

Transit Future Plan VICTORIA REGION | May 2011







TRANSIT FUTURE PLAN VICTORIA REGION Table of Contents

02 Executive Summary

Visions and Goals The Transit Future Network Implementation Plan Moving Forward

08 Introduction

Why Do We Need a Transit Future Plan? What Is a Transit Future Plan? Plan Area Provincial Transit Plan Links to Other BC Transit Plans

12 Participation

Municipal Participation Community Participation

20 Setting the Scene

Land Use Demographics Travel Patterns Conventional Transit Custom Transit

32 Visions and Goals

Vision Statement Project Goals

36 The Network

Service Layers Esquimalt Nanaimo (E & N) Transportation Corridor Benefits of the Transit Future Plan Network

42 Resources

Service Hours and Vehicles Transit Infrastructure

50 Implementation Plan

Network Priorities Ongoing Initiatives Partnership Opportunities

64 Moving Forward

Funding the Plan What We Need to Succeed

Executive Summary

Transit has tremendous potential to contribute to stronger, more sustainable communities. The need to realize this potential in the Victoria region is increasingly important because of factors such as climate change, population growth, increasing traffic congestion and an aging demographic. The Victoria region has an estimated population of 350,000 residents with an average of more than 1.2 million trips (all modes of travel) made each day throughout the region. An estimated population of 453,000 by 2038 is expected to create a 40 per cent increase in daily trips equating to 1.7 million trips per day in the Victoria region.

Meeting the demands of the forecasted population and traffic growth in the Victoria region requires a shift in focus from moving vehicles to moving people. In the past, government at all levels has attempted to build its way out of traffic congestion by expanding the road network, but this has only resulted in temporary success. Major investments in expanding the road network to accommodate the private automobile do not align with local, regional and provincial planning aspirations. Without a significant increase in the use of transit and other sustainable modes (e.g., walking and cycling) the increase in daily trips will result in increased congestion on key local and regional transportation corridors. Congestion has negative environmental, social and economic impacts on the community and contributes to higher transit costs.

The Transit Future Plan envisions the Victoria region's transit network 25 years from now and describes what services, infrastructure and investments are needed to get there. The plan was designed to create a stronger link between land use and transit planning, support the key initiatives of BC Transit's Strategic Plan and support the Provincial Transit Plan.

The Transit Future Plan includes a review of the existing transit services, regional and local land use plans, travel data, demographic projections and travel demand forecasts. Consultation efforts included detailed discussions with municipal partners, a stakeholder's workshop, the Transit Future bus tour, Rapid Transit open houses, a project web site and an online planning game. In total, BC Transit engaged with more than 5,000 people in the region.

The background research and community engagement resulted in the creation of a unified vision for transit and the development of a transit network designed to meet the needs of the Victoria region.





Vision and Goals

Vision Statement

"To be a leader of integrated transportation solutions connecting people and communities to a more sustainable future"

Goals

1. Transit is an attractive alternative to the private vehicle

- Fast and direct
- Convenient and reliable
- Easy to use
- Comfortable
- Accessible to everyone

2. The transit system reduces our impact on the environment

- Support a sustainable urban form
- Support a sustainable transportation network
- Investigate new vehicle technologies

3. The transit system is efficient

- Maximize ridership for the amount of resources used
- Match transit services levels to demand
- Match transit vehicles to demand



3



The Transit Future Network

The Transit Future Plan network is comprised of four layers of transit service. Together the different layers of service create a comprehensive transit network to best meet the existing and future needs of the region. The service layers are designed to efficiently move people around the region facilitated by the implementation of transit priority measures.

Rapid Transit Network (RTN)

RTN services are designed to move high volumes of passengers between major regional destinations along key transportation corridors. Services are frequent (15 minutes or better between 7:00 a.m. and 10:00 p.m.) seven days a week and stop less often than traditional transit services. Investments in RTN infrastructure, technology, vehicles and service levels combine to greatly increase system performance. To improve travel time and reliability, RTN services utilize an exclusive (Exclusive Corridor) or semi-exclusive (Priority Corridor) right-of-way to eliminate or significantly reduce the impact of general traffic on transit vehicles. RTN services use high capacity transit vehicle technologies such as light rail vehicles and high capacity buses. Other investments required along the corridor are premium transit stations, off-board ticketing and typically corridor branding.

Frequent Transit Network (FTN)

FTN service provides medium to high density mixed land use corridors with a convenient, reliable and frequent (15 minutes or better between 7:00 a.m. and 10:00 p.m.) transit service seven days a week. The goal of the FTN is to allow customers to spontaneously travel without having to consult a transit schedule. The FTN will carry a large share of the transit system's total ridership and for this reason justifies capital investments such as transit priority, right-of-way improvements, a high level of transit stop amenities and corridor branding.

Local Transit Network (LTN)

The LTN is designed to connect neighborhoods to local destinations and to the RTN and FTN. LTN services allow customers to plan a trip to work, school or the local shopping centre by transit. Frequency and vehicle type are selected based on demand. In some cases, smaller transit vehicles can be utilized to better match customer demand and operating conditions to local roads.

Targeted Services

Targeted Services are a collection of transit services that do not fit into the other definitions and are more focused on the specific needs of customers. These services include:

- Interregional services that provide connections between cities
- handyDART services that provide door-to-door services for customers unable to use the conventional service
- Express service that provides a direct limited-stop route between destinations
- Rural para-transit that provides flexible transit routing in rural areas









5

Implementation Plan

Establishing the Transit Future Plan network requires prioritizing transit investments and developing an implementation strategy to transform today's network into the future network.

Network Priorities

Priority #1 – Existing initiatives and network efficiencies (1–2 years)

- Complete Victoria Regional Rapid Transit Project Study
- Implement cost neutral or cost saving Transit Future Plan network changes as a part of the 2011 Victoria service review
- Establish limited stop service on RTN corridors
- · Identify and implement transit priority opportunities with short implementation timelines
- Invest in on-street amenities throughout the transit network
- Identify and implement opportunities to expand Park & Ride capacity on the West Shore
- Implement Google Transit Trip Planner

Priority #2 - Establish critical transit facilities (prior to network expansion)

- University of Victoria (UVic) Exchange
- Uptown Exchange
- New operations and maintenance facilities

Priority #3 – Implement RTN and FTN

- 1. Implement Victoria Regional Rapid Transit Project recommendation (0-5 years)
- 2. Create FTN route structure and complementary LTN services (0-5 years)
- 3. Commission second RTN Corridors Study (1-3 years)
- 4. Implement short term RTN improvements (2-7 years)
- 5. Implement transit priority on FTN corridors (0-10 years)
- 6. Implement full RTN (7+ years)
- 7. Increase service levels on FTN corridors (as required)
- 8. Expand FTN (as required)

Ongoing Initiatives

- Address current service needs
- Match vehicle type to local demand
- Develop LTN
- Improve customer information
- Improve transit facilities
- Make transit more accessible

Partnership Opportunities

- Shelbourne Corridor Study
- Victoria International Airport bus service
- Swartz Bay transit station
- Highway 17 and Beacon Rd. Interchange Concept Development Study
- Admirals Rd. Transportation Study
- Douglas Corridor Study



Moving Forward

Funding the plan

Full implementation of the Transit Future Plan will require significant capital and operating investment in the transit system over the next 25 years. In particular, investments in transit priority measures are critical to the plan's success by increasing demand and creating an increasing return on service hour and fleet investments. Given the level of transit investments anticipated over the coming decades, the way in which transit is, and will be, funded needs to be reviewed.

The ambition of this plan and the Provincial Transit Plan will require BC Transit and its partners to continue their endeavors to achieve stable and predictable revenue sources beyond the existing funding mechanisms. For this reason, BC Transit and the CRD will coordinate efforts to achieve more stable and predictable funding sources in direct partnership with the region's municipalities and other stakeholders.

What we need to succeed

BC Transit has begun to take steps to guide the Transit Future Plan from vision to reality. A key step is the need for ongoing dialogue with local partners and the province on transportation policy, funding and the linkage between land use and transit planning.

Moving forward, BC Transit will use this plan to communicate the vision and direction of transit in the region, to prioritize investments and to encourage integration with local and regional plans and projects.

The Transit Future Plan is designed to accommodate the ridership necessary to achieve provincial and regional transit mode share targets. Municipal, regional and provincial planning agencies are pivotal to the plan's success. They can create demand for transit through strategic Transit Oriented Development, transit friendly land use practices, Travel Demand Management practices and the provision of right-of-way for significant transit priority measures.



7

8

Introduction

Why Do We Need a Transit Future Plan?

Transit has tremendous potential to contribute to stronger, more sustainable communities. The need to realize this potential in the Victoria region is increasingly important because of factors such as climate change, population growth, increasing traffic congestion, and an aging demographic. The Victoria region has an estimated population of 350,000 residents with an average of more than 1.2 million trips (all modes of travel) made each day throughout the region. An estimated population of 453,000 by 2038 is expected to create a 40 per cent increase in daily trips equating to 1.7 million trips per day in the Victoria region.

Meeting the demands of forecasted population and traffic growth in the Victoria region requires a shift in focus from moving vehicles to moving people. In the past, government at all levels has attempted to build its way out of traffic congestion by expanding the road network, but this has only resulted in temporary success. Major investments in expanding the road network to accommodate the private automobile do not align with local, regional and provincial planning aspirations. Without a significant increase in the amount of people using transit and other sustainable modes (e.g., walking and cycling) the increase in daily trips will result in increased congestion on key local and regional transportation corridors. Congestion has negative environmental, social and economic impacts on the community and contributes to higher transit costs.

The transit mode share target set by the provincial government, and included in this plan, of 12 per cent means that the region's transit ridership is expected to grow from 24 million to 55 million passengers a year by 2030. In order to achieve mode share figures of this magnitude, investments in Rapid Transit are required in addition to transit supportive land use.



A Transit Future Plan is designed to facilitate the development of more sustainable and liveable communities throughout British Columbia. A Transit Future Plan will:

- Focus public investment in transportation (the movement of people and goods)
- Influence and support land use that lends itself to service by public transit and active modes of transportation (e.g., walking and cycling)
- Create communities and neighbourhoods where people can live, work and play without complete reliance on the automobile
- Ensure the road network is available for the efficient transportation of people and materials
- Reduce energy consumption and the production of green house gas emissions primarily through the reduction in use of single occupancy vehicles
- Provide access to community services such as health care and other goods and services
- Make transit more competitive with private automobile travel
- Outline future high quality transit corridors (e.g., Rapid Transit) that can help attract public and private investments in infrastructure, development and employment

What is a Transit Future Plan?

A Transit Future Plan envisions what a region's transit network will look like 25 years from now and describes what services, infrastructure and investments are needed to get there. Although it is BC Transit's role to guide the plan from vision to reality, the intended outcomes of the plan cannot be achieved by a single agency in British Columbia but rather through strategic and financial partnerships between local and regional governments, the Province of British Columbia and BC Transit.

The Transit Future Plan intends to promote and influence land use in the region that will facilitate an increase in the use of transit and other sustainable modes of transportation. The plan is designed to accommodate the ridership necessary to achieve the Provincial Transit Plan mode share targets; however, municipal, regional and provincial planning agencies are pivotal in the creation of demand through strategic Transit Oriented Development, transit friendly land use practices, Travel Demand Management practices and the provision of right-of-way for transit priority measures.



9

Plan Area

This plan has been created for the Capital Regional District (CRD), also known as the Victoria region. The Victoria region is located on the southern tip of Vancouver Island in British Columbia and is comprised of 13 municipalities. The region can be divided into three subregions: the Core area in which the urban centre of the region is located, the Peninsula to the north and the West Shore to the west. At the time of the 2006 census the Victoria region was ranked as the 15th most populous metropolitan area in Canada with a population of 330,000. Estimates in 2010 suggest the population is closer to 350,000.

The plan for the Victoria region has been designed to support the development of the region as expressed through the Regional Growth Strategy, Official Community Plans and the Regional Travel Choices Strategy. The Transit Future Plan is dynamic and will be reviewed over time to reflect shifts in local and regional land use ambitions.



The region can be divided into three sub regions: the Core area in which the urban centre of the region is located, the Peninsula to the north, and the West Shore to the west.

Provincial Transit Plan

The Transit Future Plan is also designed to achieve the goals of the Provincial Transit Plan. The Provincial Transit Plan is British Columbia's \$14 billion strategy for expanding fast, reliable and green transit. The plan emphasizes that, from a transportation perspective, the best means of reducing greenhouse gas emissions is to focus on dramatically increasing transit ridership (and thereby reducing single occupancy vehicles), linking transit to active modes of travel (walking and cycling) and having land use decisions, largely made by local government, focus on Transit Oriented Development or at least transit friendly development. The Transit Future Plan sets the framework for accomplishing these substantial goals in the Victoria region.

The Provincial Transit Plan sets a number of quantifiable targets such as:

- Reduce greenhouse gas emissions and air contaminants from cars by 4.7 million tones in British Columbia by 2020
- Double transit ridership in British Columbia to over 400 million trips a year by 2020
- Increase transit market share in the Victoria region to 9.5 per cent by 2020 and 12 per cent by 2030 this translates to an increase in transit ridership from 24 million to 55 million passengers a year by 2030

Increase transit market share in the Victoria region to 9.5 per cent by 2020 and 12 per cent by 2030 – this translates to an increase in transit ridership from 24 million to 55 million passengers a year by 2030.

Links to Other BC Transit Plans

The Transit Future Plan will support key initiatives in BC Transit's Strategic Plan, an overarching framework for BC Transit. Specifically, this plan contributes to the following Strategic Plan priorities:

- Increase integration with other types of sustainable travel
- Influence land use and development patterns
- Identify and establish priority corridors for transit
- Enhance existing partnerships and develop new ones
- Increase our environmental, social and economic accountability

The outputs of the Transit Future Plan will help build BC Transit's Capital Plans, Corporate Service Plans, Business Plans, three year Service Plans, Annual Service Plans and budgeting process.



Participation

BC Transit developed the Transit Future Plan with input from the CRD, the 13 local municipalities, the community and the Victoria Regional Transit Commission.

Municipal Participation

During the plan's development, BC Transit held detailed discussions with CRD staff and staff from the region's 13 municipalities. Consultation with municipal and regional partners was pivotal to the development of the plan to ensure alignment with local planning goals.

BC Transit sought endorsement of the Transit Future Plan vision, goals and network from all 13 municipal councils after seeking advice from the region's Chief Administration Officers on the endorsement approach. Councils were asked to support the plan so it could be identified in future municipal land use and transportation plans. To date, 12 of the 13 municipalities have provided support for the Transit Future Plan with the District of Metchosin being the only council yet to support the plan. As a part of their endorsement, a number of municipalities outlined specific transit priorities, initiatives or concerns in their municipality.

In addition to involving municipal and CRD staff in the Transit Future Plan process, BC Transit was involved in a number of local and regional planning initiatives during the production of the plan, such as the City of Victoria's Official Community Plan review and the CRD's Regional Corridor Study.



Consultation with municipal and regional partners was pivotal to the development of the plan to ensure alignment with local planning goals.



Community Participation

Development of the Transit Future Plan included significant community engagement to raise awareness of the plan and to ensure the delivery of a plan that will meet the diverse needs of the region. Through various innovative means, BC Transit gathered input from the community which has been used to shape the final Transit Future Plan.

The formal community participation process included the following efforts:

- 1. The Transit Future Bus → 4,200 people
- 2. The Transit Future website and survey \rightarrow 450 people
- 3. Online transit planning game "The Game Plan" \rightarrow over 1,000 people
- 4. Transit Future stakeholder workshop \rightarrow over 50 community representatives
- 5. Accessible Transportation Advisory Committee (ATAC) workshop → representative committee
- 6. Victoria Regional Rapid Transit open houses → almost 1,500 people

By engaging with over 5,000 members of the community through a wide range of community engagement techniques, a number of reoccurring themes arose throughout the process, including:

- Support for the concept of Rapid Transit (West Shore to Downtown was the top priority)
- Support for investigating rail-based vehicle technologies
- Support for improved transit service to major regional gateways (e.g., Victoria International Airport and Swartz Bay)
- Desire for more frequent transit services across the network
- Desire for livable communities where people do not have to drive to meet their daily needs
- Desire for reduced congestion
- Support for mixed use and dense land use patterns to support transit
- Concern regarding how major transit projects will be funded in the future
- Desire to increase provincial and federal government funding contributions as well as investigating new funding streams such as the community pass and parking taxes
- Desire for improved integration of transit and cycling
- The need to invest in new technology such as real-time customer information, mobile phone information and trip planning tools

By engaging with over 5,000 members of the community through a wide range of community engagement techniques, a number of reoccurring themes arose throughout the process.

1. Transit Future Bus

BC Transit converted an out of service bus to a mobile open house facility complete with information on transit projects, an interactive and educational transit game and a Kids' Zone.

In September and October 2010, the Transit Future Bus visited over 20 community locations, including farmers' markets, recreation events, shopping areas and college and university campuses throughout the region. In total, more than 4,200 visitors were welcomed on-board the bus.

Information on the bus was focused on the Transit Future Plan, its service layers and the Victoria Regional Rapid Transit Project. Attendees were able to provide feedback directly to BC Transit staff on-board and were also encouraged to provide feedback via the online planning game or via an on-board comment book.

Discussions between staff and those who came on-board revealed general support for significant improvements to the transit network to make transit more attractive, including the implementation of Rapid Transit service. Staff also gauged a high level of support for rail-based technology and the improvement of transit service to major regional gateways such as the Victoria International Airport and Swartz Bay.

The major themes drawn from the on-board comment book were:

- Support for Rapid Transit and rail technologies
- Increased frequency of existing services, particularly those that are "passing up" customers along the route
- Extension of the transit service day (late night, early morning and weekends)





2. Transit Future website and survey

The website provided information on the Transit Future Plan and guided users to an online survey and BC Transit's planning game to provide input into the plan.

The survey, completed by more than 450 respondents, included questions on current transit use and how respondents thought use would change in 2035 with the proposed Transit Future Plan network. The results, shown below, indicate that survey respondents thought they would use transit much more frequently in 2035 with the introduction of the Transit Future Plan network.

Some other outcomes from the survey were:

- Belief that the plan's vision and goals will guide the plan in the right direction
- Comfort with having to transfer as a part of their transit journey as long as trips are more frequent and direct
- Support for improved connections to the Victoria International Airport and Swartz Bay
- Desire for light rail service for the region
- Desire for High Occupancy Vehicle lanes now
- Desire for transit service to remain affordable









3. Online transit planning game – "The Game Plan"

The Game Plan, an online interactive and informative planning game, attracted more than 1,000 participants. The Game invited 'players' to prioritize responses to four questions about transit. The questions, and top 4 results for each, were as follows:

Why invest in transit?	 Livable communities Moving more people
	3. Environment
	4. Healthy living
Where should we invest in service?	1. Uptown to Langford (78 per cent support for the implementation of Rapid Transit on this corridor)
	2. Increased local frequency
	 Downtown to Uptown (67 per cent support for the implementation of Rapid Transit on this corridor)
	4. Uptown to Swartz Bay (70 per cent support for the implementation of Rapid Transit on this corridor)
How can we improve	1. Real-time customer information
customer amenities?	2. Easy payment options
	3. Safety and security
	4. Stop and station amenities
How do we pay for this?	1. Provincial funding
	2. Advertising
	3. Local gas tax
	4. Community Pass

Game participants were also provided with the opportunity to create a custom answer if they felt an option had been missed. Common custom answers included:

- More or improved service on specific bus routes in the region
- More direct routes, in particular for long trips such as those to and from the Victoria International Airport, Swartz Bay and Sooke
- More express transit routes, especially for commuters
- Desire for rail services
- Desire to integrate transit information and technology (real-time customer information, Google Transit Trip Planner etc.)

4. Transit Future stakeholder workshop

The workshop, held on October 26, 2010, welcomed more than 50 invited participants representing neighbourhood associations, key institutions and agencies, First Nations and transportation groups. Workshop discussions were structured around the following topics:

- Funding transit
- The customer experience
- The Transit Future Plan network and implementation priorities
- The relationship between land use and transportation

The workshop, hosted by a professional facilitator, had BC Transit staff manning the various tables as topic experts.

Common themes that arose during the workshop were:

- Support for Rapid Transit and vehicle technologies that will reduce transit's impact on the environment
- Desire to investigate alternative funding sources
- Desire for improved coordination amongst all levels of government for decision making and funding
- Desire for the integration of various transportation modes (transit, walking, cycling, driving, charter buses, freight, etc.)
- Support for transit-supportive land uses and mixed-use developments
- Desire for BC Transit to invest in new customer information technologies such as real-time customer information and mobile device customer information
- Willingness to transfer between transit services to complete a trip if the service is more frequent and direct
- Desire for improved connections to the Victoria International Airport and Swartz Bay



5. Accessible Transportation Advisory Committee (ATAC) workshop

ATAC was established to assist BC Transit in its endeavors to improve the accessibility of the transit system. As a part of the Transit Future Plan process, a workshop was held with ATAC members on October 7, 2010.

Workshop discussion topics revolved around the existing handyDART service, the accessibility of the conventional transit system, customer information and ideas for future improvements to accessibility.

Some of the key findings to come out of this workshop were:

- Customers with accessibility needs should be able to travel spontaneously
- Transit stops and exchanges should meet universal design standards
- Transit vehicles should be fully accessible
- Customer information should be available in formats for people with hearing and visual impairments (e.g., audible stop announcements, vision impaired friendly websites)
- Custom transit trips should not be prioritized (e.g., medical trips vs. personal trips)
- There is a hidden demand to utilize the handyDART system by people who have given up due to a lack of capacity at peak times or because they feel handyDART has a stigma attached to it
- There is a market for a transit solution that sits somewhere between the existing conventional and custom transit systems. This market could be reached through a new service product or by better integrating custom and conventional transit
- A solution is needed to reduce the conflict between wheelchairs and strollers on transit vehicles

6. Rapid Transit open houses

BC Transit hosted 12 open houses from March 2009 to May 2011 for the Victoria Regional Rapid Transit Project. The focus of these workshops was primarily on the following aspects of the Victoria Regional Rapid Transit Project:

- Data collection
- Project definition
- Alignment evaluations
- Street configuration options (side running, curbside, median, couplet)
- Vehicle technology options

The open houses also provided information on the proposed Transit Future Plan network. The majority of open house attendees were supportive of the Transit Future Plan, in particular the creation of Rapid Transit service.





Setting the Scene

To produce the Transit Future Plan, BC Transit analyzed both existing and future trends in demographics, transportation and land use. The following section contains the highlights of this analysis to illustrate how the final Transit Future Plan for the Victoria region was created.

Land Use

Land use challenges

Strengthening the link between land use and transportation planning

Continuing to solidify the link between transportation and land use planning to ensure new development matches the vision of the Regional Growth Strategy, Official Community Plans, Provincial Transit Plan and Transit Future Plan.

Maintaining support for the Transit Future Plan Maintaining provincial, regional and local awareness and support for the Transit Future Plan vision, goals and network at the planning and implementation levels.

Making best use of the existing road network Increasing the efficiency of the road network in order to move more people. Geographical constraints and local plans provide few opportunities for significant road network expansion. Transit can be used to move more people with the existing transportation infrastructure.

Improving transit service to Regional Centres and local centres

Strengthening transit links between Regional Centres and local centres outside of Downtown without compromising existing transit passenger movements.

Creating transit-supportive land use policies that are market responsive

Transit-supportive land use is critical to the delivery of this plan. Policies around transit-supportive land use must be market responsive in order to attract private development.

Finding transportation solutions for areas of low density

Providing transit to areas with lower density can be difficult without decreasing the efficiency of the entire transit system. In some instances, this may mean not providing transit where land use does not generate adequate demand for transit.

The integration of transportation and land use planning at the municipal, regional and provincial level is one of the most important considerations in the design of the Transit Future Plan. Transit-supportive land use is critical to the success of the Transit Future Plan. There are a number of plans that influence and shape regional and local land use, some of which are outlined below.

Transit-supportive land use is critical to the success of the Transit Future Plan.

Regional Growth Strategy

The Regional Growth Strategy sets out a 25 year vision for growth in the region, and provides an accompanying plan of action to help achieve that vision. The plan was developed by the CRD in consultation with key stakeholders throughout the region and addresses issues which are regional in nature such as transportation, population growth and settlement patterns.

The Regional Growth Strategy outlines eight key initiatives, three of which are of particular importance to BC Transit:

- Keep urban settlement compact
- · Build complete (mixed-development) communities
- Increase transportation mode choice



The Regional Growth Strategy notes that in addition to Downtown, which will remain the single most important commuter market for transit, there are eight Regional Centres as shown on page 10. Transit linkages between regional nodes should be emphasized as municipalities take steps to define and promote these centres.

It is a goal of the Regional Growth Strategy, and most Official Community Plans in the region, to develop a balance of jobs and population throughout the region in order to reduce the need for long distance commutes.

The Regional Growth Strategy is now being updated as a part of the five year review process and will be known as the Regional Sustainability Strategy. The new Regional Sustainability Strategy will use the Regional Growth Strategy as a platform and provide leadership and direction on climate action, social well-being and food security in addition to current topic areas.

CRD Travel Choices

The CRD's long range regional transportation strategy, known as Travel Choices, sets out ways to realize a balanced, accessible and affordable transportation system. The strategy is designed to increase the mode share of walking to 15 per cent (from 10 per cent), cycling to 5 per cent (from 3.2 per cent) and transit to 10 per cent (from 6.4 per cent) by 2026. The strategy projects an additional 400,000 trips (by all modes) per day by 2026 and aims for 75 per cent of these to be made by modes other than the private vehicle.

The Provincial Transit Plan and Transit Future Plan have targets of 12 per cent transit mode share by 2030, which aligns with Travel Choices.

Specific strategies mentioned in the plan to increase transit market share include:

- Identifying transit corridors to support high-capacity, frequent and fast service between the West Shore, Saanich Peninsula, Downtown and UVic
- Improving customer information, amenities and transit exchanges
- Adding more Park & Ride locations
- Developing new strategies to increase ridership
- Protecting existing rail corridors for possible future use

Official Community Plans

Each of the 13 municipalities have an Official Community Plan. An Official Community Plan is a comprehensive plan that dictates public policy in terms of transportation, utilities, land use, recreation and housing.

The Official Community Plans in the Victoria region share many of the same objectives as the Transit Future Plan, specifically:

- Integrating land use planning with transit planning
- Reducing automobile dependency
- Planning development to support alternative means of transportation, such as walking, cycling and using transit
- Increasing transit options and matching them with a community's needs
- Developing Rapid Transit corridors in the region
- Focusing development in community nodes or along transit corridors
- Developing a more sustainable transportation system

Executive Summa

Demographics

Demographic challenges

Increasing mode share with an aging demographic

With the region's demographics shifting towards an older population, some traditionally strong transit user age groups are proportionately decreasing. If transit ridership and mode share are to increase, improvements in all aspects of service delivery are required to ensure the retention of existing customers and the ability to attract new customers. The network of the future will also have to capture more non-commuter trips – a travel market that is difficult to capture. This is critical for increasing ridership and meeting the targets set out in the Provincial Transit Plan.

Additional pressure on custom and accessible transit service

As the number of elderly and very elderly increase, transit service will need to expand and provide more custom and neighbourhood-oriented transit options to address the mobility limitations of the elderly.

Age

The Victoria region is expected to face a 'greying' of the population over the next few decades as the baby boomer generation continues to age. The 65+ population is expected to increase 120 per cent over the next three decades from 60,000 to 131,000. The Victoria region already has a higher percentage of

older seniors (80+) than the rest of B.C., and growth in this sector is expected to continue, doubling from 21,000 to 42,000. The percentage of 65+ amongst the population is highest on the Peninsula, areas of east Saanich, Oak Bay, southern sections of Victoria and Sooke.

The aging of the population means that proportionately more residents will fall into the age groups displaying the least propensity to ride transit. For example, the 15-24 year old age group has been an important factor in the growth of transit use over the past 20 years. Growth in this sector has been particularly strong since the implementation of the U-PASS program which provides post-secondary students access to transit at reduced prices through their tuition fees.

Relatively slow growth of both the youth group and the working age group versus the rapid increase in the number of seniors in the region could mean that the percentage of riders commuting to work and school may diminish in the future. However, the University of Victoria (UVic) is planning to increase their student population by 80 per cent (medium growth scenario) over the next 20 years which will likely support the continued growth of transit ridership.

Maintaining local transit connections

Maintaining, and in some cases increasing, the coverage of local service to ensure the aging population is able to access their local town centre and the rest of the transit network.

Continued growth in travel from the West Shore to the Core area

Employment growth is projected to be slower than population growth in each of the three subregions. It is projected that the Core area will continue to have a high level of employment relative to population and the regional average, while the West Shore will have a lower number than the regional average. As a result, the amount of commuting from the West Shore to the Core will continue to increase as the population grows.

Capital Regional District – Population by Age and Sex, 2008 & 2038



The 65+ population is expected to increase 120 per cent over the next three decades from 60,000 to 131,000.

Population and employment

2010 estimates suggest the region's population is close to 350,000. The CRD forecasts a 30 per cent growth in population to an estimated 453,000 by 2038.

More than half of the projected population growth in the region will occur in the West Shore, which will see an estimated 88 per cent increase in its population. The Core area of the region will still accommodate the majority of the population. However, the growth in the West Shore will potentially shift the region's travel patterns and place further demands on the transit system.

Employment in the region is expected to grow more slowly than population. The fastest percentage employment growth is projected in the West Shore. However, the Core area will continue to account for the majority of the jobs in the region.



Travel Patterns

Travel pattern challenges

Continued heavy demand for travel at peak times resulting in traffic congestion

High travel volumes at peak times for most trip purposes will continue to increase pressure on limited road capacity, particularly between the West Shore and the Core. Transit has the ability to move more people per traffic lane making the case for increased investment in transit priority versus the significant financial and physical space requirements of continued road expansion. The implementation of transit priority measures will help to improve the attractiveness of transit services by increasing transit vehicle speeds and reliability.

Increase in personal and shopping trips A projected increase in non-work related travel creates the need to serve an all day travel market. This means the transit system should be designed to connect people to local centres as well as taking people longer distances for work or education.

Significant growth in local travel demand in the West Shore

Local trips within the West Shore are expected to grow 126 per cent by 2038. Today, very little local travel within the West Shore occurs on transit. Local services in the West Shore and throughout the region should be made more direct to attract more of the local travel market in the future.

Servicing new neighbourhoods by transit Serving new neighbourhoods in suburban areas with transit will continue to present a challenge. In order for transit to be viable in new neighbourhoods it is important that new suburban developments are closely linked to transit planning principles. Neighbourhoods should include strong pedestrian connections, transit vehicle friendly road network design, bus stop and terminus considerations and high land use densities.

Where are people going?

In 2006, the CRD undertook an extensive household travel survey ('2006 CRD Origin/Destination Household Travel Survey') to identify detailed travel characteristics of local residents. The survey was designed to coincide with the 2006 Statistics Canada Census and provides useful information in assessing the travel patterns of residents in the region.

There are an estimated 1.2 million trips (all modes of travel) in the region per day. Of these trips, 85 per cent are within the same subregion, for instance people living and travelling within the same geographic area. A 40 per cent increase in trips is expected by 2038, which will likely result in increased traffic congestion without improvements in transit.

Although the highest travel volumes are projected to remain in the Core, shifts in travel patterns elsewhere will have an impact on regional travel patterns and potential transit markets. For example, travel within the West Shore is expected to increase by 126 per cent and travel within the Peninsula by 47 per cent. Travel between the West Shore and the Core will increase by 69 per cent. Transit has the ability to move more people per traffic lane making the case for increased investment in transit priority versus the significant financial and physical space requirements of continued road expansion.





Two-way travel flow projections – all trips by all modes*

Why and when are people traveling?

Approximately, half of all trips are made at peak travel times (6:00 a.m. – 9:00 a.m. and 3:00 p.m. – 6:00 p.m.). Despite the commonly held perception that work commuters make up the vast majority of rush hour trips, they only make up about one-third of all the trips during the a.m. and p.m. peak hours.

Examining the information in the graph below reveals that 'Personal/Other' trips make up almost half of all trips. With an aging demographic it is likely that personal and shopping trips will grow at a faster rate than work trips over the life of the plan.











ntroduction

Participatior

Setting the Scene

Visions and Goals

Conventional Transit

Conventional transit challenges

Doubling transit mode share

To meet the target of doubling transit mode share, ridership must increase from 24 million to 55 million. An increase in ridership of this magnitude requires significant investment in the transit network supported by transit-supportive land use planning and Travel Demand Management policies.

Increasing the efficiency of the transit network As transit volumes and traffic congestion increase there will be continued pressure placed on financial resources, the road network and transit facilities. Efficiency should be maximized by avoiding transit service duplication on major corridors, investing in transit priority measures and focusing investment where ridership gains will be the greatest.

Implementing transit priority measures

Given the lack of transit priority measures in the region, the reallocation of road space and signal times for transit vehicles is a new concept. Seeking public and political buy-in for the implementation of transit priority is critical to the success of this plan.

Increasing transit market share for travel within each subregion

Very little travel within the West Shore and Peninsula occurs on transit. With overall travel within each subregion expected to increase, transit needs to become more attractive to grow these transit markets.

Addressing facility capacity issues

Many existing transit facilities are at or over ideal operating capacity (such as UVic and Juan de Fuca Exchanges) and opportunities for increased capacity need to be found prior to growing the transit network.

Conventional transit operations

Victoria's first transit system – large horse-drawn wagons operating on three routes – appeared in 1885. By 1890 Victoria's first electric streetcar system opened, operated by the National Electric Tramway and Lighting Company. The system had two routes with four streetcars operating on 9 km of track. In 1940 the first bus service was implemented and began to replace the streetcar network.

Today, the region's conventional transit system supports over 24 million rides annually with a fleet of 272 fully accessible conventional and community buses. The conventional transit system now operates over 760,000 annual service hours.

Buses provide service on 55 routes throughout the region and serve almost 2,300 bus stops. Buses operate on weekdays from about 6:00 a.m. to midnight, with some services operating into the early morning during the weekend.

The Victoria region has no transit priority measures with the exception of two partial queue jumper lanes on Highway 1. Average transit speed has declined from 25km/hour in 2008 to 20km/hour in 2011 due to increased congestion. This decline in average transit speed has led to an increase in the cost of providing transit services.



There are five transit exchanges across the region where multiple transit routes converge on one location. The largest facility is located at UVic and is at operational capacity. Transit services in Downtown Victoria do not operate out of a central transit exchange. The increase in the number of buses on the Downtown transit corridors has resulted in operational issues both in terms of lane and bus stop capacity.

There are five Park & Ride facilities located in suburban and rural areas outside of the Core area where customers can access the site by automobile or bicycle and park their vehicles to take transit.

Conventional transit mode share and travel patterns

At present, the private vehicle is the dominant way to get around the Victoria region, accounting for about 80 per cent of weekday travel. Auto drivers account for 60 per cent of all trips while auto passengers were a further 19 per cent. Active transportation modes, such as walking and cycling, presently account for 13 per cent of all trips. Transit trips account for 6.4 per cent of the total travel market.

Transit mode share varies by subregion and time of day. Mode share for transit is highest for travel 'within the Core' (7.9 per cent) or 'to the Core' (8.3 per cent from West Shore and 5.4 per cent from Peninsula). Transit mode share is lowest for travel 'within the West Shore' (1.6 per cent) and 'within the Peninsula' (0.9 per cent). Transit mode share is greatest during the morning (9 per cent) and afternoon peak (7 per cent) travel times, and lowest during the evening (3 per cent).

Transit trips show a significantly different geographic pattern than the pattern for travel by all modes. When travel patterns by all modes are considered, there is more travel within the West Shore and within the Peninsula than there is between each subregion and the Core. However, when only transit trip patterns are considered, there is four times as much transit travel between each subregion and the Core as there is within each subregion. In part, this reflects the existing transit network and service levels within each subregion. Most existing transit routes are focused on Downtown, there is a duplication of transit service on some major transportation corridors such as Highway 1, Highway 17, Douglas St., Blanshard St. and Fort St.



Victoria



Source: 2006 CRD Origin/Destination Household Travel Survey

Conventional Transit Use

Service levels and use varies throughout the region with the top five routes, all of which operate in the Core area, carrying 45 per cent of the total system ridership (with 38 per cent of the total service hours). The top 10 routes account for over 72 per cent of transit ridership (with 63 per cent of the total service hours).

System ridership has grown by almost 30 per cent over the last 10 years. Major investments in transit in the West Shore and Peninsula have resulted in higher ridership growth in these areas than the total system average. The doubling of ridership in the West Shore can also be attributed to significant population growth in that area. Although the percentage of transit growth in the Core has been slower than the other subregions, the actual increase in passenger numbers accounts for the highest gains in the region. The majority of growth in the Core has occurred on routes that serve UVic, Quadra St. and Douglas St. Ridership on a number of routes in the Core such as those located in Victoria and Oak Bay has remained relatively static with little growth.

The top 10 routes account for over 72 per cent of transit ridership (with 63 per cent of the total service hours).



Average weekday passenger boardings - top 20 bus routes 2010



Custom Transit

Custom transit challenges

Increase in demand for custom transit service The aging population will increase the demand for handyDART and other custom transit services in the future. This will require an increase in resources and the provision of new accessible transit solutions to allow those unable to use the conventional transit system the ability to travel as spontaneously as those using the conventional system. Increase the efficiency of custom transit service Investigate new ways to meet the custom transit market. For example, in North Vancouver, the Silver Harbour Seniors' Activity Centre has developed a "Go Bus" that operates three days a week and is designed to provide service for isolated seniors. The bus is free to ride and the service costs are covered by foundations, non-profits, service clubs and others.

handyDART eligibility

In 1980, BC Transit introduced handyDART, a door-to-door custom transit service for registered customers who are unable to use the conventional transit system some or all of the time.

Potential customers must apply to travel by handyDART. To determine eligibility, handyDART considers limitations in mobility/agility skills, cognitive skills, medical conditions and sensory skills.

Custom transit customers are significantly older than the general population, partly because disabilities increase with age. Seniors (65+) account for 46 per cent of total handyDART trips and 73 per cent of registered handyDART customers.

Customers with mental disabilities make up the largest number of handyDART rides (34 per cent) followed by those with mobility disabilities (29 per cent).

handyDART operations

Custom transit offers eligible customers three service options:

- 1. handyDART a door-to-door shared-ride service carrying multiple customers on the same trip at the same time
- 2. Taxi Saver Program provides a 50 per cent subsidy on taxi fares by providing coupons to registered customers who book their own trips with a taxi company
- 3. Taxi Supplement Program allows the handyDART operators to dispatch some ambulatory trips to taxis when handyDART vehicles are not available

The custom transit fleet comprises of 53 lift equipped mini-buses that provide 115,000 hours of service per year. The handyDART system operates seven days a week with the following service span:

	Monday – Thursday	Friday	Saturday	Sunday
Hours of operation	7:00 a.m.—10:00 p.m.	7:00 a.m.—Midnight	8:00 a.mMidnight	8:00 a.m10:00 p.m.

handyDART trips may be booked by subscription trips (a standing appointment) or reservation (one time booking). Due to peak demand for handyDART service, subscription trips are most common during the a.m. and p.m. peak periods.

Existing handyDART trips by age group



Hourly handyDART ridership by trip type 2008/2009





handyDART use

There are approximately 390,000 custom transit trips annually. After two decades of steady growth, the last five years have seen a small reduction in the use of custom transit service in the region after changes to the client registration process. However, demand appears to be growing again. Over the next three decades, the number of seniors with mobility disabilities is expected to rise from about 40,000 to over 65,000.

Most of the growth over the past five to seven years within the handyDART system has been through the Taxi Saver component of the program. This could be reflective of customers wanting to spontaneously travel at times when the handyDART system is highly subscribed.

Compared to conventional transit operating cost of \$2.95 per ride, custom transit's cost per ride was \$22.63 in 2009/10. The passenger share for custom transit is about five per cent of the total cost with the remainder being funded by the province and the Victoria Regional Transit Commission. Cost recovery for custom transit is significantly less than it is for conventional transit, reflecting the higher cost of providing door-to-door service.

handyDART transit travel patterns

About three quarters of all custom transit trips are concentrated in the Core area, particularly Saanich and Victoria.

Travel to and from regular programs and appointments result in morning and afternoon service peaks similar to the conventional transit system. The highest custom transit ridership is on weekdays between 2:00 p.m. and 3:00 p.m. Like conventional service, the peak period on weekdays accounts for the largest percentage (60 per cent) of custom transit rides. Weekend ridership is about one third of the weekday level.

	Core Area	West Shore	Peninsula
Core Area	223,700 (73.7%)	40,200 (13.2%)	23,800 (7.9%)
West Shore		9,500 (3.1%)	700 (0.2%)
Peninsula			5,800 (1.9%)

Existing handyDART two-way travel Flows

Vision and Goals

Vision Statement

"To be a leader of integrated transportation solutions connecting people and communities to a more sustainable future"

The statement reflects an ambition that is larger than just increasing the amount of transit riders. It touches on integration with other transportation modes and the impact transit can have on communities becoming more sustainable environmentally, socially and economically.

To be leaders in integrated transportation solutions requires investments in transit and technology to put the Victoria region at the forefront of mid-sized transit systems.

The vision statement is the same as that set out in BC Transit's Strategic Plan which is an overarching framework for BC Transit plans. The vision statement was created in consultation with BC Transit staff, municipal partners and the public.



Project Goals

1. Transit is an attractive alternative to the private vehicle

How do we do that?

Fast and direct	 Implement transit priority measures such as exclusive transit ways, queue jumpers, High Occupancy Vehicle lanes, bus-only lanes, shared lanes, traffic signal priority, preferential turning arrangements, etc. Increase distance between stops on some routes Reduce the amount of deviations in transit routes
Convenient and reliable	 Increase frequency on key corridors to a level where passengers are able to use transit without consulting a timetable Increase transit service span (hours of operation) Create a network that effectively serves the metropolitan core and provides strong connectivity to popular cross town destinations
Easy to use	 Create simple route structures and schedules Have consistent headways (time between buses) whenever possible Have customer information readily available in a format that is accessible to the customer Provide passenger way-finding information at transit exchanges and transfer points
Comfortable	 Provide a high level of customer amenities at major transit stops and stations Design transit vehicles to provide a comfortable on-board experience Provide sufficient passenger carrying capacity to reduce crowding and standing, especially on long trips
Accessible to everyone	 Build transit infrastructure and vehicles that are universally accessible Implement visual and audible stop announcements Consider the affordability of fares to the majority of the region's population when making fare level decisions Provide targeted transit services for those unable to use the conventional transit system





2. The transit system reduces our impact on the environment

How do we do that?

Support a sustainable urban form	 Encourage and support more walkable and community-focused compact land use patterns that reduce land consumption and greenhouse gas production Support Regional Centres, neighbourhood centres, and other 			
	key areas designated in the Regional Growth Strategy and municipal land use plans by focusing higher order transit services on these nodes			
	 Outline a long term primary transit network that will enable local governments to focus medium and higher density and mixed-use development adjacent to the transit network 			
Support a sustainable transportation network	 Integrate the transit network with regional and local cycling and pedestrian networks 			
	 Encourage and create high quality pedestrian and cycling links to transit stops and stations 			
	 Provide bicycle storage at appropriate stations, stops, and on transit vehicles 			
Investigate new vehicle technologies	• Consider during the decision making process vehicle technologies that will reduce transit's impact on the region and the environment to create more liveable communities and to help achieve provincial and regional greenhouse gas reduction targets			

Commuting modes and greenhouse gas emissions (GHGs) 2 3 4 5 1 X Bicycle/walking 0 GHGs emitted per person per year from a 15 km round-trip commute đ ----Electric trolley bus GHGs emitted per person per year from a 60 km round-trip commute .01 Tonnes per year (20 passengers) SkyTrain electric light rail car (20 passengers) .01 Tonnes per year New hybrid diesel-electric bus .85 Tonnes per year (20 passengers) New diesel bus Tonnes per year (20 passengers) 1.07 Two-person car pool (gasoline engine) Driver travelling alone in car (gasoline engine) Driver travelling alone in SUV or van (gasoline engine) 5.21

Source: 2004 RWDI for TransLink Data. Used with permission.



3. The transit system is efficient

How do we do that?

Maximize ridership for the amount of resources used	 Prioritize all new service proposals according to a number of service performance indicators (e.g., cost per passenger, rides per hour, etc.) Focus transit investment on high productivity destinations, neighbourhood centres and corridors with transit-supportive land use Make transit routes as direct as possible
Match transit services levels to demand	 Create a transit network that features layers of service to better match service levels to demand Reduce transit service duplication along corridors
Match transit vehicles to demand	• Where possible, use a transit vehicles that best reflect the needs of a specific transit route



The Network

To achieve the vision and goals of the Transit Future Plan, and the 12 per cent transit mode share target, the transit network must meet the future transportation needs of the Victoria region. The network must support the Regional Growth Strategy and municipal land use plans by connecting regional and local centres with high quality transit services.

The Transit Future Plan network includes four distinct layers of transit service to better match transit service to demand. The network is designed to be more competitive with automobile travel by improving the directness and reliability of the transit system. The network is less focused on the Downtown area than today's network with an increased emphasis on connections between Regional Centres, cross town movements, connections to other transit lines and local destinations. The Transit Future Plan network may require more customers to transfer from one service to another to complete their journey with the trade off that trips will be more frequent and overall travel will be more direct.

The network is designed to be more competitive with automobile travel by improving the directness and reliability of the transit system.





Service Layers

The Transit Future Plan network is comprised of four layers of transit service. Together the different layers of service create a comprehensive transit network to best meet the existing and future needs of the region. The service layers are designed to efficiently move people around the region facilitated by the implementation of transit priority measures.

Rapid Transit Network (RTN)

RTN services are designed to move high volumes of passengers between major regional destinations along key transportation corridors. Services are frequent (15 minutes or better between 7:00 a.m. and 10:00 p.m.) seven days a week and stop less often than traditional transit services. Investments in RTN infrastructure, technology, vehicles and service levels combine to greatly increase system performance. To improve travel time and reliability, RTN services utilize an exclusive (Exclusive Corridor) or semi-exclusive (Priority Corridor) right-of-way to eliminate or significantly reduce the impact of general traffic on transit vehicles. RTN services use high capacity transit vehicle technologies such as light rail vehicles and high capacity buses. Other investments required along the corridor are premium transit stations, off-board ticketing and typically corridor branding.

Frequent Transit Network (FTN)

FTN service provides medium to high density mixed land use corridors with a convenient, reliable and frequent (15 minutes or better between 7:00 a.m. and 10:00 p.m.) transit service seven days a week. The goal of the FTN is to allow customers to spontaneously travel without having to consult a transit schedule. The FTN will carry a large share of the transit system's total ridership and for this reason justifies capital investments such as transit priority, right-of-way improvements, a high level of transit stop amenities and corridor branding.

Local Transit Network (LTN)

The LTN is designed to connect neighborhoods to local destinations and to the RTN and FTN. LTN services allow customers to plan a trip to work, school or the local shopping centre by transit. Frequency and vehicle type are selected based on demand. In some cases, smaller transit vehicles can be utilized to better match customer demand and operating conditions on local roads.

Targeted Services

Targeted Services are a collection of transit services that do not fit into the other definitions and are more focused on the specific needs of customers. These services include:

- Interregional services that provide connections between cities
- handyDART services that provide door-to-door services for customers unable to use the conventional service
- Express service that provides a direct limited-stop route between destinations
- Rural para-transit that provides flexible transit routing in rural areas











	RTN	FTN	LTN	Targeted
Land use	High density mixed land use at key nodes	High to medium density along corridors	Medium to low density	Varies depending on service
Vehicle type	High capacity bus, street car/ tram, light rail	Standard or high capacity bus or street car/tram	Standard or small bus	Standard or small transit vehicles, vans, taxis, commuter rail vehicles
Service frequency	15 minutes or better between 7:00 a.m. – 10:00 p.m., 7 days a week	15 minutes or better between 7:00 a.m. – 10:00 p.m., 7 days a week	Frequency based on demand	Varies depending on service
Service span	5:00 a.m. – 1:00 a.m., 7 days per week, extended based on demand	5:00 a.m. – 1:00 a.m., 7 days per week, extended based on demand	6:00 a.m. – midnight, 5 days per week, extended based on demand	Varies depending on service
Stop interval	Limited stops at key locations. Stops are typically spaced 800m to 2km apart	Frequent stops along a corridor, 500m apart or less	250m – 500m	Varies depending on service
Facilities and amenities	 Branded Rapid Transit stations level door boarding off-board fare payment real time information bike storage quality customer information may include Park & Ride investment in pedestrian infrastructure along corridor and near stations 	 Branded local stops quality customer amenities at stops Select major stops with enhanced amenities level door boarding off-board fare payment real time customer information bike storage 	 Local stops quality customer amenities at stops enhanced amenities around major stops 	Varies depending on service
Signal priority	Transit is given signal priority over other traffic at intersections along the full corridor	Transit is given signal priority over other traffic at key intersections along the corridor	Transit is given signal priority at key delay points only	Only if part of RTN or FTN
Lane priority	Transit vehicles are separated from other traffic in an exclusive (Exclusive Corridor) or semi exclusive (Priority Corridor) right-of-way to avoid congestion	Transit only lanes or bus pockets at key areas of congestion, High Occupancy Vehicle lanes, peak hours bus lanes	No lanes	Only if part of RTN or FTN

Transit Future Plan – service layer characteristics

Esquimalt and Nanaimo (E&N) Transportation Corridor

The E&N Rail corridor was considered as an option for the RTN corridor from the West Shore to Downtown. During the alignment analysis it was excluded from further consideration primarily because it doesn't directly serve the significant all day travel movements occurring between the West Shore and destinations in Saanich. The selected Highway 1 alignment creates a convenient exchange point for transit services at Uptown for those heading to destination other than Downtown Victoria (Swartz Bay, UVic etc.).

The E&N corridor, in addition to serving Downtown, serves DND (Department of National Defence) a major employer in the region and beyond. The employment destinations along this corridor better lend themselves to a commuter style service with demand heavily focused at peak times, rather than a RTN service that caters to an all day every day demand.

In July 2010, an assessment of a commuter rail service on the E&N corridor was released by the province and reported that significant investment is required to update the existing rail infrastructure and that the existing density and travel movements may not justify a commuter rail service. The report also identified that commuter rail could supplement RTN service but that investment in transit would still be required regardless of a commuter service on the E&N materializing.

Some of the report findings were:

- Estimated base ridership scenario of 1,050 daily passengers by 2026. This could be higher under a Transit Oriented Design scenario where significant residential and employment densities are located near the stations. This is challenging in many areas where the corridor travels alongside and through water bodies and regional parks and lower density residential areas
- The annualized value of capital costs and operations over a 25 year period would be \$50–60 per passenger trip, where the operating cost portion would be \$20–23 per passenger trip
- The future success of the E&N corridor is dependent on increased population growth, Transit Oriented Development, other developments near the E&N corridor and an increase in the freight market

The Transit Future Plan supports the preservation of the E&N corridor for transportation purposes given that it's one of few transportation corridors directly connecting the West Shore, DND and Downtown.

Benefits of the Transit Future Plan Network

The Transit Future Plan network has been designed to meet the three goals of the Transit Future Plan. The design of the Transit Future service layers and network contributes to the achievement of the goals in the following ways:

Transit is an attractive alternative to the private vehicle

- Direct transit routes, transit priority measures, off-board ticketing and fewer transit stops on the RTN and FTN will provide for faster transit travel times
- Increased frequency on the primary transit corridors will allow customers to use the transit system spontaneously without the use of a timetable
- Improved transit service outside of peak times means that customers will have an increased opportunity to conveniently use transit for trips outside of peak commuting times
- Fewer transit route variations and improved customer information such as a web-based trip planner and real-time information at the stop level will make the transit system easier to use
- New cross town connections will allow customers to directly travel by transit to destinations outside of the Downtown
- New and improved Park & Ride facilities will provide customers with more choice in accessing transit in semi-rural and suburban areas
- Improved customer amenities at transit stops, such as new street furniture and customer information will enhance the customer experience and improve accessibility

The transit system reduces our impact on the environment

- RTN and FTN corridors will provide the capacity to move high volumes of customers by transit thereby reducing the amount of single occupancy vehicles on the road
- Integration of the transit network with active modes of transportation (e.g., walking and cycling) will increase the catchment of transit services and provide opportunities to further reduce the amount of single occupancy vehicles on the road
- The use of new transit vehicle technologies will further reduce transit's impact on the environment
- The RTN and FTN will help shape and support land uses that lend themselves to an increase in the use of transit and active modes of transportation (e.g., increased densities and mixed use developments)

The transit system is efficient

- Direct transit routes and transit priority measures on the RTN and FTN will create a more efficient transit network by decreasing transit travel times and therefore the overall cost of providing the service
- Utilizing different transit vehicles with varying capacities to better match demand can reduce costs on some transit routes
- Consolidation of transit routes on major corridors will reduce the duplication of multiple transit routes operating below capacity on the same corridor (e.g., Douglas St.)

Resources

To meet the Provincial Transit Plan and Transit Future Plan targets, investments in transit operating and capital resources are required. This section of the plan outlines the projected service hours and the associated transit infrastructure.

Service Hours and Vehicles

Future service hours

The forecast for transit system service hours was calculated for 2020 and 2035 by costing each transit corridor by service layer: Rapid Transit Network (RTN), Frequent Transit Network (FTN), Local Transit Network (LTN) and Targeted Services.

Service hours for each route were then calculated by estimating the cycle time. The cycle time is the length of time it takes for a transit vehicle to complete one round trip, including the recovery time. Cycle times were calculated by measuring the length of the route in kilometers and estimating the average trip speed (km/ average trip speed). The total number of service hours for each line was then calculated by multiplying the frequency of trips throughout the day by the cycle time. Travel speeds were based on existing trip speeds and projected data from the regional transportation model. Variations in travel speed have a significant impact on the number of service hours and fleet required to provide service. RTN speeds were based on modeling from the Victoria Regional Rapid Transit Project and assumed an exclusive or semi-exclusive right-of-way. Custom ridership projections were based off of historical trends matched with past and future demographic trends.

The Transit Future Plan projects that the service hours for the conventional and custom transit system will roughly double over the next 25 years from 875,000 to approximately 1.7 million. This forecast is in line with historical growth of the transit system (see tables below).

Variations in travel speed have a significant impact on the number of service hours and fleet required to provide service?

Existing and projected annual service hours – conventional and custom transit

	Conventional transit system	Custom transit system	Total
Existing	760,000	115,000	875,000
Projected 2035	1,500,000	180,000	1,680,000





Future fleet requirements

The Transit Future Plan also estimates fleet requirements for the conventional and custom transit systems over the next 25 years. The fleet is estimated to increase from 324 conventional and custom vehicles to 500 vehicles over this period.

The vehicle forecasts are on trend with historical growth of the transit system. However, the capital costs of new vehicle types, particularly those on the RTN, may create a sharper increase in vehicle costs than past trends.

The forecasts for fleet requirements were calculated for each transit line for 2020 and 2035 by determining the number of vehicles required to operate the service during the peak hour for each transit line during weekday service. The formula used was peak headway/cycle time.

Existing and projected fleet requirements – conventional and custom transit

	Conventional Fleet	Custom Fleet	Total Fleet
Existing	272	53	324
Projected 2035	420	80	500

Historical and projected fleet requirements – conventional and custom





Resources

Benchmarking

The Victoria Regional Transit System was compared to other communities in Canada and the United States with similar sized transit systems. Comparisons were done for both the existing and future service hours and fleet. The benchmarking exercise displays that the future service hour and fleet requirements are comparable with much larger cities, recognizing the significant ambitions of the Transit Future Plan.

	Service area population	Vehicle revenue hours	Number of transit vehicles	Revenue passengers	Hours per capita	Rides per capita	Rides per hour
Victoria	353,928	763,433	276	24,455,547	2.16	69.1	32.03
Halifax	312,400	668,423	296	19,346,370	2.14	61.93	28.94
London	356,100	475,270	186	19,145,634	1.33	53.76	40.28
Regina	179,246	258,865	104	7,558,160	1.44	42.17	29.20
Saskatoon	218,900	362,255	136	11,720,366	1.65	53.54	32.35
Windsor	216,473	255,056	104	6,155,650	1.18	28.44	24.13

Conventional transit – CUTA 2009 service level comparison

Source: CUTA, 2009

Conventional transit - Transit Future Plan projections vs. CUTA 2009 service levels

	Service area population	Vehicle revenue hours	Number of transit vehicles	Revenue passengers	Hours per capita	Rides per capita	Rides per hour
Victoria 2035	455,000	1,500,000	420	55,000,000	3.30	120.88	36.67
Winnipeg	642,000	1,286,508	545	43,870,050	2.00	68.33	34.10
Ottawa*	793,400	1,647,229	1023	83,177,343	2.08	104.84	50.50
Toronto*	2,503,281	9,516,036	2818	471,233,000	3.80	188.25	49.52
Vancouver*	2,318,526	5,939,379	1762	187,912,227	2.56	81.05	31.64

Source: CUTA, 2009

* includes rail

The Provincial Transit Plan sets a transit mode share target of 12 per cent for the Victoria region. A study of other North American cities found that systems with transit mode share figures of this magnitude include Rapid Transit.

North American cities with more than 12 per cent transit mode share

City/Region	Transit Mode Share	RT System
Vancouver, BC	12 per cent	Expo Skytrain
		Millennium SkyTrain
		Canada Line
Portland, Oregon	12.6 per cent	MAV LRT
		Streetcar
Cleveland, Ohio	12.2 per cent	Health BRT
Ottawa, Ontario	12 per cent	BRT (Multiple Buses)
Miami, Florida	12.2 per cent	Miami South Dade
		Metro Rail

Transit Infrastructure

Implementing the RTN and FTN requires significant investments in transit infrastructure such as transit priority and customer facilities.

Transit priority

Transit priority is a term used to refer to a variety of physical and operational improvements designed to give transit vehicles and their passengers priority over general vehicle traffic. Transit priority elements can be regulatory (such as the successful "Yield to the Bus" regulations and signage), operational (such as retiming traffic signals to respect the large number of passengers on transit vehicles compared to private vehicles) or physical (such as exclusive transit ways, queue jumper lanes and signal priority).

As congestion increases, it will be critical to give transit priority over general traffic to attract greater numbers of passengers to transit. Transit priority investments also improve reliability by reducing the effect that daily changes in congestion have on transit travel times. Savings in transit travel times will reduce the number of service hours and fleet required to operate service.

Transit priority corridor lengths

Transit right-of-way	Corridor	км
Exclusive	Douglas-West Shore	18
Exclusive	Highway 17	28
Semi-Exclusive	McKenzie	7
Semi-Exclusive	Dockyard to UVic	16
Frequent Transit	All corridors	211

In the case of the Transit Future Plan, the lack of transit priority could result in the order of 100,000 additional annual service hours and 30 additional transit vehicles over and above the projections for 2035. The graph below depicts the future transit route between UVic and DND to show that as travel time increases so do the overall service hours and vehicle requirements. In this particular example, it's expected that by 2038 it would take 11 more buses and 40,000 more services hours to provide the service in mixed use traffic than it would in an exclusive right-of-way. Using 2011 transit costs, this equates to more than an additional \$4 million per year.





Customer transit facilities

Customer transit facilities to support the Transit Future Plan network have been identified. Customer transit facilities include exchanges, terminals and Park & Rides. Expanded transit facilities improve customer access to the system and the ability to accommodate an expanded transit fleet.

Both existing and future customer transit facilities are identified on the map shown on page 47. New and expanded transit exchanges will be required to facilitate transfers between services on the Transit Future Plan network. There are a number of new Park & Ride opportunities to provide customers with direct access to the RTN and FTN. These opportunities are primarily in suburban, semi-rural or rural areas where transit services may not exist or are infrequent. Expanded transit terminals at the end of routes are also required to accommodate additional vehicles.

Transit amenities

The Transit Future plan requires a high level of investment in stations on the RTN and major stops on the FTN. There are over 2,300 transit stops in the region with 75 per cent of ridership occurring at the top 300 transit stops. Investments in customer amenities should be directed to these locations. Transit stops with lower levels of passenger activity should at a minimum, meet accessibility guidelines and have a bench available for customer seating.

• There are over 2,300 transit stops in the region with 75 per cent of ridership occurring at the top 300 transit stops.?

Facility	Attributes	Number
Branded RTN Stations	 Premium transit shelter Level door boarding Off-board fare payment Real-time customer information Bike storage Customer way finding information Universally accessible High quality pedestrian infrastructure along corridor and near stations. 	50–60
Major stops with enhanced amenities	 Premium transit shelter Level door boarding Off-board fare payment Real-time schedule information Bike storage Customer way finding information Universally accessible 	100
High activity transit stops	 Transit shelter Bike storage Quality customer information Universally accessible 	150
Lower activity transit stops	Universally accessibleBench	2000



Transit operations and maintenance facilities

The Victoria Regional Transit System has two conventional transit operations and maintenance facilities that store a fleet of 270 vehicles. The two facilities are located in Victoria and Langford. Both the Victoria and Langford facilities are nearing operational capacity and the future expansion of transit services will require additional maintenance facilities to accommodate an eventual fleet of 420 conventional vehicles. This will require two new facilities over the life of the plan, a conventional facility and a RTN facility.

The new conventional facility must be able to accommodate 150 buses and is needed before the FTN network can be significantly expanded. Implementing the RTN will require a specialized maintenance centre to accommodate the selected RTN technology. The RTN facility will need to be located in close proximity to the planned Downtown to Westshore RTN alignment to minimize capital and operational costs on the RTN corridor.

The custom transit system has one operations and maintenance facility located in Saanich in the Commerce Circle Industrial area. The facility was built in 1986 and is near capacity with 53 custom transit vehicles on site. A new facility will be required to accommodate the future expansions of custom transit service. A new facility should be able to accommodate a fleet of 80 –100 vehicles.





Implementation Plan

The Transit Future Plan sets a vision for the region that requires a significant commitment to transit supportive land use and a complete transformation of today's transit network into the Transit Future Plan network (Rapid Transit Network [RTN], Frequent Transit Network [FTN], Local Transit Network [LTN] and Targeted Services). The implementation plan will guide the creation of the Transit Future Plan network by outlining three network priorities, on-going improvement initiatives, and potential implementation partnership opportunities.

Network Priorities

This section identifies three key priorities for establishing the Transit Future Plan network.

Projects identified in this section vary significantly in terms of timelines, complexity, costs and process, meaning that initiatives will not necessarily be completed in a strictly chronological order. There are also strong interrelationships between some projects so implementation timelines will be integrated where required.

The priorities are not scheduled on a year-by-year basis as the implementation of the Transit Future Plan is dependent on a number of factors that change from year to year such as:

- The availability of funding from local government, the provincial government and the federal government
- Community growth factors (e.g., community development and shifts in demographic factors)
- Progress and phasing of major projects (e.g., RTN infrastructure)
- · Operational and capacity demands of the system
- Opportunities for value added partnerships (e.g., road improvement projects by local government)

The implementation plan will guide the creation of the Transit Future Plan network by outlining three key implementation priorities, on-going improvement initiatives, and potential implementation partnership opportunities.

Priority #1 – Existing initiatives and network efficiencies (1–2 Years)

Highlighted in this section are a number of projects that have already been, or are soon to be, initiated that support the implementation of the Transit Future Plan. This section recognizes the importance of seeing immediate progress on the implementation of the Transit Future Plan.

Complete Victoria Regional Rapid Transit Project Study

The development of a RTN corridor from the West Shore to Downtown is in the planning stage. The Victoria Regional Rapid Transit Project Study will define the RTN corridor alignment, select a preferred vehicle technology and determine project costs.

In 2010, directly affected municipalities (Victoria, Saanich, View Royal, Colwood, and Langford) endorsed the RTN alignment as shown below. Continued consultation in 2011 resulted in Light Rail Transit being the recommended RTN technology.

The Victoria Regional Rapid Transit Study report and technical volumes are being submitted to the province to seek funding from senior levels of government.

Confirmed West Shore to Downtown RTN corridor



Implement cost neutral or cost saving Transit Future Plan network changes as part of the 2012 Victoria service review

A 2012 Victoria operational service review is being undertaken to increase the efficiency of the existing transit operations. This provides an opportunity to make some cost neutral or cost saving route changes that are in line with the Transit Future Plan network outlined in the plan. These service changes will better match route structure and service levels to demand.

Establish limited stop services on RTN corridors

On the corridors being studied for RTN services, BC Transit has begun, and will continue to realign service to mirror the future RTN movements. This will include:

- The implementation of underlying limited stop express services (such as the existing 15 Downtown to UVic Express and 16 Uptown to UVic Express) to increase transit travel speeds
- Route structure changes on the existing 70 Swartz Bay to Downtown Express to speed up travel times

Identify and implement transit priority opportunities with short implementation timelines

The cost of operating the existing transit system is increasing due to decreasing transit travel speeds (from an average speed of 25km/h in 2008 to an average of 20km/h in 2010). BC Transit now needs to work with municipalities and the Ministry of Transportation and Infrastructure to identify transit priority measures that can be implemented or piloted in the short term. Short term priority measures may include High Occupancy Vehicle lanes, signal priority, queue jumper lanes, and building select portions of transit ways.

The successful implementation of transit priority measures on future RTN and FTN corridors will increase operational efficiency and help to build the future transit market today, which will support business cases for capital improvements in the future.

Specifically, opportunities along the West Shore to Downtown corridor should be explored and analysed in the short term.

Investing in on-street amenities throughout the transit network

BC Transit has developed a transit stop shelter program to help fund the construction of new shelters at highly used transit stops across the region. Through this program, municipalities also have the ability to purchase additional shelters to place at lower activity transit stops. This project is designed to improve customer comfort and to improve the image of transit.

Identify and implement opportunities to expand the Park & Ride capacity on the West Shore

The existing customer Park & Ride facility at Juan de Fuca Recreation Centre is at capacity during peaks times, which limits the ability to attract new customers to this segment of the transit system. The Transit Future Plan has identified the need for additional Park & Ride capacity located along the planned West Shore RTN corridor in order to attract new transit customers and provide transit options for customers that live beyond the transit service area. Consideration should be given to developing interim Park & Rides until more permanent facilities are built as part of large capital projects, such as RTN projects.

Implement Google Transit Trip Planner

The Google Transit Trip Planner tool was introduced for the Victoria region in January of 2011. It will provide existing and potential customers with easy to access transit information.



Existing initiatives and network efficiencies

Priority #2 - Establish critical transit facilities (prior to network expansion)

There are a number of transit facilities that are pivotal to the implementation of the entire Transit Future Plan network and the continued growth of the existing system. Given their significance in the Transit Future Plan network, the establishment of the following facilities in the region should be given top priority:

UVic Exchange

The facility at UVic is over ideal operational capacity. BC Transit and UVic have initiated a Campus Transit Plan that will identify the most appropriate location and design for a new or upgraded transit facility.

Uptown Exchange

The Transit Future Plan has identified Uptown as one of the major strategic focal points for transit in the region, as well as a destination in itself. The establishment of an exchange facility here is important to support the emerging land use and is critical to the implementation of the West Shore RTN corridor as well as many FTN and LTN corridors.

New operations and maintenance facilities

The Transit Future Plan identifies the need for a third conventional bus operations centre prior to any significant service expansions and a new custom transit operations centre. New facility projects are a high priority as they are a prerequisite for the continued growth of the transit system. BC Transit has purchased land for a new conventional operations and maintenance facility to address this future need, although further planning is required to define operational parameters.

Critical transit facilities



Priority #3 – Implement RTN and FTN

Central to the creation of the Transit Future Plan network is the development of the RTN and FTN, where the majority of the ridership gains are expected over the plan's horizon. Projects are prioritized within this section; however, variations in project timelines mean completion of these projects is unlikely to strictly follow the outlined prioritization.

1) Implement Victoria Regional Rapid Transit Project recommendation (0–5 years)

In 2011, BC Transit plans to seek funding from the provincial government and local partners to move forward with implementation of light rail on this RTN corridor. The implementation of this corridor is a high priority for the region, and is a major step in achieving the goals of the Provincial Transit Plan and Transit Future Plan.

The implementation of this corridor will include building the dedicated right-of-way, new RTN vehicles, new operations and maintenance facility, new high amenity transit stations, signal priority, new transit exchanges and Park & Rides.

A comprehensive service plan outlining the reconfiguration of the FTN and LTN will be required with the implementation of this RTN corridor. Transit services will be oriented to cross the RTN corridor rather than duplicate service down the primary corridor.



Transit Network Without Rapid Transit

Transit Network With Rapid Transit

2) Create FTN route structure and complementary LTN (0-5 years)

This step involves the reconfiguration of the existing transit routes operating on the FTN corridors shown below. This involves streamlining these routes to reflect the FTN outlined in the plan and to ensure resources are focused on the most productive portions of the routes. As a part of this step, new LTN routes will need to be created in order to serve some of the less productive sections of the existing routes.

On these corridors, headways should be managed so that no gap between buses is larger than 15 minutes between 7:00 a.m. and 7:00 p.m. BC Transit, in consultation with stakeholders, may also look to reduce the number of bus stops along these corridors to increase transit travel speeds.

The existing bus routes operating on the FTN corridors shown on the map below generally operate at a frequency of 15 minutes or better for the majority of the day and carry a large share of the transit system's total ridership. For this reason, this implementation step is focused on these FTN corridors.

Bay **Transit Future Plan** HW Exclusive Corridor Priority Corridor Express Service X Frequent Corridor E&N Transportation Corridor: Regional Centres Educational Institutions CFB Esquimalt Park Feltham Pat Bay X Transit Exchange Park & Ride McKenzie PATransCanada Hwy. HWY Shelbourne ansdov X Goldstream XP Bd. Gorge Hillsid Bay -o Esquimalt Fort

Initial FTN corridors

3) Commission second RTN Corridors Study (1–3 years)

The Transit Future Plan identifies two other RTN corridors; Swartz Bay to Downtown and Uptown to UVic. The DND to UVic corridor has been identified as a FTN corridor in the Transit Future Plan network but will be included in the RTN Corridors Study as the corridor connects major regional destinations and is one of the most productive corridors in terms of ridership.

BC Transit will initiate this study to confirm the characteristics of each RTN corridor in terms of alignment, transit priority, projected passenger demand, vehicle technology, phasing/staging opportunities, short to medium term transit priority opportunities, corridor implementation priorities and preliminary cost estimates.

The complete delivery of the RTN will take some time, given the comprehensive stakeholder engagement process, funding availability, approval timelines and implementation/construction timeframes. Therefore, the first deliverable of the study will be to identify RTN implementation opportunities that have municipal support and will increase the efficiency and attractiveness of transit service in the short to medium term.

RTN Corridors Study



4) Implement short term RTN improvements (2-7 years)

Upon completion of the RTN Corridors Study, immediate attention should be given to the delivery of short to medium term RTN implementation opportunities identified in the study. Transit priority and other RTN improvements will support the growth of the transit market and mitigate higher transit costs associated with congestion.

5) Implement transit priority on the FTN corridors (0–10 years)

To ensure the continued success of these high ridership corridors, investments in transit priority measures (e.g., transit lanes, queue-jumper lanes, signal priority, etc.) are required throughout the FTN.

A region wide transit priority plan is required to identify the needs and opportunities for transit priority measures along the region's transit corridors. This study will be a joint venture with municipal partners and will take into consideration the timing of local road projects, municipal priorities, passenger demands on each corridor, major congestion points and average transit speeds.

Transit priority measures identified in the transit priority plan should be implemented as soon as possible. On FTN corridors already affected by traffic congestion, transit priority measure must be implemented prior to making additional investments in improved service levels.

6) Implement full RTN (7+ years)

The full implementation of all RTN corridors will move the Victoria region closer to achieving the goals of the Provincial Transit Plan and Transit Future Plan.

Full implementation will include RTN station construction, Park & Ride construction, off-board fare payment, completion of exclusive or semiexclusive right-of-ways and the potential introduction of new vehicle technologies.

7) Increase service levels on FTN corridors (as required)

The FTN service level standard is every 15 minutes from 7:00 a.m. – 10:00 p.m. 7 days a week. Investments in FTN service levels should be made in the following milestones:

- 1. Monday to Friday 7:00 a.m.-10:00 p.m.
- 2. Saturday 7:00 a.m.-7:00 p.m.
- 3. Sunday 7:00 a.m.-7:00 p.m.
- 4. Saturday 7:00 p.m.-10:00 p.m.
- 5. Sunday 7:00 p.m.-10:00 p.m.

Increases in peak service levels will require the expansion of some terminals to accommodate the increase in operational requirements.

8) Expand the FTN (as required)

FTN corridors not identified in the map on page 56 should be established as demand warrants. Demand for new FTN corridors will be determined by the performance of the existing bus routes and by existing and emerging land use. The establishment of these remaining corridors may be appropriate with the implementation of future RTN corridors or where opportunities for transit priority arise along the corridors.

Full RTN and FTN implementation



Ongoing Initiatives

The following initiatives are aspects of the Transit Future Plan that require continuous effort throughout the life of the plan.

Address current service needs

There are often immediate service demands and operational service issues that need addressing. This plan recognizes that operational service issues need to be addressed ahead of other transit improvements to ensure the satisfaction of existing customers. Examples of some operational service requirements are:

- Increasing service frequency when demand warrants
- Implementing services where there are critical gaps in the system
- Adding running time to an existing schedule to maintain reliability
- Increasing service span (hours of operation) or the days of service when demand warrants
- Restructuring routes for construction or operational reasons

Match vehicle type to local demand

Establishing the RTN and FTN will result in the need for new LTN routes in addition to those already in operation in the region. Many of these LTN routes will present opportunities to utilize smaller vehicle types that can increase efficiency and reduce capital costs.

An example of a smaller vehicle type is the Vicinity, a 27.5 foot vehicle BC Transit is trialing. The Vicinity seats 23 passengers with room for 16 standees and is compact and narrow making it suitable for use on residential streets. The Vicinity is a low-floor bus with a ramp at the front door and kneeling capabilities. Opportunities to use smaller vehicle types, where demand does not require a conventional sized vehicle, should be pursued to reduce transit operating costs and greenhouse gas emissions.

Develop LTN

The LTN is designed to connect neighbourhoods to local destinations and to the RTN and FTN. For this reason, a comprehensive LTN throughout the region is critical for the creation of livable communities and for the success of the RTN and FTN. Some LTN service changes and improvements will be aligned with RTN and FTN projects as the transit network evolves. Other LTN projects will be the result of targeted local planning initiatives that will focus on the specific needs of an individual community or corridor and its residents.

Improve customer information

The improvement of customer information helps to assist existing customers to navigate the transit system and makes it easier for new customers to access the transit system for the first time. The following customer information tools are of particular interest:

- Online trip planner
- Real-time customer information
- Corridor and vehicle branding standards for RTN and FTN corridors
- Additional transit information at the stop level

Improve transit facilities

Continued improvement and maintenance of transit facilities and on-street customer amenities are important for the continued operation and future growth of the transit system. Some improvements that have been identified are:

- Ensure that transit stops are spaced along a corridor at an appropriate interval between 300m 500m. In some locations, transit stops are spaced closer together leading to slower transit trips and higher transit stop maintenance costs. Transit and transportation projects should include a review of stop locations before infrastructure investments are made
- Invest in on-street customer amenities such as street furniture at stations and stops
- Provide Park & Ride opportunities to cater to rural or semi-rural areas where local service is less frequent or does not exist. Park & Rides can also be used to establish new customer markets (e.g., along a new RTN corridor)



Make transit more accessible

The Victoria Regional Transit System should strive to be accessible to all. With the mobility requirements of an aging population there will be an increasing need for more accessible transit solutions. Accessibility could be improved by making investments in:

- Identifying alternative options to fixed route transit service in rural and suburban areas with dispersed population
- Implementing audible stop announcements on transit vehicles and at stops
- Upgrading existing and new transit infrastructure to meet BC Transit's Infrastructure Design Guidelines
- Improving fleet access for mobility aids and strollers
- Designing accessible service to facilitate spontaneous travel
- Improving written and online material for those with visual impairments
- Providing customers more convenient and affordable fare payment options
- Integrating handyDART services with conventional services where possible
- Improving accessibility for cyclists to use the transit system
- Developing and trialing new accessible transit solutions



Partnership Opportunities

BC Transit will make a continuous effort to identify and participate in value added partnership opportunities to assist with growing transit ridership. For example, BC Transit has identified the following partnership opportunities:

Shelbourne Corridor Study

The District of Saanich is undertaking a Shelbourne Corridor Study to develop a future vision and concept for the corridor. The study provides an opportunity for Saanich and BC Transit to jointly work on the transportation component of this project. This may include identifying pedestrian and cycling improvements, transit-supportive land use, transit priority opportunities and improvements to transit stops. The outcome of this study will help BC Transit meet ridership goals on this important FTN, or future RTN, corridor.

Victoria International Airport bus service

With the opening of the new McTavish Transit Exchange in mid 2011, an improved connection to the Victoria International Airport should be considered. To assist in the provision of improved transit service, partnership opportunities with the Victoria International Airport are being considered.

Swartz Bay transit station

The existing transit passenger facility at the Swartz Bay Ferry terminal is in need of an upgrade to provide weather protection and improve passenger comfort and operational capacity. Partnership opportunities with BC Ferries will be explored.

Highway 17 and Beacon Rd. Interchange Concept Development Study

BC Transit is partnering with the Town of Sidney, the Victoria Airport Authority and the British Columbia Ministry of Transportation and Infrastructure to review the future design of the Highway 17 and Beacon Rd. Interchange. The intersection of Highway 17 and Beacon Rd. sits on the planned RTN alignment from Downtown to Swartz Bay.

Admirals Rd. Transportation Study

BC Transit is partnering with the Township of Esquimalt on an Admirals Rd. Transportation Study. The study area is on Admirals Rd. from the intersection with Esquimalt Rd. to the Esquimalt municipal border. Admirals Rd. is identified as a FTN corridor in the Transit Future Plan and will be used to provide key transit connections to McKenzie, UVic, DND and the West Shore. The proposed FTN corridor between DND and the West Shore has been identified as a high priority by the Township of Esquimalt.

Douglas Corridor Study

In the City of Victoria's Draft OCP, a Douglas Corridor Study is identified as the top priority for Local Area Planning. The Draft OCP also outlines a number of supportive OCP policies for Rapid Transit on this corridor and BC Transit will work in partnership with the City of Victoria on this particular Local Area Plan.

Moving Forward

Funding the Plan

Given the significant increase in transit investment expected over the coming decades, the way in which transit is and will be funded needs to be examined.

Today, the Victoria Regional Transit System is funded through a combination of provincial funding, local property tax, gas tax, passenger fares and advertising revenue.

BC Transit's budgets are confirmed on a year by year basis making it difficult to plan for future growth. A limitation on future funding is the ability to continuously increase property tax to fund the local share of transit projects and operations, particularly for large projects such as RTN infrastructure. The community and stakeholder engagement process identified a desire for increased provincial funding for major projects and to investigate alternative funding sources. The ambition of this plan and the Provincial Transit Plan will require BC Transit and its partners to actively continue its endeavours to achieve stable and predictable revenue sources.



As a part of BC Transit's Strategic Plan one of the priorities is to "develop stable and predictable revenue sources." The proposed actions for this are:

Develop stable revenue sources

- Work to identify and implement new revenue sources
- Assess various approaches to developing stable, secure provincial investment in transit
- Assess various approaches to developing stable, secure local investment in transit
- Initiate a revenue committee to manage fare revenue strategies in partnership with local authorities

Increase predictability

- Examine and implement improvements for conveying transit system budget information to local governments, such as the provision of multiyear budgets aligned to municipal calendar years
- Continue to confirm the BC Bus Pass program pricing (an annual pass program for lower income seniors and people with disabilities)

Implement new partnerships and revenue opportunities

- Seek to revise legislation, policies and procedures to encourage profitable commercial use of BC Transit assets and resources for reinvestment to further transit service objectives
- Explore opportunities to offset costs by leveraging BC Transit's expertise and scope with other organizations (e.g., BC Transit's fleet procurement expertise or bulk fuel contracts)
- Continue to support local governments to offset costs by identifying and creating local transit funding partnerships with other agencies
- Explore new revenue opportunities and funding mechanisms in conjunction with development of Rapid Transit corridors

Full implementation of the Transit Future Plan will require significant capital and operating investment in the transit system over the next 25 years. In particular, investments in transit priority measures are critical to the plan's success by increasing demand and creating an increasing return on service hour and fleet investments.

Given the level of transit investments anticipated over the coming decades, the way in which transit is, and will be, funded needs to be reviewed. The ambition of this plan and the Provincial Transit Plan will require BC Transit and its partners to actively continue its endeavours to achieve stable and predictable funding sources. For this reason, BC Transit and the CRD will coordinate efforts to achieve more stable and predictable funding sources in direct partnership with the region's municipalities and other stakeholders.



What We Need to Succeed

BC Transit has begun to take steps to guide the Transit Future Plan from a vision to a reality. These efforts will only be successful if done in partnership with the Victoria Regional Transit Commission, the CRD, the region's 13 municipalities, Ministry of Transportation and Infrastructure and the community. A continuous dialogue between these partners is required to ensure strong links between:

- Land use planning and transit planning
- Provincial and regional transportation planning and transit
- Transportation policy and funding availability

How will BC Transit use this plan?

- As a tool to communicate the region's vision for transit to partners, stakeholders and the public
- To identify where and in what order key transit investments will occur
- To strategically move projects through the capital planning process
- To inform the three year service planning and budgeting process
- To work with partners on integrating transit plans and investments with other major infrastructure plans and projects
- To respond to planning and development proposals

What actions does BC Transit need from local and regional partners to succeed?

- Integrate the Transit Future Plan into regional plans, Official Community Plans and transportation plans
- Integrate and consider the Transit Future Plan network when developing local corridor plans or any road infrastructure projects. For example, incorporating transit signal priority measures with an intersection upgrade project
- Integrate and consider the Transit Future Plan network when developing active transportation infrastructure plans and projects. For example, a pedestrian and cycling infrastructure project on a transit corridor could improve access to transit by providing or improving sidewalks
- Ensure that local and major development proposals and projects are received and reviewed by BC Transit to ensure support of the Transit Future Plan
- Implement Travel Demand Management strategies that encourage shifting automobile trips to transit such as implementing High Occupancy Vehicle lanes, transit priority measures, marketing efforts, restructuring parking fares and reducing parking availability/requirements in areas well served by transit
- Support and encourage Transit Oriented Development
- Work with BC Transit to explore incentives to attract high density and mixed use development to areas well served by transit
- Work with BC Transit to pursue new funding options for transit service and infrastructure (e.g., developer cost contributions (DCCs), cash in lieu of parking, land acquisition through rezoning and subdivision etc.)





BC Transit would like to thank all those who were involved in the creation of this plan





520 Gorge Road East, Victoria, BC V8W 2P3 www.bctransit.com