), a total of 8 parks were sampled for 9 different species of interest. Sensitive species such as coho salmon (*Oncorhynchus kisutch*) or species at risk such as coastal cutthroat trout (*O. clarkii calrkii*) were identified in many of the parks streams and waterways. Blue-listed red-legged frog (*Rana aurora*) DNA was found in two new ponds that were created or enhanced through restoration efforts and red-listed Salish sucker (*Catostomus sp. cf. catostomus*) DNA was identified at a previously unknown site. This project allowed for the development of two new primers for aquatic species of interest. These were developed with local experts and in cooperation with the Helbing Lab at the University of Victoria. These primers can now be used by anyone wanting to sample for these species in the region. The Salish sucker and Oregon fairy shrimp (*Branchinecta lynchi*) primers are complete and ready for public use.

The data collected through this project is already providing valuable information that will aid in park management decision-making and adaptive management strategies. It is informing future restoration projects and helping to enhance habitats for species at risk to support and boost populations in regional parks. This information has allowed for the better management of these species and their habits within parks, and this contributes to the ecological health of the region.

Climate Literacy Modules: In Progress

Improving climate literacy in this region will increase our collective ability to engage in climate action conversations. Research indicates high concern for climate change, but low knowledge and confidence in speaking about solutions. This project creates a toolkit to support increasing climate literacy, for use by Metro Vancouver and member jurisdiction staff, First Nations, youth, residents and other interested parties. The output is a building block for knowledge, in the form of online climate learning modules.

The project was delayed as staff resources were shifted during the pandemic response, but brought back on track in 2021, and phase 1 launched for Earth Day 2022. Phase 2 is in progress for launch fall 2022. This is a series of 5 climate action focused modules in including food scraps recycling, walkable communities, building impacts, managing stormwater, and consumer choices. Content is prepared and has been reviewed by technical staff for accuracy, and is now moving to instructional design (transfer to on-screen). Final funds are allocated to a promotion of the literacy tool.

Targeted Invasive Plant Growing in Metro Vancouver: Discontinued

During its meeting on April 16, 2021, the Climate Action Committee received an information report summarizing the results of a consulting study that assessed the feasibility of grazing as an herbicide-free invasive plant control option in Metro Vancouver. Informed by a literature review and interviews with fourteen practitioners from across Western Canada and the US, the consultant concluded that:

- Goats would be the most suitable livestock species (compared to sheep, pigs, and cattle);
- Targeted grazing could be as effective as hand pulling or mowing for Himalayan blackberry, giant hogweed, English and Irish ivies, Himalayan balsam, Himalayan blackberry, purple loosestrife, Scotch broom, and wild chervil;
- Similar to other control methods, repeated grazing would be required for long term control.

Compared to other control methods, targeted grazing would be:

- 2-4 times costlier (over \$718,000 for a 3-year pilot);
- More logistically complex (e.g. part-time coordinator, shelter, fencing, water, guardian dog management, penning livestock for 3-4 days prior to moving off site to prevent spread of viable seed through faeces, etc.); and

- 2-5 times more carbon-intensive (due a lack of local trained herds in the Lower Mainland and the need to transport herds from other areas of BC or Alberta).

In search of a local herd, staff contacted the BC Goat Association and the Fraser Valley Goat Breeders Association who shared Metro Vancouver's inquiry with their members. Two local hobby farmers reached out for more information, but neither were experienced shepherds with trained herds. Herd training and shepherding expertise are imperative to maintain animal welfare, manage site logistics, reduce off-target grazing, and minimize damage in sensitive ecosystems. Consequently, staff recommended discontinuing this SIF project and the remaining \$123,000 in the project budget was left unspent, remaining in the SIF reserve.

Preventing Smoke Emissions from Agricultural Waste Management: In Progress

Open-air burning of vegetative debris is a source of air contaminants harmful to human health and environment. This project was initiated in 2020 to study alternatives to open-air burning for managing agricultural vegetative debris in the Metro Vancouver region. The study findings identified barriers to using alternative methods of vegetative debris disposal for farmers in the region, which included cost, complexity, practical feasibility, biosecurity considerations, and equipment availability.

Work has continued for the second phase of the project in 2021 to develop a multi-language Best Practices Guide for farm operators in Metro Vancouver. The purpose of the Guide is to provide practical and easy-to-use information on alternatives to open-air burning practices of agricultural vegetative waste disposal in an effort to reduce air emissions. The Guide is tailored toward operators who are involved in crop pruning and removal, field renovations, and land or brush clearing on farmland in Metro Vancouver. The local agriculture sector, including farmers and representatives of farming associations, educational institutions, and BC Ministry of Agriculture, Food and Fisheries have been involved and provided input in the development of the Guide. This project is currently expected to be completed by the end of 2022.

Clean Air for Students and Schools (CLASS): In Progress

Clean Air for Students and Schools (CLASS) will pilot actions to reduce exposure to traffic-related air pollution in and around schools. Teachers, students, and parents will be involved in the project so they can learn more about their exposure to air pollution and how to measure it. The project has 3 parts:

1. Partnering with schools in the Metro Vancouver region to assess the area for sources of traffic-related air pollution and identify ways to reduce exposure to them.
2. Piloting actions to reduce exposure to traffic-related air pollution and involving teachers, students, and parents in measuring air quality using small, low-cost air sensors.
3. Creating a report and teaching tools for other schools on potential ways to reduce exposure to traffic-related air pollution.

Due to the COVID-19 pandemic, and limited access to schools and teachers' increased workload during this time, this project was put on hold in 2020 and 2021. While CLASS was on hold, staff researched other programs involving air quality at schools, such as TransLink's Youth Travel Strategy and Sonoma Technology's Kids Making Sense program, to learn about potential partnerships and existing programs' successes and challenges. Staff are also updating the scope of work to allow for more opportunities for schools to provide input on the project.

Mobile Monitoring of Fugitive and Other Industrial Air Emissions with "Flying Labs": In Progress

The purpose of the "Flying Labs" project was to assess the cost and feasibility of mobile monitoring using drone-mounted small sensors to measure air contaminants from emissions sources in the region that are difficult to access or located in hazardous environments. Drone flights were conducted carrying small sensors to measure air contaminant concentrations in three locations within the Metro Vancouver region in the summer of 2021. Results revealed challenges in collecting data of sufficient quality to effectively assess emissions using drone-based monitoring platforms equipped with the relatively new technology of small sensors. Findings of the test flights and proposed next steps were summarized in a report to the Climate Action Committee titled "Mobile Air Quality Monitoring Using Drone-Based Sensors", dated February 8, 2022. Staff are building on the findings of the first phase of this project and evaluating other types of mobile monitoring equipment to assess air emissions in 2022.

Building Resilience: Exploring the Potential of Renewable Energy Building Infrastructure: In Progress

The Renewable Energy Building Infrastructure – Cost Benefit Analysis & Pilot Project is investigating types of renewable energy infrastructure for domestic hot water in affordable housing. Domestic hot water accounts for approximately 30% of building greenhouse gas emissions and this study will help Metro Vancouver Housing to meet Metro Vancouver's *Climate 2050* strategy target of a 45% reduction in greenhouse gas emissions by 2030.

The study will be separated into two phases. The first phase is underway with a Request for Proposals (RFP) to retain a consultant for this study. The RFP process will be conducted over spring/summer 2022.

1. **Phase 1 – High Level Review:** This phase will investigate sustainable energy systems and complete a high level cost-benefit analysis. It will include a review of existing domestic hot water renewable energy options for new construction and existing multifamily buildings. For example, it will explore solar panels, solar thermal, geothermal and SHARC – recovering heat from waste water. The concluding analysis will consider embodied emissions and the end of life of the systems.
2. **Phase 2 – In-Depth Study and Pilot Project Planning:** In the second phase, the consultant will focus on mutually selected technologies from Phase 1 to study in greater depth. A business case will be created for their inclusion in cost sensitive affordable housing developments. The business case will explore the potential issues and tradeoffs of performance, energy conservation, greenhouse gas emissions, operational and embodied, life cycle, end of life. This report will also explore the technical considerations of what would be involved to add these technologies to a development project (e.g. mechanical, structural, electrical, architectural). As a part of the business case, the study will also consider a cost analysis, include revenue potential and state of the market (e.g. PV panel energy sold back to grid; dollars per kw hour, etc.). The final component of this work will be to plan a pilot project for a mutually selected technology from this study.

The business case will be shared with members, partners, and housing providers across the region to facilitate change in building energy infrastructure and reduce carbon emissions from housing.

Net-Zero Feasibility Study for Welcher Affordable Housing Development: Complete

The NetZero Feasibility Study for the Welcher Affordable Housing Development was to study design and construction strategies to reduce the operational energy consumption as well as provide on-site renewable energy generation capability for MVHC's Welcher Avenue housing development project. With a project baseline energy performance target of BC Energy Step Code 3, this results of this study revealed a pathway to reducing operational energy consumption of the building by 50% and reducing operational

greenhouse gas emissions by 87%. Ultimately, the project team decided to implement these strategies into the design drawings and specifications in support of an application for grant funding from the Federation of Canadian Municipalities' Green Municipal Fund (FCM – GMF). In addition to making a significant contribution towards Metro Vancouver's energy and greenhouse gas emission targets, it also increases tenant affordability through reduced energy consumption costs.

In 2021, staff delivered a presentation to a global audience through the Zero Emissions Building Exchange to discuss the feasibility study process, results and insights gained. Knowledge gained from this study will serve to guide future MVHC development projects, as well assist the multi-family construction community in energy and GHG performance decision making.

Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings:

In Progress

The purpose of this project is to better understand the levels of the BC Building Code Step Code and its cost and performance implications for major renewals of MVHC's existing housing stock. The current BC Building Code is written for implementation with new building construction, but does not strictly apply to existing building renewals. A large portion of MVHC's existing housing projects were constructed approximately 40 years ago and many major building components (roofing, windows, cladding, etc.) are reaching the end of their service lives. The near future requirement of major capital investment into the existing housing stock creates the opportunity for performance upgrades to align with Metro Vancouver's strategies, plans and policies and the current building Step Code. An in-depth understanding of the economic and performance implications of the step code is of great interest as an affordable housing provider in the region.

This study will:

- Create a guide for making informed decisions when designing and constructing upcoming major building renewals.
- Provide insight on performance metrics (energy consumption, greenhouse gas emission).
- Provide insight on marginal and long-term maintenance costs.

Housing's Capital Maintenance team have been working with Pembina on a related project, Reframed (deep retrofits). Pembina have been working with RDH and have produced a report that contains information that will overlap well with the SIF Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings research and report. Metro Vancouver Housing are working with RDH Consultants to finalize a proposal to build on the Pembina report and conduct additional research to develop the specific requirements and cost implications to achieve the various Step Code levels in existing buildings. Learnings, with respect to Step Code implementation into existing buildings, are also underway with the Pembina Reframed Workshops that have been underway for the last six months and are due to wrap up in June 2022; the findings from these workshops will be included in the RDH report. A change to the BC Building Code is coming with respect to rehabilitation of existing buildings. Metro Vancouver Housing are making efforts to collaborate with RDH and the team working on the Code upgrade to ensure information and work efforts are being shared to enhance both projects.

Assessment of Carbon Capture Technology in the Metro Vancouver Region: In Progress

The "Assessment of Carbon Capture Technology in the Metro Vancouver Region" SIF project aims to support early identification of the most suitable technological approaches for capturing and removing carbon dioxide (CO₂) as the region transitions towards carbon neutrality by 2050. The project's long-term objectives include exploring ways to accelerate deployment of technological carbon capture approaches

at industrial facilities in the Metro Vancouver region to reduce CO₂ released to the atmosphere, as well as to encourage the development of technological carbon capture sector to support the regional cleantech economy.

In 2021, staff have coordinated with various potential partners who are actively involved in carbon capture, utilization, and storage (CCUS) pathways, such as the Government of BC, UBC Clean Energy Research Centre, the Pacific Institute for Climate Solutions (PICS), Natural Resources Canada, large industrial facilities in the region, and CCUS technology accelerators. This has confirmed that while no single carbon capture technology is a 'silver bullet', a suite of CCUS technologies can play a critical role in decarbonization. Technological readiness is one of the key considerations for deployment of these technologies but other factors such as economics, market potential, overall CO₂ reduction potential, facility and process-specific requirements, proximity to carbon sources and sinks, geological conditions, as well as policy and regulatory uncertainty, are also critical in understanding the CCUS landscape and CCUS deployment in the Metro Vancouver region.

As the knowledge base for carbon capture technologies continues to grow, there is a need to apply a systemic lens to CCUS deployment and to identify other associated challenges related to captured CO₂ utilization, transport and permanent storage, which will all add a layer of complexity for CCUS deployment and appear to pose a bigger challenge in the region. Many industries and businesses, including a number of large industrial facilities in the region, have initiated work in CCUS, connecting with researchers, technology accelerators, governments and funding sources to explore CCUS for potential deployment. Staff will build on these early learnings and continue to assess technological carbon capture approaches and their potential application at industrial sites in the Metro Vancouver region.

Lights, Camera, Climate Action!: In Progress

Lights, Camera, Climate Action is a SIF project that has been undertaken to recommend alternative clean and modular power sources for portable diesel generators currently used in the film industry. This project will explore cleaner technology alternatives to the diesel generators in order to reduce GHG emissions and improve air quality, while also ensuring the alternatives recommended are viable solutions in terms of user experience, fulfilling power requirements, and being a cost effective solution. It also explores the potential of these alternatives for other users of portable diesel generators such as construction sites, food trucks and events. The second phase of the SIF project will include the implementation of a clean power alternative at a Metro Vancouver Regional Park.

Staff have hired a consultant (Green Spark Group) to conduct technical feasibility assessment including profiling the current energy use of the film industry, a preliminary assessment of possible overlap with related user groups (i.e. food trucks, events, construction), film production energy use data collection and a compilation of high frequency film sites locations in Metro Vancouver.

The technical report will be completed in 2022 and will also include a recommendation for the next phase of the project, to install a clean power alternative at a Metro Vancouver regional park site.

Sharing Data for Zero Emission Buildings (SDZEB): In Progress

The purpose of the Sharing Data for Zero Emission Buildings (SDZEB) project is to create a database that estimates the attributes and GHG emissions of detached homes, row homes and townhomes at the building level. Such a database does not currently exist, but is a foundational tool needed to design effective GHG reduction policies and retrofit programs. In February 2022, staff began working with a consultant team, project partners and other agencies on the first phase of the project. This first phase

aims to identify and obtain available buildings data that will be used to develop a suite of low carbon retrofit packages tailored to specific homes, based on attributes such as year built, heating type, size and other key design attributes. In the second phase of this project, which is expected to begin in late 2022 and continue through 2023, Metro Vancouver will continue to develop and optimize the database into a dynamic and shareable resource for local governments and other key partners. Concurrently, partnering municipalities will use the retrofit packages from phase one to develop and pilot retrofit support and incentive programs in their communities. Project partners for phase one include the Township of Langley, City of Vancouver, Regional District of East Kootenays, and BC Hydro. Partners provided \$165,022 in addition to Metro Vancouver's \$50,000 contribution for the phase one work.

Responding to the Climate Emergency: Enhanced Stakeholder Engagement: In Progress

Given the climate emergency, a public and stakeholder engagement strategy is needed that builds a constituency who will champion *Climate 2050* and the actions in it. This requires an innovative strategy, over and beyond what a normal engagement strategy would entail. And it must include innovative ways to engage new audiences (e.g., youth) to build a larger engaged and vocal constituency. In April 2022 the project team brought a report to Climate Action Committee, proposing a small 'r' roadmap for engagement on climate action for Metro Vancouver. Components of the roadmap include; messaging, engagement, collaboration and convening, involving influencers and amplifiers, and public education. Staff are working to develop this roadmap.

Social and Community Data Land Use Model: In Progress

Regional Planning initiated this project to develop a behavioural model of residential housing and neighbourhood choices in order to support future regional land use, transportation, and hazard modelling. The project will form a foundation for the behavioural model. Deliverables for this work will include:

- 1) a final report that details all relevant research, information considered, risks, opportunities, and gaps in the data;
- 2) recommendations for an additional survey and/or engagement required to support modeling;
- 3) recommendations for the development of the behavioral model, if required; and
- 4) a geospatial database containing all organized, clean, and relevant information that can be used to construct the behavioral model.

So far, the first three tasks have been finalized with stated deliverables. The only outstanding item is the last task: producing a geospatial database.

In January 2022, Modus produced a Survey and Data Collection Companies report. The report explored companies suitable to support filling in existing data gaps for the Social and Community Land Use Model. The primary data gaps identified are related to people's values / stated preferences for housing and neighbourhood choice.

In March 2022, a progress report was received. The report provides an annotated bibliography outlining key findings from a selection of literature relevant to the Metro Vancouver Social and Community Land Use study. From this selection of literature, the project team created a shortlist of common determinants for housing preference and location choice. Following the literature and dataset review, two major literature gaps and opportunities for dataset development have been identified:

- 1) an absence of available data that sufficiently captures the stated preferences, such as personal values that drive housing and location preference, behind housing and location choice; and
- 2) an absence of qualitative datasets that can be used to support stated preferences that are also contextual to the Metro Vancouver region.

In May 2022, staff received a progress report with recommendations for developing the behavior model. The research was conducted using longitudinal tax filer data through the Longitudinal Administrative Databank (LAD) and the Longitudinal Immigration Database (IMDB) to understand residents' movement choices and recent immigrants within the region.

The last phase of this project, a geospatial database, is expected to be finalized by July 2022.

Housing Retrofit Evolution – Pembina Institute Reframed Initiative: In Progress

Metro Vancouver Housing (MVH) is a member of the “Reframed” Initiative, a joint initiative of the Pembina Institute, BC Housing, BC Non-Profit Housing Association, and the City of Vancouver. Members will work together to demonstrate the technical and economic feasibility of whole-building deep resiliency retrofits that include reduction of energy use intensity by at least 50% from the pre-retrofit baseline, decarbonization, and upgrades relating to climate adaptation, seismic, and fire safety. The aim is to decarbonize building operations, eliminate climate pollution, reduce energy waste to keep the bills low and improve tenant comfort, increase resiliency to extreme weather events like heat waves, flooding, and forest fires, seismically upgrade the structures, and create healthier homes.

This project involves deep energy retrofits of 3 Metro Vancouver Housing buildings and 3 BC Housing buildings. In June 2022 the six design consultants were retained (3 by MVH and 3 by BCH) for the concept design phase. The demonstration retrofits are currently in the concept design phase whereby all six design consultant groups are working together through six months of “exploration labs” with support from technical experts on climate change, energy efficiency, and health. The design consultants are currently finalizing their designs and final presentations will be conducted in June 2022. The concept design phase and the exploration labs will be completed by July 2022. The implementation of the findings from the exploration labs (into the 3 MVH) deep energy retrofit projects will begin as soon as detailed design begins (Q3 2022) and will be complete when the construction for the three deep retrofits is completed (anticipated by the end of 2024 – permit and budget dependent).

Regional Land Use Assessment Project: In Progress

The Regional Land Use Assessment will compile information about lands and uses in the region, and will provide a unique and relevant lens to assess the land availability, capacity, and needs over the planning horizon to 2050. This work will inform long range land use policy objectives and decisions by Metro Vancouver, member jurisdictions, and other regional agencies.

During 2021, Metro Vancouver staff developed and refined the scope of the project and issued a Request for Consultants. In early 2022 a consultant was retained. The technical work is currently underway and scheduled to be completed by the end of the year.

Initial work comprised establishing the project methodology and requesting current Official Community Plan land use designations (or equivalent) from the region’s member jurisdictions in GIS format. This data will be used by the consultant as the basis for the Regional Land Use Assessment project to create a standardized set of general land use classifications.

Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks: In Progress

This project will offer real-time information on when parking lots are full prior to visitors leaving their homes. The deliverable allows visitors to consider how best and when to access the park given current levels of visitation. In turn, visitor trip planning helps alleviate congestion at peak times and contributes towards reducing the carbon footprint of a park. The purpose of this project is to develop a real-time

parking stall availability monitoring tool for public use using remote sensing devices, novel or customized software, as well as a corresponding data analysis and digital platform for public communication/reporting.

Phase I of the Feasibility Study is complete. The study focused on research and technology exploration and innovation opportunities to inform creation of a new parking stall capacity monitoring program. Investigations and the subsequent report outlined opportunities to adapt existing technology or install new kinds of data loggers, cameras or sensors, and develop a customized algorithm with supporting software for use in real-time monitoring of vehicle parking availability at selected park sites.

Phase II (technology acquisition and deployment) is now underway. Phase II includes strategically placing sensor/camera installations and developing the supporting software platform for rapid parking availability analysis. Throughout 2022, software will be selected/designed, along with development of website and/or smart device applications which tracks parking demand and stall occupancy duration.

Natural Asset Management in Regional Parks: In Progress

The 'Natural Asset Management in Regional Parks' project seeks to make significant advances in the integration of natural assets to the regional parks asset management program. In support of initiating this project, staff developed the first Natural Assets Inventory for regional parks using existing ecosystem mapping and supporting information. This process highlighted deficiencies in the current spatial data for regional parks that needed to be corrected before moving forward with the work outlined in the SIF proposal. Updates are planned for regional parks Terrestrial Ecosystem Mapping, Sensitive Ecosystem Inventory mapping, and Conservation Value mapping during 2022. Updates include adding in newly acquired parkland, improving wetland mapping, and adding additional detail to certain ecosystem classes. Once completed, the main body of work proposed through SIF will be advanced.

One aspect of the SIF proposal involved conducting pilot projects to test different approaches to understanding ecological function and measuring ecosystem services. An opportunity arose in 2021 to advance an innovative pilot project to develop a LiDAR based individual tree inventory for Kanaka Creek Regional Park, working with forest management consultants (Forsite Consultants Ltd.) and leveraging the help of BCIT students to provide field data collection. BCIT are now using the highly detailed tree dataset to generate an ecosystem services assessment using i-Tree, a popular tool created by the USDA Forest Service for assessing forests and community trees. Results are expected soon. Results from this work, and additional pilots, will be considered alongside each other for usability, accuracy, ease of generation, and other factors.

Promoting Peatland Recovery in Areas Affected by Wildfire in Burns Bog Ecological Conservancy Area: In Progress

The purpose of this project is to reduce lodgepole pine regeneration in an area of the Burns Bog Ecological Conservancy Area and promote recovery of plant communities to restore and maintain peatland function. The 37 hectare project area was developing extremely dense pine seedling stands after wildfire ripped through the area in 2016. Through shading, rain interception, enhanced evapotranspiration, and root systems piercing the peat mass, tree cover has enormous potential to draw down the water table causing peat compaction, decomposition and the decline of open bog plant species. Furthermore, these forest stands increase wildfire risk not only in interface areas but also across the entire forested portion of the conservancy area. The encroachment and establishment of forest communities within Burns Bog is of significant concern.

During 2021 2.5 ha of seedlings were removed from the project area in October and November. Work continues this year with an additional 3.5 ha removed to date. In total, 9 ha of seedlings have been removed from the burn zone with some being accomplished in a pilot study between 2018 and 2020. It is anticipated that just under half of the project area will have been cleared of seedlings by the end of 2022.

As part of the project, 3 study sites were established to measure soil greenhouse gas exchange; one in the 2016 wildfire zone undergoing seedling removal, one in a 2005 wildfire site that has not had seedling removal and one at an unburned control site. Each site consists of three areas representing specific pre fire ecosystem types. Four greenhouse gas measurement chambers were installed in each of the sampling sub sites at which monthly samples were extracted since October 2021. Pre-treatment sampling will continue to September 2022. A preliminary report on greenhouse gas study results has been received.

This study will continue to assess the effect of seedling removal on greenhouse gas exchange for several years post seedling removal. A vegetation monitoring program established after the 2016 fire will also continue as part of the research program. It is anticipated that the combination of pine seedling removal, bog vegetation recovery and rising water table elevation will contribute to meeting land management and ecological objectives.

To: Regional Culture Committee

From: Samantha Forsyth, External Outreach Coordinator

Date: May 30, 2022 Meeting Date: June 15, 2022

Subject: **MAXguide.org Update**

RECOMMENDATION

That the Regional Cultural Committee receive for information the report dated May 30, 2022, titled "MAXguide.org Update".

EXECUTIVE SUMMARY

Maxguide.org was introduced eleven years ago as a free online tool for the arts and culture community to promote events taking place across the region. The website has seen incremental increases in membership and use over the years however, during the COVID-19 pandemic there was a noticeable decline in website traffic and use. In the last year, as public gathering and events have resumed, website traffic has returned to pre-pandemic volume. An assessment of the continued value of MAXguide.org will be undertaken in the fall of 2022. A report on the assessment will be provided to Committee in 2023.

PURPOSE

To provide the Regional Culture Committee with an update of MAXguide.org activities for 2022.

BACKGROUND

Launched in 2011, MAXguide.org is Metro Vancouver's free web-based arts and culture regional calendar, promoting a range of cultural and artistic events in the Metro Vancouver region.

Working closely with member jurisdictions, MAXguide.org has played, and continues to play, a leadership role on building greater awareness and engagement with cultural and artistic events across the region. Staff from member jurisdictions, arts and culture organizations, publicists and culture businesses and post events on MAXguide.org for free. Website membership is screened and managed by Metro Vancouver staff. Once successfully registered, members manage their own information and event listings, including information about their specific organization(s), affiliation(s), and venue(s).

MAXguide.org Update

MAXguide.org currently has 1,116 active members, 1,173 active organizations and 853 active venue listings. There are typically over 100 events listed by members each month. The numbers in each of these categories continues to increase on an incremental basis. Prior to COVID-19, digital and print ads promoted the website which lead to corresponding increases in website traffic. Through COVID-19 there was a noticeable decrease in website traffic, however, in the last year, as public gatherings and events resumed, analytics show a return to the regular volume of website traffic that was seen pre-pandemic.

Launched eleven years ago, an assessment of the continued value of MAXguide.org will be undertaken in the fall of 2022. Input from member jurisdictions and other users of the website will be included in the assessment. Results of the assessment and potential next steps around MAXguide.org will be shared with the Regional Culture Committee in 2023.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The maintenance of MAXguide.org is funded under General Government with a budget of \$3,000 managed by the External Relations Department.

CONCLUSION

MAXguide.org continues to be used by the arts and culture sector to inform and engage the public on the range of cultural and artistic events available across the region. Launched eleven years ago, an assessment of the continued value of MAXguide.org will be undertaken in the fall of 2022 and shared with the committee in 2023.

Attachment:

MAXguide.org - Google Analytics Report

Reference:

[MAXguide.org](https://www.maxguide.org)

52029508

MAXguide.org – Google Analytics Report

(March 1 2021 – February 28 2022)

ATTACHMENT

<http://www.maxguide.org>

The total number of pageviews during March 1, 2021 – Feb 28, 2022 period is 7,846.

The total number of unique pageviews during March 1, 2021 - Feb 28, 2022 period is 6,690.

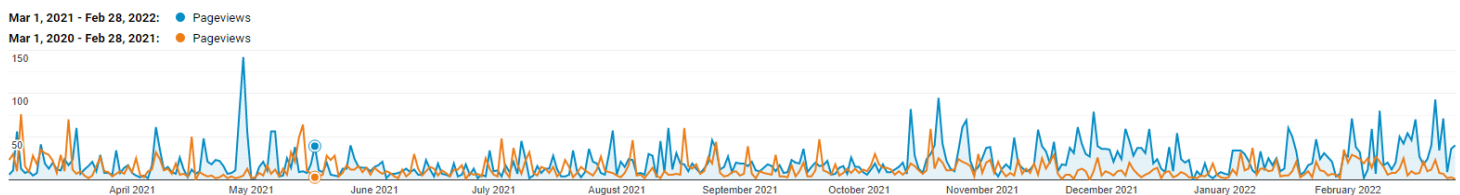
The average time on page during March 1, 2021 - Feb 28, 2022 period is 00:01:19.

Metric	Count	Definition
Pageviews	7,846	Pageviews is a metric defined as the total number of pages viewed.
Unique Pageviews	6,690	Unique Pageviews is the number of sessions during which the specified page was viewed at least once.
Avg. Time on Page	00:01:19	The average amount of time users spent viewing a specified page or screen, or set of pages or screens.

The analytics shows an increase of pageviews compared with the previous period by 68.73%.

The analytics shows an increase of unique pageviews compared with the previous period by 65.76%.

The analytics shows a decrease of average time on page compared with the previous period by 7.74%.

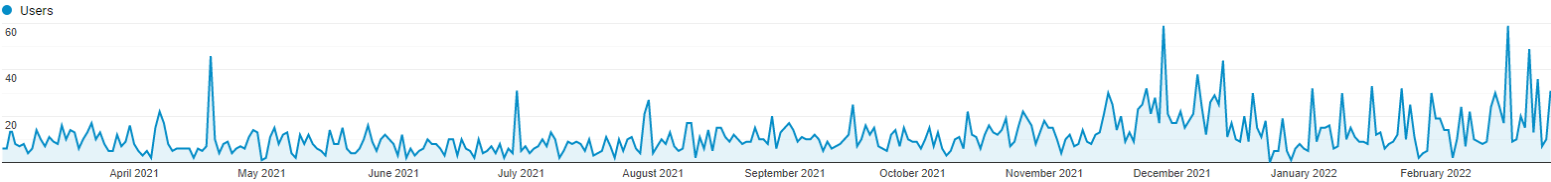


Page ?	Pageviews ?	Unique Pageviews ?	Avg. Time on Page ?	Entrances ?	Bounce Rate ?	% Exit ?	Page Value ?
	68.73% ▲ 7,846 vs 4,650	65.76% ▲ 6,690 vs 4,036	7.74% ▼ 00:01:19 vs 00:01:25	65.85% ▲ 4,443 vs 2,679	0.99% ▼ 76.26% vs 75.51%	1.71% ▼ 56.63% vs 57.61%	0.00% \$0.00 vs \$0.00
1. /Pages/default.aspx ?							
Mar 1, 2021 - Feb 28, 2022	1,249 (15.92%)	1,045 (15.62%)	00:01:36	1,021 (22.98%)	63.76%	57.73%	\$0.00 (0.00%)
Mar 1, 2020 - Feb 28, 2021	913 (19.63%)	793 (19.65%)	00:01:23	769 (28.70%)	66.45%	61.12%	\$0.00 (0.00%)
% Change	36.80%	31.78%	16.05%	32.77%	-4.05%	-5.55%	0.00%
2. /about/Pages/Mailing-List.aspx ?							
Mar 1, 2021 - Feb 28, 2022	362 (4.61%)	263 (3.93%)	00:01:38	236 (5.31%)	63.56%	56.08%	\$0.00 (0.00%)
Mar 1, 2020 - Feb 28, 2021	116 (2.49%)	69 (1.71%)	00:01:08	45 (1.68%)	26.67%	23.28%	\$0.00 (0.00%)
% Change	212.07%	281.16%	37.37%	424.44%	138.35%	140.92%	0.00%
3. /pages/default.aspx ?							
Mar 1, 2021 - Feb 28, 2022	307 (3.91%)	217 (3.24%)	00:01:10	167 (3.76%)	49.10%	42.67%	\$0.00 (0.00%)
Mar 1, 2020 - Feb 28, 2021	220 (4.73%)	161 (3.99%)	00:01:45	104 (3.88%)	40.38%	34.55%	\$0.00 (0.00%)
% Change	39.55%	34.78%	-33.64%	60.58%	21.59%	23.52%	0.00%
4. /SubmitEvent/Pages/default.aspx ?							
Mar 1, 2021 - Feb 28, 2022	293 (3.73%)	252 (3.77%)	00:02:16	168 (3.78%)	63.69%	58.02%	\$0.00 (0.00%)
Mar 1, 2020 - Feb 28, 2021	195 (4.19%)	174 (4.31%)	00:02:24	93 (3.47%)	62.37%	61.54%	\$0.00 (0.00%)
% Change	50.26%	44.83%	-4.97%	80.65%	2.12%	-5.72%	0.00%

Top 4 pages

93.17% of the website traffic is coming from Google/Organic searches and Direct searches.

Metric	Count	Definition
Google / Organic	53.12%	The number of pageviews derived from search engines throughout the web.
Direct	40.05%	The number of pageviews derived from direct traffic and or direct links.



Source / Medium ?	Acquisition			Behavior			Conversions		
	Users ? ↓	New Users ?	Sessions ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?	Goal Conversion Rate ?	Goal Completions ?	Goal Value ?
	3,820 % of Total: 100.00% (3,820)	3,811 % of Total: 100.03% (3,810)	4,444 % of Total: 100.00% (4,444)	76.26% Avg for View: 76.26% (0.00%)	1.77 Avg for View: 1.77 (0.00%)	00:01:00 Avg for View: 00:01:00 (0.00%)	0.00% Avg for View: 0.00% (0.00%)	0 % of Total: 0.00% (0)	\$0.00 % of Total: 0.00% (\$0.00)
1. google / organic	2,053 (53.12%)	2,023 (53.08%)	2,259 (50.83%)	79.24%	1.51	00:00:43	0.00%	0 (0.00%)	\$0.00 (0.00%)
2. (direct) / (none)	1,548 (40.05%)	1,542 (40.46%)	1,804 (40.59%)	77.44%	1.90	00:01:04	0.00%	0 (0.00%)	\$0.00 (0.00%)
3. metrovancouver.org / referral	238 (6.16%)	224 (5.88%)	327 (7.36%)	52.29%	2.27	00:01:54	0.00%	0 (0.00%)	\$0.00 (0.00%)
4. facebook.com / referral	6 (0.16%)	6 (0.16%)	6 (0.14%)	100.00%	1.00	00:00:00	0.00%	0 (0.00%)	\$0.00 (0.00%)
5. m.facebook.com / referral	5 (0.13%)	5 (0.13%)	6 (0.14%)	50.00%	1.83	00:00:54	0.00%	0 (0.00%)	\$0.00 (0.00%)
6. Art-BC / banner	3 (0.08%)	2 (0.05%)	12 (0.27%)	58.33%	3.67	00:02:49	0.00%	0 (0.00%)	\$0.00 (0.00%)
7. l.facebook.com / referral	2 (0.05%)	1 (0.03%)	3 (0.07%)	100.00%	1.00	00:00:00	0.00%	0 (0.00%)	\$0.00 (0.00%)
8. yahoo / organic	2 (0.05%)	2 (0.05%)	3 (0.07%)	100.00%	1.00	00:00:00	0.00%	0 (0.00%)	\$0.00 (0.00%)
9. bing / organic	1 (0.03%)	0 (0.00%)	1 (0.02%)	0.00%	2.00	00:00:13	0.00%	0 (0.00%)	\$0.00 (0.00%)
10. blog.naver.com / referral	1 (0.03%)	1 (0.03%)	1 (0.02%)	0.00%	22.00	00:07:35	0.00%	0 (0.00%)	\$0.00 (0.00%)

The analytics shows an increase of overall users compared with the previous period by 65.80%.

The analytics shows an increase of Google/Organic searches compared with the previous period by 56.00%.

The analytics shows an increase of Direct searches compared with the previous period by 104.49%.

Source / Medium ?	Acquisition			Behavior			Conversions		
	Users ? ↓	New Users ?	Sessions ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?	Goal Conversion Rate ?	Goal Completions ?	Goal Value ?
	65.80% ↑ 3,820 vs 2,304	66.71% ↑ 3,811 vs 2,286	65.88% ↑ 4,444 vs 2,679	0.99% ↑ 76.26% vs 75.51%	1.72% ↑ 1.77 vs 1.74	3.96% ↓ 00:01:00 vs 00:01:03	0.00% 0.00% vs 0.00%	0.00% 0 vs 0	0.00% \$0.00 vs \$0.00
1. google / organic									
Mar 1, 2021 - Feb 28, 2022	2,053 (53.12%)	2,023 (53.08%)	2,259 (50.83%)	79.24%	1.51	00:00:43	0.00%	0 (0.00%)	\$0.00 (0.00%)
Mar 1, 2020 - Feb 28, 2021	1,316 (56.68%)	1,301 (56.91%)	1,421 (53.04%)	82.48%	1.44	00:00:40	0.00%	0 (0.00%)	\$0.00 (0.00%)
% Change	56.00%	55.50%	58.97%	-3.93%	4.72%	6.31%	0.00%	0.00%	0.00%
2. (direct) / (none)									
Mar 1, 2021 - Feb 28, 2022	1,548 (40.05%)	1,542 (40.46%)	1,804 (40.59%)	77.44%	1.90	00:01:04	0.00%	0 (0.00%)	\$0.00 (0.00%)
Mar 1, 2020 - Feb 28, 2021	757 (32.60%)	749 (32.76%)	873 (32.59%)	71.48% 98 of 104	1.92	00:01:02	0.00%	0 (0.00%)	\$0.00 (0.00%)
% Change	104.49%	105.87%	106.64%	8.34%	-1.05%	3.23%	0.00%	0.00%	0.00%

To: Regional Culture Committee

From: Samantha Forsyth, External Outreach Coordinator

Date: May 30, 2022 Meeting Date: June 15, 2022

Subject: **Metro Vancouver 2022 Regional Cultural Grants: Adjudication Process**

RECOMMENDATION

That the Regional Culture Committee receive for information the report dated May 30, 2022, titled "Metro Vancouver 2022 Regional Cultural Grants: Adjudication Process".

EXECUTIVE SUMMARY

Metro Vancouver's annual regional cultural project grants, funded from the Cultural Grants Reserve, support region-serving arts and culture projects. The allocation of the 2022 grants will continue to factor in considerations related to COVID-19 impacts and adapted project delivery resilient to evolving public health measures.

As was done with the 2021 grants, this year's grants consider an increase of \$150,000, as part of Metro Vancouver's restart and recovery support from the Province of BC's "COVID-19 Safe Restart Grant for Local Governments". This means the disbursement for 2022 Regional Culture Project Grants could total \$300,000.

Staff will undertake an initial review of all received applications and present shortlisted applications for adjudication by the Committee at its July 21, 2022 meeting. Adjudication will include a recommendation on the grant award for each successful proponent to a cap of \$10,000 per project. The Committee's recommended allocations will be presented to the July 29, 2022 MVRD Board meeting for final approval.

PURPOSE

To provide the Regional Culture Committee with guidelines for reviewing the 2022 grant applications that will result in the recommended allocation of the annual Regional Culture Project Grants.

BACKGROUND

As part of its Terms of Reference, the Regional Culture Committee has direct responsibility for the review and adjudication of the annual regional culture project grant applications, to recommend the grant allocations to the MVRD Board for approval. This report is brought forward to review the adjudication process.

In 2021, the annual regional cultural grant allocation of \$150,000 was increased by \$150,000 for a total disbursement of \$300,000 to 54 organizations, ranging in value between \$2,500 and \$10,000. The additional monies were from Provincial funding received by Metro Vancouver to support restart and recovery efforts through the "COVID-19 Safe Restart Grant for Local Governments". In consideration of the ongoing recovery from the COVID-19 pandemic, and the proven need for

increased funding, as demonstrated by the volume of applications received as well as the increased total amount of funds requested overall in recent years, the 2022 grant allocation also considers an increase of \$150,000 from monies received as part the “COVID-19 Safe Restart Grant for Local Governments” for a total disbursement of \$300,000 for 2022 the Regional Culture Project Grants.

For the 2022 intake, staff developed a new online application system. Applicants accessed the online form through a link on the Metro Vancouver Cultural Grants webpage. Nearly 60% of applicants used the online system to submit their application forms, supporting the staff rational that an online system would provide improved usability and accessibility for applicants. Staff will assess the functionality of the online system in the fall of 2022 to determine if further improvements are needed.

METRO VANCOUVER REGIONAL CULTURE PROJECT GRANTS: ADJUDICATION PROCESS

2022 Intake and Review of Applications

The 2022 Metro Vancouver regional cultural project grants were announced April 6, 2022 through a media release (Attachment 1). Social media channels, the April 2022 issue of Metro Vancouver’s online newsletter, the Metro Vancouver Update, and a curated mailing list were used to promote the grant program and remind potential applicants of the deadline (Attachment 2). Following the May 4 deadline, staff have been processing and logging all received applications, undertaking a pre-screening to ensure each application meets the grant criteria, and creating a shortlist of applications for review and discussion by the Committee.

Committee members will be given a set of score sheets for use in their final assessment based on the guidelines of the regional cultural project grant program (Attachment 3). The adjudication criteria assess organizations’ and proposed projects’ regional impact, merit, and budget plan, also evaluating proposed timing and additional considerations for reasonably incorporating COVID-19-related adjustments. Staff will provide Regional Culture Committee members spreadsheets of all 2022 applications and of past recipients of Metro Vancouver’s regional culture project grants from 2011 - 2021 in order to provide additional background for 2022’s allocation decision process. Committee members will receive the shortlisted applications, score sheets, and spreadsheets to review in advance of the July 21, 2022 allocation meeting. Non-shortlisted applications will also be available for possible consideration.

JULY 21, 2022 REGIONAL CULTURE COMMITTEE MEETING

At the July 21, 2022 meeting, Regional Culture Committee members (“adjudicators”) will discuss the shortlisted applications and make recommendations on the grant award allocations for successful proponents with a cap of \$10,000 for each project and the total of all grants not to exceed \$300,000. Final reports from previous grants will also be considered if an organization has applied in the past and was successful.

Staff will prepare a report based on the recommendations of the Regional Culture Committee to be presented to the MVRD Board for approval at its July 29, 2022 meeting.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The MVRD Cultural Grants program is funded from the Cultural Grants Reserve. The 2022 allocation from the Cultural Grants Reserve is \$150,000.

To help address the challenges and fiscal impacts of COVID-19, the Province of BC provided the Metro Vancouver Regional District funding to support restart and recovery initiatives. Combining \$150,000 from the Cultural Grants Reserve with \$150,000 from the Provincial “COVID-19 Safe Restart Grant for Local Governments”, a total of \$300,000 in 2022 project grants will support regional arts and culture.

CONCLUSION

The allocation of the 2022 Metro Vancouver regional cultural project grants will be adjudicated by the Regional Culture Committee and will provide continued support to organizations with a long-standing commitment to serving the region while fostering new recipient organizations committed to expanding to a regional audience. Recognizing the pandemic’s devastating impacts on the arts and culture sector, the 2022 grant disbursement includes \$150,000 funded annually through the Cultural Grants Reserve and an increase of \$150,000 through the Provincial “COVID-19 Safe Restart Grant for Local Governments” for a total of \$300,000. Capped at \$10,000 per project, the allocation of grants will factor in considerations related to project delivery resilient to evolving public health orders. Staff will undertake initial review of all applications and present shortlisted applications for adjudication by the Committee. A report outlining the Committee's recommendations will be presented to the July 29, 2022 meeting of the MVRD Board for approval.

Attachments:

1. Media Release “2022 Regional Cultural Grants – Application Open”, issued April 6, 2022
2. Sample mailing list notice – deadline reminder dated April 27, 2022
3. 2022 Metro Vancouver Regional Cultural Project Grant Application Score Sheet

52036096

MEDIA RELEASE

April 6, 2022

SUBMISSIONS NOW BEING ACCEPTED FOR \$150K IN REGIONAL CULTURE GRANTS

Local arts and culture organizations can now apply for Metro Vancouver's 2022 regional cultural grants.

A total of \$150,000 in funding is available to help organizations deliver arts and culture projects that benefit the region. A maximum of \$10,000 will be awarded per project.

"We are proud to support projects that promote culture in our region and in doing so, help to make the arts more accessible, encourage new voices to tell their stories, and to add to the richness and livability of our region," said Sav Dhaliwal, chair of Metro Vancouver's Board of Directors. "We have proudly awarded grants in the past to groups representing a wide range of disciplines, such as visual arts, theatre, film, music, dance, and more. I look forward to another year of excellent submissions."

These annual grants support region-serving arts and culture projects, providing funding for expenses related to project creation, production, dissemination, audience development, research, project staff, and administrative capacity building.

Completed applications must be submitted by 4:00 pm on **Wednesday, May 4, 2022**.

The 2022 application, along with information about project eligibility and selection criteria, is available at metrovancover.org/cultural-grants.

Questions may be emailed to culturalgrants@metrovancover.org, or contact Samantha Forsyth at 604-456-8828.

Media contact:

[Don Bradley](#), Division Manager, Media Relations & Issues Management c. 604-788-2821

Metro Vancouver is a federation of 21 municipalities, one electoral area and one treaty First Nation that collaboratively plans for and delivers regional-scale services. Its core services are drinking water, wastewater treatment and solid waste management. Metro Vancouver also regulates air quality, plans for urban growth, manages a regional parks system and provides affordable housing. The regional district is governed by a Board of Directors of elected officials from each local authority.



One Week Left to Apply! Deadline May 4, 2022

Metro Vancouver is accepting submissions until Wednesday, May 4, 2022 for its regional cultural grants.

In 2022 there will be \$150,000 in funding available to help arts and culture organizations deliver their projects that benefit the region, with a maximum of \$10,000 per project grant. The grants program provides funding for expenses related to project creation, production, dissemination, audience development, research, project staff, and administrative capacity building.

Completed applications must be submitted by 4:00 pm on Wednesday, May 4, 2022.

The 2022 application form, along with information about project grant eligibility and selection criteria, is available at www.metrovanancouver.org/cultural-grants.

Questions may be directed by email to CulturalGrants@metrovanancouver.org or contact Samantha Forsyth at 604-456-8828.



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2022 Regional Cultural Project Grant Application Score Sheet

Organization: _____ Project Title: _____

<p>Regional Impact (30%)</p> <ul style="list-style-type: none"> • Uniqueness of the project in its offering to the regional arts and culture landscape. • Potential number of regional participants impacted/reached with this project. • Is the project region-serving and going to be presented beyond a single municipality? <p>Comments:</p>	<p>/ 30</p>
<p>Merit (40%)</p> <ul style="list-style-type: none"> • Merit of the project, based on past excellence and proven ability of the applicant. • Clearly communicated project goals and relevance to arts and culture in the region. • Measurable success. • Demonstrated community support/involvement. • Project delivery anticipates COVID-19-related considerations to adhere to ongoing public health measures, with resilience to reasonably adjust as necessary. <p>Comments:</p>	<p>/ 40</p>
<p>Budget Plan (30%)</p> <ul style="list-style-type: none"> • Clear and concise budget plan for reasonable use of grant funding. • Other sources of realistic funding support identified and/or in place. • Budget plan reasonably incorporates COVID-19 impacts to revenues and funding. • Requested funds are specific to the proposed project, and are not intended for ongoing operational/general funding. <p>Comments:</p>	<p>/ 30</p>
<p>General Comments</p>	<p>TOTAL SCORE</p> <p>/ 100</p>

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