

## 8.0 PUBLIC TRANSIT

Public transit presents significant benefit to a community. Transit offers increased mobility for those unable to drive and helps to reduce the number of single occupied vehicles on the road. Transit is an economical alternative to automobile travel and offers a reduction in emissions and energy consumption over private automobile use. It can also be used to support existing land use patterns and proposed future development. While the benefits of transit to the City are undeniable, the challenge is to have sufficient land use densities for BC Transit to expand service using their fleet of vehicles. Significant densification of Parksville may be required to increase the BC Transit system; however there are alternatives which the City can implement to supplement public transportation until such a time as BC Transit can provide service. By providing a separate service the City will have the ability to tailor the service to their community's needs rather than the region's; however, the use of BC Transit's infrastructure for increased service could reduce the City's potential operating costs for a transit/shuttle system. See **Figure 9** for the Transit/Shuttle Network Plan.

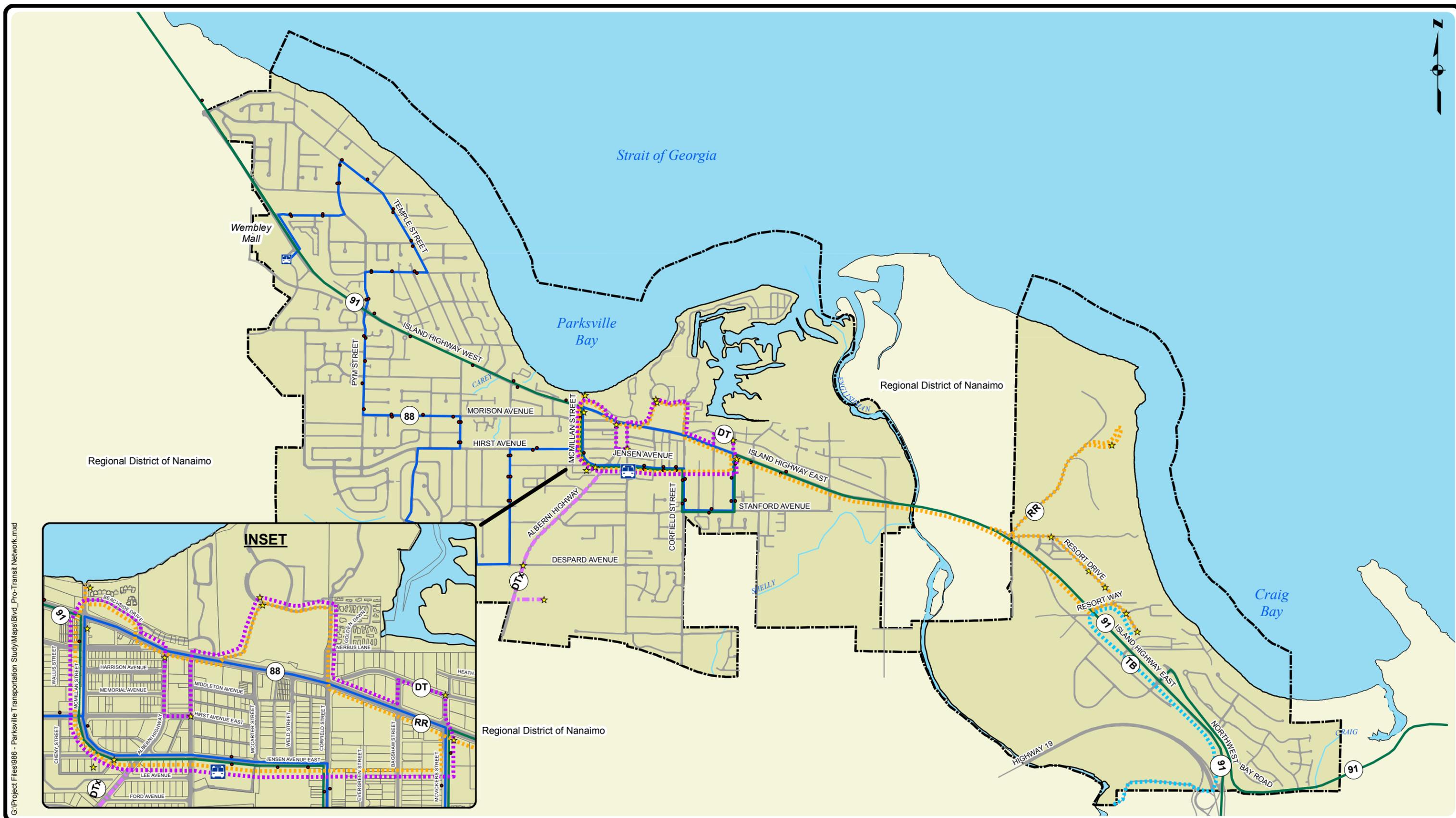
### 8.1 Existing BC Transit Service

The City of Parksville has two (2) BC Transit routes within the City. The first route (#91) provides inter-city service between Ravensong in Qualicum and Woodgrove Mall in Nanaimo. Service on the #91 route is 15 trips per weekday per direction, 11 trips on Saturday, and 4 trips on Sunday per direction. The #91, within Parksville travels along Northwest Bay Road (unless trip is express service), Highway 19A, downtown (McVickers Street, Stanford Avenue, Corfield Street, Jensen Avenue, McMillan Street), back to Highway 19A to Wembley Mall.

The second route (#88) is the intra-city route in Parksville and is a loop between Wembley Mall and downtown. This route covers most major areas of the City, except for the resort area; however, there are areas and subdivisions that are more than 400m (or an average 5 minute walk) from the route. Areas not covered by transit include the Dogwood Street/Ruston Avenue area, Lodgepole Drive and Chestnut Street area, Renz Road area, and south of Despard Avenue. The #88 route runs 13 times per day between 8:00am and 7:00pm Monday to Saturday (no service on Sunday). Service on this route is typically every hour.

Overall transit provides 26 hours of service on the #88 and 30 hours of service on the #91 per weekday. Overall in a week there is 336 hours of transit service provided in Parksville. The two transit routes provide 27km of coverage within the City.

The #88 bus route has an average ridership is 11 passengers per bus with the highest ridership occurring in the afternoon with 29 passengers (based on a typical day in 2010). The #91 bus has an



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File	Date	Drawn
#986	DECEMBER, 2016	MP

**Legend**

- BC Transit Stop Location
- ★ Shuttle Stop Location (Proposed)
- 88 - Parksville
- 91 - Intercity
- 91 - Intercity (Express Commuter Service)
- RR - 30 Min Resort Shuttle Route (Proposed)
- DT - 15 Min Downtown Shuttle Route (Proposed)
- DTx - 15 Min Downtown Route - Limited Service to Rail Station (Proposed)
- TB - Top-Bridge Park Feeder Route
- 🚌 Transit Exchange (Proposed)

**Scale**

0 0.225 0.45 0.9 km



**Title**

**FIGURE 9: TRANSIT NETWORK**

CITY OF PARKSVILLE TRANSPORTATION MASTER PLAN

average of 8 passengers exit within Parksville (northbound) and 8 passengers board within Parksville (southbound). The highest use for the #91 bus was 17 passengers within Parksville (in 2010).

## 8.2 Transit Stops and Exchanges

The location and amenities at a transit stop are important components that will encourage the use of transit. If a stop feels unsafe, is uncomfortable to wait at, hard to locate or is difficult to navigate, people will be less motivated to use the bus. The majority of transit stops within Parksville consist of a single bus stop sign with no waiting area, accessible pad, bench or shelter. All transit stops within Parksville should be upgraded to meet BC Transit's *Infrastructure Design Guidelines* and include a sign and accessible bus pad at a minimum. Stops located in urban areas (ie. downtown) and high transit traffic locations should be further upgraded to include bus shelters, seating, and garbage receptacles. Up to three additional stops could be provided along Resort Road (when transit route includes this road).

Transit stop shelters, street furniture, lighting, and even signage should be designed with a common theme that is a continuation of the City's existing theme or is an area specific theme ie. different neighbourhoods or districts could have different colours, symbols, etc.

Transit exchanges are where two or more buses (typically 6+) can park and passengers can easily change from one bus route to another. Within Parksville there are several locations where two buses stop at the same location; however these are not transit exchanges. Wembley Mall could be considered an existing transit exchange in Parksville as three buses stop at this location and allow passengers to transfer to another bus. The exchange at Wembley Mall is informal and more like a bus stop than an exchange as only one bus can be stopped at one time. The informal exchange can remain at Wembley Mall; however a more centralized exchange should be developed in downtown Parksville. An ideal location for an exchange is on Jensen Avenue at PCTC. Jensen Avenue is an ideal location as it is central, adjacent to City Hall, library, and community meeting space. In addition, Jensen Avenue is an existing stop location where the #88 and #90 buses stop and there are wide sidewalks. In order to make this location a transit exchange space for two, community buses should be provided at the stop plus the addition of shelters, seating, transit schedules, and bicycle lockers.

## 8.3 Expansion of Transit Service

While the transit service covers most areas of town it does not provide frequent service between key areas within the City ie. service between downtown and the resort area. An option is to negotiate with BC Transit to expand the intra-city route (#88) to include the resort area (ie. areas east of McVickers Street). In addition to expanding the route, the City should work towards increasing the frequency of

service to 15 minutes. More frequent service would encourage a person who has missed a bus to wait for the next bus rather than deciding to drive. Frequency of service removes one barrier to transit use, which is that “service times aren’t convenient for my trip purpose.” In 2016, RDN added 5,000 hours of local bus service in Parksville.

## **8.4 Shuttle System**

If expansion of the BC Transit system is not possible an alternative option to supplement existing transit service is for the City to develop a shuttle system. The City could work with the PDDBA to explore opportunities to expand their shuttle bus service.

### **8.4.1 Background**

Several other communities on Vancouver Island (Langford and Ladysmith) have implemented a public shuttle/trolley system to provide supplemental transit service to their residents/visitors. The Parksville Downtown Business Association (PDDBA) provided a free shuttle bus system during the summer months (July and August) for several years. The system ran hourly Monday to Saturday on a loop between the Parksville Visitors’ Centre, Resort area, Rath Trevor Park, downtown, and west to Moilliet Street. The unique designs of the shuttles/trolleys can attract riders who would not normally take a public transit vehicle. The trolleys add personality and charm, and can become an icon that enriches the theme and culture of a community.

In both Langford and Ladysmith, the business community came together along with individuals to provide the initial start up funding for the purchase of a trolley bus and initial operating costs. The start up funding of approximately \$75,000 would be required. Advertising space on the shuttles can be sold to pay for on-going operating costs and/or fares charged. An additional source of revenue would be using a portion of the ‘additional 2% hotel tax’ revenue that the City receives to finance tourism marketing, programs, and projects. The Town of Ladysmith has added fares to their trolley service (\$1 for under 18 and over 65 and \$2 for adults). The use of a shuttle would promote tourism within the community by providing a connection from the tourist/resort area, Rath Trevor Beach, the Community Park, and downtown businesses. These shuttle/trolley services operate by-donation (or free) with the money from donations put towards operating expenses.



Example of Langford's Trolley Bus (above)



Example of PDBA Free Shuttle (right)

#### 8.4.2 Shuttle Routing and Service

Two shuttle routes have been proposed for Parksville. Routes and stop locations can be adjusted after an initial operating period (ie. 3-6 months). Although Parksville welcomes tourists throughout the year, it would be beneficial to initiate the shuttle service in the late spring/early summer when there is a significantly higher influx of tourists to the community. As momentum grows for the use of the shuttle service it can be expanded into the fall/winter seasons.

Route One for the shuttle is proposed to be from Resort Drive to Rath Trevor Beach parking lot, Highway 19A into the Community Park, Beachside Drive to McMillan Street and Jensen Avenue/McVickers Street before looping back to Resort Drive. This route is proposed to be on a fixed 30 minute loop. Initial operating hours are suggested to be 10am to 5pm, seven days a week. These hours could be increased based on operating budget and if special events are occurring outside of these hours. Transit stops would be provided at the resort accesses on Resort Drive, within the Community Park, and throughout downtown.

The second route for the shuttle would be a Downtown route which travels from the Community Park to Beachside Drive, McMillan Street to Jensen Avenue, and loop along McVickers and behind the Quality Foods before heading back to the Community Park. This route would be a 15 minute loop. Twice per day this route could be varied to provide a connection between the VIA Rail Train Station on Alberni Highway and downtown (once train service resumes). Service to the VIA Rail Train Station should be provided throughout the year (once train service resumes).

The additional benefit of a shuttle system is the ability to utilize the shuttle(s) for special events. During major events within the City where parking and movement of people is an issue a special event shuttle route can be implemented. The route could be tailored to the events needs (ie. alternative transit stops) and provide service between special event parking lots. Special event parking could be at churches and/or schools outside of downtown and the shuttle used to shuttle people from these parking lots to the event and/or downtown. Another benefit would be the City's ability to rent out a shuttle to groups to generate additional revenue.

### 8.4.3 Shuttle Stops

Shuttle stops are proposed for key destinations within Parksville including five stops along Resort Drive, Rath Trevor Beach parking lot, Railway Station, and the Community Park. Stops within the downtown area are proposed for Highway 19A/Corfield Street, McMillan Street at the Beach Club, McMillan Street at Highway 19A, Alberni Highway/Jensen Avenue, Craig Street/Jensen Avenue, Corfield Street/Jensen Avenue, and McVickers Street/Highway 19A. For the Downtown Shuttle route additional stops would be at Alberni Highway/Highway 19A, Craig Street/Hirst Avenue, and McVickers Street/Pioneer Crescent.

Where possible shuttle stops should be combined with existing BC Transit stops to minimize impacts to on-street parking and to create recognizable single stop location for access to transit services. The use of signage and distinctive street lighting can be used to indicate shuttle stops.



**Example of a shared transit and trolley stop**



**Example of distinctive signage / lighting for trolley at a shared stop**

## 9.0 NEIGHBOURHOOD ZERO EMISSION VEHICLES (NZEVS)

Neighbourhood Zero Emission Vehicles (NZEVs) present an opportunity to expand the breadth of transportation options available to Parksville residents, while creating a sustainable alternative to automobile travel. NZEVs are slow moving vehicles powered by an electric motor that produces no emissions and are designed to travel on four wheels at a maximum speed of between 32km/h and 40km/h. NZEVs are equipped with some of the safety features of an automobile, such as seatbelts, glazed windshields, lights, and brakes, which make them appropriate for safe travel on public roadways.

### Examples of Neighbourhood Electric Vehicles



## 9.1 Regulatory Environment

In 2000, the Canadian government amended the Motor Vehicle Safety Act to include low speed vehicles (LSVs) as a distinct vehicle class. A LSV is defined as a vehicle that is powered by an electric motor, produces no emissions, and is designed to travel on four (4) wheels at a speed of between 32 km/h and 40 km/h. The definition also states that LSVs include features such as headlights/tailights, turn signals, windshields, a parking brake and seatbelts in compliance with Motor Vehicle Safety Regulations.

Federal Legislation leaves the responsibility of setting out the requirements, licensing and use of LSVs on public roads to the provinces and territories. British Columbia has developed licensing and operating conditions for LSV or NZEVs use on public roadways. The BC Motor Vehicle Act defines NZEVs as a vehicle that:

- Travels on 4 wheels
- Is powered by an electric motor
- Attains a speed of 32 to 40 km/h
- Meets or exceeds standards of the Motor Vehicle Safety Act for a Low Speed Vehicle

Provincial regulations allow NZEVs to travel on any road with a maximum speed limit of 40 km/h. Individual municipalities are allowed to alter bylaws to allow NZEVs on municipal roads with a

maximum speed limit of 50 km/h. All vehicles capable of reaching and maintaining a speed of 32 km/h must be registered licensed and insured through the Insurance Corporation of British Columbia (ICBC). All drivers of NZEVs must have a valid driver's license.

## 9.2 Permitted Roads

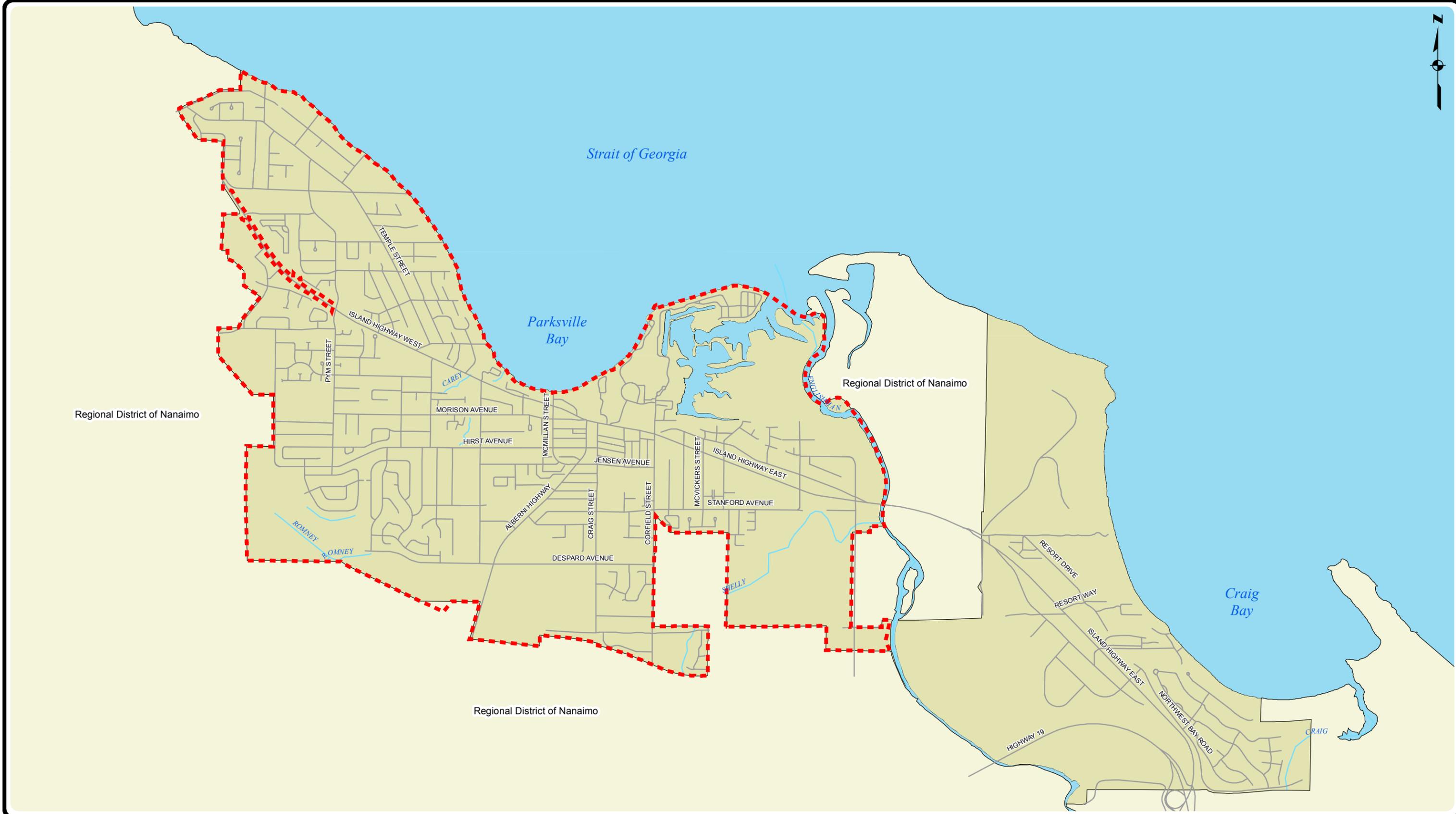
The majority of roads within the City of Parksville are posted at 50km/h or below which, with a bylaw to allow NZEVs on 50km/h roads, would allow the use of these vehicles on the majority of roads within the City. However, there are several sections of Highway 19A with a posted speed limit of 60km/h or greater – west of Pym Street and east of the Englishman River. NZEVs would be allowed on these roads if the City reduced the posted speed limit to below 50km/h. Posting a lower speed limit on a road with design characteristics that are for a higher speed will not change driver behaviours and can create an unsafe situation where there is a significant speed differential between vehicles. Therefore, prior to lowering the speed an assessment of the road's characteristics should be undertaken to determine if additional changes to the road should be undertaken in addition to lowering the speed limit.

The section of Highway 19A from Rath Road / Grieg Road to the Englishman River (west side) is part of the Regional District of Nanaimo and therefore under the jurisdiction of the Ministry of Transportation and Infrastructure. This section of road is also posted at 60km/h. This combination of speed and road authority will not allow for NZEVs to utilize this portion of road. See **Figure 10** for Permitted NZEV roads.

## 9.3 Implementation

NZEVs have the potential to provide a cost effective alternative to motor vehicles and reduce the amount of emissions generated. Parksville is an ideal community for the use of NZEVs where the majority of roads are less than 50km/h and most local trips are within 5km to 10km; however without the section of Highway 19A at 50km/h a portion of the City would be excluded.

If the City decided to pursue NZEVs a bylaw would need to be developed that allows for the use of NZEVs on all roads with a 50km/h or less posted speed limit. If the City chooses to implement the bylaw, they would need to undertake a promotional/education process on NZEVs. The education of the community should alert them to the economic and environmental benefits of NZEV use, and could be focused on those user groups most likely to choose these vehicles initially.



Regional District of Nanaimo

Regional District of Nanaimo

Regional District of Nanaimo

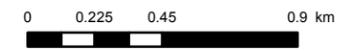
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Legend

 NZEV Permitted Area

Scale



Title

**FIGURE 10: NZEV MAP**  
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## 10.0 TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) refers to a wide range of policies, programs, and services designed to improve the efficiency of roadways by reducing automobile congestion and use. TDM strives to achieve this by reducing the demand for vehicle use, especially single occupant vehicles, by influencing travel behaviour and providing more travel options to local residents, such as improved transit, walking, cycling, and introduction of carshare and rideshare programs. The benefits of TDM include:

- Helps to manage the City's transportation systems by providing a balance between travel modes, and ensuring the most cost-effective and strategic infrastructure improvements
- Effectively supports and addresses many of the long range goals of the City, province, and country such as greenhouse gas reductions
- Supports policies and programs that result in a sustainable transportation system including land use planning, parking policies, sustainable site design, and focused programs that seek to maximize the liveability of a community through encouraging behaviour change

These TDM benefits should be considered in combination with the parking strategies in the *Core Area Parking Study*. Implementation of parking related TDM measures along with increased opportunities to use alternative modes will reduce parking demand as well as reduce the amount of traffic on the road network in the long term.

Several TDM strategies for the City of Parksville have already been outlined in the Transportation Master plan including:

- Increased pedestrian facilities (wider sidewalks, connectivity to the waterfront, accessible letdowns, increase sidewalks, crosswalks)
- Implementation of bicycle lanes and bicycle routes
- Bicycle parking requirements for developments
- Connections between bicycle and pedestrian networks with multi-use trails
- Implementation of a shuttle service or expanded transit service
- Development of safe route to school plans
- Implementation of a NZEV bylaw

There are additional TDM measures which the City should work towards implementing either as the City or in partnership with other companies (existing within the City) and/or new developments.

### 10.1 Bike to Work Week

Bike to Work Week is a week-long initiative in early June started in Victoria in 1995 to encourage people to try cycling. In 2009, over 15 communities and over 22,000 cyclists participated in Bike to Work week across the province with over 6,000 of them being new to cycling. This program is an effective way to promote cycling within Parksville and encourage people to try cycling. More information on Bike to Work week and developing program events for the week can be found at [www.biketowork.ca](http://www.biketowork.ca).



source: [www.biketowork.ca](http://www.biketowork.ca)

### 10.2 Carshare

Carsharing is an arrangement that allows individuals to gain the benefits of private automobile use without bearing the full cost and responsibility of ownership. Under carsharing a household or business has access to a fleet of shared automobiles on an as-need basis. Liability and collision coverage, regular vehicle maintenance, and gas is administered by the car sharing organization. There are a variety of membership times from one-time use to monthly plans and memberships. In BC there are a number of carshare:

- Modo (Greater Vancouver & Greater Victoria)
- ZipCar (Greater Vancouver, Whistler, & Greater Victoria)
- Car2Go (Greater Vancouver)
- Evo (Greater Vancouver)
- Nelson Carshare Cooperative (Kootenays)



**Example of Modo Vehicles**

*(photo courtesy: [www.modo.coop](http://www.modo.coop))*

## CITY OF PARKSVILLE TRANSPORTATION MASTER PLAN

There are several options for implementation of carshare including working with developers to provide vehicles and parking stalls within new developments (slight reduction in parking requirements would be an incentive for developers to participate), encouraging existing businesses to donate a vehicle, and working with the carshare to implement a vehicle in Parksville. The carshare program would be run by an outside organization.

Once a carshare program is available, the City could purchase memberships for staff. The cost through the Co-operative Auto Network (through their corporate subsidiary The Company Car) would be a maximum of \$4,500 if all 75 of the City's staff were given memberships. A portion of this would be refundable if the City chose to leave the program after registration. The cost after membership is on a per use hourly basis.

### 10.3 Transit Passes

The Nanaimo Transit system offers the ProPass program for employees of an organization. The ProPass offers an \$9.56 monthly savings on monthly transit passes and the cost of the pass is deducted from the employees pay cheque. Employers should be encouraged to further subsidize these passes to make the cost of transit more equivalent with the cost of driving a vehicle to work. An added benefit to the employee enrolled in the ProPass is that they can claim a 15.25% tax credit on their income tax.



For Vancouver Island University students discounted monthly and semester passes are available at the University Student Union Building. A monthly College/University student pass is \$55.00 or an 18.5% discount on an adult pass. If a semester pass (4 month pass) is purchased there is a savings of 35% or \$94.00 over regular transit passes. Students in the Parksville area should be encouraged to utilize these transit pass programs. Transit route timings, within Parksville, may need to be adjusted for internal commuting to/from work.

## 10.4 Ridesharing

Ridesharing involves any arrangement where a number of travellers share a single vehicle. Ridesharing often occurs among commuters, although not exclusively. Ridesharing can either be a carpool (informal) or vanpool (formal). There are opportunities for the City, developments (ie. Beach Club), and companies within Parksville to register on the Jack Bell Ride-Share website ([www.online.ride-share.com](http://www.online.ride-share.com)). This website allows registered users of specific companies (with an appropriate email) to register and match with other company employees (or with all users of the site). Once individuals are registered they can enter a search for a ride and review matches. Individuals may also register for ridesharing. Ride sharing may be beneficial for retirees who may have a more flexible schedule. Education of the ridesharing website and TDM measures are required in order to make the community aware of them.



## 10.5 Policies and Regulations

The City of Parksville OCP was last updated in 2013; however, the transportation section should be reviewed and updated to include TDM measures. Appropriate bylaw regulations and incentives for the promotion of alternative modes should be incorporated into the zoning bylaw. These could include bicycle parking, parking reductions for carshare, and access/distance to transit.

## 10.6 Special Events

The use of alternative modes becomes particularly important during special events when parking and/or vehicle access is limited by the event. The City should work with special event planners to encourage the use of alternative modes as part of their events. These could include adding to ticket prices up front and providing a transit pass with their ticket, providing information on websites and advertising regarding access by alternative mode, prizes or special access for users of alternative modes to access the event, and implementation of special event parking and shuttles to move people from parking to event.

## 10.7 Promotion

One of the best methods to encourage the use of alternative modes is information. The City should work with the Oceanside Tourism Association and Parksville & District Chamber of Commerce to develop maps and brochures on alternative transportation within the City. This information could then be available at City Hall, on the City's website, at businesses, and tourist accommodations. These brochures could provide maps of pedestrian, bicycle and trails to key destinations or scenic locations, information on how to access transit, where to purchase a bicycle, etc. In addition, special TDM

# CITY OF PARKSVILLE TRANSPORTATION MASTER PLAN

events such as bike to work week and commuter challenges throughout the year will promote alternative modes and encourage residents (and visitors) to try a mode that is new to them.

**Nanaimo Bike Routes**

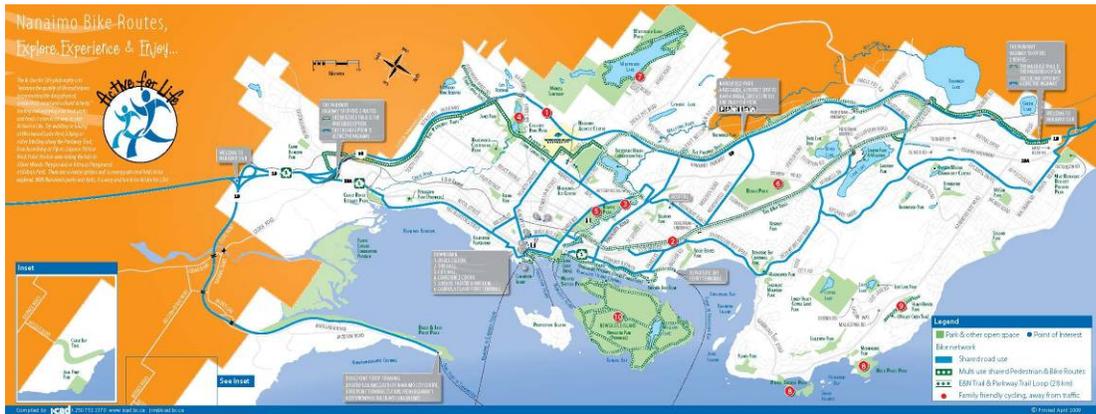
- 1 Parkway Trail (20 km)**  
The Parkway Trail offers a variety of scenic and scenic views of the city and surrounding areas. The trail is paved and suitable for all types of bicycles. The 20 kilometers of paved trail is a great way to enjoy the city and surrounding areas. The trail is paved and suitable for all types of bicycles. The 20 kilometers of paved trail is a great way to enjoy the city and surrounding areas.
- 2 ESN Trail (8 km)**  
The ESN Trail is a paved trail that runs through the city. It is a great way to enjoy the city and surrounding areas. The trail is paved and suitable for all types of bicycles. The 8 kilometers of paved trail is a great way to enjoy the city and surrounding areas.
- 3 ESN Trail & Parkway Loop (28 km)**  
The ESN Trail & Parkway Loop is a paved trail that runs through the city. It is a great way to enjoy the city and surrounding areas. The trail is paved and suitable for all types of bicycles. The 28 kilometers of paved trail is a great way to enjoy the city and surrounding areas.
- 4 Colliery Park Path**  
The Colliery Park Path is a paved trail that runs through the city. It is a great way to enjoy the city and surrounding areas. The trail is paved and suitable for all types of bicycles. The path is a great way to enjoy the city and surrounding areas.
- 5 Bowen Park**  
Bowen Park is a great place to take your bike. The park is paved and suitable for all types of bicycles. The park is a great way to enjoy the city and surrounding areas.
- 6 Altona Park & Boban Park**  
Altona Park & Boban Park is a great place to take your bike. The park is paved and suitable for all types of bicycles. The park is a great way to enjoy the city and surrounding areas.
- 7 Westwood Park**  
Westwood Park is a great place to take your bike. The park is paved and suitable for all types of bicycles. The park is a great way to enjoy the city and surrounding areas.
- 8 Pipers Park & Neck Point**  
Pipers Park & Neck Point is a great place to take your bike. The park is paved and suitable for all types of bicycles. The park is a great way to enjoy the city and surrounding areas.
- 9 Wilby Creek**  
Wilby Creek is a great place to take your bike. The park is paved and suitable for all types of bicycles. The park is a great way to enjoy the city and surrounding areas.
- 10 New Castle Island**  
New Castle Island is a great place to take your bike. The park is paved and suitable for all types of bicycles. The park is a great way to enjoy the city and surrounding areas.

**Safety**  
Be sure to wear your helmet correctly! Double check always that the front of a crash helmet will properly reduce your chances of a serious head injury.

**Commuter Routes...**

**Central Nanaimo to north-nanaimo**  
Cycling routes that connect the city center to the north-nanaimo area. These routes are paved and suitable for all types of bicycles. The routes are a great way to enjoy the city and surrounding areas.

**City of Nanaimo**  
Department of Parks, Recreation and Culture  
2500 Bowen Road  
250 756 5200



Example of City of Nanaimo Cycling Route Map (for Bike to Work Week 2009)

## 10.8 TDM Coordinator

The above TDM programs and measures will require a level of coordination by a part-time staff member of the City (may be an existing employee with an expanded role or a new position). This staff member would be responsible for developing TDM programs like Bike to Work week, developing / coordinating marketing materials, and coordinating a shuttle service. It is expected that this role would start out as a part-time position and expand to a full-time role over the next 5 to 10 years.



## 11.0 IMPLEMENTATION PLAN

The implementation of the transportation master plan requires capital planning and funding. The following sections outline the proposed capital plans to implement the transportation master plan in five (5) year horizons and funding opportunities to pay for the improvements.

As developments occur, sidewalks, bicycle facilities, and road upgrades along their frontages should be required to be completed by the development. The timing of improvements may be adjusted as development occurs in an area.

The following items are recommended to occur on an on-going basis. These items will require Council buy-in.

Item	Yearly Cost
Bicycle Racks (10 per year)	\$8,500
TDM Coordinator (part time staff member)	\$30,000
TDM Marketing	\$50,000
Accessibility Improvements (curb letdowns, etc.)	\$50,000

In addition there are 80 transit stops within Parksville with the majority lacking shelters, waiting pads. The cost to improve one bus stop is \$12,500. The City should include plans to improve several bus stops per year starting within the core area. Up to three new stops could be added if BC Transit utilized Resort Road. The cost to implement these stops would be \$37,500 (assuming bus pad, shelter, sign, etc.) Fifteen shuttle stop signs would be required is a shuttle service was started by the City. The cost would be \$2,250 for these signs.

Wayfinding signage for pedestrians and bicycles should be undertaken immediately. Based on implementing 100 signs the cost would be \$15,000. The signage should direct pedestrians and cyclists to key destinations and routes.

### 11.1 Capital Plans

For detailed cost estimates see *Appendix D*. Sidewalk costs are based on installation of curb and gutter and either a 2m or 3m sidewalk (3m sidewalks are on downtown streets.) Bicycle route costs include the addition of sharrows and bicycle route signs. Bicycle route costs do not include any road widening. Bicycle lane costs assume addition of 1.5m of asphalt on both sides of the road. The costs exclude any property costs required to obtain property to complete the improvements. The Capital Plan priorities are based on when LOS improvements are triggered, safety improvements, and the City's current plans. The following tables outline the Capital Plans.

## CITY OF PARKSVILLE TRANSPORTATION MASTER PLAN

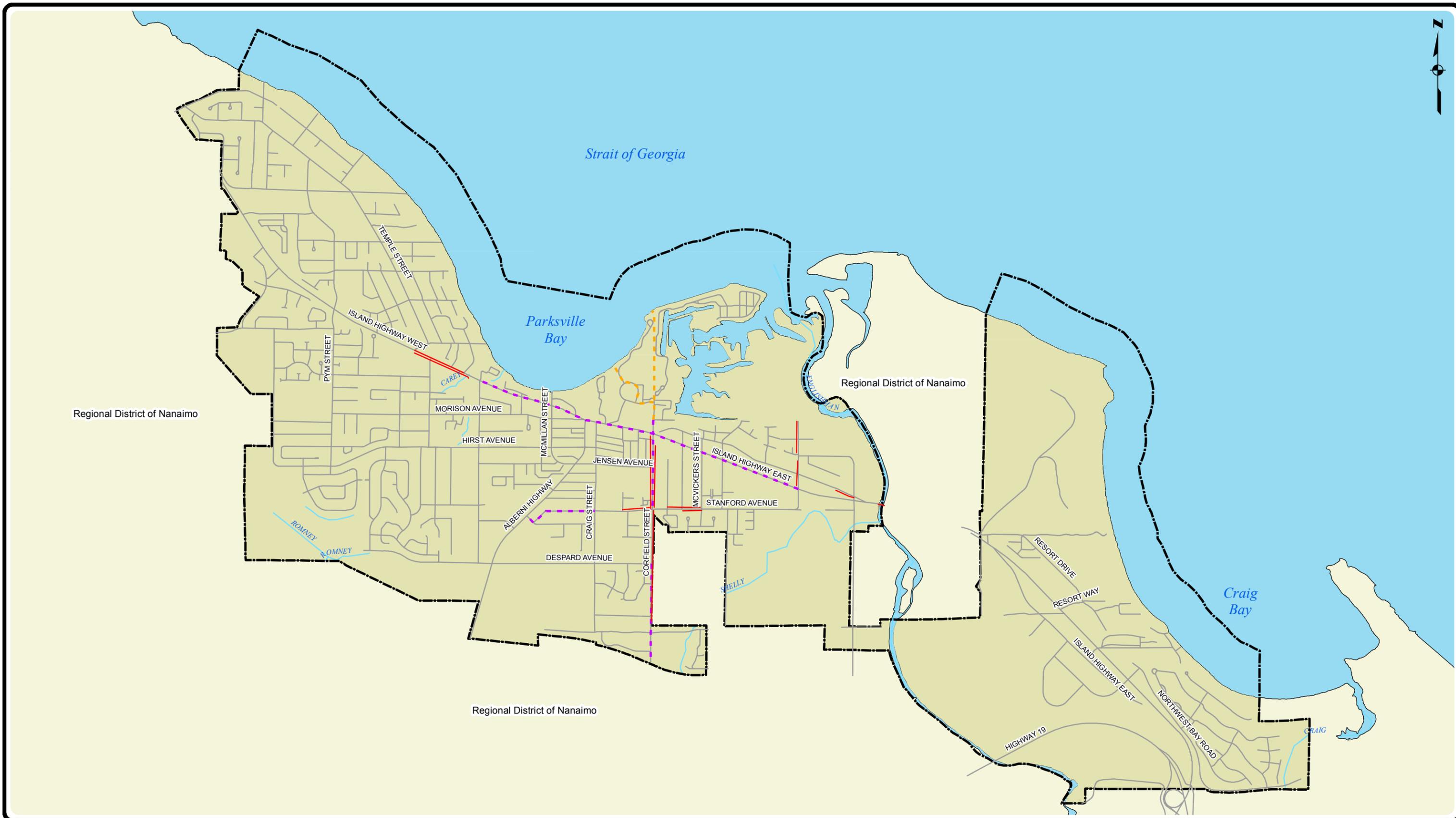
### 11.1.1 2016 to 2020 (See Figure 11)

Improvement	Cost
Corfield Street Upgrade (Sidewalks, Bike Lanes) + Multi Use Path	\$3,508,750
Highway 19A – Shelley to Englishman River Bridge (Sidewalks, Bike Lanes)*	\$2,205,750
Dogwood Street right in/right out	\$25,000
Signalize Highway 19A/Shelley Road	\$200,000
Shelley Road Sidewalks	\$220,100
Hirst Avenue Sidewalks	\$376,300
Community Park Bike Routes	\$44,975
Stanford Avenue Upgrade (Sidewalks and Bike Lanes)	\$674,900
Protected/permitted southbound left turn phase at Highway 19A/Pym Street	\$10,000
<b>Total for 2016-2020 (rounded)</b>	<b>\$7,266,000</b>

\*Cost may be lower as there may be sufficient asphalt to re-stripe the road to create the bicycle lanes rather than adding asphalt.

### 11.1.2 2021 to 2025 (See Figure 12)

Improvement	Cost
Beachside Drive Multi-Use Path	\$220,000
Forsyth Avenue Sidewalks	\$465,050
N. Pym Street Bike Lanes	\$605,000
Highway 19A Bike Routes (east of Englishman River and west of Moilliet)	\$106,750
Morison Avenue Sidewalks	\$344,350
Morison Avenue Bike Lane	\$563,750
Morison Avenue Bike Routes	\$17,850
Northwest Bay Road / Resort Drive Bike Routes	\$130,200
Pioneer Crescent Bike Route (and area)	\$98,525
Four way stop at Hirst Avenue/Alberni Highway	\$1,500
Weld Street Sidewalks	\$117,150
Finholm Street Upgrade (Sidewalks and Bike Route)	\$284,400
<b>Total for 2021-2026 (rounded)</b>	<b>\$3,395,000</b>



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**Legend**

- Proposed Pedestrian Improvements
- Proposed Multi-Use Trail
- Proposed Bicycle Lanes
- Proposed Bicycle Routes

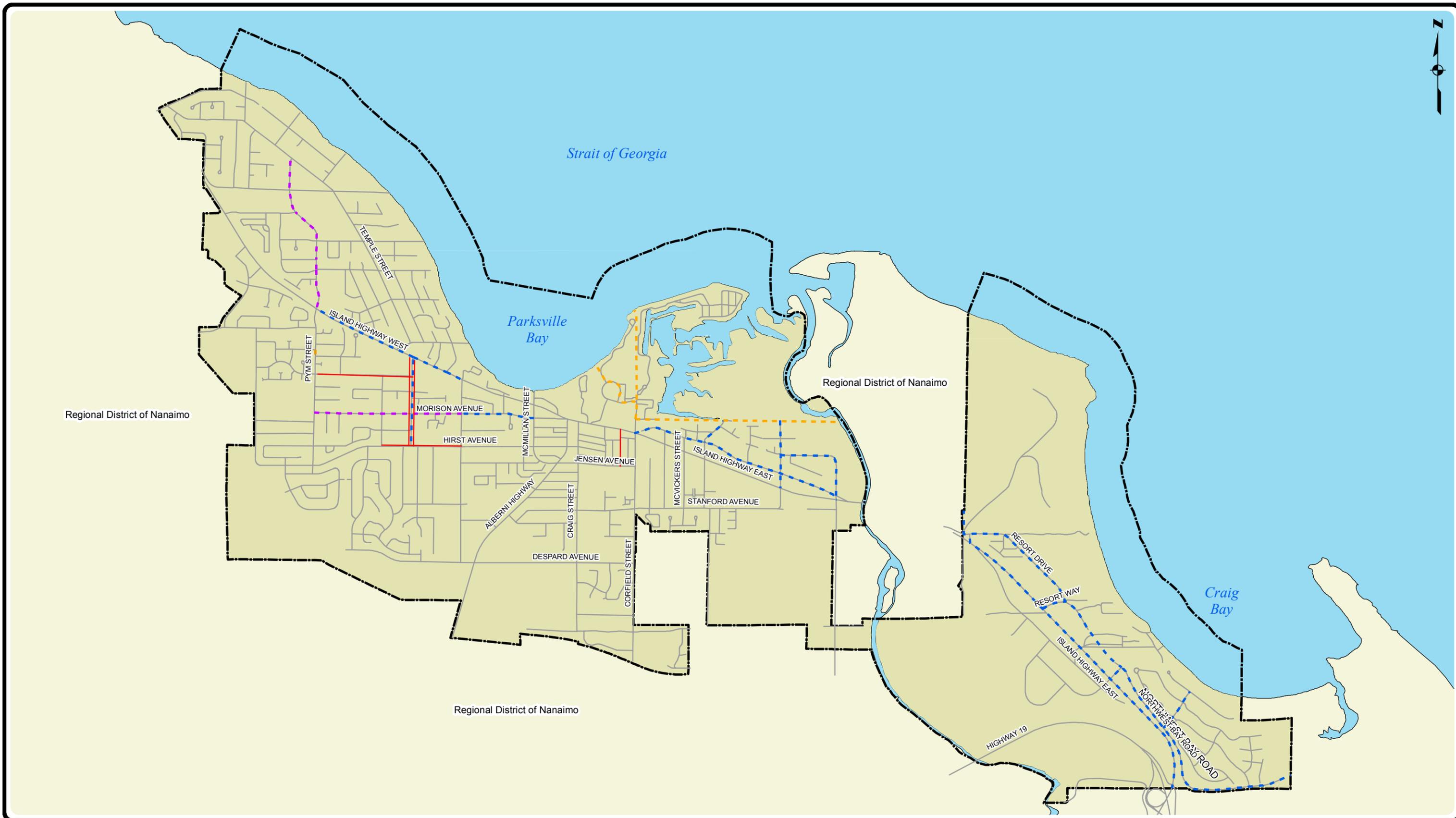
**Scale**




**Title**

**FIGURE 11: PROPOSED IMPLEMENTATION PLAN  
2016-2020**

CITY OF PARKSVILLE TRANSPORTATION MASTER PLAN



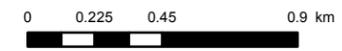
Prepared By

  
 #201-791 Goldstream Ave  
 Victoria, BC Canada V9B 2X5  
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 Fax: 250 388 9879  
 www.blvdgroup.ca

Legend

- Proposed Pedestrian Improvements
- - - Proposed Multi-Use Trail
- - - Proposed Bicycle Lanes
- - - Proposed Bicycle Routes

Scale



Title

**FIGURE 12: PROPOSED IMPLEMENTATION PLAN  
 2021-2025**

CITY OF PARKSVILLE TRANSPORTATION MASTER PLAN

File	Date	Drawn
#986	DECEMBER, 2016	MP

## CITY OF PARKSVILLE TRANSPORTATION MASTER PLAN

### 11.1.3 2026 to 2030 (See Figure 13)

Improvement	Cost
Despard Avenue Upgrade (Sidewalks and Bike Lanes)	\$1,857,350
Hirst Avenue Bike Lanes	\$275,000
Chestnut Street Bicycle Lanes*	\$407,000
James Street / Harnish Avenue Bike Route	\$34,650
<b>Total for 2026-2030 (rounded)</b>	<b>\$2,574,000</b>

\*Cost may be lower as there may be sufficient asphalt to re-stripe the road to create the bicycle lanes rather than adding asphalt.

### 11.1.4 2031 to 2035 (See Figure 14)

Improvement	Cost
Craig Street Sidewalks	\$241,400
Industrial Way Bike Routes	\$25,725
Wembley area Bicycle Routes	\$41,300
Protected / permitted northbound left turn phase at Alberni Hwy / Despard Ave	\$10,000
Roundabout (or Signal) at Jensen Avenue/Craig Street	\$400,000
Roundabout (or Signal) at Jensen Avenue/Corfield Street	\$400,000
Alberni Highway Bike Lanes	\$781,000
<b>Total for 2031-2035 (rounded)</b>	<b>\$1,900,000</b>

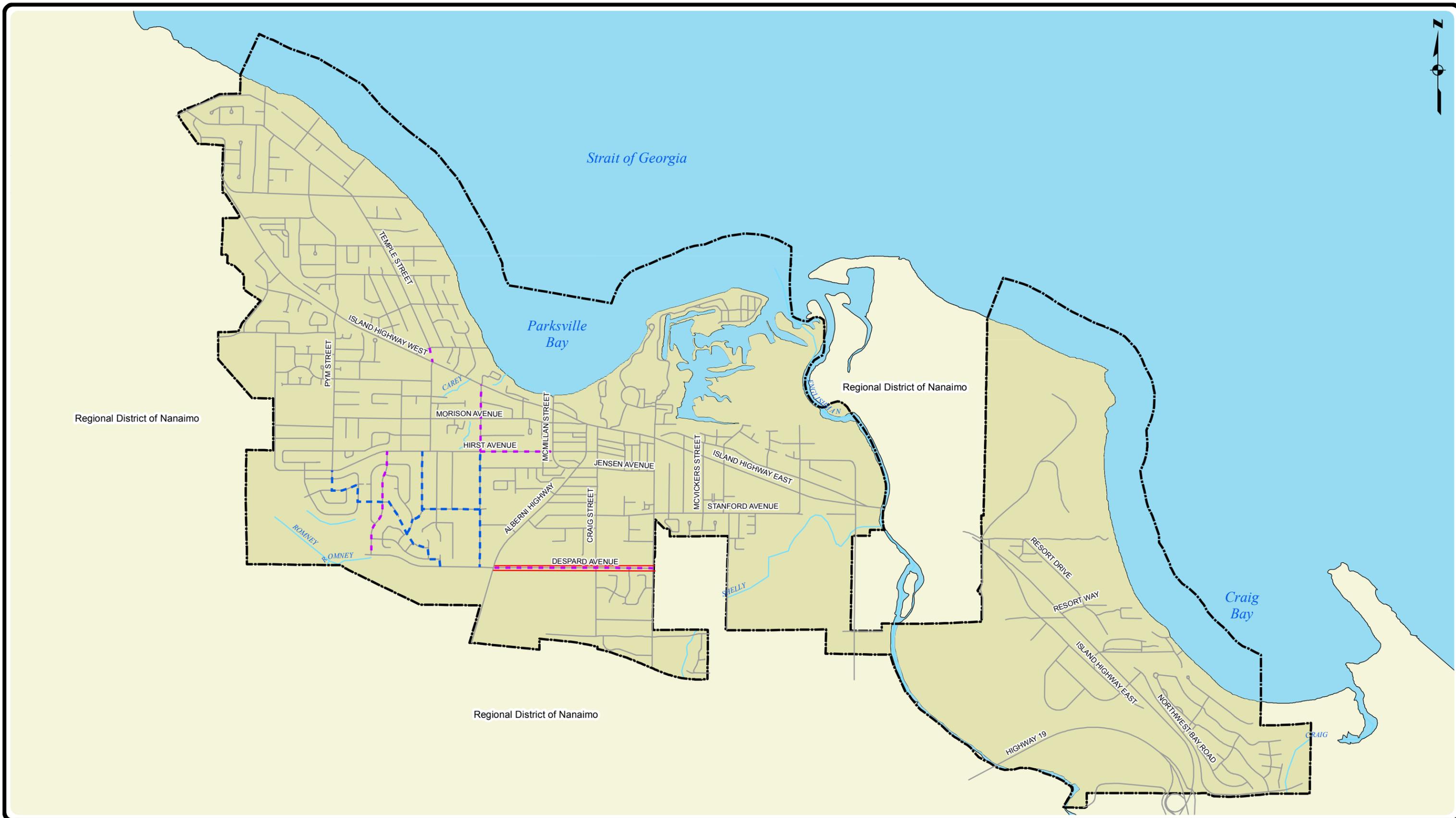
The 20 Year Capital Plan requires \$15,135,000 of funding over the next 20 years.

## 11.2 Funding Opportunities

There are a variety of approaches that the City may take to fund the development of the transportation network including development cost charges (DCC), grants, and donations. The City has a DDC program which should be reviewed in combination with the proposed capital plan to ensure that appropriate funds are being collected.

### 11.2.1 Grant Programs

There are a variety of Provincial and Federal infrastructure grant programs that are available to help offset the cost of implanting bicycle facilities, sidewalks, transit upgrades, intersection improvements, and TDM programs. A significant portion of the grant programs are targeted to sustainable infrastructure, which is what the majority of Parksville's transportation needs are (sidewalks, bicycle, etc.) Grant programs are constantly being added and changed; therefore the City should remain active in seeking out new Provincial or Federal funding initiatives. The City should work with Qualicum



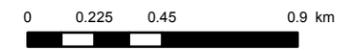
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Legend

- Proposed Pedestrian Improvements
- Proposed Bicycle Lanes
- - - Proposed Bicycle Routes

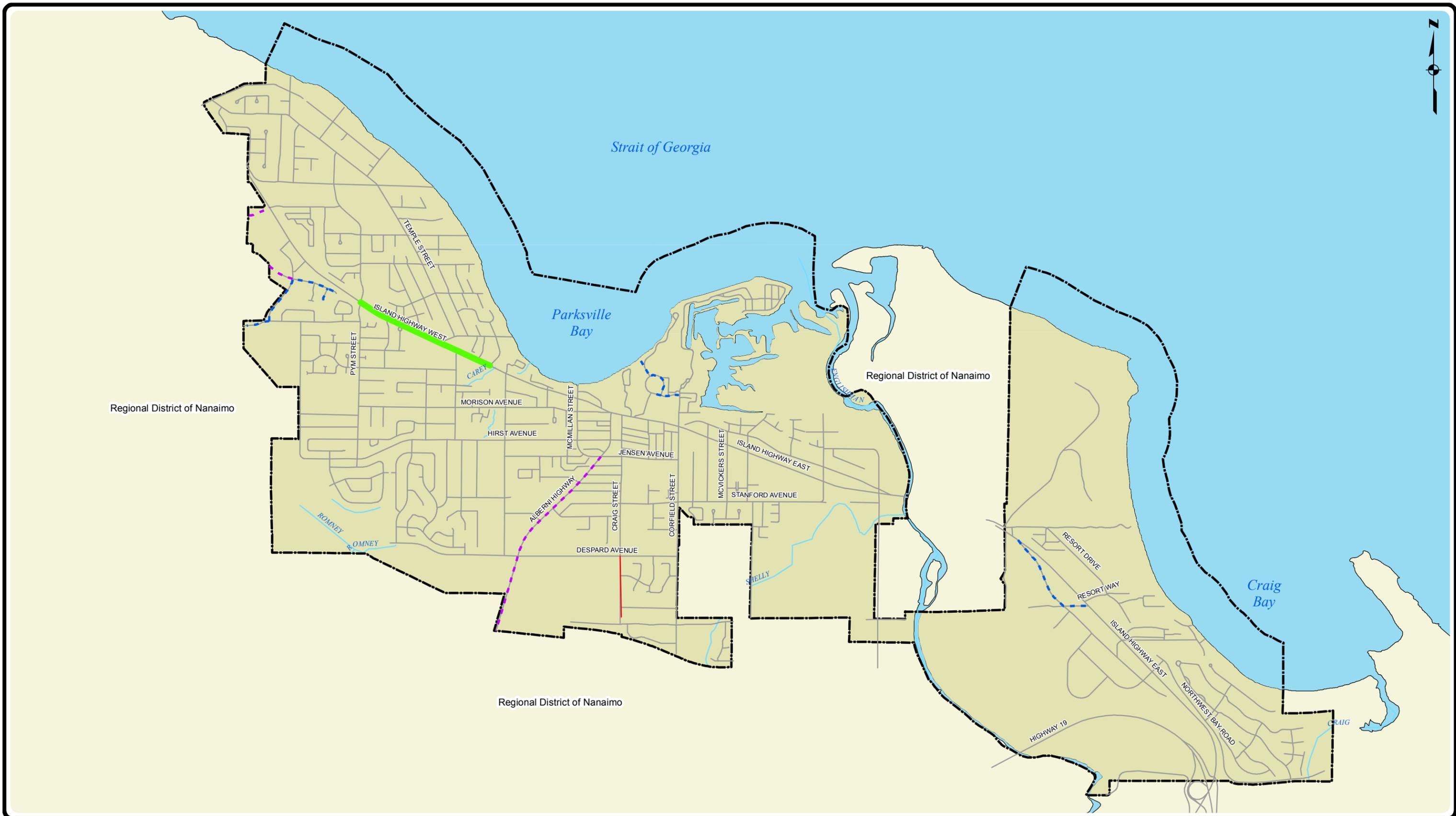
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Title

**FIGURE 13: PROPOSED IMPLEMENTATION PLAN  
 2026-2030**

CITY OF PARKSVILLE TRANSPORTATION MASTER PLAN



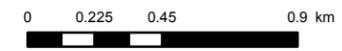
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Legend

- Proposed Sidewalk Improvements
- - - Proposed Bicycle Lanes
- - - Proposed Bicycle Routes
- Road Upgrade (Widen To Five Lanes)

Scale



Title

**FIGURE 14: PROPOSED IMPLEMENTATION PLAN  
 2031-2035**

CITY OF PARKSVILLE TRANSPORTATION MASTER PLAN

## CITY OF PARKSVILLE TRANSPORTATION MASTER PLAN

Beach, MoT, Nanaimo and the Regional District of Nanaimo to pursue regional grants that may satisfy transportation improvements for the region.

The following is a sampling of the grant programs currently available:

> **Small Communities Fund** is a \$218 million Canada-BC initiative providing funds for infrastructure projects in communities with less than 100,000 people. The program is a 10 year funding program running from 2014 to 2024. Eligible projects include highway and major roads, innovation, and public transit. Projects may be for new projects or renewal / rehabilitation projects excluding normal maintenance or operation.

> The **Cycling Infrastructure Funding – BikeBC** program is a Provincial cost-share program for the construction of new cycling infrastructure. Applications are evaluated based on how they improve safety for cyclists. Eligible projects, in order of preference, are separated bike paths, cyclist/pedestrian bridges and overpasses, buffered bicycle lanes, bike lanes, shoulder bikeways, shared roadways.

> **Green Municipal Fund Energy Capital Projects** is funded through the Federation of Canadian Municipalities for capital projects in the energy, transportation, waste and water sectors. Transportation projects must demonstrate the potential to reduce vehicle kilometres travelled by single occupied vehicles by encouraging alternative modes of travel (modal shift) or fleet fossil fuel and GHG emissions reduction.

> **Infrastructure Planning Grant Program**, through the Ministry of Community, Sport and Cultural Development, assists local governments in developing sustainable infrastructure that will improve public health and safety, protect the natural environment and strengthen local and regional economies. Transportation projects must demonstrate the potential to reduce vehicle kilometres travelled by single occupied vehicles by encouraging alternative modes of travel (modal shift) or fleet fossil fuel and GHG emissions reduction.

> **Community Improvement Fund** is the Gas Tax Fund and incremental Goods and Service Tax Rebate for Municipalities that can be used for roads, public transit, and other community infrastructure.

> **National Recreational Trails Program** is a Government of Canada and National Trails Coalition program providing \$10 million in funding to improve and expand multi-use trails.

### 11.2.2 Individual Donations

It is common-place for residents or organizations to donate property and/or funds toward community infrastructure as a form of philanthropy. Any donations, either land or funds for facilities, will help the City work toward a complete transportation network with a focus on sustainable alternative transportation. There are a number of ways the City may facilitate this process by making it simpler and more attractive to potential donors.

- > The City should establish an endowment fund for trails and pathways to instill confidence in potential donors that their contributions will be used for the intended uses.
- > The City may issue official donation receipts for the appraised fair market value of donated property or facilities, which the donor may use as a Federal or Provincial tax credits.
- > The City should promote the donation process so any potential donors are clear on the process and aware of the benefits to them.
- > Create a street furniture donation program. This program would allow companies or individuals to provide donations for street furniture (ie. bicycle racks, bench, etc.).
- > Create a donor recognition program. While some donors wish to remain anonymous, many want to be recognized or have an item donated in memory of someone. A donor recognition program would provide recognition options such as plaques, a media notice, a thank event, or other form of recognition. This program would be for all types of donations towards the transportation network and active living.

## GLOSSARY

**Arterial Road:** traffic movement is the primary consideration with direct access being a secondary consideration. Carries traffic between collector roads and highways.

**Bicycle Parking - Class I:** long term parking or storage for bicycles in an enclosure that provides protection from theft and damage to both the bicycle and its accessories. eg. bicycle lockers.

**Bicycle Parking - Class II:** short term parking facility, typically located outside of commercial or residential land uses. Class II parking is usually open to the environment and does not protect a bicycle from theft on its own. eg. bicycle racks.

**Bike-to-Work Week:** a week designed to promote the use of bicycling to work. Typically held in late May with training courses, enroute tune up stations, and vehicle-bicycle challenges.

**Carshare:** is a not-for-profit co-operative that shares the use and maintenance of vehicles instead of private ownership.

**Collector Road:** balances need for direct access of land use with movement of traffic. Connects neighbourhoods to arterial roads.

**Downtown Road:** a roadway within the downtown core with wide sidewalks and on-street parking.

**85<sup>th</sup> Percentile Speed:** the speed at which 85<sup>th</sup> percentile of vehicles are travelling at or below and is the typical index used in classifying a roadway speed characteristics. Vehicles at speeds above the 85<sup>th</sup> percentile are typically defined as driving too fast for the road.

**Elephant's Feet Markings:** are transverse pavement marking used to mark a bicycle crossing. The markings are 200-400mm in length and width with a 200-400mm gap between each marking. Elephant's Feet can be placed alone to delineate a multi-use crossing, on each side of a pedestrian crossing or on one side of a pedestrian crossing.

**Industrial Road:** a roadway that carries large vehicles with repeated heavy loads. Road structure is typically thicker than other roads with similar volumes to handle the repeated heavy loads. Road width needs to be adequate to handle frequent truck manoeuvring to/from sites.

**Level of Service (LOS):** qualitative measure describing operation conditions within a traffic stream in terms of amount of delay experienced, equated to letter grades from A (best) to F (worst).

**Lanes:** narrow roads located behind properties to provide rear access. Does not provide special provisions for pedestrians or cyclists.

**Local Road:** provides direct access for land use and serves traffic of local importance.

**Low Speed Vehicle (LSV):** see Neighbourhood Zero Emission Vehicle.

**Neighbourhood Zero Emission Vehicle (NZEV):** defined in the Motor Vehicle Safety Act as a distinct vehicle class. A NZEV is a vehicle that is powered by an electric motor, produces no emissions, and is designed to travel on four (4) wheels at a maximum speed of between 32 km/h and 40 km/h. NZEVs include features such as headlights/taillights, turn signals, windshields, a parking brake and seatbelts in compliance with Motor Vehicle Safety Regulations.

**Official Community Plan (OCP):** an OCP is a planning document which has objectives and policies to guide decisions on planning and land use management within the area covered by the plan, respecting the purposes of local government.

**Operational Analysis:** the use of capacity analysis to determine the LOS of an existing or proposed intersection or road link.

**Peak Hour:** the highest hour of traffic in a specific period. (Typically mornings (AM), and afternoon (PM).)

**Resort Road:** a collector road that is located in the City's resort area. Balances the need for direct access for land use with movement of traffic. Separate sidewalk/paths provided to accommodate pedestrians.

**Road Function:** how the road is designated or intended to be used in terms of mobility and accessibility.

**Road Use:** how the road is actually used, regardless of official road classification.

## *CITY OF PARKSVILLE TRANSPORTATION MASTER PLAN*

**Road Classification:** the identifying of a road's function on a map. Road classification is not necessarily the same as road use.

**Road Cross Section:** a standard drawing for each road classification to identify the width and features of the road.

**Safe Routes to School:** a program that offers tools to help schools and parents develop safe, alternative travel modes to school.

**Sharrows:** are a shared use lane marking/stencil which indicates the intended area of travel for cyclists. Sharrows consist of two white chevron markings with the bicycle symbol.

**Synchro:** a traffic operations software package that models traffic operations at an intersection level.

**Traffic Calming:** a combination of physical measures that reduce the negative effects of vehicle use (speed and/or volume), an alteration of driver behaviour and improvement of conditions for non-motorized users.

**Traffic Demand Management (TDM):** a group of measures, policies and programs which seek to reduce increased demand for more roads by influencing travel choice and shifting motorists from single occupied vehicles to alternative modes.

**Trolley:** is a bus designed to look like a streetcar or electric trolley, but doesn't require streetcar tracks or overhead electric wires.

**Shuttle System:** is a fixed route, fixed time community bus service to supplement BC Transit.

**VISUM:** transportation growth modelling program used to determine long term traffic volumes and demand on a road network at the community-wide scale.