



Summary Guide to

Integrated Planning

February 2023



Ministry of
Transportation
and Infrastructure

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Introduction

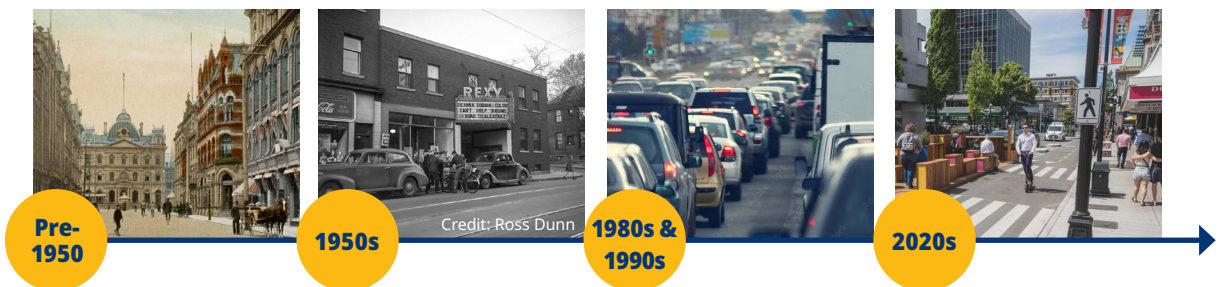
Land use and transportation are intrinsically linked: land use decisions affect how much and where people travel, as well as what transportation mode they might use. Conversely, transportation plans and investments can shape land use patterns, increase housing and employment, and influence the choices people make to travel or deliver goods and services.

Over the last century, the relationship between land use planning and transportation planning has evolved in North America. Post-World War II suburbanization drastically changed the way communities developed: segregated land use patterns increased the distances people travelled between home, work, school, and other daily needs. Land use patterns and transportation investments focused on roads and highways (compared to significantly smaller investments in walking, cycling and transit) led to people being more likely to drive for most daily travel.

During the 1980s and 1990s, rapid growth in urban areas increased our understanding of the effects of urban

sprawl and car-centric transportation investments. Greater vehicle use correlates to increased probability of physical and mental health concerns, air quality issues and greenhouse gas (GHG) emissions. There are also significant equity concerns: for those who cannot drive, prefer not to drive or do not have access to a motor vehicle, car-centric development has placed severe limitations on their ability to access job opportunities, services and other daily needs. This is particularly pertinent when considering the growing needs of new immigrants to B.C. Disproportionate increases in motor vehicle travel have also reduced mobility and reliability (i.e. the speed and predictability of travel time) for moving goods at all scales, from local and regional to interprovincial and international markets.

While land use and transportation planning efforts over the last couple decades have begun responding to these issues, much more needs to be done to enact rapid and meaningful change. 'Integrated Planning' is an approach that will help make this change possible.



What is Integrated Planning?

Integrated Planning is a collaborative, systems-based approach that combines transportation and land use planning to achieve multiple benefits, including affordability, emissions reductions and the creation of healthy, equitable and resilient communities. These integrated planning benefits rely on investing in robust and resilient multi-modal transportation systems that make it more convenient to walk, bike, and use transit while also supporting fast and reliable goods movement.

Whereas transportation and land use planning approaches over the past few decades have typically been undertaken as separate exercises – often by separate agencies – an integrated planning approach seeks to break down these silos by examining the built environment as a complete system and proactively directing growth in way that enables convenient multi-modal access.

When it comes to planning and designing transportation services and infrastructure, early recognition of the importance of multi-modal and land use connections is essential for maximizing investments of limited resources.

Integrated planning can occur at varying scales and stages of development, whether planning for small rural or Indigenous communities or large urban regions in B.C. The key is making consistent decisions and investments at all levels and collaborating to meet common goals. Integrated provincial, regional or city-wide plans can ensure the best decisions are made to guide how much, when, where and how people choose to travel.



Purpose of this 'Summary Guide'

The Ministry of Transportation and Infrastructure (MOTI), along with our cross-ministry partners, is developing a comprehensive *Guide To Integrated Planning In B.C. (Guide)*. Once complete, the *Guide* will support all levels of government (Indigenous, local, regional and provincial), agencies (BC Transit, TransLink and others) and developers in applying a consistent and effective integrated planning framework. Ultimately, this will help governments at all scales tackle many of the critical challenges facing our communities today, including the climate crisis, emergency preparedness and resiliency, housing and affordability, social equity and reconciliation.

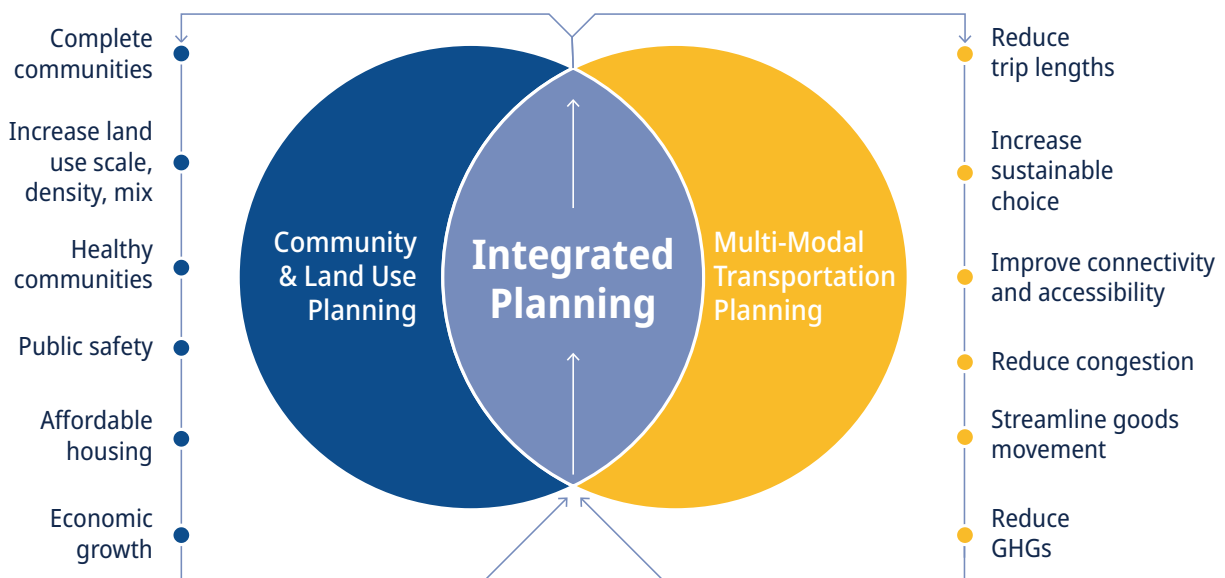
This *Summary Guide* introduces integrated planning and highlights the overall context for integrated planning in B.C. It introduces an integrated planning framework and assessment tool as well as key themes for elevating integrated planning in BC.

Why Integrated Planning is Needed

Integrated land use and transportation planning are more critical than ever for meeting the range of community, economic and environmental needs specific to our province today. **Figure 1.2** conceptually highlights the wide range of potential outcomes that are expected, including vibrant, complete communities with improved multi-modal access to services, jobs, schools and more affordable housing. This approach in turn improves affordability, accessibility and mobility for all, leading to healthier, happier people.

A multi-modal transportation system connected to a mix of land uses provides attractive and affordable choices. This supports diverse travel needs and reduces GHG emissions, creating a more sustainable and resilient transportation network. Varying densities of mixed-use communities can also reduce average trip distances and in turn support efficient services and infrastructure as well as improved economic opportunities for residents.

FIGURE 1.2 OUTCOMES FROM INTEGRATED PLANNING



Strategic Context for B.C.

Although the Guide will ultimately shape land uses and transportation infrastructure in B.C., there are many related strategies and policies that influence provincial goals and aspirations. Some of the key strategies that informed the *Guide* are outlined below.

StrongerBC Economic Plan (2022): Aims to grow B.C.'s economy and make life better for people and families, while addressing the climate crisis and inequality. The Plan calls for inclusive and clean growth, including promoting transit-oriented development, climate-resilient infrastructure and efficient goods movement.

Provincial Goods Movement Strategy (2023): Aims to help B.C.'s goods movement ecosystem become smarter, cleaner and more competitive. The Strategy will provide short-, medium- and long-term actions to achieve these outcomes and build on recent progress made by the B.C. government and supply chain partners. It will also reflect the priorities of StrongerBC and CleanBC, recognizing the importance of the transportation and logistics sector to the B.C. economy and the need to innovate and adopt new technologies to foster trade and meet climate goals.

CleanBC: Roadmap to 2030 (2021):

Establishes a foundation for reducing GHG emissions that also supports building a strong, clean economy. The Plan includes comprehensive actions to meet B.C.'s 2030 and 2050 targets, including initiatives to reduce distance travelled and encourage sustainable mode shift.

BC Transit's Strategic Plan 2020–2025 (2020):

Looks to provide more responsive and reliable transit services while facing climate change and affordability. The Plan calls for working with local governments and First Nations to create thriving communities and increase access to affordable, reliable and efficient transit.

B.C.'s Housing Strategy (2023): The vision for the housing Strategy is that all people living in BC have access to housing that meets their needs. The Strategy outlines a framework with strategic areas that build on the 2018 Plan, which will create the quantity and diversity of housing needed by (1) Increasing the Rate of Market Housing Production; (2) Making More Efficient Use of Existing Housing; (3) Increasing Public and Community Owned Housing; (4) Better Regulating the Housing Market and Improving Tax Fairness; and (5) Making Rental Housing More Secure and Affordable.

Alignment with Other Provincial Guides

While the Guide to Integrated Planning in B.C. is being developed, there are several related provincial initiatives – either published or under development – that provide in-depth guidance on this topic. The Transit-Oriented Development Guide (upcoming) and Complete Communities Guide (upcoming) focus on growth patterns to support higher density, mixed-use areas that are integrated with attractive and

sustainable transportation such as walking, cycling and transit facilities and services.

Other provincial initiatives such as the B.C. Active Transportation Design Guide (2019) and the Active Transportation and Transit-Oriented Development Guide (2021) provide direction on increasing walk and bike travel as well as other personal mobility devices in established communities and growth areas across the province.

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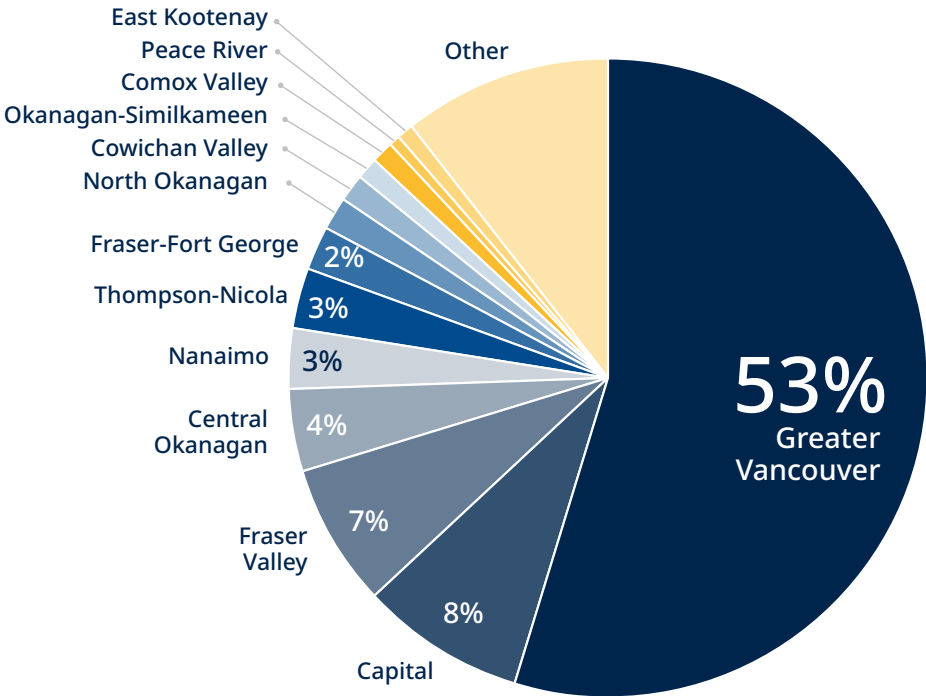
Experience with Integrated Planning in B.C.

Our Communities

British Columbia is made up of diverse regions from small rural communities to large urban centres – including 190 municipalities and unincorporated areas within 27 regional districts. Between 2001 and 2021, the provincial population grew from approximately 4.1 to 5.2 million people (or by 28%).

As illustrated in **Figure 2.1**, almost 80% of existing residents live in seven regional districts: Metro Vancouver; Capital Region; Fraser Valley; Central Okanagan, Nanaimo; Thompson-Nicola; and Fraser-Fort George.

FIGURE 2.1 2021 PROVINCIAL POPULATION DISTRIBUTION BY REGIONAL DISTRICT



Source: Statistics Canada, 2001 and 2021 Census of Population

Travel choices in most communities are principally influenced by land use patterns as well as the availability of walking, cycling, and transit as realistic transportation options. Over the last 20 years, the ‘journey to work’ mode shares have not changed dramatically, as illustrated in **Figure 2.2**. In B.C., approximately 80% of residents travel by car (driver or passenger) to work, while transit, walking, cycling and other modes account for the remaining 20% of travel. These mode choice patterns are generally consistent with national averages, which indicate approximately 84% of people use their car (driver or passenger) to get to work.

According to BC Stats, the provincial population is projected to grow to almost 7 million people by 2045 (34% increase). The six largest regions in the province are expected to account for almost 90% of the growth (with Metro Vancouver alone accommodating 58% of the projected increase). Although a smaller proportion of the provincial increase, the population of other regional districts are projected to increase by 20% to 40% by 2045.

With three quarters of our projected 2045 population in place today, land use patterns and transportation systems across B.C. have largely been established. Historical land use patterns and investments in transportation have influenced the travel choices people make each day. For many residents, these choices are entrenched and difficult to adjust without attractive alternatives and incentives.

Increasing sustainable travel choices such as walking, cycling and transit in built communities relies on strategies from all levels of government to invest in infrastructure and services that will enhance access and connectivity for daily travel needs. Over the next 25 years, managing and integrating future growth and transportation systems can be used to promote modes other than driving and will support other social, economic and environmental goals and objectives for all communities.

FIGURE 2.2 HISTORICAL JOURNEY TO WORK MODE SHARE IN B.C.



Source: Statistics Canada, 2001 and 2021 Census of Population

Integrated Planning Examples

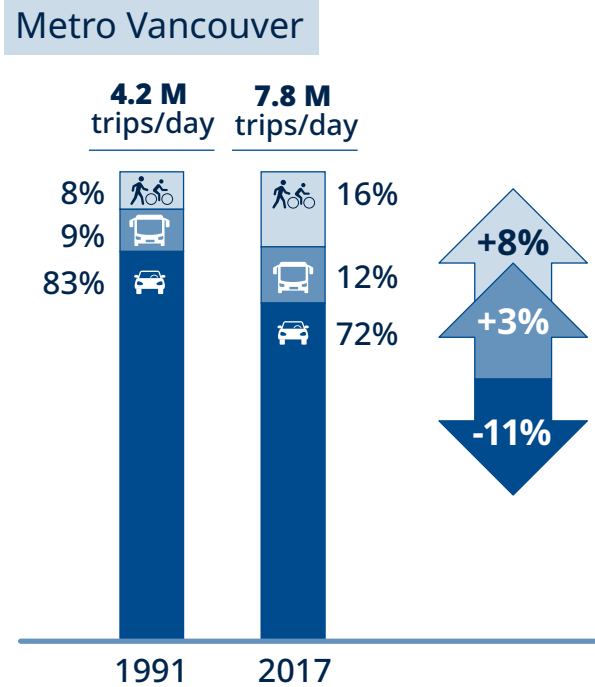
Over the last 20 years or so, there have been several examples of integrated planning in B.C. communities of all sizes. Some of the highest growth regions have taken small steps to improve connections between regional growth strategies and transportation strategies. Several municipalities have developed Official Community Plans and local area neighbourhood and land use plans that are connected to Transportation Master Plans and strategies to support sustainable travel choices. Increasingly, urban nodes and centres have been identified to support the long-term growth of higher density, mixed land uses as well as attractive transit services and active transportation infrastructure.

Some notable examples of integrated planning in B.C. are briefly highlighted below.

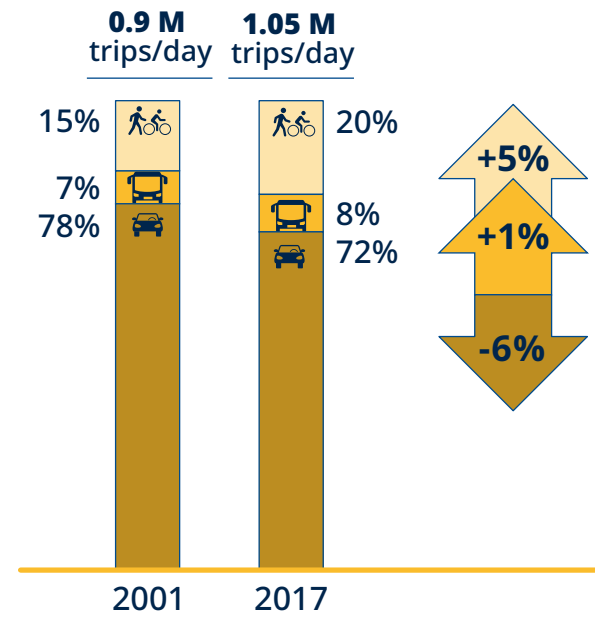
Metro Vancouver

The *Livable Region Strategic Plan (1996)* and *Transport 2021: A Long-range Transportation Plan for Greater Vancouver (1993)* provided guidance for land use decisions to address urban sprawl, the lack of coordination between municipalities and declining environmental quality. The plan established key strategies that include protecting the green zone, building more complete communities, achieving a compact metropolitan region, and increasing transportation choices. Transport 2021 identified four primary policy levers and supporting actions, including controlling land use, Transportation demand Management, adjusting transportation service and managing transportation supply.

FIGURE 2.3 HISTORICAL TRAVEL CHOICES
MODE SHARE COMPARISON



Capital Regional District



Several integrated regional strategies have been developed since that time. Most recently, *Metro 2050* and *Transport 2050* were prepared in 2022 through an integrated, collaborative process. These plans place further emphasis on urban centres and call for significantly greater commitments toward sustainable growth and investment in transit and active transportation. As illustrated in **Figure 2.3**, daily vehicle mode shares in Metro Vancouver have declined by approximately 11% over the last 25 years or so, which have been off-set by increases in active transportation and transit travel.

Capital Regional District (CRD)

In 1998, the CRD adopted the framework for a regional vision and guiding principles outlining a desire for a vital economy, livable communities, protected environment and natural resources, as well as a healthy quality of life. The 2003 *Regional Growth Strategy* guided how communities in the region would manage growth to achieve the vision. *TravelChoices* – the CRD’s first regional transportation strategy – was subsequently designed to vision and identify key directions for transit, active transportation, primary roads and highways, as well as demand management measures.

The Transportation Plan and Regional Growth Strategy were updated in 2014 and 2018 respectively with expanded goals and key actions to manage and balance growth, environment and infrastructure, housing and community, transportation, economic development, food systems and climate action. Over this timeframe, daily vehicle mode shares in the CRD have declined by 6%, with the greatest increase in active transportation (+5%) followed by transit (+1%), as highlighted in **Figure 2.3**.

Kamloops

In 1991, the City of Kamloops completed its *TravelSmart* plan which aimed “to develop an integrated land use and transportation strategy”, “embrace all modes of travel” and “ensure that environmental, economic development, and quality of life goals are taken into account”. This plan guided land use and growth management in the City and initiated its Transportation Demand Management program.

Subsequent planning efforts included similarly integrated land use and transportation initiatives as part of updates to the City’s Official Community Plan (*KAMPLAN*), including in 2018 when a coordinated and iterative update to both *KAMPLAN* and the City’s *Transportation Master Plan* was completed.

Kelowna

In the Central Okanagan, many integrated planning processes have been undertaken in one of Canada’s fastest growing regions. The City of Kelowna’s most recent Official Community Plan (*Kelowna 2040*) was completed in conjunction with the City’s *2040 Transportation Master Plan*. Finalized in 2022, both plans were coordinated to identify a growth scenario and the policy, program and infrastructure development actions required to support this thriving mid-sized city.

The resulting trend for small and medium sized communities has been a greater emphasis on development in central areas, encouraging higher population and employment densities in established urban centres, and a greater emphasis on active transportation and transit infrastructure.

Ministry of Transportation and Infrastructure

The Ministry of Transportation and Infrastructure has also been working toward more integrated, multi-modal plans and investments in highways, transit services and infrastructure, as well as active transportation facilities for people of all ages and abilities. Over the last five years, the Ministry led the development of the *South Island Transportation Strategy* (2020), which explored provincial, inter-regional and regional directions and priorities for investments in highways, transit, marine, as well as active transportation infrastructure and services. More recently, the Ministry has been working with communities on the

Central Okanagan Integrated Transportation Strategy (in-progress) to highlight priorities for multi-modal transportation investments across the region to support land use plans.

Beyond these integrated plans and strategies, the Ministry has also made significant commitments for investments in transit, active transportation and multi-modal highway infrastructure. These actions are specifically designed to support and leverage integrated land use decisions as well as investments in sustainable transportation infrastructure and services by local and regional agencies.



3 Integrated Planning Challenges & Opportunities

Although there are increasing examples of integrated planning in small and large communities across the province, the approaches to land use and multi-modal transportation in municipalities and regions in B.C. are inconsistent and produce varied if not modest results. Despite stated goals for developing vibrant urban centres and community nodes with mixtures of land use type, scale and densities, many land use plans have continued to promote urban sprawl as the primary means of supporting growth.

Most multi-modal transportation strategies over the last few decades include significant roadway investments that support and enable segregated, single land use growth patterns. Further, historical investments in walking, cycling and transit services and infrastructure have not come close to the needs and actions envisioned within most multi-modal transportation plans and strategies over the last 20 years. Despite select experiences with integrated planning in B.C., there are many examples of planning and implementation ‘silos’ in terms of land use and transportation plans and projects.

All levels of government and First Nation communities are working to address growing issues that face the 5.2 million residents currently living in established communities of our province as well as the next 1.8 million people that will be added by 2045. The challenges and opportunities that will be addressed within the *Guide* and other supporting provincial initiatives described in Section 1 are separated into two distinct themes: **Enhance Transportation Choices in Established Communities** and **Improve and Coordinate Integrated Growth and Multi-modal Transportation.**

Enhance Transportation Choices in Established Communities

Within many communities, separated land use patterns will continue to influence how much, how frequent, where and when people travel for the long-term. For many residents, driving has become the primary travel choice given the challenges of walking, cycling or using transit for most daily needs. A growing proportion of the population cannot afford to drive, yet they experience significant barriers to sustainable forms of travel due to a lack of accessible infrastructure and services. These travel choices and barriers have become entrenched for many people and will be difficult to change without meaningful multi-modal investments, systems-based planning and providing more sustainable and affordable travel choices.

Key challenges and targeted opportunities to increase transit ridership as well as walking and cycling in established areas are briefly highlighted below:

- i. Understand current land use patterns and transportation choices.** Current land use patterns in most established communities result in distinctly unique travel demands or 'markets.' The common assumption is that building active transportation facilities and delivering frequent transit services have the same impact in all communities. Because of the varied travel markets in terms of how much, where and when people travel, transit services and active transportation facilities must be integrated and designed to support the strongest travel markets and to reduce the vehicle mode share. Addressing the existing patterns means understanding current relationships between land
- use and transportation demands or the travel markets in which to consider transportation policies, strategies, services and facilities. The *Guide* will explore relationships between land use and transportation in the established communities in B.C. to better understand travel patterns and how transit, walking, cycling and other sustainable modes can reduce motor vehicle travel.
- ii. Address the historical deficit of active transportation in established and expanding communities.** The established areas of most communities were created at a time when driving was the principle means of getting around. The result is that there is a limited network of walking and cycling infrastructure in areas with some of the shortest trips to access schools, retail areas, parks and other neighbourhood uses. Municipalities responsible for implementing walking and cycling infrastructure cannot rely on Development Cost Charges to complete networks in established areas. Some have established dedicated sidewalk and bicycle infrastructure funds to slowly address the gaps. Further, the Ministry does not typically provide or maintain active transportation facilities on secondary highways that traverse designated urban centres or rural villages. The *Guide* provides an opportunity to explore challenges and strategies to advance walking and cycling in established areas of the province.

iii. Enhance regional and inter-regional transit. Within established areas and as population and employment continues to expand around some of B.C.'s large and mid-size communities, delivering and expanding attractive inter-regional and regional transit services is essential. Funding these services, however, requires agreements between local and regional governments along with provincial cost-share. Current approaches restrict long-term commitments to introduce and increase regional and inter-regional transit services that would support daily travel between communities and regions – especially outside Metro Vancouver and the Capital Region.

iv. Maximize inter-modal connectivity and effectiveness through planning and design of transportation facilities. Many agencies typically plan and design transportation for individual modes or 'silos' where the benefits of integration cannot be realized. Highway and roadway plans and designs traditionally focus on capacity and safely moving people and goods across the province or between communities. Transit plans design services and supporting infrastructure to serve local, regional and inter-regional travel markets. Active transportation plans are designed to support walking and cycling within and between communities. In most cases, plans and designs for individual modes may overlook opportunities to support and integrate with other sustainable modes. The *Guide* provides the opportunity to examine strategies for planning and designing for all modes in order to leverage finite resources as well as public rights-of-way.

v. Strengthen collaboration and coordination between all agencies to plan, design, fund and deliver integrated, multi-modal transportation. All levels of government have varied responsibilities for planning, designing, funding, delivering, operating and maintaining transportation in B.C.

Municipal governments typically plan, design, fund and deliver roads, sidewalks and cycling facilities. Together with BC Transit and TransLink (in Metro Vancouver), local and regional governments also support planning, design, funding and delivery of transit services and infrastructure. The Ministry of Transportation and Infrastructure plans and delivers primary and secondary highways along with major transit infrastructure in some of the largest regions in the province. Beyond these primary responsibilities, discrete agreements are often required to design and deliver services and infrastructure where there are overlapping responsibilities. In many cases, these governance and funding responsibilities can impact the effectiveness to advance, coordinate and integrate necessary investments in provincial and regional transportation services and infrastructure.

vi. Identify key policies and strategies that further encourage alternatives to driving for daily travel. Making walking, cycling, transit and other forms of personal mobility attractive and convenient is central to increasing sustainable mode share. Accelerated and focused plans and investments in multi-modal infrastructure and services can improve choices for all residents. At the same time, Transportation Demand Management policies and strategies that discourage driving, support alternative modes and other community building goals are essential to changing travel behaviours.

vii. Align decision-making frameworks for transportation investments with broader goals and objectives. Local and regional agencies across the province use a variety of methods to make decisions when planning and investing in transportation. Many focus on current day and forecast conditions to identify needs and improvements to major roads, transit services and active transportation facilities. Further, the Ministry of Transportation and Infrastructure applies a Multiple Account Evaluation (MAE) framework using criteria related to transportation, social, economic and environment costs, benefits and impacts to shape infrastructure plans and decisions.

Inconsistency between projects and the inability to capture broader goals and objectives at all stages of planning, design, funding and delivery can severely limit potential investments in sustainable travel choices. In this regard, transportation services and facilities supporting multiple goals and objectives may better serve broader aspirations and maximize financial resources.

viii. Enhance experience and resources for integrated, multi-modal transportation planning. Municipalities and regional districts are not required to adopt transportation plans to support Regional Growth Strategies and/or Official Community Plans. Further, the province has taken different approaches to transportation strategies and experienced varied levels of success across B.C. Because local, regional and provincial governments are not required to undertake transportation-specific plans, guidelines for such plans are largely missing, which creates inconsistencies across jurisdictions. The *Guide* provides the opportunity to shape approaches to planning, design and delivery of integrated, multi-modal transportation across B.C.



Improve and Coordinate Integrated Growth and Multi-Modal Transportation

As noted in Section 2, BC is expected to experience a significant increase in population over the next 20 years, with nearly all of the growth expected to occur in six regions. Collectively, all levels of government and First Nation communities can strive to better integrate land use and transportation planning to support growth and achieve wider policy goals. Key areas to strengthen the relationships between land use and transportation are briefly described in the following points:

- i. Increase Transit-Oriented Development (TOD).** The province continues to make significant investments in transit services and infrastructure in some of the highest growth areas in B.C. Rail and bus rapid transit have been implemented and are being planned in communities such as Metro Vancouver, Fraser Valley, Central Okanagan and the Capital Region. Transit hubs are also being planned in many other communities to support attractive regional and inter-regional bus transit services. The *Guide to Transit-oriented Development* being prepared by the Province is designed to leverage these investments by encouraging concentrated growth nearby rail and bus transit stations.
- ii. Encourage Complete, Connected Communities.** The concept of complete communities refers to supporting growth through mixed-use, well-connected communities where most daily activities can be accessed within a 15- to 20-minute walk. Complete communities with a good diversity of housing, employment and recreational and social opportunities are efficient to service with infrastructure, reduce personal costs and help protect and preserve the natural environment, while improving quality of life and health for residents. The *Complete Communities Guide* being prepared by the Province explores strategies and approaches to encourage integrated land use planning that will support future growth across all communities in B.C.
- iii. Minimize Urban Sprawl.** Despite strategies for TOD and Complete Communities, many areas of the province continue to experience the pressures of 'urban sprawl' as the primary form of growth. In our smallest and largest communities, greenfield developments are typically easier to plan and implement in comparison to infill or redevelopment areas. Relationships between land use patterns and mode choice in existing communities will be explored in the *Guide* to inform strategies to address growth outside designated urban centres and nodes.

4

An Integrated Planning Framework

Experience in B.C. and elsewhere suggests that planning, designing and building communities and multi-modal transportation infrastructure is best achieved through an integrated planning process. Strategic goals and objectives are important for shaping this process and ensuring a consistent approach. Plans and designs must also be examined through several lenses to support diverse populations across the province.

Figure 4.1 conceptually highlights the relationships between the strategic goals and objectives for integrated planning, the critical lenses to consider at all stages of the process, and a general process for planning and designing communities and transportation infrastructure. Together, these components make up the integrated planning framework. The section below outlines this planning framework in greater detail.

This framework is designed to be universally applicable – it can be used for both land use and transportation planning, at all stages of the planning process, as well as at all scales of projects and in different contexts across B.C.

FIGURE 4.1: ALIGNING STRATEGIC GOALS WITH INTEGRATED PLANNING PROCESSES

STRATEGIC GOALS & OBJECTIVES



Complete Communities



Safe & Integrated Transportation Systems

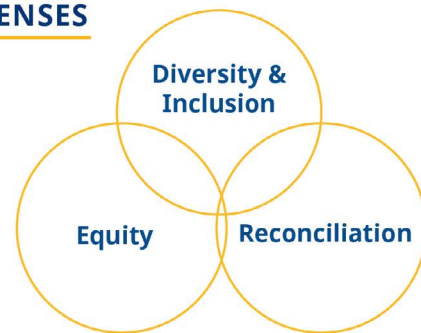


Economic Competitiveness



Resilience & Climate Change

STRATEGIC LENSES



PLANNING & DEVELOPMENT PROCESS

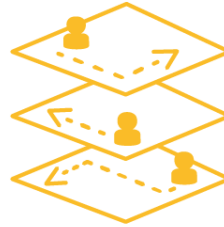
- Taking Stock
- ▼
- Challenges & Opportunities
- ▼
- Options Development & Evaluation
- ▼
- Plan Development

Strategic Goals & Objectives

The following strategic goals and objectives are key to the integrated planning process.



Complete Communities means ensuring that development occurs in proximity to convenient and sustainable transportation options, jobs, services and other daily needs, which can reduce the need to own and drive a vehicle. It also means providing a mix of housing and transportation options that reflect the local context and community make-up.



Safe & Integrated Transportation Systems means investing in, building and maintaining a safe, seamless and reliable system across transportation modes and jurisdictions. This includes providing multiple choices for moving people and goods, which will in turn enhance system resilience and reduce overall vehicle travel.



Economic Competitiveness is enhanced by seamlessly connecting people to jobs and services, while also facilitating the efficient movement of goods. Planning land use to maximize economic development potential – through an integrated and cooperative approach – is also key to growing a stronger economy.

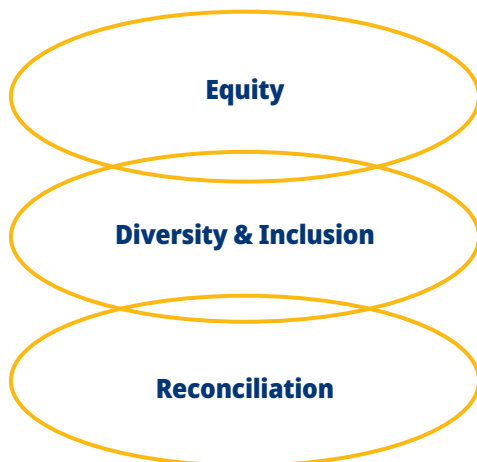


Resilience & Climate Change includes reducing GHG emissions by shifting to sustainable transportation modes and lowering vehicle-kilometres travelled. It also means developing robust and resilient communities and transportation systems that are flexible and provide redundancy to accommodate disruptions.

Strategic Lenses

Investing in complete communities and multi-modal transportation supports independent mobility and provides increased access to employment, education, economic and community participation opportunities. Addressing structural inequities and ensuring communities are healthy, vibrant, diverse and inclusive for all requires focusing on equity-priority groups. This means prioritizing people and populations who are being underserved, missed or disadvantaged by policies, procedures and programs and have historically faced barriers that impact their ability to participate equally in society.

The success of all provincial strategies and plans are founded on recognizing and incorporating the broad diversity of peoples and communities in B.C. These same foundations are also essential to integrated planning in our province. In this regard, all land use and multi-modal transportation plans and designs must be guided by strategic lenses that are foundational in identifying needs, shaping opportunities and developing solutions. It is paramount that these lenses are considered from the outset and applied at all stages of the planning process.



- **Equity:** Equity means striving for a just, free and fair society where all people have access to the necessary opportunities and resources to live a healthy and meaningful life. Provincial, regional and municipal goals all emphasize the need to increase equity by supporting equity-priority groups.
- **Diversity & Inclusion:** Many identity factors influence equity, including race, gender, sexual orientation, income, age, ability, religion, language and several other factors. The intersection of these identity factors creates unique experiences of discrimination and privilege. Applying an intersectional, inclusionary lens means striving to recognize and mitigate these factors through planning and design, education, awareness or other policies. The province uses the Gender Based Analysis (GBA+) approach to examine projects through an intersectional lens and consider how to improve access for equity-priority and traditionally underserved populations.
- **Reconciliation:** The province recognizes the importance of Indigenous knowledge and is committed to ensuring that the values and aspirations of B.C.'s Indigenous Peoples are included in all integrated planning processes. Beyond the legislated commitments from the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) in 2019 and the framework for reconciliation, all stages of integrated planning and development need to emphasize and support opportunities.

Planning and Development Process

The strategic goals, objectives and lenses are designed to align with the integrated planning and development process outlined in **Figure 4.1**. This process represents a best practice approach design to be universally applicable to the planning and design of all types of communities and multi-modal transportation systems. The integrated planning process can be adapted to different contexts but common stages of the process include the following:

- **Taking Stock:** The first stage is to assess historical and current conditions by analyzing transportation and land use data, including user counts, travel patterns, collision statistics, land use and demographics. This also includes assessing policy, plans and strategies to understand projected growth, planned changes and future conditions. Once this assessment is complete, an integrated vision and objectives for the project can be established.
- **Challenges & Opportunities:** The next stage is to identify integrated challenges and opportunities, strategically considering both transportation and land use. This can include a screening Multiple Criteria Assessment (MCA) using measures that reflect goals and objectives and strategic lenses to develop of a shortlist of options or scenarios for further assessment. At this stage of integrated planning, supportive requirements to enhance success of the plan should be identified. Supporting initiatives may involve multiple agencies and interests with other governance and funding responsibilities.
- **Options Development & Evaluation:** The third stage develops and evaluates the options using contextually relevant tools, including modeling and MAE. This stage is designed to assemble feasible plans and concepts that reflect the shortlist of integrated features from previous findings. The MAE evaluates options based on social, environmental, economic, user experience and cost-benefit criteria.
- **Plan Development:** The final stage is to develop a plan that sets out the preferred long-term direction for the project. Typically, plans will include several policies or actions to achieve the vision and will guide future studies, decision-making and project development. The integrated plan should identify priorities and outline a phased approach to support implementation. Implementation of the plan can be monitored and evaluated over time to ensure successful application, with adaptations made as needed.

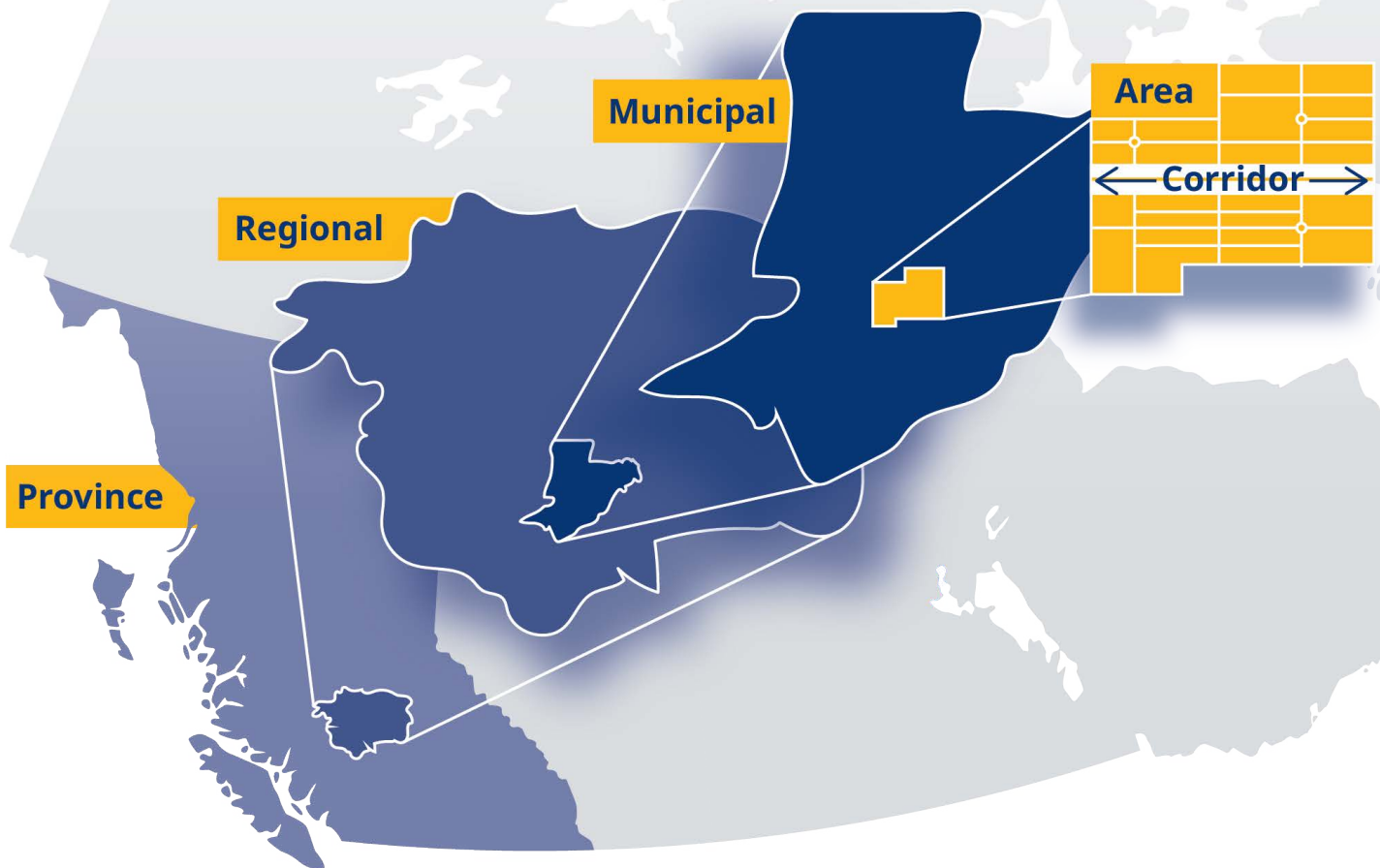
More detailed integrated planning processes will be developed in the full *Guide To Integrated Planning In B.C.*

5 Integrated Planning Tool

Land use and transportation planning and development projects take on various forms. Some span community-wide plans or strategies to guide changes in land use and transportation, along with other community services and infrastructure. Others may be area or corridor specific, tackling many of the same integrated themes to be advanced from planning through various stages of design. Planning and development projects can also be centered on multi-modal transportation or mode-specific initiatives with connections to land use and broader community aspirations.

They too will typically evolve from planning through to design and delivery of transportation services and infrastructure.

Regardless of the type of project or the stage of planning and development, it is essential to have a common approach and framework to identify opportunities and improvements that align with overall goals and objectives. This section highlights an **Integrated Planning Assessment Tool (IPAT)** that has been designed for all stages of planning and development.



Who Should Use the Tool

The IPAT was designed to be applicable for a variety of users leading and facilitating planning and design processes. This tool can be used by and customized for government agencies, local councils, city staff, business improvement groups, community groups, the development community and others that interact with the built environment at any scale. The complete *Guide for Integrated Planning in B.C.* will ultimately serve as a companion document to be used in conjunction with the IPAT and in general serve as the guide to applying an integrated planning lens to variety of applications.

When to Use the Tool

The IPAT was designed to be used at any stage in the project lifecycle. It can be used at the inception of the planning stage, throughout the project's development, at the completion of a project and post-implementation. As the IPAT is not designed to be used as an approval requirement, it provides users with an opportunity to check in and review their project's alignment with overall integrated planning goals and objectives. As projects develop, opportunities may arise that bring the project further into alignment with these broader aspirations.

How to Use the Tool

The IPAT was developed to connect goals and objectives with planning and development processes for integrated land use and multi-modal transportation projects. As noted, the IPAT is designed to be used at any stage of project planning and design.

The overall approach strives to ensure that opportunities to support broader aspirations are identified where appropriate and that investments for all agencies and First Nations are aligned with integrated planning principles.

The IPAT has been structured to ask and address those leading planning and development processes about a series of topics related to the four broader goals and objectives. **Figure 5.1** summarizes the range of topics aligned with the integrated planning goals and objectives.

During early phases of a project (e.g., the Taking Stock stage), leaders will want to explore topics and understand existing and future trends related to complete communities, safe and integrated transportation, economic competitiveness and prosperity, and resilience and climate action. During subsequent phases of project planning and development, similar topics may evolve to identify critical challenges and opportunities to be explored, develop options to be compared and evaluated, identify preferred plans and/or designs to be advanced, and to consider investments.

In some cases, the potential topics explored under specific goals and objectives may not be applicable to all projects. However, it is important to confirm and track those attributes of projects that are applicable and how they may be integrated through project planning and development, as well as those attributes that are less relevant. Applicability may also evolve with the project planning and development process as new features and attributes are considered in response to key questions and outcomes from the process. The IPAT is intended to be flexible based on the type project or initiative it is being applied to.

FIGURE 5.1 – APPROACHES TO INTEGRATED PLANNING

	I. Taking Stock	II. Challenges & Opportunities	III. Options Development & Evaluation	IV. Plan Development
 <p>COMPLETE COMMUNITIES</p>		<ul style="list-style-type: none"> Community diversity, affordability, and accessibility in relation to sustainable travel. Extent of mixed-use development close to walk, bike, and transit infrastructure & services. Varied housing types and levels of affordability aligned with community needs and sustainable modes of travel. Support needs of diverse communities to achieve shared benefits of affordable and sustainable travel. 		
 <p>SAFE & INTEGRATED TRANSPORTATION SYSTEMS</p>		<ul style="list-style-type: none"> Safe, seamlessly connected, and reliable system across all modes and jurisdictions. Opportunities for alternative modes to serve people travel and moving goods to reduce total vehicle travel. Public transportation and active transportation infrastructure and services that increase sustainable travel. 		
 <p>ECONOMIC COMPETITIVENESS</p>		<ul style="list-style-type: none"> Access to workforce, employment opportunities, or educational opportunities. Access to community and business services. Enhance goods movement efficiency and reliability. Seamless and reliable transportation of goods to local and international customers. Improve the competitiveness BC's transportation networks. 		
 <p>RESILIENCE & CLIMATE CHANGE</p>		<ul style="list-style-type: none"> Support transportation that result in lower GHG emissions. Develop infrastructure that emphasize future resiliency. Support resilient communities and infrastructure that can adapt to climate change. 		

6

Looking Ahead

Over the last 20 years, B.C.'s population has grown significantly, and the provincial economy has also expanded and diversified in most communities. Six regions in the province experienced much of the population growth during this period and currently accommodate approximately 80% of all residents. During this same timeframe, several communities have developed multiple iterations of land use and transportation plans. Through these efforts and ongoing investments in transit and active transportation by all levels of government, the proportion of daily vehicle trips has decreased to varying degrees. For many communities, however, the proportion of work-based travel by motor vehicles has only marginally declined over the past few decades.

As outlined earlier, B.C.'s population is projected to increase to approximately seven million people by 2045, or by 34%. During this period, approximately 90% of the growth is projected to occur in the six largest regions in the province. Provincially and within many of these communities, aggressive mode share targets for active transportation and transit have been established. The *CleanBC Roadmap to 2030* identifies a target of increasing the share of combined trips (commuting and personal activities) made by walking, cycling and transit to 30% by 2030, 40% by 2040 and 50% by 2050. Many local and regional plans across B.C. have identified similarly aggressive sustainable mode share targets for the next 20 to 30 years.

Achieving these mode share targets and associated benefits means increasing sustainable travel choices for established communities and doing more to encourage and shape land use patterns and transportation in designated urban centres and nodes. At the same time, there is an imperative to support existing and future housing demands as well as all levels of the economy locally, provincially and nationally. Beyond the land use and transportation outcomes, these changes are required to improve quality of life and affordability, increase housing choices, address climate change, grow and diversify our economy along with many other provincial aspirations.

Experience to date in B.C. and elsewhere has demonstrated that integrated land use and transportation planning can make a difference. However, the scale and pace of change must increase significantly to tackle the growing challenges residents and businesses in B.C. face. The *Guide to Integrated Planning in B.C.* examines several key themes to dramatically reduce vehicle mode shares in established communities of varying scales and to shape growth and integrated investments in multi-modal transportation systems.

For the most critical areas to be addressed in the province, the *Guide* builds on experiences and understanding, identifies key issues and barriers, highlights needs and opportunities, and presents potential policies and actions to be explored.

Themes

#1 Land Use Patterns and Transportation Choices

Regional & Inter-regional Transit Planning and Delivery **#2**

#3 Active Transportation Planning and Delivery

Regional & Inter-regional Transportation Demand Management **#4**

#5 Integrated, Multi-modal Corridor/ Network Planning

Integrated Project Planning Process and Resources **#6**

#7 Growing and Diversifying Economic Networks

Multi-modal Decision-making Frameworks **#8**

#9 Climate Action and Resilience

THEME #1

Land Use Patterns and Transportation Choices

In recent decades, urban sprawl in most B.C. communities has made it difficult to significantly increase sustainable travel choices. The resulting scale, distribution, distances and time people travel have made it challenging to plan and design active transportation and transit options for most daily trips.

This section of the *Guide* will examine historical relationships between land use and transportation choices in mid-size and large communities in B.C. Over the next few decades, these patterns will affect all communities and influence direct and indirect outcomes such as affordability, housing choices, climate change, economy and others. The *Guide* will identify needs and opportunities to address established land use and transportation patterns. Parallel initiatives such as the provincial *Transit-oriented Development Guide* and *Complete Communities Guide* will outline opportunities to shape growth in all communities through integration of land use and transportation and address other aspirations. In combination with these other initiatives, this section will identify potential strategies to broadly advance integrated land use and transportation planning.

THEME #2

Regional & Inter-regional Transit Planning and Delivery

For much of B.C., there are strategic barriers to planning and delivering regional and inter-regional transit services. Although the barriers are slightly different in Metro Vancouver and Greater Victoria, most are impacted by aspects of the governance, funding, cost-recovery and/or fare agreements between agencies.

Addressing growth in rural, small and mid-size communities as well as sprawl in larger urban areas over the last two decades and planned growth across B.C. relies on attractive regional and inter-regional transit alongside local services for daily travel needs. This section of the *Guide* will explore the needs, barriers and opportunities to improving regional and/or inter-regional services to support established and growth areas of the province.

THEME #3

Active Transportation Planning and Delivery

Increasing the scale, density and mixture of land uses along with providing attractive walking and cycling facilities has proven to reduce driving in many communities. Active transportation facilities can also provide important “first- and last-mile” connections to transit and other sustainable travel. The *B.C. Active Transportation Design Guide* and other parallel initiatives identified opportunities to plan and design walking and cycling facilities for people of all ages and abilities.

However, in established areas of small and large communities across B.C., there is a distinct deficit of walking and cycling facilities. Further, there are significant barriers to planning, designing, funding and implementing active transportation facilities on municipal and provincial rights-of-way. This section of the *Guide* examines current conditions and barriers to delivering active transportation facilities in the established communities across the province. The *Guide* will examine unique challenges and opportunities in urban and rural communities along local and provincial corridors.

THEME #4

Regional & Inter-regional Transportation Demand Management

Beyond providing attractive services and facilities that support sustainable travel, Transportation Demand Management (TDM) refers to a range of actions to further encourage walking, cycling, transit and carpooling as new infrastructure and services are implemented. Actions may include supportive policies, strategies, services and/or programs by all agencies that can shape travel choices. For example, parking management strategies to minimize the supply of long-term parking and introduce pricing strategies can simultaneously support transit and active transportation as well as parking operations.

This section of the *Guide* will examine existing TDM initiatives that are working in B.C. communities and elsewhere to encourage sustainable travel. The *Guide* will explore and identify TDM opportunities that have the most significant potential to reduce vehicle travel and will highlight coordinated actions that may be considered by various levels of government across the province.

THEME #5

Integrated, Multi-modal Corridor/Network Planning

Historically, ‘silos’ of ownership and responsibility for rights-of-way, along with planning and designing for individual travel modes, have created barriers to shaping travel choices. Conversely, integrated, multi-modal plans and designs that work across jurisdictional responsibilities can promote seamless walking, cycling, transit and carpooling travel in addition to moving goods provincially.

This section of the *Guide* will explore existing conditions and challenges for planning and designing integrated, multi-modal corridors in communities across B.C. The *Guide* will also examine the expectations and approaches to managing (i.e. operations, maintenance, intelligent transportation systems, etc.), upgrading (i.e. rehabilitation, seismic improvements, climate resiliency, etc.) and expanding (i.e. multi-modal features and treatments of networks and corridors). Needs and opportunities may vary by scale of community and potential benefits in terms of community, social, environmental and economic impacts. Potential policies, strategies and actions for all agencies to advance integrated, multi-modal corridor and network planning will be explored within the *Guide*.

THEME #6

Integrated Project Planning Process and Resources

Whether agencies are preparing integrated land use and/or transportation plans for communities at varying scales or specific area or modal plans and designs, providing guidance and resources that align aspirations and approaches for all communities are essential. Connecting goals and objectives with planning, design and delivery can be achieved at all stages of the process. Land use and transportation plans can explore challenges, opportunities and directions against social, community, environmental and economic considerations. A similar evaluation framework can also apply to project planning and design for specific modes to ensure broader goals are achieved. All stages of each process must be examined through the lenses of diversity and inclusion, equity and reconciliation.

This section of the *Guide* will expand on the discussion in Section 4 highlighting the core strategic goals and typical planning and development processes. Examples of planning and design processes will be described, and a resource tool will be provided to support communities of varying sizes and scales in land use and transportation planning and design. In this regard, consistency in process and evaluation frameworks will promote multiple outcomes, including building communities and delivering transportation infrastructure.

THEME #7

Growing and Diversifying Economic Networks

British Columbia's road, rail, air and marine trade networks are an essential driver of the province's economy. Not only do these networks enable many major industries who rely on access to regional, national and international markets – they also represent a significant standalone economic sector. The province's transportation and logistics sector operates in highly competitive and rapidly changing environment. Goods movement networks, systems and the supporting inter-modal, air and marine port facilities have been impacted by recent extreme weather events, labour shortages and the COVID-19 pandemic. These impacts have strained supply chains and increased costs for communities and industries across the province.

This section of the *Guide* will examine the impact of transportation and land use on goods movement and trade networks. Going forward, strategies to strengthen the transportation and logistics sector, support B.C. exporters, accelerate innovation and advance climate objectives will be included. These strategic pillars are currently being explored in a parallel initiative to develop a *B.C. Provincial Goods Movement Strategy*. Integrated transportation and land use planning will ensure that B.C.'s trade networks are well supported by the broader transportation systems and continue to enable the economic development of B.C.'s communities.

THEME #8

Multi-modal Decision-making Frameworks

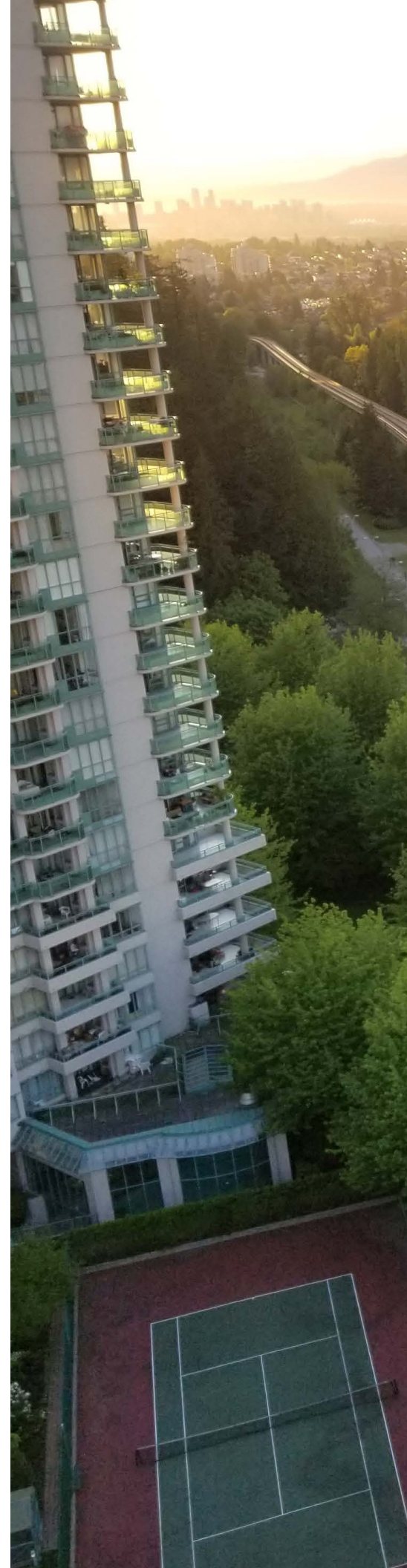
Supporting the growth and development of our communities requires significant investments in systems, programs and infrastructure. At the same time, all levels of government must manage expenditures and operate with fiscal responsibility. At the provincial level, a variety of assessment tools, guidelines and methodologies are used to estimate potential benefits and evaluate potential investments. Existing approaches have been found to inconsistently consider benefits and costs across all sectors of society, multi-modal transportation impacts, health impacts, climate adaptation and resiliency. The Ministry is initiating an effort to investigate and develop *Decision-Making Frameworks and Assessment Tools*. The *Guide* will summarize where these tools can support the integrated transportation and land use planning process.

THEME #9

Climate Action and Resilience

Climate change impacts, including rising temperatures, wildfires, drought and more frequent and intense rainfall events continue to affect B.C. communities, the environment and the economy. Climate events such as the 'atmospheric river' rainfall and flooding event in November 2021 illustrate the vulnerability of key transportation corridors to significant damage and disruption. Robust transportation systems and infrastructure that are resilient to weather events, have built in redundancy and are more flexible and adaptable will be critical factors going forward.

CleanBC: Roadmap to 2030 articulates a plan for B.C. to reduce carbon emissions. As the largest single source of greenhouse gas emissions, the transportation sector will play a major role in this shift. Reducing the distance travelled by light duty vehicles and shifting more trips to less energy intensive modes (like walking, cycling and transit) are essential to achieving reduced carbon emission targets. The *Guide* will examine the interaction of land use and transportation with these factors and ensure alignment with climate action goals.







Ministry of
Transportation
and Infrastructure