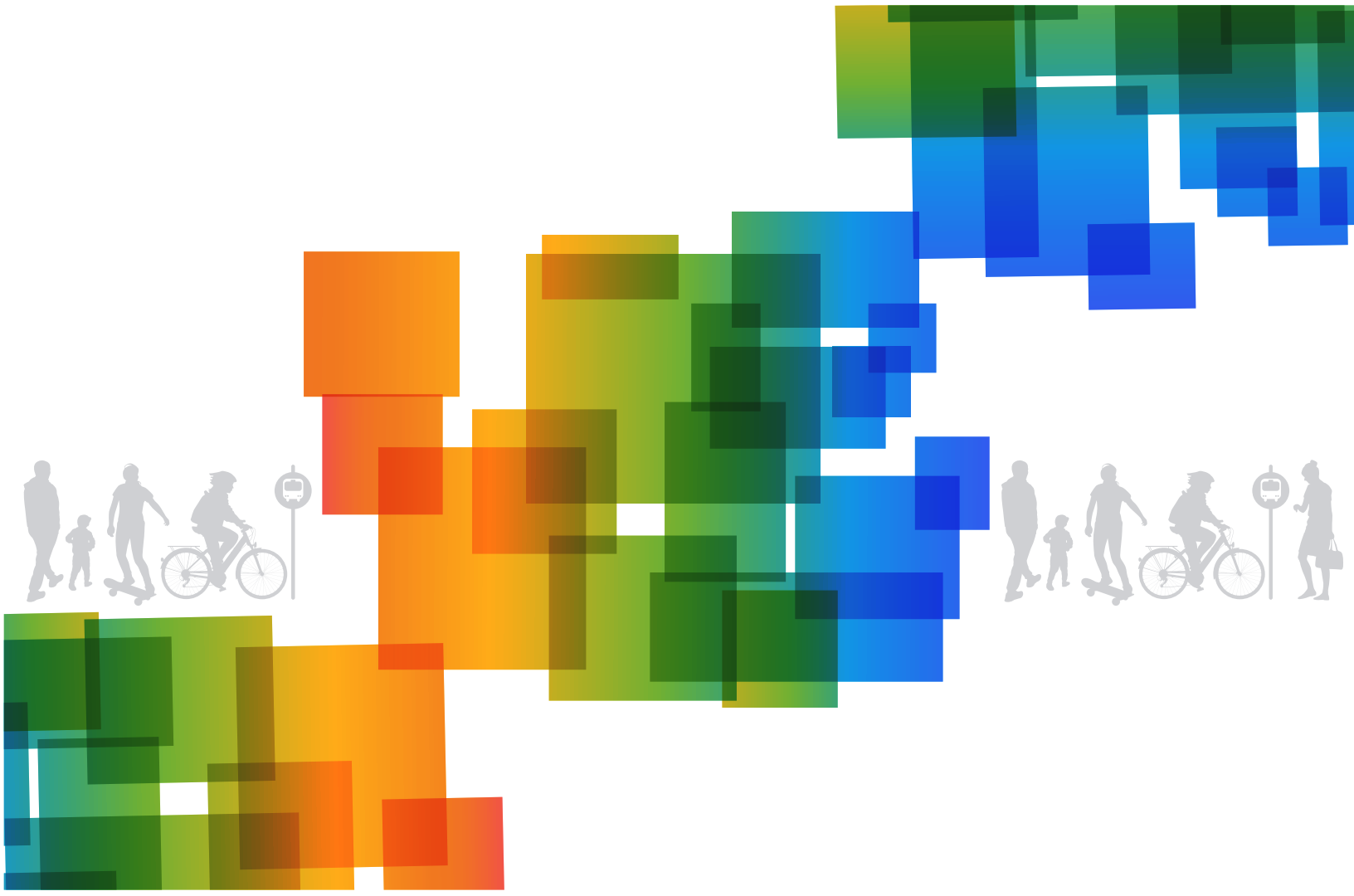
Active Transportation Infrastructure Investment

A Business Case



Making a difference...together

In 2016, the Real Estate Foundation awarded the Capital Regional District a $50,000 grant for *Shifting Gears: Land Use Change through Active Transportation*. This project was implemented as part of the Active and Safe Routes to School initiative and involved:

- Developing neighbourhood-scale maps to identify active and safe routes to school
- Identifying current transportation infrastructure gaps and challenges for active transportation
- Engaging students and teachers through creative and measurable capacity building initiatives and professional development
- Reporting on how active transportation solutions can save on infrastructure costs for taxpayers as well as reporting on established and potential regulatory tools available to support active travel investment.

We appreciate the Real Estate Foundation's support for this valuable program.

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Purpose

This report fulfills the commitment to the Real Estate Foundation to provide information and recommendations to support active transportation investment. This research was completed through the lens of the Active and Safe Routes to School program, coupled with a review of local government policies and regulations. The report provides findings and recommendations regarding established and potential regulatory tools that local governments should consider in regards to active transportation. It also shows the benefits to taxpayers that can be achieved via active transportation infrastructure investment.

Active and Safe Routes to School

The CRD's Active and Safe Routes to School program was a community-based initiative that promoted active transportation (walking, biking, bussing and rolling) for the daily trip to and from school.

In 2016-2017 the 18-month program identified barriers and developed solutions to encourage and enable children to walk and cycle. The pilot program was delivered in 20 schools from 4 school districts, 10 municipalities and 1 electoral area across the region. Each school was provided with a skilled facilitator to undertake data collection, planning, implementation and evaluation of the program.

The program found that parents identified safety, and perception of safety, as a key barrier to using active transportation, and that they would support walking or biking to school if high quality active transportation facilities were available. These findings were consistent across all schools and jurisdictions. In addition, municipalities participating in the program acknowledged that high quality active transportation is needed at all schools, but are overwhelmed by the magnitude and cost of the required infrastructure.

Individual vs Systems Approach

The individual approach to delivering active transportation improvements is beneficial to individual schools. It can result in important spot improvements and is more likely to lead to significant increases in active transportation use, which can build momentum and support for the program. This approach also has drawbacks:

- Only the schools that participate in the program benefit from active transportation improvements.
- Municipalities do not gain the efficiencies of tackling one type of improvement across the community.
- Municipalities will not achieve the mode shift that comes with building active transportation networks.

A systems approach to building and funding high quality active transportation infrastructure is necessary to meet student needs and increase active transportation use. Looking at common issues and challenges on a broader scale expands the reach of potential improvements by facilitating installation of high quality active transportation around schools — regardless of their participation in the Active and Safe Routes to School program.

Municipal Policy and Regulations

Policy and regulatory tools can leverage system wide benefits. For this reason, we reviewed local policies and regulations to assess the extent to which they support active transportation to schools. The review included a sample of:

- Official Community Plans
- Zoning Bylaws
- Subdivision and Development Servicing Bylaws
- Development Coast Charge Bylaws
- Streets and Traffic Bylaws

We then identified recommendations to enhance Official Community Plans (OCPs) and applicable bylaws based on the Active and Safe Routes to School program and best practices to implement and improve quality active transportation infrastructure around schools using.

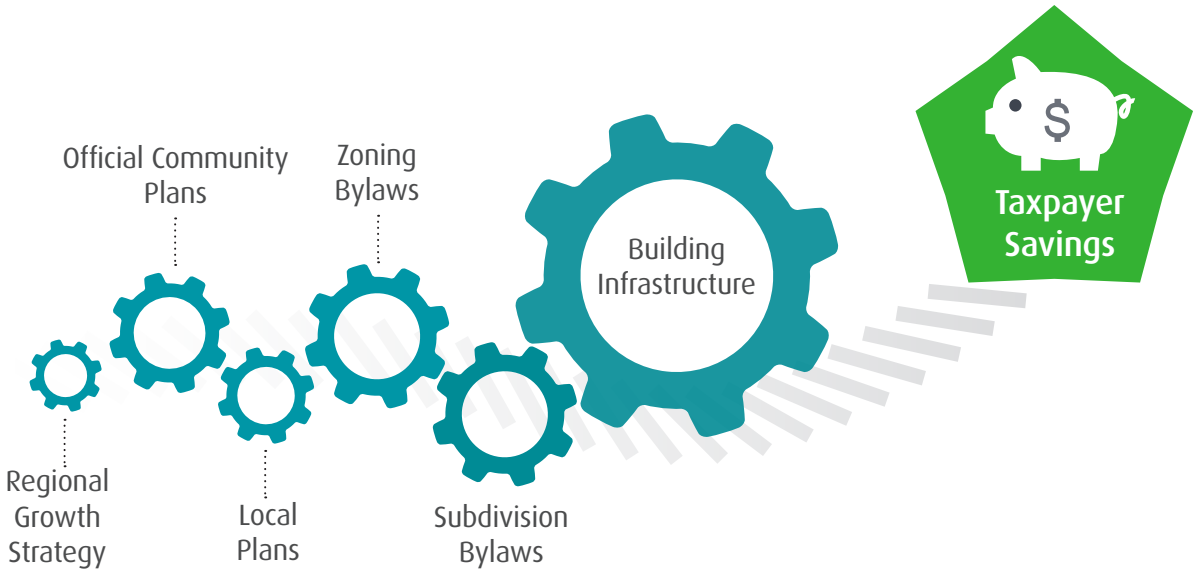
Vision vs Follow-through

Based on the Active and Safe Routes to School program and content of local OCPs, it is apparent that high quality active transportation infrastructure is desired, and indeed required, to get children and their families walking and cycling to school. The review found that greater consistency is needed between the vision in the OCP and the associated regulations, bylaws, and budgets. When a high level document is updated, related bylaws need to be amended to reflect new goals and policies. All bylaws and budgets should be reviewed for consistency. The recommendations in the following section sets a path towards achieving consistency.

Currently, municipalities are missing opportunities to fund or build high quality active transportation infrastructure because they are not requiring developers to make improvements to the extent they could. For example, many developments only require upgrades to the street frontage directly adjoining their properties which creates a disconnected network of sidewalks and bike lanes. A systems approach would ensure consideration and associated funding for improving active transportation infrastructure in proximity to all schools.

HIGH QUALITY ACTIVE TRANSPORTATION INFRASTRUCTURE is safe, accessible infrastructure which includes sidewalks, bike lanes and trails that attract people to walk and bike. This infrastructure has the appropriate separation from vehicle traffic in relation to the surrounding road and land uses.

Policy and Regulatory Review



Official Community Plans

These plans are a comprehensive community vision and include active transportation.

Findings

- All of the communities reviewed for this research articulated a vision to develop in a sustainable manner with a goal to increase the use of active transportation.
- Municipalities recognize that land use planning and transportation planning are inextricably linked and most municipalities have a policy direction to integrate land use and transportation planning to meet sustainability and greenhouse gas (GHG) reduction goals.
- Most municipalities do not provide direction regarding amenity contributions.

Actions to Consider

- Establish transportation mode share targets and a transportation hierarchy that informs decisions regarding project prioritization and staff and budget allocation.
- Identify transportation networks and policies that support active transportation around schools as a priority for decision-making and funding.
- Prioritize active transportation connectivity between areas of the community to allow parent to drop children off at school and continue on to work or other destinations by foot or bike.
- Include a policy that allows amenity contributions to be sought.
- Ensure that Regional Context Statements are consistent with Regional Growth Strategy provisions regarding active transportation.

Master Plans and Local Area Plans

These plans provide details and specifics (further to an OCP). They focus on specific geographic areas or subject matter.

Actions to Consider

- Be consistent with OCP by providing greater detail in transportation networks and neighbourhood consideration.

Regulatory Bylaws

Regulatory bylaws provide the means to implement OCP policies. There should be clear alignment between the OCP and regulatory documents, both in the description of the purpose and the specific content of the bylaw.

Zoning Bylaws

Findings

All of the zoning bylaws reviewed for this report included requirements for bicycle parking and some municipalities made the distinction between long- and short-term bike parking.

Actions to consider

- Include bicycle parking requirements
  - Bicycle parking should be required for institutional uses and should accommodate both long and short-term use. There should be specific requirements for schools, with consideration given to bicycle parking for both staff and students. Careful attention should be paid to ensure that the requirements for parking are sufficient. Several schools in the region do not have adequate parking to meet student demand. Consideration should be given to requiring covered parking, especially in mild and wet climates where cycling can be undertaken year-round.
- Examine minimum off-street parking requirements, and consider reducing parking requirements (on the whole, by area or via individual variances) if transportation alternatives are available.
- Require appropriate active transportation frontage improvements with re-zonings.

Subdivision and Servicing Bylaws

Findings

The requirements of subdivision and development servicing bylaws varied among municipalities with some including requirements for sidewalk and trail design, street trees, lighting, and traffic calming. Most of the road standards reviewed did not include bike lanes.

Actions to consider

- Ensure road standards include bike and pedestrian infrastructure that is appropriate for the road type.
- Separating vulnerable users from vehicle traffic is important for both the safety and comfort of people walking and cycling and encourages people to use active transportation.
- Include school site requirements (including any public roads and sidewalks adjacent to the site) with designs that avoid conflicts between pedestrians, cyclist and vehicle movements on the site and ensure bike parking placement that is secure, convenient and safe.
- Include requirements and standards for the public realm. These may include standards for boulevards, curb extensions, landscaping, lighting, and wayfinding that enhance the pedestrian experience.
- Require appropriate active transportation frontage improvements with subdivision.

Development Cost Charge Bylaw

Findings

A few municipalities have development cost charge (DCC) bylaws, and in some cases municipalities outlined explicitly that DCCs can be applied to the provision, construction, alteration, and expansion of transportation facilities.

The DCC Best Practices Guide acknowledges that DCC road programs typically consist of Arterial and Major Collector Roads, and those projects can include sidewalk and pedestrian facilities, pedestrian and highway bridges, transit provisions such as bus pull-ins, and bicycle/pedestrian infrastructure.

Actions to consider

- Ensure that the DCC bylaw authorizes funds to be spent on active transportation infrastructure.
- Include high quality active transportation infrastructure that is needed to support growth in the DCC project list and ensure that these are included in the costing of the DCC program so adequate funds are collected.
- Include projects that separate vulnerable road users from vehicle traffic directly around schools, e.g. protected bike lanes, boulevards between sidewalk and busy roads.

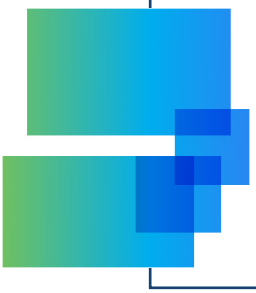
Street and Traffic Bylaw

Findings

Municipal traffic bylaws provided for sidewalk maintenance, speed limits, crossing guards around schools, use of bike lanes, use of school loading zones, use of sidewalks, placement of portable signage, driver and pedestrian behaviour in different situations. Current provincial legislation sets the default speed limit on roads at 50km/hour. To reduce the speed limit, municipalities are required to pass a bylaw and erect signage or each applicable street/block.

Actions to consider

- Speed limits
  - Standardize lower speed limits to 30km around schools to benefit walking and cycling safety and comfort, especially for children.
  - Expand time restrictions (allowed provincially) to account for many uses of schools- before/after school care, extra curricular activities, community use of school facilities.
  - Consider harmonizing school and playground zones.
- Crosswalks
  - Supplement the Transportation Association of Canada (TAC) pedestrian crossing warrant process with consideration of municipal priorities, including active transportation around schools.



WHY 30 KPH? The fatality rate for pedestrians struck by a vehicle travelling under 30 kph is only **5%**. At 50 kph, the rate increases to **45%** and at 60 kph to **85%**. Children under eight years old can't assess if a vehicle is moving or not.

- Use of bike lanes
  - Allow scooters, skate boards
  - Prohibit vehicles from parking in bike lanes and/or on bike routes
  - Prohibit the placement of signs in bike lanes and/or on bike routes.
- Bikes on Sidewalks
  - Allow children under a certain age to ride on sidewalks. Municipalities may also want to consider allowing wheeled devices such as inline skates and skateboards on sidewalks that are in proximity to schools.

Fees Bylaw

Actions to consider

- Amend to allow a municipality to use revenue from municipal parking facilities to fund infrastructure improvements around schools.

Policies

Based on community priorities, consider developing policies to guide future decisions, infrastructure design and funding. Applicable policies include:

- Complete Streets Policy
- Amenity Contribution Policy (see Ministry of Municipal Affairs guide)
- School zones –speed limit, design of crosswalks, standardized/consistency across the municipality, parking/stopping restrictions
- Traffic calming policy.

Budget

Findings

- Active transportation infrastructure can be funded and built through DCCs, parking fee revenue, grants, frontage improvements and community contributions.

Actions to consider

- Budget allocation is required to build walking and cycling infrastructure and should include capital and operating funds (including maintenance costs). Substantial capital investment requires municipal staff management.

Taxpayer Savings

Active transportation solutions yield community-wide environmental, social and health benefits. Increased active transportation also saves money, at both household and community levels.

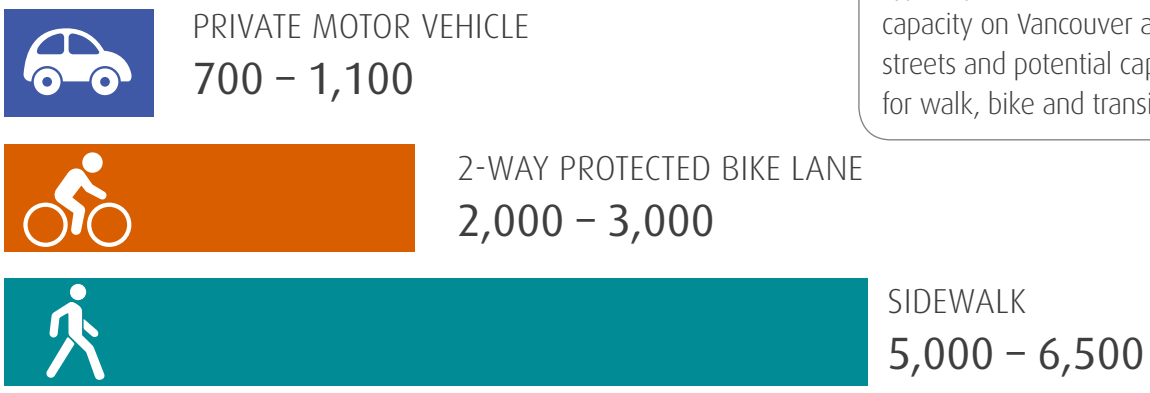
Taxpayer costs are reduced when new development funds frontage improvements and road upgrades, the needs for which are triggered by new buildings. To receive these contributions, it is important that local governments write their policies and bylaws so as to provide for development contributions.

Another way to reduce local taxpayer costs is to ensure that municipalities take full advantage of available provincial and federal grant funding. Tapping into grant funding often requires having approved active transportation plans and policies. Increasingly, such funding also requires asset management plans.

Active transportation infrastructure (ATI) is significantly less expensive than building roadways. ATI also requires much less space than vehicle infrastructure, thus reducing land acquisition costs. Re-purposing portions of current roadways for ATI will help local governments affordably transport more people. Building active transportation infrastructure will encourage more people to travel on foot and bike, mitigating the need for future expansion of costly vehicle infrastructure.

PEOPLE MOVING CAPACITY: VANCOUVER URBAN TRANSPORTATION MODES

(in persons per hour per direction - 3 metre lane width)



Typical private motor vehicle capacity on Vancouver arterial streets and potential capacities for walk, bike and transit.

Whether added through retrofits or new development, ATI positively impacts green space, reduces paving and associated storm water diversion, and supports natural systems asset management. All these positive impacts yield operational savings which in turn reduce taxpayer burdens. In addition to costing less to build, ATI is also much cheaper to maintain as it does not face the significant wear and tear of vehicle infrastructure.

Implementing active transportation infrastructure saves taxpayers both now and in the future.

Conclusions

Community visions and the Active and Safe Routes to School program have encouraged for more people, including students, to walk and bike. To achieve these visions, it is necessary to build active transportation infrastructure. A systems approach to constructing quality active transportation infrastructure, building on individual school travel planning, will likely garner the best results. To achieve OCP visions, regulations, bylaws and budgets all need to be consistent. Therefore, when a higher level document is updated, bylaws and budgets need to be amended to reflect new goals and policies. With alignment of policy, planning, regulatory and budget documents, quality active transportation infrastructure can be built to maximize community benefits.

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