

Capital Regional District Regional Pedestrian & Cycling Masterplan



Prepared for the CRD by
Alta Planning + Design
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CRD

Making a difference...together

Acknowledgements

The Capital Regional District (CRD) appreciates the efforts of the numerous citizens who participated in the development of this Plan. Their creativity, energy, and commitment to the future of active transportation in the region were the driving force behind this planning effort.

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Executive Summary

The CRD Regional Pedestrian and Cycling Master Plan (PCMP) describes a strategic approach for achieving a significant shift in transportation throughout the region. Because every municipality has an acknowledged commitment to multi-modal accommodation, the CRD and members are well-positioned to make this shift a reality.

This Masterplan begins where the 2005 CRD Travel Choices Strategy left off. The climate change imperative, combined with looming infrastructure expenses facing municipalities and increasing public health concerns, has increased the need to achieve more ambitious mode share goals than the existing 5% cycling and 10% walking targets.

The region already has a healthy walking community (10% walk) and some of the highest cycling numbers in the country (9% in some areas and 3.2% overall).¹ If pedestrian facilities were upgraded in priority locations and cycling facilities were built with the average person in mind, the CRD could achieve a 15% pedestrian mode share and a 25% cycling mode share in densely populated areas, with a 15% cycling share region wide.

The key to achieving this significant mode shift is for the region to work together to Engineer walkway and bikeway networks that are comfortable and accessible for all users.

The PCMP identifies guidelines, policies, and standards for providing universal pedestrian accessibility, bicycle and pedestrian trip enhancement facilities such as bicycle parking and integration with transit. The Masterplan recommends developing **Encouragement, Education, and Enforcement** programs to support the culture shift and **Evaluation** system to measure it.

Vision

The Capital Region will be a truly livable and environmentally sustainable community, where walking and cycling are key components of an innovative and integrated transportation system. Citizens of all ages in all parts of the region will find active travel irresistible on a seamless network of Class 1 on- and off-street facilities appropriate for users of all abilities. In 2038, the CRD will be lauded for its mode share for cycling of 25% in urban areas and 15% region wide and 15% mode share for pedestrian travel.

- Goal 1: More walking and cycling.
- Goal 2: Safer walking and cycling
- Goal 3: More places to walk or cycle.

Pedestrian Priority Areas

Due to long distances involved with regional trips, most regional pedestrian trips are multi-modal, combining walking, transit, cycling, and other modes. A high level of pedestrian accommodation should be provided in identified ‘pedestrian priority areas’ that have a high density of pedestrian-attracting destinations.

The primary inter-community cycling network (PIC) is 775 km of bikeway, of which 125 km are off-street (multi-use trails) and 650 km are on-street.

24% of the PIC bikeway is already completed.

Separated on-street

Existing: 0
Proposed: 329 km

Bike lanes & shoulder bikeways

Existing: 68 km
(that meet Class 1 standard)
Proposed: 191 km

Shared lanes

Existing: 14 km
(that meet Class 1 standard)
Proposed: 45 km

To upgrade the bicycling network to a standard where cyclists of all ages and abilities will feel comfortable, is expected to cost approximately \$275M; or the cost of:

- three highway interchanges and 88 km of roadways, or
- half the cost of the retractable roof on Vancouver’s B.C. Place Stadium!

¹ CRD Origin and Destination Survey.



Priority Actions:

- Adopt the Primary Bikeway Network, Classifications and Typologies as a Regional Plan.
- Work with member municipalities to fund the priority projects.
- Work with municipalities and disability advocacy agencies to ensure good universal pedestrian design, particularly in areas identified as high pedestrian use.
- Make the Design Guideline document available to member municipalities, regularly update the document in cooperation with staff.
- Establish a Signage Committee to review and revise the Draft Sign Guidelines (Section 5 of the Design Guidelines) for a recommended regional standard.
- Work with BC Transit and member municipalities to install secure bike lockers at priority transit locations.
- Establish a task force that seeks to improve and amend existing provincial laws in support of safer cycling and walking conditions.
- Collaborate with partners in the development of a volunteer-driven manual count strategy for the Region.
- Convene a Pedestrian and Cycling Advisory Committee made up of CRD and municipal staff, as well as community representatives.
- Work with municipalities to implement the priority projects and develop the recommended inter-community bicycle network.
- Complete the Regional Trails Network and improve existing trails based on the design guidelines.

Primary Bikeway Network

The PCMP identifies a comprehensive bikeway network that links the entire region. Involving the public in every step in the process resulted in a bikeway network that increases mobility throughout the region and serves cyclists of all ages, abilities, and trip purposes.

The network development is built on the 2006 *TravelChoices* Regional Cycling Network and the Draft *Transportation Corridor Plan* (Halcrow 2010), as well as previous CRD and municipal planning efforts. The network connects major destinations, linking growth and village centres, transit exchanges, parks, and schools throughout the region.

Accompanying the identified network, the PCMP Design Guidelines provide a framework for developing pedestrian and bicycle corridors and signage that are attractive to users of all abilities. This common set of guidelines will contribute to making the region more universally accessible by providing consistent and predictable messaging.

Education and Encouragement

Education, encouragement, and Active and Safe Routes to School programs inform CRD residents about new and improved facilities, help them learn the skills they need, and reward them for living more sustainably. The CRD can continue to lead education and encouragement activities through funding, advising, and marketing.

The PCMP process has brought together planners, engineers, decision makers, and advocates from member municipalities and other regional partners. The CRD can continue this inter-jurisdictional communication to support PCMP implementation in the coming years.

Evaluation and Planning

The CRD can develop a regional counting initiative that makes use of the many traffic counts already being conducted by member municipalities and organizations. These counts can be used to measure mode shift as the network is developed and support further improvements.

The CRD can lobby the Province, on behalf of its member municipalities, to make key changes to legislation that will improve safety for cycling and walking.

Funding and Implementation

The costs associated with developing the primary inter-community bikeway network will be integrated into existing municipal (local roads), regional (regional trails) and provincial (highways) budgets. The costs exceed expected available funds; however, the CRD can assist municipalities in pursuing other funding by coordinating grant application and providing technical support.

The identification of regional priority bikeways provides the Region and its member municipalities a competitive advantage in grant applications and helps prioritize and direct gas tax funds to their highest and most effective use.

The PCMP is unequivocal in its ambitious goal of providing pedestrian facilities and a cycling network that are safe and comfortable for all cyclists and pedestrian - not just those who are courageous and intrepid. The PCMP project team appreciates the efforts of the numerous residents, advocates, agency representatives and municipal staff who participated in the development of this Masterplan. Their creativity, energy, and commitment to the future of the region were the driving force behind this effort.



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A word from Mia Birk, President of Alta Planning + Design,
author, *Joyride: Pedaling Toward a Healthier Planet*

Congratulations to the residents and leaders of the Victoria region, the Capital Regional District, and its 13 municipalities and three electoral areas! With this comprehensive Regional Pedestrian and Cycling Masterplan, you take a huge step toward integrating walking and bicycling into your daily lives. For the past two years, we have been privileged to work with representatives from the CRD, communities, and advocates within. Together, we have brainstormed and struggled and arrived collectively at this new, bold, exciting vision for a healthier, more active future for generations to come.

The Alta team has worked in hundreds of communities all across North America creating similar visions and plans. We have implemented thousands of walkway and bikeway miles and touched the lives of millions who have started walking and bicycling in their daily lives. In Victoria, we start ahead of the game in many ways thanks to the world-class Galloping Goose and Lochside Trails.

This Masterplan hinges on a high standard of pedestrian accessibility and a long-range vision of an over-900 km network of connected, attractive bikeways that will allow people to choose walking and bicycling for some portion of their daily trips. When realized, we will see 25% of residents in densely populated areas and 15% of the region's residents bicycling regularly, up from 9% and 3.2% now. We will see 15% walking regularly, up from 10% today. This will be much higher in many of the core areas, like downtown Victoria and Saanich.

This vision is based on real-life experience in Portland, Oregon, where we have grown walking and bicycling from negligible to significant transportation modes in less than a generation's time. We followed the models developed in Copenhagen and other European cities that chose to make hard choices, invest in walking and bicycling, and change cultural norms. And we are not alone. Cities like Vancouver, Seattle, Chicago, Montreal, New York, and San Francisco are investing in active transportation and realizing the benefits to safety, health, the environment, neighbourhood livability, personal pocketbooks, and the economy.

Some will say that this vision is unachievable. On the contrary, we have seen that given the right combination of infrastructure and incentives, people will walk and bicycle in vast numbers.

Others will look at the price tag and shake their heads in disapproval. But I ask you to look at it this way: the entire \$275 million Masterplan, if fully implemented, will be achieved for the cost of less than three urban interchanges and 70 km of roadways. This modest investment will be returned three-fold in savings in safety, health, fuel costs, and other benefits.¹

Municipal leaders and residents: As you read this Masterplan, recognize that the Capital Regional District has created this Masterplan with your input. The intent is not to tell you what to do, nor to do it for you, for the CRD does not have this authority. That is why today, when riding from the ferries in North Saanich to downtown Victoria, you may ride through four different municipalities (North Saanich, Central Saanich, Saanich, Victoria), and see five different sign types and an equal variety of bikeway markings. The unique character of each community will be enhanced by the creation of a connected set of logical, attractive bikeways.

¹ Gotschi, Thomas. (2011). Costs and Benefits of Bicycling Investments in Portland, Oregon. *Journal of Physical Activity and Health* 8(Suppl), 49-58.



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Please note that today, the CRD does not have the authority or resources to fund the implementation of this Masterplan. Rather, they can offer it to as a blueprint for your own success should you choose to embrace it. Many of the projects can be rolled into your own local transportation departments' activities. Others will be eligible for grants. But I challenge you to carry forward the momentum we have gained through these two years' worth of meetings and discussion and think bigger and bolder. For if you are truly to realize the benefits of the Masterplan's vision, additional regional funding authority must be sought. Only then will you realize the true value of regional coordination.

In the meantime, however, take the parts that apply to your locality to heart and begin to implement as much as you can. Coordinate with your neighboring communities to ensure that the walkways and bikeways are seamless from a user standpoint, cutting across the political boundaries that define each community in name.

Use the tools contained in the Pedestrian and Cycling Masterplan Design Guidelines. For the first time, you have coordinated regional standards for bikeway signage and markings, although with enough flexibility to reflect the diversity of our region.

Embrace the role of change agent, striving to encourage your residents—particularly your youth—to walk and bike for as many trips as possible.

As a region, you are stronger collectively than as 13 municipalities working alone. Together, you can leverage more funding and momentum than you ever dreamed. Together, you will realize the goals laid forth in this plan.

With respect and enthusiasm for the future of the beautiful Victoria region,

A handwritten signature in black ink, appearing to read "Mia Birk". The signature is fluid and cursive, with a small dot above the letter 'i'.

Mia Birk
President, Alta Planning + Design
Author, *Joyride: Pedaling Toward a Healthier Planet*

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Summary

If today's travel trends continue, by 2038 the number of trips moving throughout the Capital Region will have increased by 500,000 to 1.7 million trips per day, representing a 42 percent increase. Over three-quarters of these are taken by automobile. Automobile traffic will represent nearly 60% of the region's GHG emissions and travel time from the western communities into the core will have doubled. Best practices indicate that the most cost-efficient and environmentally friendly solution is to make a concerted effort to shift new trips and a portion of existing trips over to walking, cycling and transit.

This Pedestrian and Cycling Masterplan (PCMP) lays out a plan of action for achieving a significant shift in patterns and modes of transportation throughout the region. The development of the PCMP was a key recommendation of the Travel Choices Strategy – a strategy that lays out the basic framework for transitioning to a multi-modal approach to transportation planning.

The PCMP is also a vital component of the emerging Transportation Corridor Plan – a strategy that aims to identify a network of corridors where each mode has its own prioritized network in an effort to maximize efficiency and safety for all users. The PCMP also considers and supports the goals and objectives identified by BC Transit in their *Transit Future* and the *Rapid Transit Plans*.

We're well on our way towards a sustainable future.

The Capital Regional District and its member municipalities are well-positioned to act on the recommendations outlined in this Masterplan. As a region, the CRD is well out front of many communities where automobile travel is still the priority, and the accommodation of walking, cycling, and transit is an afterthought. Every member municipality in the CRD has an acknowledged commitment to a balanced approach to multi-modal accommodation. Indeed, several municipalities have an expressed policy of not building any new facilities for automobiles.

But the road to building “complete streets” can be challenging and at times, seemingly impossibly complex. Even on local streets, where the road right-of-way does not easily provide enough room to build separate facilities for everyone, hard compromises have to be made. And as the roadway in a community increases in its regional importance (i.e.: when a collector or arterial links to a neighbouring jurisdiction) the stakes are higher in the task of achieving compromise.

Plan Vision

The Capital Region will be a truly livable and environmentally sustainable community, where walking and cycling are key components of an innovative and integrated transportation system. Citizens of all ages in all parts of the region will find active travel irresistible on a seamless network of Class I on- and off-street facilities appropriate for users of all abilities. In 2038, the CRD will be lauded for its 25% mode share for cycling in urban centres and 15% region wide, as well as 15% mode share for pedestrian travel for all trip purposes.

This Masterplan provides a framework for accommodating the most vulnerable road users within the road right-of-way. The network established in this Masterplan, and the accompanying recommended standards expressed in the Design Guidelines, are intended to be a “starting place” in the next step of negotiating which modes should have priority on which corridors. Of critical importance is the philosophy behind cycling and pedestrian planning.

Building on success; learning from the best.

The PCMP is unequivocal in its ambitious goal of providing a cycling network that is safe and comfortable for all riders – not just the courageous and intrepid cyclist. The PCMP has identified a set of pedestrian standards aimed at reclaiming and connecting this valuable, linear public space to accessible, “people oriented” commons.

The PCMP builds on the extraordinary body of research and best practices that have evolved from successful European and North American initiatives, where previously auto-dominant cities have

been successfully converted to bicycle and pedestrian friendly environments.

The PCMP recommends a network of ‘Class I’ bikeways that are suitable for all users along regionally-significant routes that connect key destinations.

Separate facilities for each mode.

Of crucial importance is the understanding we now have as to what conditions must be met for the average user to feel comfortable. Ten years ago, practitioners lobbied for equal rights on the roadway for cyclists. New research asserts that although cyclists, like pedestrians, have equal rights to travel in the right-of-way, the facilities they need to feel safe and comfortable must reflect their vulnerability and provide adequate protection. For example, on busy arterial streets where traffic speeds are over 50 km/h, nearly every rider will feel comfortable cycling a bike on a path that is separated from traffic. The level of separation

needed will vary depending upon the road conditions (speed, traffic volume and other characteristics). Under certain conditions, separated bike lanes are not always required, as on quiet country roads where sidewalks are not required to make a place pedestrian-friendly.

Research suggests that on local streets, cyclists feel comfortable sharing the road with slow moving, predictable cars. On rural roads, where the speeds may be faster, but the volume low, cyclists report that they feel safe and comfortable on a paved shoulder with a painted line and proper signs delineating the bikeway. In all of these contexts, the facilities described are “Class I bicycle facilities,” where all users would feel comfortable riding.

Raising the sustainability bar.

Recent surveys conducted in Metro Vancouver and Portland have discerned that nearly 60% of any given population is ‘interested but concerned’ about cycling.¹ Improving the pedestrian en-

¹ Geller, Roger. *Four Types of Cyclists*. Portland Office of Transportation



Despite high regional levels of walking and bicycling, 50% of students in the CRD are currently driven to school.



The pedestrian design guidelines in this Masterplan address the accommodation of mobility scooters in the pedestrian zone.

Environment supports transit use, safety, and public health. The region already has some of the highest cycling numbers already in the country (9% in some urban areas and 3.2 - 5% overall²) and a healthy walking community (10% walk). If cycling facilities were built with the average person in mind, and pedestrian facilities were upgraded in priority locations (regional centres and transit stops), the CRD could achieve a 25% cycling mode share in densely populated areas, a 15% cycling mode split region wide, and a 15% pedestrian mode share.

This mode share goal is a significant leap beyond the Travel Choices mode split of 5%. Throughout the planning process, feedback from advocates and direction from CAC/TAC members indicated a need to be more visionary. These mode split targets meet the Region's GHG reduction targets and consider the supportive role cycling and walking play in contributing to the success of the Provincially mandated

² The CRD 2006 Origin Destination Survey found a 3.25 percent mode split, while 5 percent is derived from the 2006 Census.

increase in transit ridership to 12% mode share by 2020.

The key to achieving this shift is to begin developing a comprehensive bikeway network of Class I facilities that links all member municipalities and Electoral Areas, major destinations, regional centres, villages and schools. This “primary” bikeway is supported by and linked to each municipality's local cycling network.

This Masterplan proposes ways the CRD could achieve a 25% mode share for bike travel in densely populated areas and a 15% mode split region wide in addition to a 15% mode share for pedestrian travel, by the year 2038.

Design for the universal user.

The CRD *Regional Growth Strategy* anticipates that the regional population is aging; projections suggest that by 2038, nearly 30% of the region's population will be over the age of 65. A recent study on the health of B.C. children has revealed a significant increase in health

issues related in part to inactivity.³

Improving walkability addresses mobility and isolation concerns for the aging population as well as public health concerns associated with inactivity for people of all ages. Consistent and predictable design of the pedestrian realm should consider universal accessibility to walkways and roadway crossings, making the pedestrian environment an attractive and safe place to be.

Walkable communities will make the planned improvements to the transit system viable as people will enjoy walking to transit to complete a longer trip across the region. Although the focus of this Masterplan is on active transportation, the plan acknowledges the inextricable tie to transit as citizens will require flexibility in their options if we are to compete with the convenience of the automobile. Long haul trips will likely combine modes – with people cycling to their rapid transit exchange, storing their bike, boarding the bus, and walking to work.

³ http://vancouver.ca/commsvcs/socialplanning/initiatives/foodpolicy/tools/pdf/Child_Obesity.pdf



Shared lanes, bicycle lanes, and multi-use trails all meet the Class 1 facility standard (comfortable for all riders), depending on the road; on a country road, a shared lane may be sufficient to meet the standard of Class I, while bicycle lanes are appropriate on streets with more traffic.

Masterplan Vision

The Capital Region will be a truly livable and environmentally sustainable community, where walking and cycling are key components of an innovative and integrated transportation system. Citizens of all ages in all parts of the region will find active travel irresistible on a seamless network of Class I on- and off-street facilities appropriate for user of all abilities. In 2038, the CRD will be lauded for its 15% regional and 25% high density area mode share for cycling and 15% mode share for pedestrian travel.

The mode share target for cycling established in this Masterplan (15% regionally and 25% in high density areas) is more ambitious than the original 5% target identified in the 2002 TravelChoices document. Feedback received from advocates and other stakeholders affirms the TravelChoices sub-committee's assertion that a more ambitious mode share for the region must be imagined.

Goal 1: More walking and cycling, as measured by:

- Mode share
- Kilometres travelled
- Trip count

Goal 2: Safer walking and cycling, as measured by:

- Number of cyclists who have taken road skills courses
- Reduction in number and severity of reported crashes
- Perception of safety

Goal 3: More places to walk or cycle, as measured by:

- Total kilometres of on-street regional bikeways network that is a Class facility
- Total kilometres of off-street facilities
- Percentage of the road network with sidewalks
- Percentage of intersections with curb ramps and completed sidewalks within a half-kilometre of transit centres, schools, and parks.

Methodology

A key recommendation in the 2005 *Travel Choices Strategy* was to undertake a regional cycling and pedestrian masterplan. The scope of the PCMP was laid out by the *Travel Choices* Sub-committee's final report.

A phased approach

Building on this guiding document, a Call for Proposals was issued in 2009 and the contract was awarded to the consulting consortium of Alta Planning + Design (project lead), Urban Systems, and John Luton (local advisor). The scope took a phased approach, with the first phase focused on collection of data and background material. Once an accurate snapshot of existing conditions was possible, a draft vision and goals were developed in consultation with community stakeholders. A set of objectives for the Masterplan was crafted by building on the recommendations set out in the *TravelChoices* Sub Committee submission.



The CRD Regional Trails network functions as a recreation-based linear park as well as a key sustainable transportation corridor that provides nonmotorized access throughout the Region.

These key elements formed the framework for the workplan and ultimately the final plan, which were undertaken in subsequent phases.

Contents of the Masterplan

The PCMP outlines a clear vision, achievable goals and concrete actions for achieving the region's mode shift targets. The Masterplan recommends:

- **Engineering** a network of inter-community routes for bicyclists and pedestrians that allow users to safely, comfortably, and equitably reach all the major gateways, primary destinations, regional centres, employment areas and schools.
- Developing crucial **Encouragement and Education** programs to support the culture shift.
- Establishing an **Evaluation** system and **Enforcement** mechanisms.

These five “E’s” form the structure of this report. The engineering aspects focus on the right-of-way, while the remaining ‘E’s’ involve supporting policies that are critical for improving safety, mobility, and use of the system.

How to use this Masterplan

This document summarizes the key points of the two-year planning process. Significant technical documentation and resources were created in the development of this Masterplan. The following appendixes provide background and additional detail to accompany the PCMP:

- Appendix A. Bicycle and Pedestrian Network Development Technical Appendix
- Appendix B. Trip Enhancement Facilities
- Appendix C. Transit Integration
- Appendix D. Education
- Appendix E. Encouragement
- Appendix F. Bylaws
- Appendix G. Evaluation & Planning
- Appendix H. Funding & Implementation

This Masterplan identifies which of these appendixes provides in-depth information about background information, methodology, and recommendations for next steps.

Engagement and consultation

Public and stakeholder input were key to Masterplan development. Mechanisms used to achieve input include:

- A **Technical Advisory Committee** of representatives from each of the CRD's municipal partners versed in bicycle/pedestrian infrastructure, policies, and future goals.
- A **Citizen's Advisory Committee** of citizen representatives and interested parties from the region.
- **Stakeholder Interviews** gathered background information from representatives of each municipality as well as other organizations and individuals related to each topic.
- **Advocates' Sessions** solicited feedback from the community at key points in the plan development.
- **Technical Workshops** were held to discuss signage standards; collaborate on guidelines for the design of bikeway and pedestrian facilities; and verify recommendations and ensure that projects correspond to municipal priorities.



The Masterplan was developed in collaboration with municipal partners, advocates, and other stakeholders.



The network recommendations are supported by programs and practices to improve network use.

Levels of Separation

The PCMP recommends levels of separation for on-street bikeways based on street classification and user comfort desired.

Separated On-Street

Cycle tracks are separated from roads and sidewalks by parked cars, bollards, or a physical barrier. Intersection treatments improve visibility of cyclists.

Buffered bicycle lanes provide additional shy distance between the bicycle lanes and the travel lane to provide a more comfortable riding environment.

Bicycle Lanes/Shoulders

Bicycle lanes are separated from motor vehicle lanes and indicated with a bicycle stencil and a diamond, and are marked with dedicated signs.

Shoulder bikeways accommodate cycling on streets without a curb and gutter, where a fog line is used to delineate a shoulder.

Shared Roadways

Marked wide curb lanes provide direct routes along the outer lane of a roadway. Signs remind cyclists and drivers to 'share the road.'

Neighbourhood bikeways are routes on local urban streets indicated by signs and stencils. Traffic calming treatments improve the cycling environment.

Shared lanes provide key connections between more formal bikeways and key destinations. They are designated by "Bike Route" signs.

See the Design Guidelines for detailed information about these treatments.



Chapter 1. Engineering

The region currently benefits from a truly regional network of multi-use trails managed by Regional Parks.⁴ Other off-street multi-use trails are maintained by municipalities and support the Regional Trails system.

The PCMP identifies a complementary on-street network that provide routes between municipalities, electoral areas, and regional destinations that meets the needs of cyclists aged 8 to 80.

Objective 1: Identify a Primary Cycling Network

This primary inter-community (PIC) bikeway network consists of: (1) a set of standards for a variety of cycling facilities; (2) an established "typology" of those facilities identifying the degree to which cyclists of differing abilities would feel comfortable under a variety of roadway conditions; and (3) a network of bikeways which link major destinations, regional centres, villages, schools, and transit exchanges. The component parts of this network are described in the following strategies.

Involving the public in every step in the process resulted in a bikeway network that enhances mobility throughout the region and serves cyclists of all ages and abilities for all trip purposes.

The methodology and technical details related to the development of the classification, typology, primary bikeway network, and pedestrian priority areas is provided in Appendix A. Bicycle and Pedestrian Network Development Technical Appendix.

⁴ All trail-related comments collected during the planning process will be considered during updates to trail management plan updates.

Strategy 1.1: Develop a bicycle facility classification standard

Consistent definitions of facility types provide clarification for municipalities developing bikeway networks. Guidelines facilitate the development of a reliable system, which encourages residents and visitors alike to bicycle for trips between municipalities.

The bikeway facility ‘levels of separation’ (left) build on the various facility definitions used by the member municipalities and are recommended as a common regional standard. These classifications do not replace use designations commonly used by member municipalities (‘local commuter’ or ‘recreational route’), which are beneficial for system users. Users desire a continuous route where they are comfortable, regardless of design treatments.

Facility type classifications are useful at the planning and engineering level. Facility standards define bikeway types by design criteria and indicate engineering guidance.

Strategy 1.2: Establish a typology for bicycle facilities

The PCMP typology uses three factors to help planners and engineers determine which facility type to use when addressing gaps in the network. The bikeway ‘class’ indicates the types of users who feel comfortable on a particular facility, based on the ‘level of separation’ from traffic provided by the facility design. The ‘context’ in which the proposed facility would be located consider conditions on the roadway such as speeds and volumes, presence of heavy vehicles, trucks or buses, roadway width, visibility, adjacent land uses, and urban or rural context.

The graphic below shows how class, facility separation, and roadway context

inform a typology for facility selection. This Masterplan recommends that the Primary Bikeway Network (PBN) be developed to a Class I standard where possible, to encourage and enable users of all abilities to bicycle comfortably.

The typology continua (following page) show the range of bikeway facilities appropriate to different roadway contexts. A complete set of typologies is provided in the PCMP Design Guidelines.

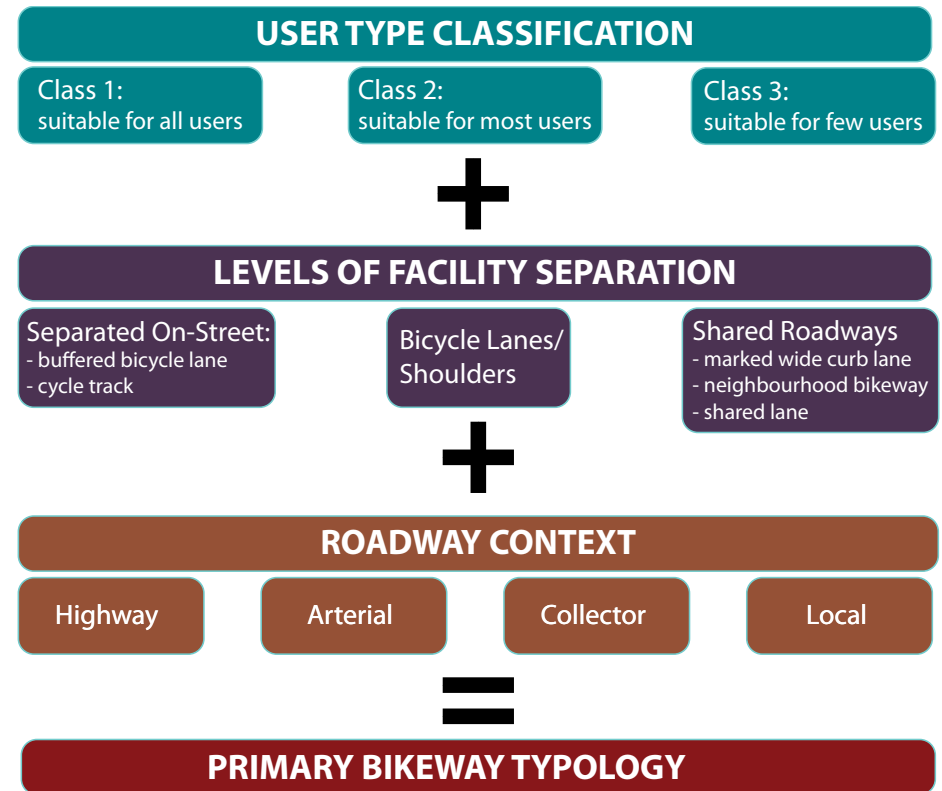
Strategy 1.3: Establish a primary bikeway with Class I facilities

In the CRD, cycling is allowed on most public roads and trails. A ‘bikeway network’ consists of designated cycling routes that meet the Transportation

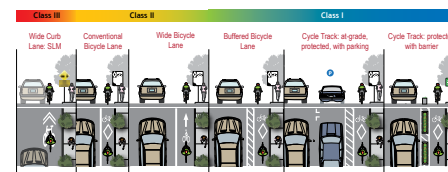
Association of Canada (TAC) guidelines for the design of bicycle facilities. However, not everyone who wishes to ride a bicycle would feel comfortable or safe on portions of the network, even those that meet TAC standards. The PCMP takes cycling a step further by aiming to install Class I facilities where ‘interested but concerned’ cyclists feel comfortable riding their bikes throughout the region.

The primary inter-community (PIC) bikeway network was developed with participation of many stakeholders and considered previous local and regional planning efforts. The development of the PIC is summarized following, with greater detail provided in Appendix A.

Development of an On-Street Bikeway Typology



Bikeway Facilities on Arterials with Curb and Gutter



Collection of existing conditions data

In fall 2009, member municipalities were invited to submit existing and planned bikeway facility information. Municipal data was compared to the CRD's data to create a snapshot of existing bikeway facilities. Member municipalities were invited to validate the resulting existing bikeway dataset.

Identification of potential primary bikeway corridors

Potential primary bikeway corridors were selected from a large number of potential corridors during the spring/

summer of 2010. The 'universe of options' for the PIC bicycle network was built with:

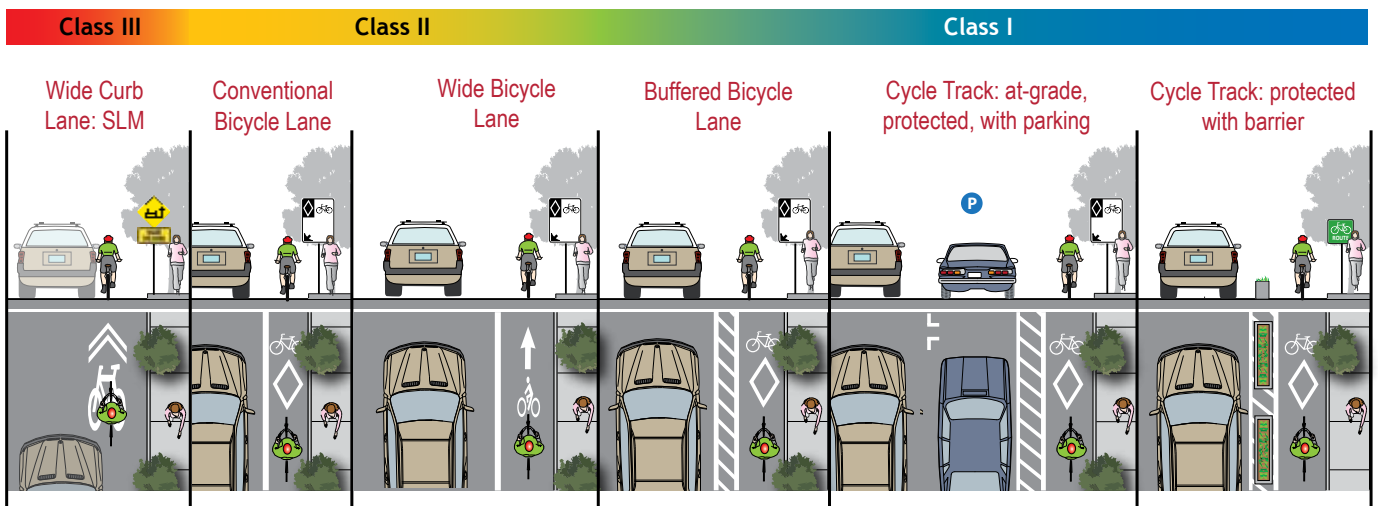
- Previous plans, including the *Transportation Choices Recommended Regional Cycling Network (RCN)*.
- Existing local and regional bikeway facilities.
- Proximity to key destinations (regional growth/transit centres).
- Input from the Citizens Advisory Committee (CAC) and participants at the advocates sessions, who identified key corridors.

Evaluation of the preliminary network

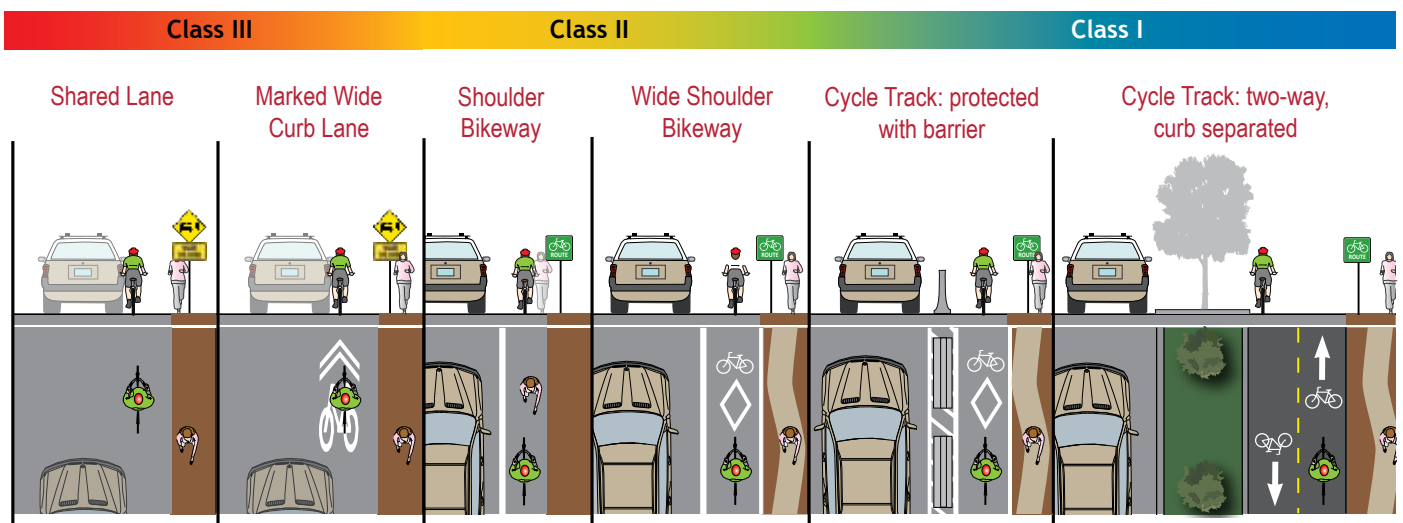
The preliminary PIC bikeway network was evaluated based on proximity to destinations, roadway or trail type, and connectivity. The corridor selection was then refined and validated by the CAC and the Technical Advisory Committee (TAC).

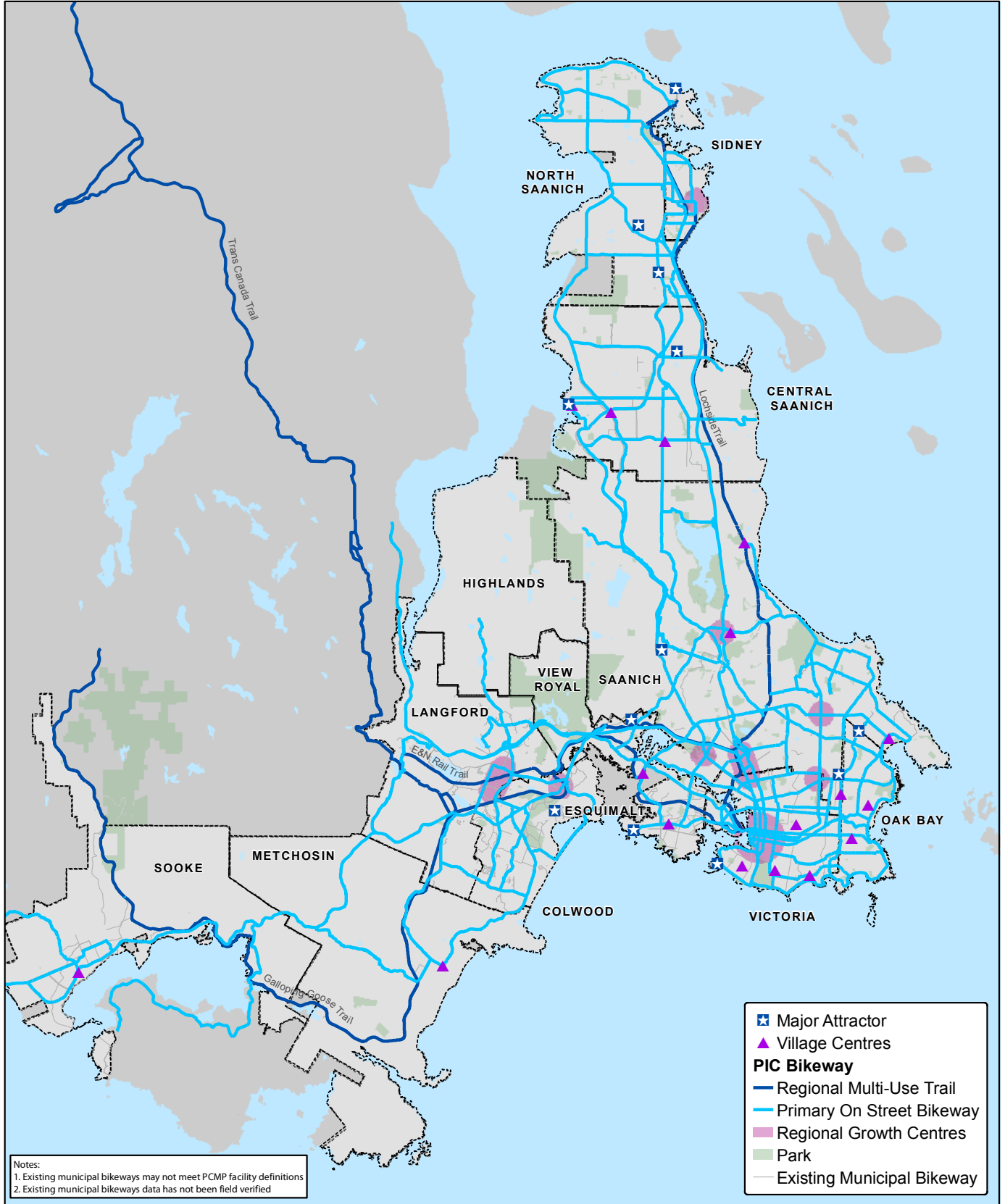
The identified PIC bikeway network connects regional and village centres, transit exchanges, employment centres, and other regional destinations. The network includes over 900 kilometres of corridors, shown in Map 1.

Bikeway Facilities on Arterials with Curb and Gutter



Bikeway Facilities on Arterials without Curb & Gutter





Map 1. Primary Bikeway Network

Capital Regional District Regional Pedestrian and Cycling Master Plan
 Author: Alta Planning + Design
 Date: March 2011

0 1 2 4 6 Kilometers



Integration with other regional plans

Several major regional planning efforts for the CRD are currently being developed or were recently completed. The 2005 TravelChoices served as the foundation of the PCMP regional bikeway network. While the TravelChoices network designated regional bikeway corridors primarily in the regional core, the PCMP more evenly distributes inter-community facilities throughout the region.

The TravelChoices Implementation and Investment Plan (TIIP) prioritized investments from the TravelChoices network in areas where more people are likely to use the facilities; i.e. focusing investments in areas with higher population numbers. As shown in Table 1, the PCMP expands on the TIIP prioritization by focusing on a broad network that provides access and options for people across the region. By creating a comprehensive network of facilities that are comfortable and attractive to users of all ages and abilities, the pool of potential users is expected to grow exponentially.

The draft Transportation Corridor Plan (Halcrow 2010) recommends corridors for primary use by specific modes of transportation. The strategic cycling network identified in the draft Corridor Plan includes the Regional Trail system, but does not recommend cycling on roads where transit is considered a priority use (e.g., Douglas Street). By contrast, the PCMP asserts that integration of transit and cycling is integral if the CRD is to reach the ambitions mode share goals. Cyclists and transit vehicles can and should be accommodated within many of the same corridors, with good design to maximize corridor function and safety. Innovative solutions such as buffered bicycle lanes, can be effective in shared transit/ bicycle corridors.

The PCMP primary bikeway network will continue evolving as related plans are developed and specific roads are prioritized for different modes.

Table 1. Relationship of TravelChoices Implementation and Investment Plan (TIIP) to PCMP Prioritization

CRITERION	TRAVEL CHOICES	
Safety	ICBC Safer Cities Initiative safety index to identify high-risk locations	Makes recommendations for Class I facilities given context of bikeway corridor
Destinations	Sum of employment and post-secondary enrolment per acre (by traffic zones)	Connections to key regional destinations, including regional centres, village centres, parks, and schools
Multi-Modal	Provision for pedestrian use; multi-use trails receive higher score	Prioritized projects provide access to transit centres and bus stops
Connectivity	Projects providing regional connectivity receive high score, projects providing inter-municipal connectivity receive medium score	Recommends a continuous priority regional network based on municipal and stakeholder priorities

This PIC network provides a comprehensive, cross-regional system, supporting ambitious mode split goals and facilitating cycling for transportation and recreation throughout the region.

Facility assignment

Due to the variety of conditions and range of factors that are used to determine the appropriate bicycle facility type appropriate to a particular road, the PCMP recommends a level of separation rather than a specific treatment for each road on the identified primary network (see inset, page 6). Map 2 shows the recommended level of separation on the identified PIC bikeway network.

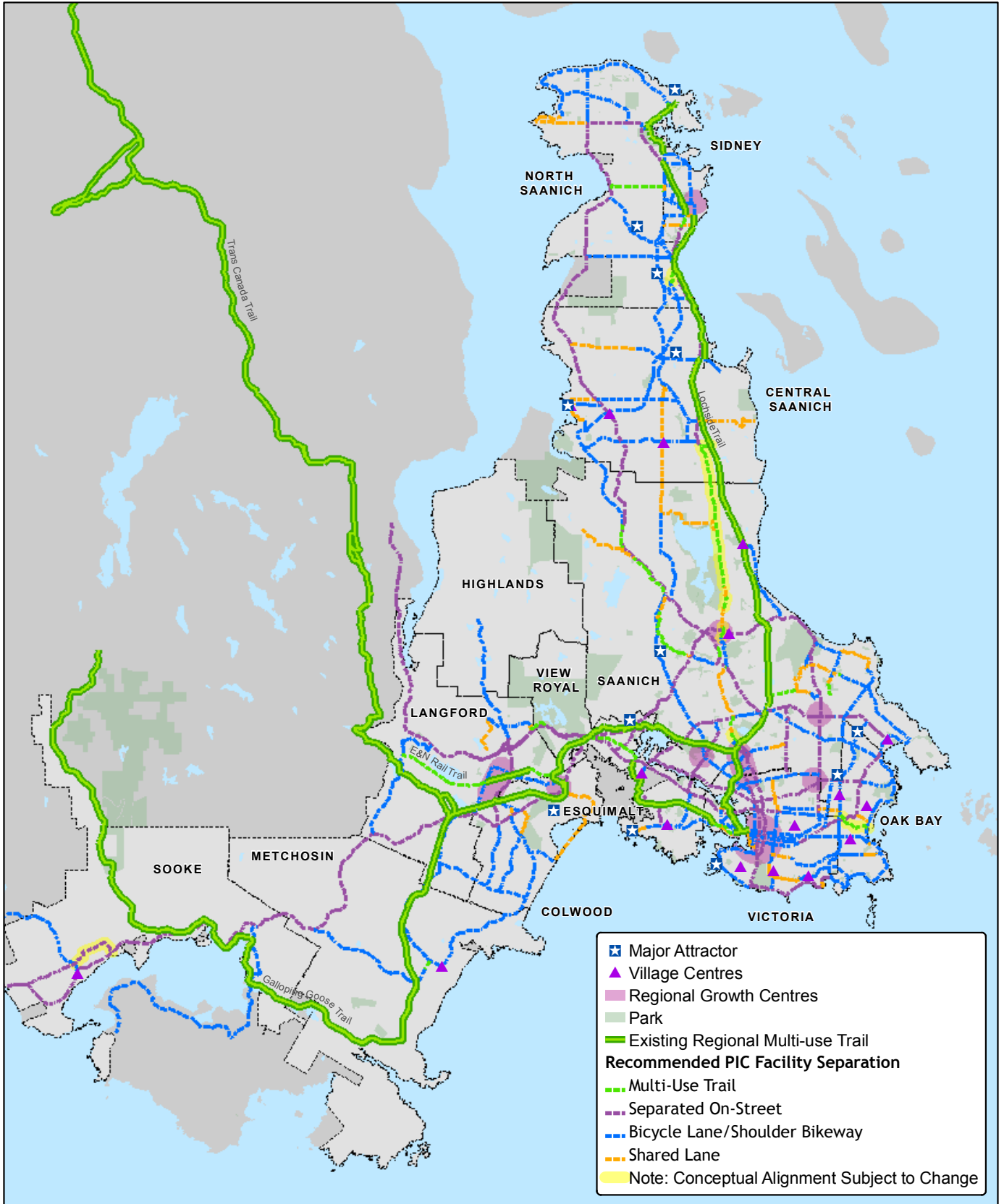
In some corridors, it may be desirable to construct facilities to a higher level of bikeway to enhance user safety and comfort. In other cases, the level of separation is not warranted by motor vehicle speeds and volumes, and a lesser treatment may be acceptable.

To strategically focus implementation on key corridors within this extensive

Priority Actions:

- Adopt the PIC Bikeway Network, Classifications and Typologies as a Regional Plan

PIC bikeway network, priority corridors were identified. These priorities and cost estimates are discussed in Chapter 5. Funding and Implementation and in Appendix H.



Map 2. Recommended Facility Separation on the PIC Bikeway Network

Capital Regional District Regional Pedestrian and Cycling Master Plan
 Author: Alta Planning + Design
 Date: March 2011

0 1 2 4 6 Kilometres



Objective 2: Improve regional walkability

The CRD Regional Trails provide a superb multi-use network, on which pedestrians can traverse across the region on foot. For most pedestrians however, the trail system is more of a recreational than transportation facility. Due to the longer distances involved with regional trips,⁵ most regional pedestrian trips are multi-modal, combining walking, transit, cycling, and other modes.

For this reason, pedestrian corridors do not make up a continuous regional network (other than the Regional Trail Network); rather, pedestrian accommodation should be prioritized in areas linking key destinations, where more people are taking shorter walking trips or walking to end a longer multi-modal trip.

⁵ Eighty percent of CRD residents need to travel from their home to another municipality to acquire goods, services or employment (Source: 2002 O&D Household Survey).

The PCMP considers the needs of pedestrians by identifying pedestrian priority areas, through design guidelines tied to levels of anticipated pedestrian use, and through analysis of pedestrian policies and guidelines.

Strategy 2.1: Identify pedestrian priority areas

Regionally significant pedestrian areas have a high density of pedestrian-attracting land uses, particularly:

- Regional growth/village centres
- Transit centres, transit exchanges and future rapid transit exchanges
- Regional parks and trails
- Civic destinations and schools

Identified pedestrian priority areas are shown in Map 3. In addition to the corridors and high pedestrian use areas, a number of recreational trails can be used to traverse the region on foot. Regional Parks is currently working on an updated *Strategic Plan* that identifies a number of pathways.

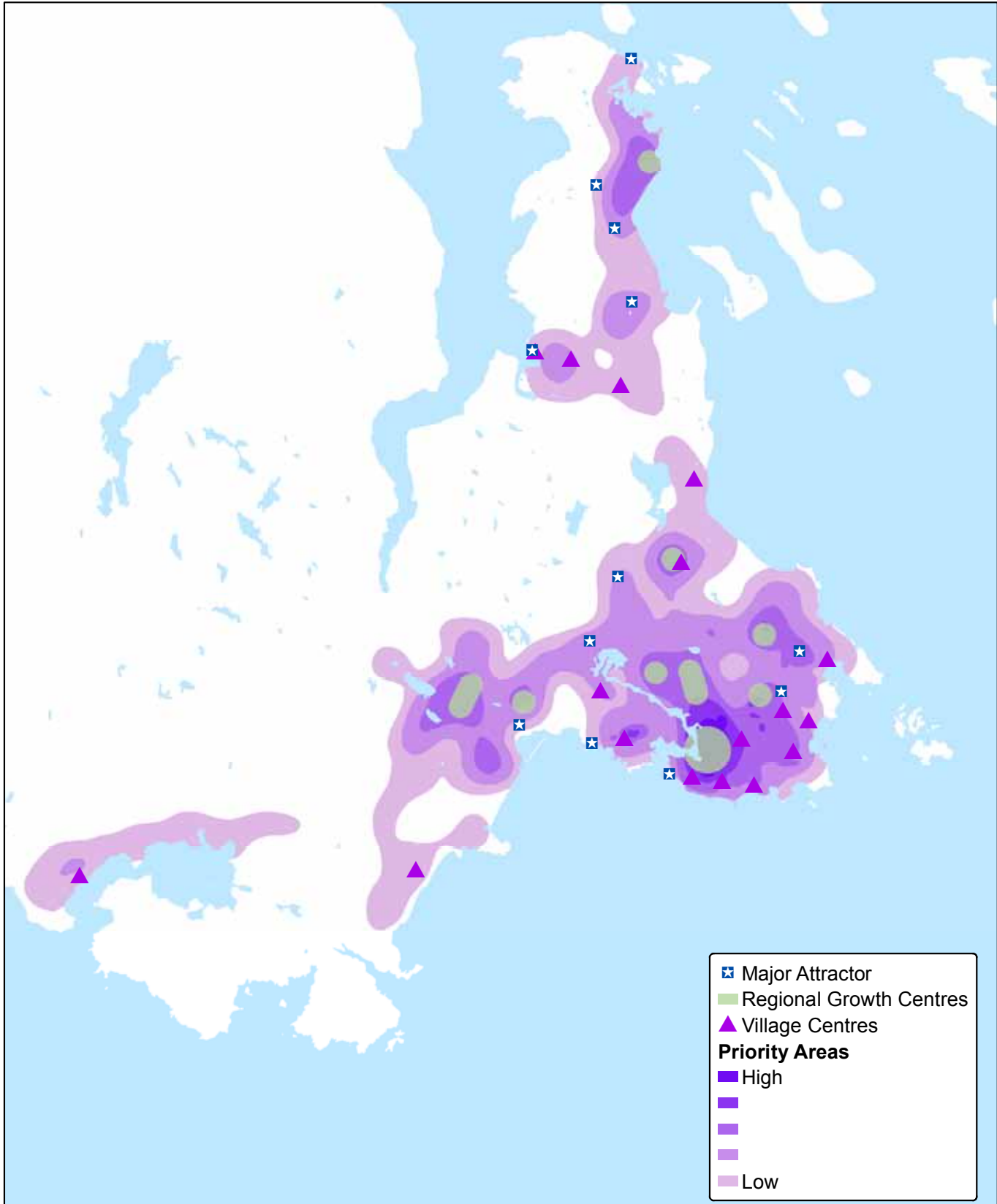
The PCMP recommends focusing on arterial and collector streets in regional centres, areas with anticipated high pedestrian use, and high priority regional corridors, including streets that access transit. The intersection of these pedestrian areas with the *Transportation Corridor Plan* (Halcrow 2010) identified corridors that are key locations for high levels of pedestrian design.

Priority Actions:

- Work with municipalities, CRD Parks, accessibility advocates and agencies to ensure consistent universal pedestrian design application, particularly in areas identified as high pedestrian use.



The Bicycle and Pedestrian Design Guidelines that accompany this Masterplan outline treatments and resources for providing universal access through the pedestrian realm, accommodating pedestrians of all abilities.



Map 3. Regionally Significant Priority Areas

Strategy 2.2: Identify pedestrian facilities and policies

Design of pedestrian facilities is important to ensure consistency in facility installation throughout the member municipalities. The PCMP Design Guidelines use universal design principles (providing access to pedestrians of all ages and abilities) to identify sidewalk and crossing guidelines appropriate for use in pedestrian high-use areas compared to residential areas.

While universal design is often considered as benefitting people with disabilities, these principles ensure that everyone, whether a child, a senior, or an adult in a wheelchair or pushing a stroller, can safely and comfortably use the provided facilities and get from one place to another.

Objective 3: Promote regional consistency, continuity and connectivity

Strategy 3.1: Develop common standards for pedestrian and cycling design guidelines

The PCMP Design Guidelines were developed to provide a consistent and

comprehensive reference for the implementation of walkway and bikeway networks throughout the Region, containing the highest quality standards of pedestrian and bicycle safety comfort and convenience.

Key principles for the guidelines are:

- The walking and cycling environment should be safe.
- Pedestrian and cycling facilities should be consistently designed and installed.
- The networks should connect to places people want to go.
- The environment should be easy to understand and use.
- Improvements should be economical.
- Guidelines should be flexible and applied with professional judgment to ensure context sensitivity.

The design guidelines are a resource around which municipalities can engage in reviewing best practices, sharing and learning from each other. The guidelines should be regularly reviewed and updated as a collective process by member municipalities.

Design guideline development

The guidelines were developed in the following ways:

- A **table of contents** was created in consultation with the PCMP TAC, based on desired treatments and issues identified in workshops.
- **International best practices** were integrated with the Transportation Association of Canada (TAC), Ministry of Transportation and Infrastructure (BC MOTI), and other local design documents.
- **Design guidelines workshops** were held with PCMP TAC/CAC members and other interested stakeholders.

Pedestrian Design Guideline Next Steps

While the guidelines are presented as a single document, they are intended to be a working document that can be built upon as guidelines are established or innovative treatments are developed. The following outstanding issues were identified as part of the review process and are presented as next steps:

- Development of recommendations for accommodating bicyclists and pedestrians through construction.
- Identification of maintenance concerns and strategies.

Workshops to train engineers and planners at the CRD and member municipalities in implementation and use of the design guidelines.

- Collaboration with CRD and other municipal Parks and Recreation departments to further develop multi-use trail guidelines.



Common regional standards for design of bicycle facilities allow cyclists to travel across the region on facilities at their comfort level.

Strategy 3.2: Develop a common wayfinding signage system

Bicycle wayfinding signs help users identify the best cycling routes to key destinations. They also visually cue motorists that they are driving along a bicycle route.

A common set of guidelines for directional signage will contribute to making the region more universally accessible by providing consistent and predictable messaging. It will promote the network by increasing awareness and marketing the network.

The District of Saanich has already pioneered innovative cycle-route signage that has been utilized to varying extents by Central Saanich, Oak Bay, and Victoria. This Masterplan recommends blending the Saanich signage with the Canadian TAC Guideline signage. This would create a sign template that benefits from the unique and already familiar Saanich signage with a standard that is internationally recognized and can be easily integrated into the family of regulatory signage.

The PCMP Design Guidelines provide an overview of signage requirements based on TAC and the Canadian Manual on Uniform Traffic Control Devices (MUTCD-C), as well as recommendations based on best practices for sign colour, placement, frequency, and content.

While guidelines have been developed in coordination with the PCMP TAC and CAC members, it is anticipated that additional collaboration will be required to finalize the regional signage standards and to ensure that they are adopted and used region wide.

Priority Actions:

- Establish a Signage Committee to review and revise the Draft Sign Guidelines (Section 5 of the Design Guidelines) for a recommended regional standard

Objective 4: Improve trip enhancement facilities for active transportation

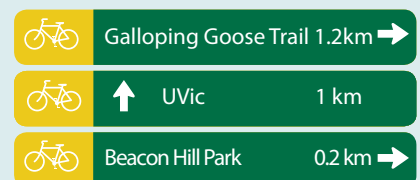
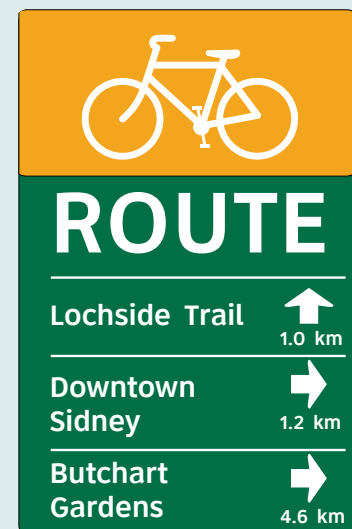
Trip enhancement facilities (also known as ‘end-of-trip facilities’) enhance the walking and bicycling experience and can be a determining factor in whether someone decides to make a non-motorized trip. Amenities include bicycle parking, showers and lockers for cyclists and benches, fountains and landmark indicators for pedestrians. Although most municipalities have some policies and standards, no municipalities have a comprehensive approach. This Masterplan recommends a common set of guidelines and standards to establish a minimum expectation, with programs designed to incentivize the installation of trip enhancement facilities.

People are more likely to walk if they can count on amenities such as rest areas, washrooms, water fountains, pedestrian oriented street lighting, and attractive, well maintained landscaping.

Given the anticipated demographic shifts in the region, providing high-quality and frequent trip enhancement facilities will determine whether people will choose or feel that they are able to utilize the bicycle and pedestrian networks.



Existing wayfinding signs used in several municipalities in the CRD.



Proposed wayfinding signs integrate existing design of bikeway wayfinding signs with provincial and federal regulations. These signs represent some of the options considered in this process.

Bicycle End-of-Trip Facilities



Short-term bicycle parking facilities include racks which permit the locking of the bicycle frame and at least one wheel to the rack and support the bicycle in a stable position without damage to wheels, frame or components.



Long-term bicycle parking facilities protect the entire bicycle, its components and accessories against theft and against inclement weather, including snow and wind-driven rain.



Other trip enhancement facilities include showers and lockers that benefit bicycle commuters who have a long commute or who require professional clothing attire.

Strategy 4.1: Develop policies and guidelines for bicycle parking standards

Short and long term bicycle parking provide cyclists somewhere to leave their bicycles whether for a short trip into a store or for a day at the office. Policies specifying bicycle parking requirements for new construction and redevelopment ensure that cyclists can depend on parking availability.

Section 6 of the PCMP Design Guidelines provides direction on the design and placement of these facilities.

To encourage consistent and sufficient provision of bicycle parking throughout the region, the CRD should pursue the following actions:

- Develop requirements for bicycle parking and bicycle end-of-trip facilities in both newly constructed buildings and redevelopment.
- Consider adopting the requirements for short-term (Class I) and long term (Class II) parking proposed in the Design Guidelines.
- Work with member municipalities to prioritize the installation and upgrade of bicycle parking in regional centres, villages and transit hubs.

Strategy 4.2: Build up Pedestrian Amenities in Priority Areas

This Masterplan recommends a special focus on installing pedestrian amenities in high pedestrian areas, as described in the Design Guidelines. Pedestrian amenities include: benches, water fountains, shade/shelter structures, and many other amenities.

A key missing pedestrian amenity that

was identified by advocates is wash-room facilities along the multi-use trails. Currently, three washroom stations are located on the regional trail network. An optimal standard would have washrooms sited every 5 km (an hour's walk). Next steps are as follows:

- CRD Regional Parks should update existing trail management plans to identify and provide appropriate visitor services.
- The CRD should work with member municipalities to develop specific guidance for the provision of trip enhancement facilities in pedestrian priority areas.

Strategy 4.3: Create an Incentives and Partnership Program

Incentives are an important tool for encouraging developers to provide bicycle parking and other end of trip facilities. For example, Esquimalt offers reductions in off-street motor vehicle parking at commercial and industrial buildings if bicycle parking is provided. The CRD should:

- Provide incentives to encourage bicycle parking facilities beyond the minimum requirements.
- Establish bike rack programs that assist in the location, design and funding of racks to stimulate retrofitting short-term bike parking in the existing network.

Appendix B. Trip Enhancement Facilities provides an inventory of existing bicycle end-of-trip facilities and pedestrian trip enhancement features. The Appendix also recommends specific policies and infrastructure to enhance bicycle and pedestrian trips throughout the region.

Objective 5: Integrate active transportation with transit

Keeping in mind that “every transit user is a pedestrian at some point”, this Masterplan acknowledges transit’s integral role in ensuring the success of an active transportation strategy. Typical considerations for integrating active transportation and transit include:

- Appropriately planning for expected demands.
- Providing connections between active transportation and transit networks.
- Providing appropriate facilities at transit exchanges (e.g. bicycle parking).
- Creating convenient bicycle and pedestrian access at, to, and from transit exchanges.
- Developing policies for carrying bicycles onto transit vehicles.
- Accommodating pedestrians and cyclists in the physical design of transit exchanges.

Appendix C. Transit integration outlines these key considerations and makes recommendations for improving nonmotorized access to transit and interactions with transit.

Strategy 5.1: Improve transit stop connectivity

Bicycle and pedestrian routes to transit stops are often overlooked, sometimes leaving newly upgraded, accessible stops isolated due to lack of connectivity to nearby destinations. The PCMP Design Guidelines identifies standards for new and re-development applications, expanding on the District of Saanich’s OCP Development Permit guidelines.

Guidelines for pedestrian facilities, including crosswalks, curb ramps, and other treatments, are addressed in the Bicycle and Pedestrian Design Guidelines. These guidelines assist the CRD and municipalities in providing consistent and accessible pedestrian routes in key locations throughout the region, based on context-sensitive design.

Strategy 5.2: Provide appropriate facilities at transit locations

BC Transit provides bicycle parking and other end-of-trip facilities at transit centres. However, facilities are not provided consistently at transit centres and are insufficient for the potential use.

To ensure provision of adequate bicycle facilities at transit centres, the CRD should:

- Work with BC Transit to develop acceptable rules that allow bikes to be carried on buses when exterior bike racks are full.
- Work with BC Transit to develop and implement standards and quantities of secure bicycle parking based on size of the transit stops.

Priority Actions:

- Secure an agreement with BC Transit and member municipalities to install secure bike lockers at priority transit locations



Trip enhancement facilities such as benches, informational kiosks, and bicycle parking are currently provides in several locations along the regional and local multi-use trail system.

Chapter 2. Education and Encouragement

While it is important to focus on improving the hard infrastructure facilities that make cycling and walking safer, more enjoyable, and more predictable, it is equally important to ensure that CRD residents have the skills, information, confidence and support they need to walk and bicycle more.

This chapter recommends education, encouragement, Active and Safe Routes to School, and bike sharing programs designed to help more CRD residents know about new and improved facilities, learn the skills they need, and receive the accolades they deserve for living more sustainably.

The CRD is uniquely positioned to take a leading role in cycling and walking programs as leader, convener, adviser, funder, and communicator to the public. Appendix D. Education and E. Encouragement provide an overview of existing programs and specific program recommendations.

Objective 6: Develop a regional Active and Safe Routes to School Effort

Over 50% of students are driven to their schools. European experience demonstrates that the incorporation of cycling skills training into the school curriculum can reverse this trend and help to imbue a level of ease and familiarity with active transportation amongst the next generation.

Active and Safe Routes to Schools programs (ASRTS) aim to improve safety, health and fitness habits for children. Programs require partnerships among municipalities, school districts, community and parent volunteers, and law enforcement agencies.

Strategy 6.1: Work with partners to increase the number of children walking and cycling to school

The CRD should work with municipal and other partners to:

- Roll out a region-wide cycling skills course to school-aged children (building on the CRD KidsCAN pilot project).
- Pursue long-term, stable funding

for an Active and Safe Routes to Schools Program.

- Provide expertise to serve as a resource for municipalities and other groups.
- Coordinate a quarterly ASRTS Working Group to promote regional communication and coordination.
- Lead ongoing School Travel Planning efforts at individual schools throughout the region.
- Develop a consistent regional evaluation strategy for Active and Safe Routes to School Programs.
- Act as coordinator, working with partners to deliver programs (e.g. iWalk).

Objective 7: Create education programs that increase knowledge and confidence around active transportation

Education programs can directly increase the number of people walking and bicycling as well as their confidence and safety while traveling.

Strategy 7.1 Provide skills and training

To facilitate regional training programmes, the CRD should:

- Sponsor on-going training and professional development in best practices of facility design for municipal staff and other related professionals.
- Work with agencies (e.g. ICBC, Driver Educators, CRD Traffic Safety Commission) to emphasize the rights and responsibilities of motorists and cyclists in training, testing and awareness programs.
- Create family bicycling programs to help parents figure out how to safely transport children by bicycle and help children learn bicycling skills.



Education and encouragement programs promote use of the cycling and pedestrian networks and can be rewarding events with community partners.

Objective 8: Develop a Marketing and Promotion Strategy to improve the status of cycling and walking

A regional approach to marketing and promotion of active transportation makes sense from a financial and staff resource perspective. Experience elsewhere suggests that consistent, abundant messaging can change attitudes and improve perceptions of the inherent walkable scale of their neighbourhoods.

Strategy 8.1: Coordinate a Sunday Parkways event with partners in the Region

Special events such as Ciclovias (Ottawa, Bogota) or Sunday Parkways (Portland) where roadways are shut down from motorized traffic have had an extraordinary effect in creating a celebratory effect, and tend to attract first-time cyclists. The very successful Shelbourne Community Ride (April 2010) drew hundreds of families, some of whom had never ridden a bicycle in their lives. The Greater Victoria Cycling Coalition (GVCC) and other ad hoc groups have identified an interest in supporting and partnering with an ongoing ride.

The CRD can support similar public events which seek to raise the profile of walking and cycling such as Jane's Walk - a national movement inspired by renowned urban planner, Jane Jacobs.

Strategy 8.2: Establish a Web Portal

The CRD should create an active transportation web portal that functions as a clearinghouse for information and key resources for all things relating to cycling and walking. A next step would be development of a regional multimodal trip planning tool.

Strategy 8.3: Develop a Branded Messaging Campaign

The CRD should undertake research to understand most effective messaging and to ensure effective targeted investment in the campaigns. The messaging could dovetail awareness and profile with various issues (helmet campaign, Cycling Rules, visibility, trail etiquette).

Strategy 8.4: Co-sponsor Community Events

Interest in active transportation garners a great deal of enthusiasm from a wide variety of sectors. Typically these groups are volunteer-strong but cash-strapped. A modest amount of funding can be turned into incredible currency in the form of celebrations, awareness, outreach and education.

Strategy 8.5: Personalized Marketing

Personalized transportation marketing programs have been identified as highly effective for commute-based trips. BC Transit has a personalized program for seniors learning to use the transit system. With the CRD's

mandate to undertake transportation demand management, a personalized marketing program could be developed which ties into BC Transit's work, as well as other partners such as the Victoria Carshare Coop.

Objective 9: Increase access to bicycles

Strategy 9.1: Support Municipal Bike Share Systems

Based on bike share systems elsewhere, as well as local characteristics, it is likely that a thoughtfully-designed bike share system could be successful in the CRD.

As no bikeshare system has been launched and operated without subsidy from the host community, any steps towards establishing a bikeshare system should involve a feasibility study. Factors to consider include population density, demographics, mixture of land use and non-residential density, cycle-ability and completion of the bikeway network, cycle culture, intermodal connectivity, timing, and a communications strategy.



Bike share programs can provide safe and convenient access to bicycles for short trips, transit-work trips, and/or tourist trips.

Chapter 3. Enforcement

A bicycle and pedestrian network should be supported by policies that improve safety for cyclists and pedestrians (personal and traffic safety) and security for their bicycles, enhance legal protection for vulnerable road users and enforce traffic safety rules for all road users.

The review of regional and municipal bylaws indicated that there is significant inconsistency across the region regarding how (or even if) cycling and pedestrian provisions are incorporated into municipal regulations. In addition, the PCMP process identified a need to clearly define the range of mobility devices, motorized scooters, e-bikes, and other devices that are increasingly being used on the regional trails.

Objective 10: Improve road safety and protect vulnerable users

Strategy 10.1: Upgrade existing bylaws, introduce new bylaws

Model policies have been adopted by some municipalities in the CRD that could be adopted region-wide ensuring regional consistency and minimizing confusion. Pioneering bylaws have also been adopted by other communities that could be adopted in the region, described in Appendix F. Bylaws.

The CRD should facilitate the region-wide adoption of the following bicycle and pedestrian supportive policies:

- A bylaw that allows cyclists to ride through crosswalks that connect to regional trails (e.g., Saanich and Victoria have developed bylaws that could be adopted region-wide).

- Create a Pedestrian Charter (e.g. policies in Esquimalt and Colwood).
- Clarify e-bike (pedal-assist and motorized) definition and regulations for regional trails and bikeways (CRD Parks)
- Consider working to change provincial legislation in support of model policies from other jurisdictions such as:
 - Allow cyclists to treat “stop” signs as “yield” signs (Idaho)
 - One-metre bike passing rule/vulnerable road users law (passed in several U.S. states; Saanich is currently developing policy language for this rule)
- Work with CRD Traffic Safety Commission and the various police to develop an enforcement campaign that clearly links and target enforcement of traffic behaviour known to be dangerous to cyclists and pedestrians.

Priority Action:

- The CRD should take the lead in seeking improvements and amendments to existing provincial laws in support of safer cycling and walking conditions.

Objective 11: Improve personal safety conditions

Strategy 11.1: Conduct bicycle and pedestrian safety audits

Fears for personal safety are frequently cited as a barrier to bicycling and walking, especially on off-road trails where isolation and lighting are factors. The CRD can alleviate some of these concerns on its Regional Trail network by conducting audits and identifying measures that prevent crime through environmental design to provide greater visibility of cyclists and pedestrians.

The recommendations derived from the audits can be integrated into the Design Guidelines document.

Objective 12: Reduce bicycle theft

Strategy 12.1: Implement programs to report and reduce bike theft.

Bike theft is a major deterrent to cycling; whether or not someone feels confident locking their bicycle in a given location determines whether that person feels they can ride. Actions the CRD can take to reduce bicycle theft in the region include:

- Work closely with police on bait-bike programs.
- Consider development of an optional regional bike registration or tracking program.
- Educate cyclists and promote proper lock up procedures.
- Explore ways to support stolen bicycle retrieval through investigations.

Objective 13: Improve driver/cyclist traffic behaviour

Strategy 13.1: Develop and implement a respect campaign

The Bicycle Rules campaign in New York City, developed and promoted by a cycling advocates group, has received global accolades for its approach of fostering responsibility and respect among motorists, bicyclists and pedestrians. The CRD should pursue implementing such a campaign.

Strategy 13.2: Develop and implement a diversion class

A diversion class can be offered to first-time offenders of certain traffic violations, such as running a stoplight or speeding. In lieu of a citation and/or fine, individuals can take a one-time, free or inexpensive class instead.

Chapter 4. Evaluation and Planning

The bicycle network, pedestrian guidelines and supporting recommendations will require substantial investment and planning to implement. A bicycle and pedestrian monitoring program would allow the CRD to track the impacts of investments and help the CRD and member municipalities pursue outside funding.

Objective 14: Develop a benchmarking and measurement system

Regularly measuring and reporting activity provides valuable information to municipalities regarding which measures (and by extension, investments) are garnering the desired results and which measures are less effective. The action of “reporting out” also improves transparency regarding how this Masterplan is being implemented.

Several municipalities and organizations currently conduct counts and surveys of bicyclists and pedestrians. The CRD is well-positioned to accumulate the necessary additional data by building on the 2006 counting pilot project. These efforts can be leveraged in the pursuit of a consistent methodology for the Region, summarized in Appendix G. Evaluation and Planning.

Strategy 14.1: Increase counts, coordinate and collate existing counting data

Without accurate and consistent demand and use figures, it is difficult to measure the impacts of investments.

To consistently count cyclists and pedestrians, the CRD should:

- Provide a standard for bicycle and pedestrian counts and surveys to encourage consistency of data collection, enabling the CRD to use data collected by municipalities.
- Work with cycling advocacy organizations to develop an annual volunteer-driven count program utilizing the recommended count-site map identified in the PCMP.
- Use the National Bicycle and Pedestrian Documentation Project (NBPD) methodology to conduct counts and surveys that can be compared to other communities.
- Produce an annual Pedestrian and Bicycle Account that reports on plan implementation, network completion, safety and user perception, and other information.

Objective 15: Improve inter-jurisdictional harmonization

The PCMP process has brought together planners, engineers, decision makers, and advocates from regional part-

ners. The CRD should continue this inter-jurisdictional communication to support PCMP implementation in the coming years.

Strategy 15.1: Establish an oversight committee structure

To maintain momentum on pedestrian and cycling issues, the CRD should:

- Convene a staff-supported pedestrian and cycling advisory committee to facilitate implementation of the PCMP and on-going updates to the Design Guidelines.
- Utilize a standard reporting form and information transfer process for updating facilities and monitoring (see proposed form and process in Appendix G of the PCMP).
- Create a high level council of elected officials and community leaders charged with championing active transportation in the region.
- Develop a list of community members who are interested in region-wide bicycle and pedestrian planning who can disseminate information on events.

Priority Action:

- Collaborate with partners in the development of a volunteer driven manual count strategy for the Region.

Priority Action:

- Convene a Cycling and Pedestrian Advisory Committee made up of CRD and municipal staff, as well as community representatives.



Regularly counting bicyclists and pedestrians allows the CRD and member municipalities to track progress toward implementing this Masterplan.

Chapter 5. Funding and Implementation

The visionary pedestrian and cycling mode share goals (15% regionally for walking and 15% regionally and 25% in high density areas for cycling) in this Masterplan are ambitious targets that would reinforce the region as a world-wide leader in sustainability. However, realizing these substantial increases in will require significant collaboration and effort by the CRD, member municipalities, electoral areas, partner organizations, and residents.

This Masterplan has identified key priorities for each subsection addressed, particularly focusing where the CRD could facilitate discussions to advance the topic area. In addition, the CRD and municipalities should develop an extensive network of on-street cycling facilities that are comfortable for all types of cyclists to achieve the bicycling mode split goals.

This implementation strategy presents a targeted methodology for how the CRD and municipalities can focus efforts on developing the primary inter-community (PIC) bikeway network infrastructure. In addition, supporting programs are integral to educating and encouraging residents to use the network. Appendix H. Funding and Implementation contains additional detail about the priority project identification, cost estimates, and funding opportunities.

Objective 16: Develop the Primary Bikeway Network

The PIC bikeway network consists of over 900 km of on- and off-street bikeway facilities through all 13 municipalities and Juan de Fuca Electoral Area. This network was selected to provide a web of bicycle facilities throughout the region, to enable and encourage residents and visitors to bicycle for everyday trips and for recreation.

In order to focus investments on strategic corridors, priority projects were

identified through this Masterplanning process. Based on existing jurisdictional authority, each jurisdiction will be responsible for their portion of the PIC bikeway network.

Identification of priority projects

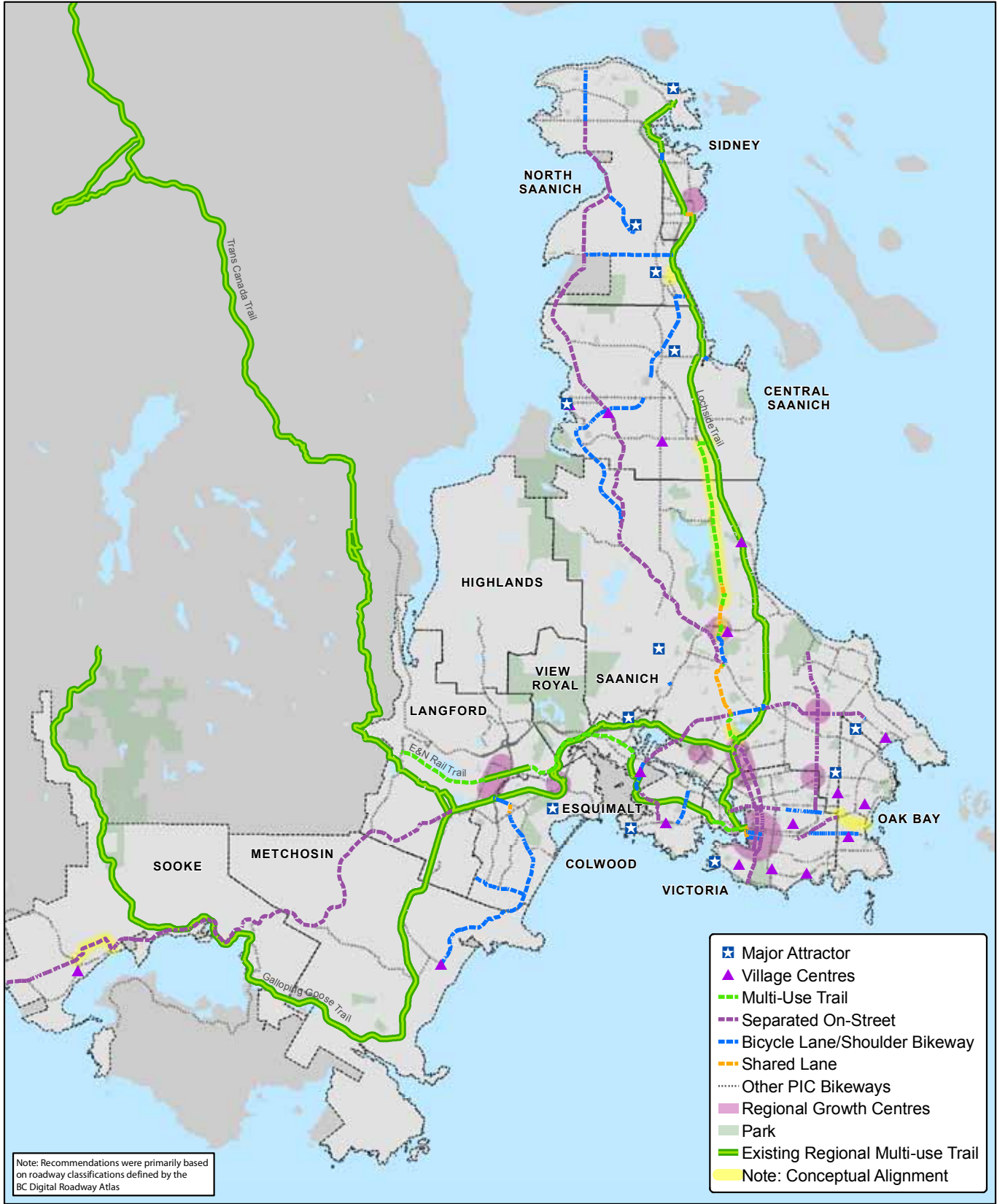
The 200 km of priority projects were identified through workshops with municipal partners and stakeholders to capitalize on and coordinate with current and future planning efforts. Priority corridors were selected as corridors that are vital connections between communities, independent of existing traffic conditions that impact facility type recommendations (see Table 2).

The regional priority projects are shown in Map 4 and summarized in Table 3 (page 25). Ultimately, project priorities within a particular municipality will be determined by the opportunities such as road reconstruction and development as well as community and partner feedback.

Projects not on the priority list are integral to the development of a regional network, particularly where no fa-

Table 2. Regionally Significant Bicycle Corridor Selection Criteria

CRITERION	CONSIDERATIONS
Suitable for bicycling/ walking without improvements	Is the corridor a route that is currently safe and comfortable for cycling? Do existing roadways have low posted speeds and motor vehicle volumes?
Provides/enhances Active and Safe Route to School connection	Does the corridor provide a new or enhanced connection to a school? In the case of rural areas, does the corridor improve access to community centres?
Closes a critical gap	To what degree does the corridor fill a missing gap in the bicycle and/or pedestrian system?
Serves an immediate safety need	Can the project improve bicycling and walking at locations with perceived or documented safety issues? Are roadways designated as either freight or transit routes?
Serves key origins or destinations	How many user generators and attractors does the corridor connect within reasonable walking or bicycling distance, such as schools, parks, regional centers, etc.?
Geographically distributed	To what degree does the project benefit the regional community by offering opportunities for increased connectivity to surrounding communities, regional walkways/bikeways, etc.?
Serves supportive land uses	Does the route travel through areas of higher density, indicating a higher potential use? For rural areas, does the route provide access to regional destinations outside urban areas?
Right-of-way available	Is the corridor currently in public jurisdiction or private ownership?
Interfaces with other transportation modes	Does the corridor provide a new or enhanced connection to a transit centre, exchange, or bus stop?
Has local political and community support	To what degree do CRD member jurisdictions desire the proposed project? (Includes oral and written feedback from the community workshops and feedback received in public surveys.)



Map 4. Recommended PIC Priority Improvements

Capital Regional District Regional Pedestrian and Cycling Master Plan
 Author: Alta Planning + Design
 Date: March 2011

0 1 2 4 6 Kilometres



cilities exist currently. Regardless of whether they were identified as a regional priority, bikeway projects should occur as roadways are repaved or reconstructed or as grant money is becomes available.

While the CRD's jurisdiction for implementing projects is limited to the Regional Trail System, the identification of projects under individual municipalities' jurisdiction as regional priorities will enhance a funding application and promote the development of these projects.

Facility classification selection and cost opinions

Through collaboration with engineering and planning staff at the CRD and member municipalities, this Masterplan developed a bikeway classification and typology schema, described in Chapter 1 and in the PCMP Design Guidelines. To achieve the mode split targets, the bikeway network should appeal to a variety of users, from eight to eighty years old, and provide direct,

convenient, comfortable, and safe travel from trip origins to destinations. For this reason, the primary bikeway network should be developed or upgraded to Class I (suitable for all users), based on street classification.

This level of facility represents a significant investment; the total cost of the PCMP is estimated at \$275 million, with priority projects costing over \$100 million. While this is a significant investment for the region, the benefits of a complete bikeway network that provides facilities to accommodate users off all ages and abilities will place the region at the forefront of sustainability and livability.

Strategy 16.1: Develop the priority Regional Trails Network

The 17 kilometre E & N Rail Trail project is the most recent addition to the 84 kilometre Regional Trail system which includes the Galloping Goose (55 km) and the Lochside Trail (29 km). In 2007, funding was secured and engineering design commenced for the E

& N Rail Trail. In 2009, construction started on Phase I of the trail which includes 6.6 km of new trail within the E&N Rail Corridor and paving 2.5 km of the Galloping Goose Regional Trail.

Phase I (45% of the complete trail) provides a 14.3 km contiguous route from Esquimalt Road in the City of Victoria to Jacklin Road in the City of Langford using newly constructed rail trail, sections of the Galloping Goose Regional Trail and cycling lanes and sections on municipal roadways. Secure dates and funding for future phases has not yet been established, but for the purposes of this Masterplan, the alignment on the maps includes the E and N Rail Trail at full build out. For a detailed map of the E & N Rail Trail Development Plan, see Appendix H.

This Masterplan did not address concerns about the existing conditions on the Galloping Goose and Lochside Trails. However, the Bicycle and Pedestrian Design Guidelines provide a resource for multi-use trail standards,



The cycling network includes 361 km of separated facilities, 191 km of bike lanes/shoulders, and 45 km of shared lanes.



Education, encouragement, enforcement, and evaluation programs are critical to persuading people to use the bikeway network.

Table 3. Priority Bikeway Projects by Jurisdiction

	PRIORITY PROJECTS	TOTAL OF ALL PROJECTS
	Length (km) / Cost	Length (km) / Cost
Core Region		
Esquimalt	3.1 / \$1,194,118	8.8 / \$2,315,729
Admirals Rd ● Lampson St ■		
Victoria	22.7 / \$3,324,740	54.7 / \$12,442,493
Bay St ●/■ Blanshard St ● Douglas St ● Fort St ●/■ Oak Bay Ave ■ Shelbourne St ● Wharf St ■ Yates St ■		
Oak Bay	2.5 / \$660,243	24.1 / \$3,585,920
Bowker Creek ● Oak Bay Ave ■		
Saanich	49.0 / \$13,233,645	116.9 / \$44,444,921
Admirals Rd ● Blanshard St ● Borden St ■ Chatterton Way ■ Cherry Tree Bend ■ Conceptual Alignment ● Dieppe Rd ■ Douglas St ●/■ Douglas Street Connector ● Falaise Dr ■ Glendenning Rd ■ Interurban Rd ■/■ McKenzie Ave ●/■ Quadra St ● Shelbourne St ● Torquay Dr ■ Wallace Dr ■ West Saanich Rd ●		
View Royal	0.6 / \$101,083	26.5 / \$36,024,142
Admirals Rd ●/■		
Esquimalt FN/MOTI	0.5 / \$10,105	0.5 / \$10,105
Admirals Rd ■		
West Shore Region		
Colwood	13.7 / \$4,581,000	25.37 / \$8,814,711
Kelly Rd ■ Latoria Rd ■ Metchosin Rd ■/■ Sooke Rd ●		
Langford	4.0 / \$2,700,032	42.8 / \$21,021,059

	PRIORITY PROJECTS	TOTAL OF ALL PROJECTS
	Length (km) / Cost	Length (km) / Cost
Kelly Rd ■ Sooke Rd ●		
Highlands	- / -	- / -
Metchosin	10.1 / \$4,380,857	20.5 / \$8,341,758
Metchosin Rd ■ Sooke Rd ●		
Sooke	14.9 / \$18,072,009	22.6 / \$26,673,990
Grant Rd ● Sooke Rd ● West Coast Rd ●		
Pauquachin FN/MOTI	1.9 / \$1,324,852	4.7 / 3,386,151.4
West Saanich Rd ●		
JDF	63.8 / \$44,048,005	114.1 / \$70,672,868
Sooke Rd ● West Coast Rd ●		
Peninsula Region		
Central Saanich	17.3 / \$4,978,014	52.1 / \$14,419,812
Douglas Street Connector ● Mt Newton Cross Rd ■ Wallace Dr ■ West Saanich Rd ●		
North Saanich	14.6 / \$5,845,028	45.4 / \$18,055,090
Aldous Terr ■ Amity Dr ■/■ McTavish Rd ■ West Saanich Rd ●/■ Willingdon Rd ■		
Sidney	0.6 / \$153,802	11.9 / \$4,121,489
McDonald Park Rd ■ Ocean Ave ■		
Tsawout FN/MOTI	- / -	0.2 / \$3,451
Tseycum FN/MOTI	0.6 / \$1,121,811	0.6 / \$1,121,811
West Saanich Rd ●		
Other Jurisdiction		
CRD	7.9 / \$1,637	8.3 / -
E&N ● Lochside Regional Trail ■		

- Multi-Use Trail
- Separated On-Street
- Bicycle Lane/Shoulder Bikeway
- Shared Lane

including consideration for surfacing width, and separation in differing contexts. The CRD should endeavour to comply with these standards.

Priority Actions:

- Seek funding to complete the E and N Rail Trail.
- Assess existing Regional Trail network and standards against the Design Guidelines.

Objective 17: Establish education, encouragement, evaluation, and enforcement programs

The primary “capital” needed to implement programmatic recommendations, especially at the outset, is staff time and expertise. Three scenarios have been developed for implementing the education and encouragement recommendations from this Masterplan: the first (“moderate”) scenario assumes that no more than 0.25 FTE is available to assist with both Active and Safe Routes to School (ASRTS) and Education/Encouragement efforts; the second (“strong”) scenario assumes that 1 FTE is assigned exclusively to these duties; and the third (“aggressive”) scenario assumes that 1 FTE is assigned to education/encouragement and 1 FTE is assigned to ASRTS work.

Each recommendation has been ranked for the three implementation scenarios for reach (number of residents reached) and resources needed (cost/staff time), shown in Table 4. See Appendices D and E for more information on recommended programs.

Objective 18: Establish a funding, investment, and prioritization program

Currently, cycling and pedestrian facilities are undertaken as part of each municipality’s capital projects; they are usually integrated into road upgrades but occasionally special projects such as the retrofit of a road are funded separately. The CRD and member municipalities have historically been successful in obtaining grant money; over 40 projects with active transportation components have been funded across the region through grant programs since 2004. However, grant availability and requirements can vary year-to-year.

Strategies to fund the PCMP recommendations include:

- Maintain a list of potential funding sources, including contact information and requirements.
- Apply and assist municipalities in applying for grants that have a high probability of being awarded.
- Recognize opportunities for municipalities to collaborate on grant applications and infrastructure programs.
- Consider the creation of a Regional Trail Development Fund to fund ongoing trail improvements or additions.

Three scenarios for a staged implementation of constructing the bikeway network infrastructure are provided following, based on level of effort and funding availability.

Scenario 1: Moderate Effort

Under the existing funding scenario, municipalities incorporate the majority of bicycle and pedestrian improvements into existing roadway construction or reconstruction projects. Funding for these projects generally come from public works budgets, from general funds, development cost charges, local or business improvement districts, and other sources. Municipalities also receive funding from grants, particularly through the Cycling Infrastructure Partnerships Program (CIPP), Provincial BikeBC and LocalMotion Programs, as well as a number of recent grants from Infrastructure Canada.

This scenario assumes that municipalities and the CRD continue the same level of funding for bicycle and pedestrian projects,⁶ and continue seeking additional funding through grant opportunities. The PIC bikeway network would be developed piecemeal over an extended period, as other roadway projects were identified and based on municipal priorities. The CRD would assist in the development of the inter-community bikeway network by assisting municipalities in grant funding applications and by continuing to develop the Regional Trails Network.

Scenario 2: Strong Effort

The CRD could make active transportation a regional priority by establishing a dedicated fund through an allocation from municipalities, or through a parcel tax or another source. This source would be available to municipalities for developing projects on the inter-community bikeway network based on local and regional priorities.

⁶ Exact funding amounts for bicycle /pedestrian projects are not possible to extract from municipal transportation spending, as bikeway and walkway improvements are generally included in every roadway construction or reconstruction project.

Table 4. Priority Bikeway Projects by Jurisdiction

<p>Scenario 1: Moderate Effort In this scenario, the only CRD resources applied to implementing education and encouragement efforts is providing a quarter-time staff position to track municipal efforts and regularly convene a Regional Pedestrian and Cycling Steering Committee. This scenario assumes that CRD provides no program funding beyond staff time, and that they rely heavily on community groups and volunteers to execute the recommendations. Under this scenario, CRD will achieve a limited role as a convener, coordinator, and advisor.</p>	<p>Scenario 2: Strong Effort Under this scenario, it is assumed that one full-time staff person at CRD will be assigned to tracking Masterplan implementation, including education and encouragement activities. In addition, it is assumed that some monies would be secured to implement key recommendations.</p>	<p>Scenario 3: Aggressive Effort This scenario assumes both one full-time Pedestrian and Cycling Coordinator position as well as 1.5 FTE outreach staff annually, charged with numerous public interface tasks (such as Youth Bike Skills instruction and personalized marketing campaign outreach and logistics). It is also assumed that funding will be secured to move forward on all recommendations (though not necessarily to complete all recommendations within Year 1).</p>
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RECOMMENDATION	ACTION UNDER SCENARIO	REACH (# RESIDENTS)	RESOURCES NEEDED (COST/ STAFF TIME)
SCENARIO 1: MODERATE EFFORT			
ASRTS	Communicate with partners	Low	\$
Youth Bike Skills Course	None	None	None
Special Event Sponsorship	Support community events	Low	\$
Bike Sharing Feasibility Study	None	None	None
Develop User Map	As time allows; online distribution only	Moderate	\$
On-Line Tool	None	None	None
Active Transportation Prof. Development Courses	One training per year	Low	\$
Personalized Marketing Campaign	None	None	None
Respect Campaign	None	None	None
Data Collection and Survey	Limited annual user counts	n/a	\$
SCENARIO 2: STRONG EFFORT			
ASRTS	Communicate with partners; establish shared goals; track progress	Moderate	\$\$
Youth Bike Skills Course	Expansion to at least one program in each school district	Moderate	\$\$
Special Event Sponsorship	Host one signature event and support community events	Moderate	\$\$\$
Bike Sharing Feasibility Study	Begin working with municipal partners towards this goal	Low	\$
Develop User Map	Create paper & online user maps; print & actively distribute maps	High	\$\$
On-Line Tool	Begin working with municipal partners towards this goal	Low	\$
Active Transportation Prof. Development Courses	Two trainings per year	Moderate	\$\$
Personalized Marketing Campaign	Actively search for applicable grant funding source	None	\$
Respect Campaign	Initiate conversation with law enforcement and municipal partners	None	None
Data Collection and Survey	Widespread annual user counts	Moderate	\$\$
SCENARIO 3: AGGRESSIVE EFFORT			
ASRTS	Develop and implement work plan with partners through formal ASRTS Working Group; initiate School Travel Planning; evaluate efforts	High	\$\$\$
Youth Bike Skills Course	Reach every seventh grader	High	\$\$\$\$
Special Event Sponsorship	Host several high-profile community events (e.g. a series of Sunday Parkway events in the summer and a family biking workshop)	High	\$\$\$\$
Bike Sharing Feasibility Study	Contract out full feasibility study	Moderate	\$\$
Develop User Map	Create paper and online user maps; print and actively distribute maps	High	\$\$
On-Line Tool	Roll out beta online tool by end of 2012	Moderate	\$\$\$
Active Transportation Prof. Development Courses	Four trainings per year	Moderate	\$\$\$
Personalized Marketing Campaign	Execute pilot campaign in Year 1	Moderate	\$\$\$
Respect Campaign	Execute campaign through formal media channels, grassroots outreach	Moderate	\$\$\$
Data Collection and Survey	Widespread annual user counts and surveys; creation and distribution of annual report card	Moderate	\$\$\$

An advantage of the CRD's involvement is to develop projects across municipal boundaries and with a regional perspective. In addition, the funding would promote the development of world-class facilities suitable for all bicyclist types.

The 'strong effort' scenario would seek to build the priority network in 27 years, requiring a region wide allocation of about \$4 million annually.⁷

⁷ It should be noted that a large portion of the costs associated with the projects are for cycle tracks and separated facilities. Alternate routes may be available to minimize costs for these facilities.

Priority Actions:

- Pursue a dedicated funding source at assist the municipalities and MOTI in developing the primary inter-community bikeway network.

Scenario 3: Aggressive Effort

This scenario would develop the network quickly, with significant regional investment. To build the complete PIC network in 27 years would require \$10 million annually invested in bicycle transportation infrastructure.

Strategy 18.1: Integrate cycling and pedestrian planning and policies into CRD, member municipality and agency partner planning documents

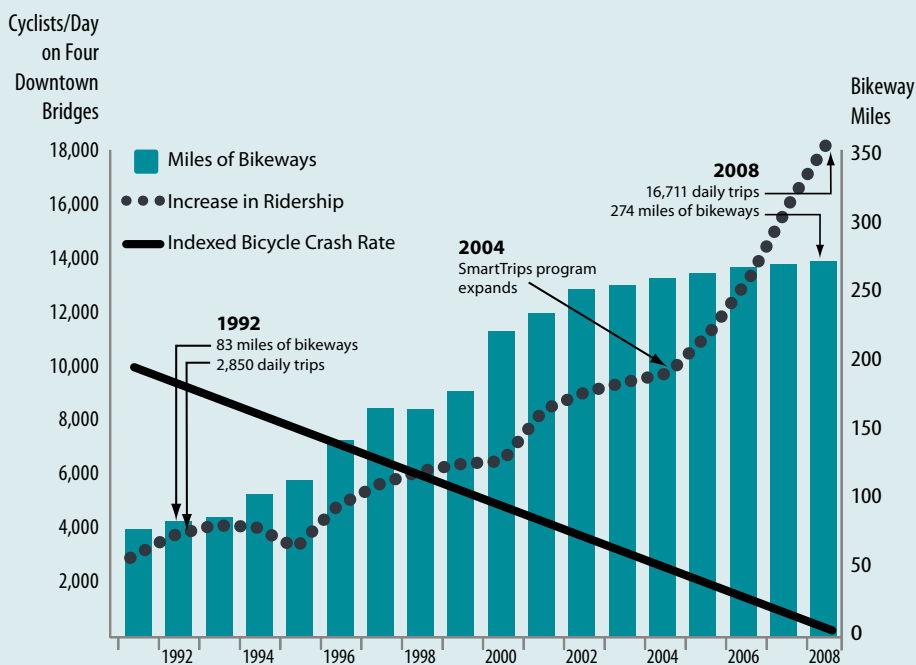
To bolster support and increase implementation, PCMP policies should be integrated into other planning initiatives to create a more complete and integrated planning and policy framework.

The key future CRD planning documents that relate to the PCMP include:

- CRD Transportation Demand Strategy (expected 2011)
- CRD Transportation Corridor Plan

- CRD Parks Master Plan (updated as the CRD Regional Parks Strategic Plan, expected 2011)
- 2005 Regional Growth Strategy (updated as the Regional Sustainability Strategy, expected 2011)
- Rapid Transit Master Plan
- Victoria Transit Future Plan

As Plans that are in development progress, the PCMP network recommendations may need to be revisited to connect to regional transit centres. In addition, the recommendations in this Masterplan should be revisited as it is implemented; connections to regional multi-use trails and other high-use corridors may require additional treatment. An even more robust network with parallel corridors will be justified to accommodate high levels of cycling anticipated in the Region.



The fact that bicycle ridership increases as the physical bikeway network is constructed has been proven over and over again throughout the world. The City of Portland, Oregon, has tracked the number of bicyclists crossing bridges into downtown since 1991.

As shown in the graph, the data indicates a long-term trend towards increased ridership. While the development of additional bikeway facilities has tapered off since 2002, bikeway traffic has continued increasing since that time.

Figure 1. Network Build-Out and Mode Share, Portland Oregon

How to Use This Masterplan

The CRD Regional Pedestrian and Cycling Masterplan provides a lot of information representing substantial involvement from the CRD, municipal partners, organizations, and citizens. The following FAQ provides a quick reference for particularly relevant or substantive pieces of the Masterplan.

Is the Bikeway Network set in stone?

No. This Masterplan is a living document; priorities will shift as opportunities such as development, roadway reconstruction, or specific grant funding opportunities arise. In addition, the inter-community bikeway network was conceived to facilitate bicycle access throughout the region. Alternative routes may be identified to enhance bicycling opportunities for all types of users. The project list should be revisited every five years to realign priorities with those of member municipalities, partners, and citizens.

Why doesn't the Masterplan tell us exactly where bike lanes should go?

The PCMP recommends a facility level of separation dependent on roadway classification. Truck or transit traffic, proximity of schools elder care facilities, turning movements, sightlines, and other factors impact facility design. This Masterplan and the accompanying Design Guidelines provide tools for individual municipalities to determine the appropriate facility for a given location.

What if we can only afford to install a Class II facility for now?

In some circumstances, a Class II facility is a satisfactory substitute for a Class I facility. The classifications are shown as a continuum due to the variety of factors, listed above, that impact what type of facility is appropriate to all levels of users. In most locations, the ultimate goal is to provide a Class I standard throughout the inter-community bikeway network, and a Class II facility should be considered a temporary improvement.

Whose responsibility is it to pay for the road improvements?

The improvements to make a road into a primary inter-community bikeway are the responsibility of the body with jurisdiction over the roads – generally the municipality, or the Ministry of Transportation and Infrastructure (MoTI) for highways and roadways within the Juan de Fuca Electoral Area. The CRD is responsible for the Regional Trails Network, and will be seeking federal assistance (Gas Tax) to fund the remainder of the E & N Rail Trail.

How will the Design Guidelines be used?

The Bicycle and Pedestrian Design Guidelines provide detailed guidance for the development of bicycle and pedestrian facilities, intersection treatments, and trip enhancement elements. They provide references to the federal and provincial guidelines for specific treatments. When considering a bicycle improvement project, engineers and planners should consult the Design Guidelines as a toolbox of options for bikeway and walkway facilities.

Why wasn't a Pedestrian Network identified?

For the most part, walking is undertaken at the local level, so developing a “regional approach” to pedestrian planning is not realistic. Furthermore, most municipalities do not have detailed information about the presence of sidewalks, curb let-downs, and marked crossings. This Masterplan identified regional pedestrian priority areas, which are linked to guidance for accessibility and treatment standards in the Bicycle and Pedestrian Design Guidelines. Individual municipalities are encouraged to use this information to inventory and prioritize sidewalks within the identified pedestrian priority areas within their jurisdiction.

How does this Masterplan interface with local bike networks?

Local bicycle networks were considered when the primary inter-community bikeway network was identified. Corridors not considered to be “regional in nature” do not provide connections between communities or identified regional connections. They are important routes for bicycle circulation within municipalities, and frequently connect to the primary bikeway network. The Bicycle and Pedestrian Design Guidelines include considerations for local street bikeways and neighbourhood greenways, which can assist in the development of consistent and high-quality local bikeways.

Can this Masterplan be used as a bike map?

Because this Masterplan focuses on identifying regional corridors, the network map does not include existing local networks. It also does not consider roadways that municipalities designate as bikeways to be existing if no bicycle accommodation (signs or pavement markings) are present. Finally, several municipalities define bikeways based on user type or trip type (commuter route, recreational route). These designations are more helpful for individual trip planning than specific type of facility (bike lane, shared lane marking, etc.), which are important distinctions from a planning and engineering perspective.

This Masterplan is a blueprint for how the Capital Region can become a worldwide leader in sustainability and active transportation. The ambitious mode split targets are achievable, but will only be possible through collaboration between the CRD, member municipalities, and other regional partners. This Masterplan provides the direction and support to leverage the existing resources within the region to realize regional goals.

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Glossary of Terms

Active and Safe Routes to School

A national and international movement to help more children walk and bicycle to school through infrastructure and programmatic improvements.

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Advocates' Session

A number of public sessions were undertaken over the course of the masterplanning process. Dates and Titles:

- June 10, 2010 - Phase II Overview
- September 25, 2010 - Education, Outreach and Network Development

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Bikeway

Any roadway or trail which is designated for use by bicyclists. Common types of existing bikeways include marked roadway shoulders, signed routes, and dedicated bike lanes.

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CAC

Community Advisory Committee - made up of residents from across the region with an interest in cycling and walking. See inside front page of Masterplan for a complete list of members

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Class (I, II, III) facility

A general system of quantifying bikeway quality. Class I facilities provide a cycling experience that is attractive and comfortable for all system users while Class III facilities may be comfortable for only the most intrepid users.

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Class I and Class II Bike Parking

Refers to Long Term (Class I) and Short Term (Class II) parking facilities.

Major attractor

Inclusive of unique regional destinations as defined by CRD staff. Examples of these attractors include the University of Victoria, Schwartz Bay Ferry Terminal and Butchart Gardens.

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Major destinations

This includes Regional Centres (as identified by the RGS), Villages (as identified by staff on the PCMP TAC committee)

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Multi-Use Trail

This term is inclusive of both the Regional trail system (e.g., the Galloping Goose, Lochside, Trans Canada Trail and the E&N) maintained by CRD and off-street trails which are included as primary bike-ways.

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Primary Inter-Community Bikeway

Regionally-significant: routes that provide connections between municipalities, electoral areas, and regional destinations such as parks, universities, transit exchanges, and other key locations.

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Regional facilities

Refers to the Regional Trails - Galloping Goose Rail Trail, Lochside Trail, and E & N Trail.

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Short Term, Long Term bike parking

Refers to Long Term (Class I) parking facilities for cyclists staying more than three hours and Short Term (Class II) parking facilities for people staying less than three hours.

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TAC

Technical Advisory Committee - made up primarily of member municipality staff. See inside front page of Masterplan for a complete list of members

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The CRD (Capital Regional District)

When the CRD is identified as the body recommended to undertake an action in this Masterplan, it is used as an umbrella term to capture the various departments within the CRD for whom the responsibility would best apply. For example, Regional Planning may undertake some actions while Visitor Services within the Parks Department, may best be suited to deliver others.

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The Region/the region

The Region refers to the CRD as the government agency, whereas the region refers to the physical area which encompasses all 13 municipalities, and the Juan de Fuca Electoral Area.

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Transit exchange

Reflects major transit connections such as exchanges or major stops (high volume) as well as other locations identified by the Transit Future plan and the Rapid Transit plan.

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Transit integration

The practice of closely tying bicycle and pedestrian improvements to the transit system to provide increased system linkages for the "last kilometre" of travel.

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Trip enhancement facilities

Also known as "end-of-trip" facilities and typically inclusive of bicycle parking, and changing rooms for cyclists as well as benches, water fountains and landmark indicators for pedestrians.

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