AGENDA
For the Special Meeting of the Active Transportation Advisory Committee To be held in Council Chambers Saanich Municipal Hall, 770 Vernon Avenue Thursday March 25, 2021 - 4:00 p.m. – 6:00 p.m.

Due to COVID-19 measures, Saanich is unable to accommodate the public for any Council, Committee of the Whole, Advisory, Board or Foundation meetings while maintaining the limits on large gatherings due to the Public Health Order.

As per the Order of the Minister of Public Safety and Solicitor General, *Emergency Program Act*, Ministerial Order No. M192, public attendance at the meeting is not required if it cannot be accommodated in accordance with the applicable requirements or recommendations under the *Public Health Act*.

To hear this meeting by telephone, please call 1-833-353-8610, access code 9232581#.

TERRITORIAL ACKNOWLEDGEMENT AND DIVERSITY, EQUITY AND INCLUSION STATEMENT

1. INTRODUCTIONS

2. ADOPTION OF MINUTES (attached)
- January 26, 2021

3. CHAIR'S REMARKS

4. CLIMATE PLAN REPORT CARD (attached)
- Rebecca Newlove

5. CYCLING ROUTE CONNECTIVITY
- Troy McKay

6. FCM REBALANCING STREETS GUIDE (attached)

7. SAANICH VISIBILTY CAMPAIGN (attached)
- Darrell Wick

8. INTERURBAN RAIL TRAIL
- Darrell Wick

9. COMMITTEE ROUNDTABLE

* Adjournment *
Next Meeting: April 22, 2021

MINUTES
ACTIVE TRANSPORTATION ADVISORY COMMITTEE
Held at Saanich Municipal Hall, Council Chambers
Tuesday January 26, 2021, at 4:02 p.m.

Present: Councillor Karen Harper (Chair), Brian Collier, Susan Kerr (via telephone), Robert McLeod, Darrell Wick, Trevor Barry (via telephone), Rachel Corder, Graham Elder (via telephone), Jim Grayson, Karen Laberee (via telephone), Dave Marecek (via telephone).

Staff: Troy McKay, Manager, Transportation & Development Services; Mike Goldsworthy, Park Planner Designer; Constable Steven Reichert, Saanich Police; Megan MacDonald, Committee Clerk.

Absent: Jade Yehia (non-voting liaison).

INTRODUCTIONS

The Chair introduced herself and roundtable introductions of committee members took place. Members detailed the reasons that they are interested in taking part in the Active Transportation Advisory Committee.

MINUTES

MOVED by B. Collier and Seconded by R. McLeod: "That the Minutes of the Active Transportation Advisory Committee meeting held October 27, 2020, be adopted as circulated."

CARRIED

CHAIRS REMARKS

The chair advised that she primarily uses active transportation for work and leisure. The Chair has an interest in connectivity, which drives the conversations around active transportation. Enhancing connectivity to encourage active transportation is a priority. The next meeting will be held in March via Microsoft Teams.

COMMITTEE ADMINISTRATION

The following committee administration items were reviewed:

- The Terms of Reference were reviewed for information.
- Beginning in March, the regular meetings Active Transportation Advisory Committee meetings will be held on the fourth Thursday of the month, from 4:00 – 6:00 p.m.

MOVED by B. Collier and Seconded by R. Corder: "That the Active Transportation Advisory Committee approve the schedule to meet on the fourth Thursday of the month, from 4:00 – 6:00 p.m."

CARRIED

ACTIVE TRANSPORTATION REPORT CARD

Troy McKay, Manager, Transportation & Development Services presented the Active Transportation Report Card, which highlighted the advancements of the Active Transportation Plan despite the COVID pandemic. The following was noted:

- A number of infrastructure improvements have just completed.
- One safety improvement is the creation of pedestrian priority intersections, where the walk signal for pedestrians starts four seconds prior to the green light in. Pedestrian priority signals were installed in six intersections in 2020, ten intersection installations are planned for 2021.
- The intersections with accessible curb ramps has been assessed and inventoried. A list of priority intersections that need improvements has been compiled.
- Larchwood drive has recently been completed with all ages and abilities cycling infrastructure, new cross walks, and reduced speed limit to promote the intended safe use of the street.

In response to questions from the committee, the following was noted:

- Saanich has implemented a trial at a couple intersections, which will lengthen the time of the white walk signal and shorten the time of the blinking orange do not walk signal. This will give more time for those who may need it to cross the street, while extending the time for pedestrians to legally enter the cross walk.
- There is a quality element of the definition of a sidewalk. The replacement and upgrading of poor quality sidewalks is ongoing.
- Vehicles need to yield to cyclists and pedestrians in cross walks. Section 8.16 (b) of the *Saanich Streets and Traffic Bylaw* specifies that “a person may ride a cycle in any crosswalk which forms a direct and immediate link between adjacent portions of the Galloping Goose Trail, the Lochside Trail, a Centennial Trail or any other multi-use trail.” The yellow flashers at crosswalks are not a traffic signal, vehicles need to yield regardless of flashing lights.
- The street statistics in the report card are broken up on a block by block basis.
- If the bicycle routes do not connect to each other it can be a disincentive to use them. Considerations of connectivity are made while planning active transportation routes.

PRESENTATION – GORGE/TILLICUM BIKE LANES

Vera Wynn Williams and Phillip Lancaster of Gorge Tillicum Community Association presented on behalf of the Gorge Tillicum Community Association regarding active transportation in the Gorge/Tillicum area. The following was noted:

- The Tillicum Village core area had multiple impediments to safe and convenient active transportation, including a lack of bike lanes and cross walks.
- The Tillicum Local Area Plan (2000) indicates that Tillicum Road is a Designated Commuter Bikeway. The Tillicum Burnside Action Plan (2005) outlined steps to improve Tillicum Road, and the Official Community Plan (OCP, 2008) also indicates Tillicum as a Commuter Bikeway.
- The section of Tillicum Road between Burnside Road and the TransCanada Highway was upgraded in 2015 with new sidewalks and bike lanes. The Active Transportation Plan (2018) does not prioritize upgrading the remainder of Tillicum
- Improvements to AAA (All ages and abilities) Bicycle infrastructure are planned on Gorge Road.
- The community association would like Saanich to take the lead on Tillicum streetscape improvements, to reprioritize improvements to Tillicum Road, and for Saanich to work with Esquimalt to improve the Gorge Bridge.

In response to questions from the committee, the following was noted:

- There are no cohesive connections between the major centre (Tillicum Mall) and the village center, the Gorge Bridge is a major barrier.
- There have been upgrades to Tillicum from Carey Road to Maddock Avenue. The presentation highlights the area between Maddock Avenue and Gorge Road.
- There is a fundamental need to connect areas. The route needs to be as simple as possible to enable users to choose active transportation.
- In future, the committee may want to look at ways Council could reduce the dependence on developers to lead active transportation network improvements. The infrastructure needs to be created whether or not development is taking place.

MOVED by D. Wick and Seconded by B. Collier "That the Active Transportation Advisory Committee accept the report for information and request that staff add this segment of streets to the list of projects that have been requested by the community for reconsideration when the Active Transportation Plan is updated in 2023."

CARRIED

COMMITTEE ROUNDTABLE

The following was noted:

- Connectivity is important, it would be beneficial for committee members to have a visual representation of how areas are connected and what is planned is for the next five years. Engineering staff will provide an update at the next meeting.
- It would be beneficial to know the areas of expertise of committee members, as well as their experience that relates to their role on the committee.

ADJOURNMENT

The meeting adjourned at 5:58 p.m.

NEXT MEETING

Next meeting is Thursday March 25, 2021.

_____

Councillor Harper, Chair

I hereby certify these Minutes are accurate.

_____

Committee Secretary

Saanich Climate Plan

Annual Report Card 2020

Saanich

2020 Highlights

Mobility

More than 16 new or enhanced **crosswalks**

More than 3 km of new all ages and abilities ("AAA") bike lanes

6 Traffic signals upgraded to give more pedestrian priority

Implemented a **$1 user fee for Saanich owned public EV charging stations** to manage use and secure replacement funds

Developed and adopted our **Saanich Electric Mobility Strategy**

Installed 7 new transit bus shelters and completed the Saanich portion of the Bus Rapid Transit project on Douglas St/Hwy 1

Secured **federal grant funding for an additional 20 public Level 2 EV Charging stations** for Saanich facilities

New buildings are required to have parking stalls electrified and ready to install EV chargers

Buildings and Infrastructure

Participated in building retrofit acceleration programs:

2030 DISTRICTS NETWORK

BRING IT HOME THE CLIMATE

BUILDING BENCHMARK BC

Over 100 participants in CleanBC Home Energy retrofits that have Saanich top-ups

ENERGY STEPCODE BUILDING BEYOND THE STANDARD

Implemented the next steps of the BC Energy Step Code to achieve higher energy efficiency for new buildings in Saanich

Food and Materials

Provided funding support to **My Fed Farm to deliver food start-ups to over 100 homes** in Saanich impacted by COVID-19

Updated the **Carbon Calculator to align with our Climate targets** and to include food and consumption

LOVE FOOD hatewaste CANADA

Joined the Canada wide **Love Food Hate Waste campaign**

Ecosystems

Published inventories of rare ecosystems through our public GIS system – almost **doubling the area of mapped rare ecosystems** in Saanich

Completed **flood inundation and sea level rise mapping** with the CRD and other local municipal partners

Provided 174 free trees, all native species, to residents on National Tree Day

Pulling Together volunteers active on **44 stewardship sites and replanted 25 sites with diverse native plants**

Community Well-being

Launched the **Neighbour to Neighbour Project**, a central hub for a range of Saanich programs and resources that support community connections

Supported the delivery of **15 BCSEA Cool It! workshops** reaching a total of **305 students** in Saanich schools

Saanich's **Neighbourhood Emergency Preparedness Program** shifted to online presentations due to COVID and included climate adaptation content for hundreds of residents

One Planet Saanich provided virtual meetings and workshops helping support twelve Saanich-based organizations, and several new stakeholders for 2020, implement their One Planet Action Plans

Leadership in District Operations

The Saanich Climate Plan was awarded the Community Energy Association 2020 **Climate & Energy Action Award** and the 2020 **PIBC Silver Award** for Excellence in Policy Planning – City and Urban Areas by the PIBC (Planning Institute of BC)

Saanich joined the Global Covenant of Mayors and reported on our **Climate Action progress to the CDP, achieving an A grade for 2020**

Completed lighting upgrades at the Gordon Head and G.R. Pearkes recreation centres, **reducing our energy use by over 90,000 kWh annually**, enough to power 90 homes a year.

Replaced 8 fleet vehicles with new EVs, meaning all municipal fleet cars are now electrified

Installed 4 Level 2 EV charging stations for fleet at the new Engineering building

Table of Contents

Introduction

The Saanich Climate Plan outlines a vision along with targets, obectives, strategies and actions to protect our community, improve our quality of life, and reduce local and global risks associated with a changing climate over the next 30 years.

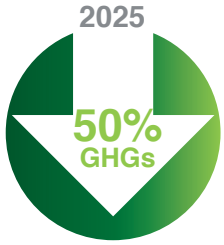
PLAN GOALS

1. **CUT EMISSIONS IN HALF BY 2030 AND TO NET ZERO BY 2050**
2. **TRANSITION TO 100% RENEWABLE ENERGY BY 2050**
3. **PREPARE FOR A CHANGING CLIMATE**

LEAD BY EXAMPLE

The District's corporate targets from municipal operations are designed to "lead by example" by reaching emissions limits early. This means we will:

Reduce greenhouse gas (GHG) emissions from municipal operations to 50% of 2007 levels by 2025.



Achieve net-zero GHG emissions from municipal operations by 2040.

An important action in the plan is to report annually on our progress. This Report Card provides a summary of progress towards our targets and objectives followed by an overview for each Climate Plan Focus Area. A status update and more details on all actions is included in the Appendix.

This is our first year of reporting and there are still areas of the plan that need metrics and indicators to be developed, particularly related to climate adaptation and resilience. Data for several of the targets is also not available annually, for instance, targets related to mobility rely on the regional Origin Destination Household Travel Survey conducted every five years. Where data is unavailable or metrics are in development, this is noted within the report.

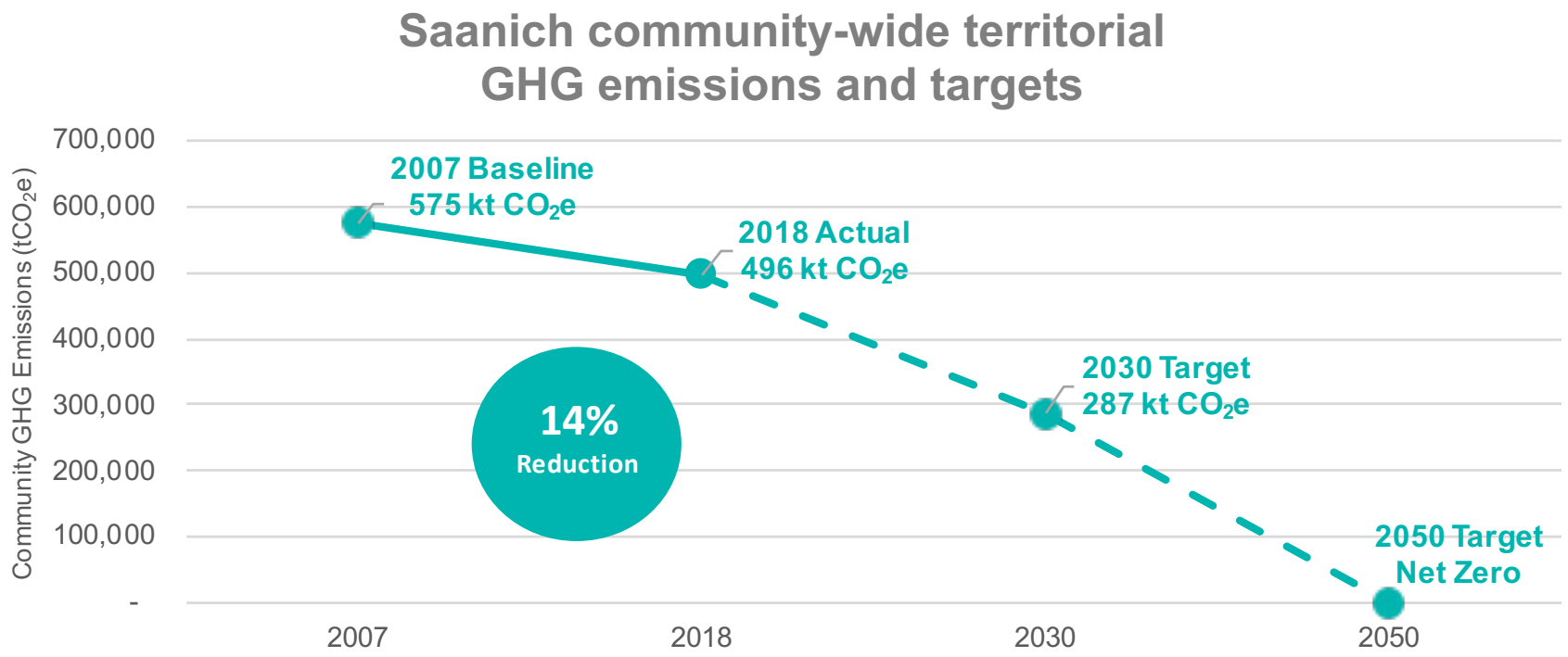
While the Plan focuses on strategies and actions over which the District has either control or influence, it is clear that we cannot achieve this alone. Our collective success requires action from everybody, including residents, businesses, non-profits, community organizations, institutions, neighbouring municipalities and senior levels of government.

We need to do this together.

Progress on Community-Wide GHG Targets

The latest Saanich community-wide greenhouse gas (GHG) emissions inventory is for 2018 and follows the Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories, accounting and reporting standard for cities (Basic+). This shows the following:

- Overall community-wide emissions decreased by 14% between 2007 and 2018
- Fossil fuel use in transportation followed by building operations remains the largest source of GHG emissions in our community
- Transportation and buildings emissions each decreased by 12% between 2007 and 2018
- Waste emissions decreased by 30% between 2007 and 2018, primarily through widespread adoption of composting as well as landfill methane capture.



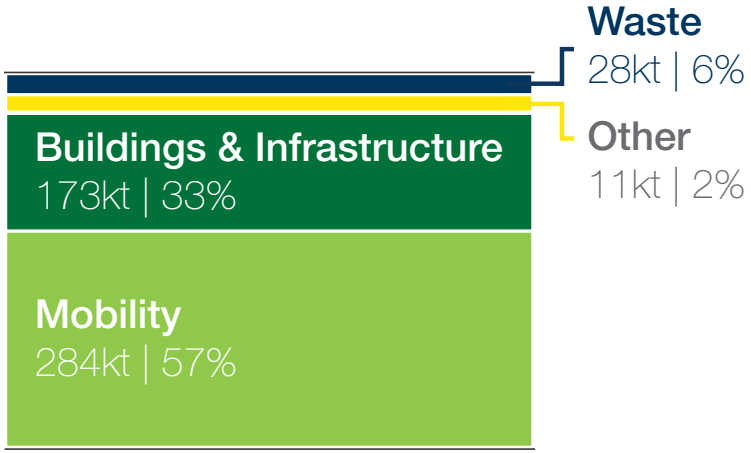
Methodology and Data Updates

Several updates to the methodology were required for this inventory meaning there are notable differences compared to the 2017 data included in the Saanich Climate Plan.

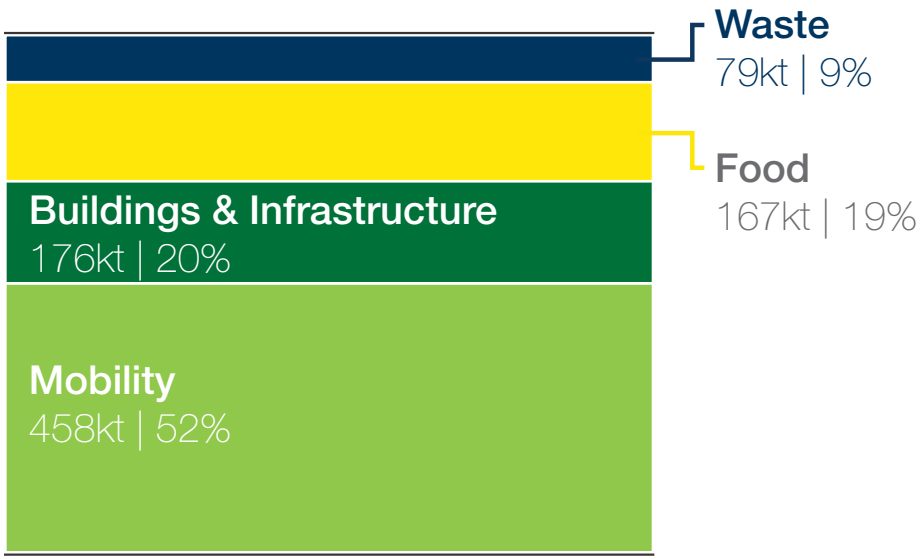
A variety of data constraints also mean that caution should be applied when drawing conclusions from the marked drop in Saanich's 2018 emissions inventory compared with the 2017 inventory presented in the Climate Plan, particularly related to transportation. We continue working with regional partners, the Province, ICBC, BC Hydro, and FortisBC to acquire more frequent, reliable data at the local level to assist reporting on progress.

The last Consumption Based Emissions Inventory (CBEI) was in 2015 and showed that our consumption based emissions were almost double what we reported in our territorial emissions inventory. The CBEI relies on several data sets at the national level. We are exploring the opportunity to collect consumption data locally prior to completing the next CBEI update.

In summary, there has been a decrease in community-wide GHG emissions since our 2007 baseline, but we are still not on track to meet our targets and considerable action is needed.



2018: Total Territorial Emissions
496 kilotonnes of CO_2e
4.3 tonnes of CO_2e per person



2015: Total Consumption Emissions
881 kilotonnes of CO_2e
7.7 tonnes of CO_2e per person

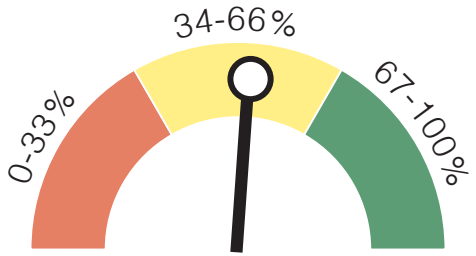
Progress on Objectives

KEY FOCUS AREA	MEASURE OF SUCCESS (OBJECTIVE)	WHERE WE ARE AT	2030 TARGET	2050 TARGET
Mobility	% of all trips taken by walking and cycling	13%	22%	30%
	% of trips taken by transit	10%	14%	20%
	% of personal vehicles electrified	2%	36%	100%
	% of personal and commercial vehicles renewably powered	1%	-	100%
	% of buses that are electric	0%	100%	100%
Buildings and Infrastructure	New buildings that achieve the higher steps of BC Energy Step Code	<1%	100% by 2025	100%
	New buildings that are net-zero carbon	<1%	100% by 2023	100%
	Embodied emissions are reported and lowered	0%	100%	100%
	% of oil heating systems replaced by heat pumps	3%	100%	100%
	% of buildings in which the heating demands are reduced by 30%	TBD	40%	80%
	% of existing natural gas heating and hot water systems that are replaced by renewable energy systems	TBD	40%	100%
	Sufficient renewable energy sources are available to support required conversions from fossil fuel systems	Metrics to be developed		
	Buildings and infrastructure are designed or retrofitted for changing climate conditions, ecological functions and exposure to climate hazards.	Metrics to be developed		
	Land use and development patterns minimize exposure to sea-level rise.	Metrics to be developed		

KEY FOCUS AREA	MEASURE OF SUCCESS (OBJECTIVE)	WHERE WE ARE AT	2030 TARGET	2050 TARGET
Food and Materials	Saanich's consumption-based emissions related to food are reduced.	Metrics to be developed		
	By 2030, 0% compostable organic waste and paper is landfilled	21% organics 15% paper	0% 0%	0% 0%
	Emissions from consumer choice and industry transition (e.g., refrigerants, aerosols, foams, equipment, livestock, fertilizer, etc.) are reduced i.e. Industrial Processes and Product Use (IPPU) and Agriculture, Forestry and Other Land Use (AFOLU)	11,397 t CO_2e	-	0 t CO_2e
	Agricultural land is protected: Hectares of land in Saanich within the ALR	1,843 ha	TBD	TBD
	A greater proportion of food is grown and consumed locally: Hectares of land and % of total land that is actively farmed in Saanich	2,222 ha 21%	TBD	TBD
	The majority of local farmers have the ability to adapt their production practices to a changing climate	Metrics to be developed		
Ecosystems	Ecosystem health and biodiversity are protected.	Metrics to be developed		
	The removal of carbon from the atmosphere by trees, plants, and ecosystems in Saanich is increased.	Metrics to be developed		
	Ecosystem services are maintained or enhanced.	Metrics to be developed		
Community Well-being	Emergency and community health services are adequate to respond to the identified climate risks.	Metrics to be developed		
	Climate action benefits people in Saanich, helping to improve air quality and community health while supporting clean energy jobs and a diverse economy.	Metrics to be developed		
Leadership in District Operations	The District of Saanich is a recognized leader in climate action: Carbon Disclosure Project (CDP) report score.	A	A	A
	Reduction in GHG emissions from municipal operations compared to 2007 levels.	14%	50% by 2025	100% by 2040

Progress on 2020 Actions

The Climate Plan identifies a total of 131 actions to be implemented over the coming years, of which 71 were due to be initiated in 2020. Of these, 41 actions (58%) are Ongoing, Achieved, or On Track, with an additional 10 actions from future years Ahead of Schedule. 30 (42%) of the 2020 actions are currently Behind Schedule or On Hold.



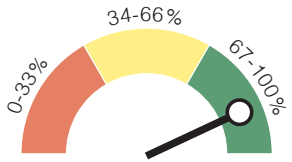
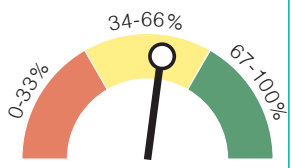
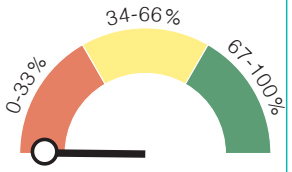
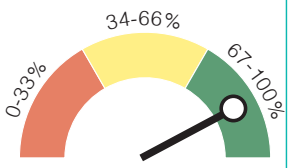
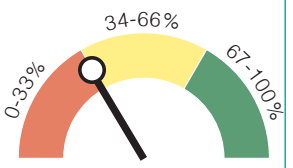
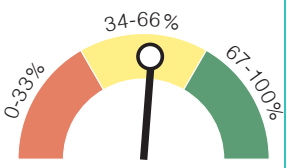
Progress on all 2020 actions

The next section provides a summary of progress on the Climate Plan Targets, Objectives and Actions for each Focus Area:

- Mobility
- Buildings and Infrastructure
- Food and Materials
- Ecosystems
- Community Well Being
- Leadership in District Operations

Details on all actions are included in the Appendix and the progress on actions within each Focus Area are outlined below.

Progress on 2020 Actions for each Focus Area

Mobility	Buildings and Infrastructure	Food and Materials	Ecosystems	Community Well-being	Leadership in District Operations
					
81% Ongoing / Achieved / On track	**55%** Ongoing / Achieved / On track	**0%** Ongoing / Achieved / On track	**75%** Ongoing / Achieved / On track	**33%** Ongoing / Achieved / On track	**53%** Ongoing / Achieved / On track

Council approved seven First Priority Actions to shift away from business as usual and respond quickly and effectively in response to the Climate Emergency. First Priority Actions are discussed in each Focus Area and identified in the Action Tables in the Appendix with the following icon. These First Priority Actions and progress made in 2020 towards their implementation include the following:

First Priority Action	Climate Plan Action / Strategy	Status Update
1. Increase investment in active transportation to reduce both territorial and consumption-based emissions, improve air quality, and promote health and equity.	Action M1.1	Behind Schedule
2. Accelerate personal transportation electrification by developing an electric mobility strategy for Saanich.	Action M3.1	Achieved
3. Convert all oil heating systems to renewable heating systems by 2030 or sooner.	Action B2.2	Behind Schedule
4. Enhance support for efficiency and renewable energy upgrades in existing buildings to enable 40% of homes and businesses to switch to efficient and renewable energy systems by 2030.	Strategy B2	6 of 12 actions identified for 2020 Ongoing or On track and 6 On Hold or Behind Schedule
5. Double the rate of planting trees to enhance urban forest for increased carbon sequestration and other ecosystem services.	Action E1.1	Behind Schedule
6. Improve climate resilience of Saanich's infrastructure, such as our stormwater system, flood hazard planning, and engineering design specifications.	Strategy B5	1 of 1 action identified for 2020 On track
7. Catalyze community actions by developing a supportive network and resources to encourage and sustain personal efforts.	Strategy C2	2 of 8 actions identified for 2020 Achieved or On track and 6 of 8 actions On hold or Behind schedule

Action Reporting Status	
Ongoing	The action has no completion timeline and requires continuous work on an annual basis.
Achieved	The action has been implemented.
Ahead of schedule	The action is underway and anticipated to be completed before the designated time frame.
On track	Work is progressing and the action is anticipated to be met in the designated time frame.
Behind schedule	Work has either not started or it progressed, but the pace of effort will need to increase before it can be considered on track to be completed in the designated timeframe.
On hold	The action is currently on hold and work is not proceeding.
Future action	The action has not yet started and is slated for development in the future.

Mobility and Electric Mobility

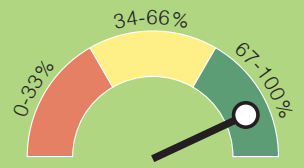


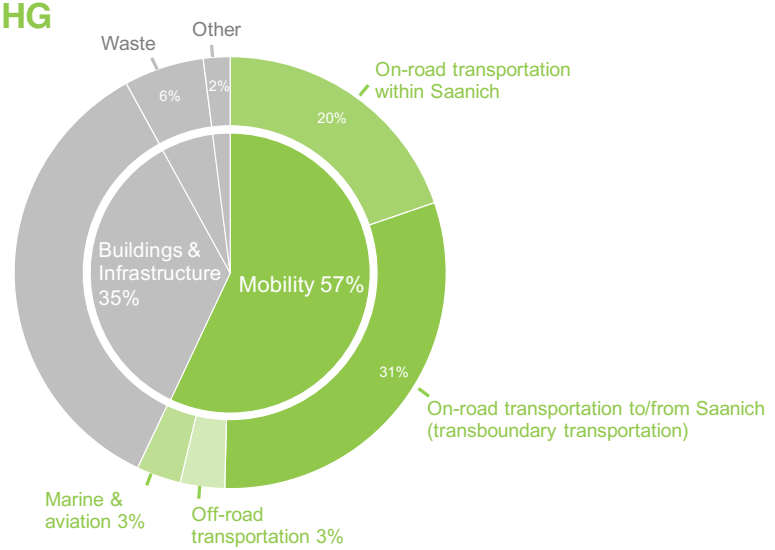
Photo supplied courtesy of Parks, Recreation and Community Services

Mobility Summary

The latest 2018 community-wide greenhouse gas (GHG) inventory indicates that there has been an 11% reduction in Saanich's transportation GHG emissions since our 2007 baseline. There has been a gradual increase in active transportation and transit users during this time, and a more rapid uptake of electric vehicles (EVs) in very recent years.

While this progress is positive, we are not on track to meet our 2030 targets. Resource restrictions have limited progress on the Climate Actions related to active transportation and transit, including *First Priority Action 1 (Climate Action M1.1): Increase investment in Active Transportation/Accelerate the implementation of the Active Transportation Plan.* However, considerable progress has been made on Climate Actions related to electric mobility, including achieving *First Priority 2 (Climate Action M3.1): Create a community-wide Electric Mobility Strategy.* There were a total of 16 Mobility actions identified for 2020 of which 13 (81%) are Achieved or On track and two additional actions are Ahead of schedule. Three actions (19%), all related to active transportation are Behind schedule or On hold. In addition, of the 21 actions identified in the Electric Mobility Strategy to commence in 2020, 15 (71%) are On track, and one additional action from future years is Ahead of Schedule. Specific resources required to get back on track are identified within the Mobility and Electric Mobility Actions tables in the Appendix.

Transportation emissions in Saanich Territorial GHG Inventory, 2018



"My favorite way to travel is by bike. It's fun, keeps me in shape and I never have to sweat about parking. My backup is an EV. How can you beat a car that doesn't have mechanical issues and avoids all use of carbon fuels? I bought a second-hand Leaf and with the money left over was able to put solar panels on my house to fuel my car."

Tory Stevens, retired biologist and urban farmer

What is "tCO_2e"?

Short for "tonnes of carbon dioxide equivalent," tCO2e is a handy way of talking about all greenhouse gas emissions (e.g. carbon dioxide, methane, and refrigerants, etc.) together in the same measurement.

Progress on Mobility Targets

Baseline:	In 2007, Saanich's transportation emissions were	320,156	t CO_2e
Latest measurement:	As of 2018, Saanich's transportation emissions were	283,617	t CO_2e

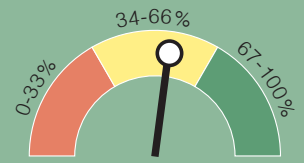
Progress on Mobility Objectives

Objective	Where we were		Where we are at		2030 Target	2050 Target
	Status	Year	Status	Year		
% of all trips taken by walking and cycling	10%	2011	13%	2017	22%	30%
% of trips taken by transit	7%	2011	10%	2017	14%	20%
% of personal vehicles electrified	<1%	2018	2%	2019	36%	100%
% of personal and commercial vehicles renewably powered	<1%	2018	TBD	2019	N/A	100%
% of electric buses	0%	2018	0%	2020	100%	100%

Progress on Electric Mobility Strategy Metrics

Metric	Where we were		Where we are at	
	Status	Year	Status	Year
Passenger EVs in Saanich				
• Absolute number	730	2018	1,219	2019
• Share of total number of registered passenger vehicles	1.12%	2018	1.86%	2019
Commercial electric vehicles in Saanich				
• Absolute number	3	2019	4	2020
• Share of total number of registered commercial vehicles	0.02%	2019	0.03%	2020
Municipally owned public EV charging station use				
• Total hours of use annually	30,892 hours	2019	28,662 hours	2020
• Average daily hours of use per station in each calendar year	6.1 hours	2019	5.6 hours	2020
• Total elecricity use annually	129,474 kWh	2019	126,879 kWh	2020
• Average daily electricity use per station in each calendar year	25.3 kWh/day	2019	24.8 kWh/day	2020
Availability of home, workplace, and public EV charging stations in Saanich				
• # energized outlets and charging stations in new development	Not available	2019	Not available	2020
• # new buildings & parking spaces/units with energized outlets and charging stations	Not available	2019	Not available	2020
• # energized outlets and charging stations installed in existing residential, institutional, commercial and industrial buildings	Not available	2019	Not available	2020
• # existing buildings & parking spaces/units with energized outlets and charging stations	Not available	2019	Not available	2020
Saanich Municipal Fleet				
• # Municipal Fleet Vehicles electrified/renewable	11	2019	21	2020
• % of Municipal Fleet Vehicles electrified/renewable	4%	2019	9% (100% for cars)	2020
Saanich Fire Fleet				
• # Fire Fleet Vehicles electrified/renewable	1	2019	1	2020
• % of Fire Fleet Vehicles electrified/renewable	3%	2019	3%	2020
Saanich Police Fleet				
• # Police Fleet Vehicles electrified/renewable	1	2019	1	2020
• % of Police Fleet Vehicles electrified/renewable	1%	2019	1%	2020

Buildings and Infrastructure



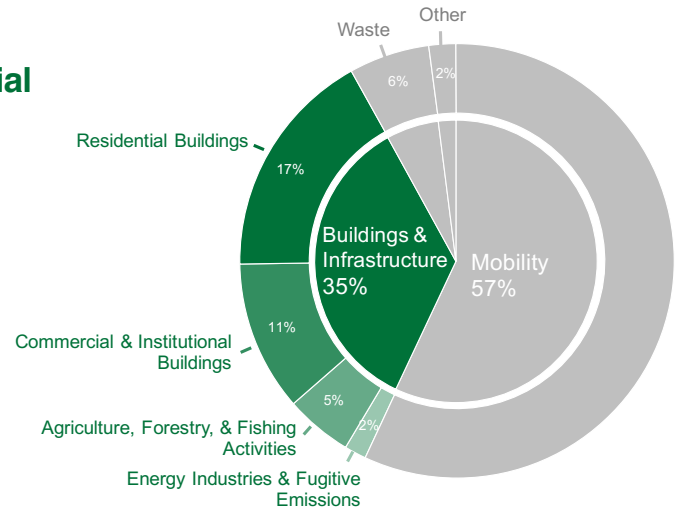
"We love our heat pump! It keeps our home warm in the winter and cool in the summer. When we renovated to include a home music studio, we decided to install a heat pump to help our household be more energy efficient. The upfront costs were worth it – we love how well the heat pump works to keep our house at a comfortable temperature, we appreciate the savings on our energy bills, as well as the peace of mind of knowing we're doing what we can to be more energy efficient".
Kathryn Calder, Musician, Saanich.

Buildings and Infrastructure Summary

The latest 2018 community-wide greenhouse gas (GHG) inventory indicates that there has been a 12% reduction in Saanich's building and infrastructure GHG emissions since our 2007 baseline. Good progress was made between 2007 and 2012, supported by Provincial Building Code energy efficiency standards and home energy retrofit rebates. However, there has been a notable increase in buildings switching from renewable electricity to fossil fuel natural gas for heating in recent years, which is likely the reason behind a slight increase in emissions between 2012 and 2018. Adoption of the BC Energy Step code will assist in reducing energy use in new development, but greater effort to ensure a switch from fossil fuels to renewable energy and electrification is required both in new developments and retrofits.

As with mobility, we are currently not on track to meet our 2030 GHG emissions reduction targets. Saanich has made progress on Climate Plan Actions by adopting the BC Energy Step Code, supporting building industry capacity development, pursuing energy benchmarking, and delivering considerable resources and programs through the Transition 2050 (T2050) program. However, many actions are behind schedule due to resource restrictions or the impact of COVID-19, including *First Priority Action 3: Convert all oil heating systems to renewable heating systems by 2030 or sooner* and *First Priority Action 4: Enhance support for efficiency and renewable energy upgrades in existing buildings to enable 40% of homes and businesses to switch to efficient and renewable energy systems by 2030*. Of the 20 actions identified for 2020, 11 (55%) are *Achieved* or *On Track* and an additional four from future years are *Ahead of schedule*. The resources required to get back on track with the remaining actions and those actions due to commence in 2021 are identified within the Building and Infrastructure Actions tables in the Appendix.

Building and Infrastructure emissions in Saanich Territorial GHG Inventory, 2018



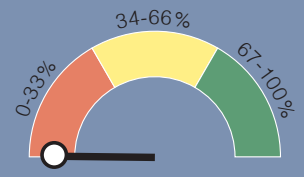
Progress on Buildings and Infrastructure Targets

Baseline:	In 2007, Saanich's building and infrastructure emissions were	196,053	t CO_2e
Latest measurement:	As of 2018, Saanich's building and infrastructure emissions were	173,142	t CO_2e

Progress on Buildings and Infrastructure Objectives

Objective	Where we were		Where we are at		2030 Target	2050 Target
	Status	Year	Status	Year		
New buildings that achieve the higher steps of BC Energy Step Code	0	2018	<1%	2019	100% by 2025	100%
New buildings are net-zero carbon	<1%	2018	<1%	2019	100% by 2032	100%
Oil heating systems replaced by heat pumps	78	2018	140	2019	100%	100%
Natural gas furnace/boilers replaced with heat pumps (Residential)	no info	2018	<1%	2019	40%	100%
New Metric: Natural gas connections (Residential)	14,649	2018	15,403	2019	TBD	TBD
New Metric: Natural gas consumption (Residential)	731,870 GJ	2018	793,979 GJ	2019	TBD	TBD
Natural gas space heating replaced with renewable space heating (Commercial)			no data		40%	100%
New Metric: Natural gas connections (Commercial)	930	2018	944	2019	TBD	TBD
New Metric: Natural gas consumption (Commercial)	825,369 GJ	2018	857,850 GJ	2019	TBD	TBD
Building heating demands are reduced by 30%			no data		40%	100%
Renewable Natural Gas use in buildings (as a % of all natural gas used)	0.1%	2017	0.5%	2019	-	100%
Sufficient renewable energy sources are available to support required conversions from fossil fuel systems			Metrics in development			
Embodied emissions are reported and lowered			Metrics in development			
Buildings and infrastructure are designed or retrofitted for changing climate conditions, support ecological functions and reduce exposure to climate hazards.			Metrics in development			
Land use and development patterns minimize exposure to sea-level rise.			Metrics in development			

Food and Materials

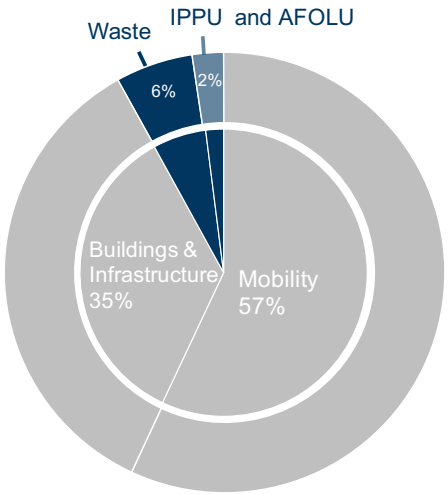


Food and Materials Summary

The latest 2018 community-wide greenhouse gas (GHG) inventory indicates that there has been a 30% reduction in Saanich's waste GHG emissions since our 2007 baseline and a 38% reduction in emissions from other sources, which includes Industrial Processes and Product Use (IPPU) and Agriculture, Forestry and Other Land Use (AFOLU). While Saanich has limited influence over IPPU emissions, good progress has been made on waste diversion regionally and since the introduction of the Greener Garbage Program. However, although food and materials are smaller sources of GHG emissions in our territorial emissions, they constitute almost 30% of our consumption based emissions inventory and, as such, are an important focus for continued efforts.

Only three actions within the Climate Plan Food & Materials focus area were identified for 2020 and while some work progressed, including joining the Love Food, Hate Waste campaign and continuing to support One Planet Saanich stakeholders, all three of these actions are behind schedule due to resource restrictions or the impact of COVID-19.

Food and Materials emissions in Saanich Territorial GHG Inventory, 2018



Progress on Food and Materials Targets

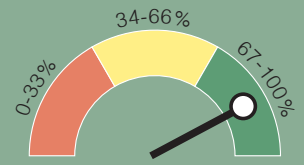
GHG Emissions Target (Waste)			
Baseline:	In 2007, Saanich's emissions from waste were	40,134	t CO_2e
Latest measurement:	As of 2018, Saanich's emissions from waste were	28,252	t CO_2e
GHG Emissions Target (IPPU)			
Baseline:	In 2007, Saanich's emissions from Industrial Processes and Product Use (IPPU) were	24,438	t CO_2e
Latest measurement:	As of 2018, Saanich's emissions from Industrial Processes and Product Use (IPPU) were	38,729	t CO_2e

'Staff and students at Reynolds Secondary School have been delivering a salad bar program sourced from their own courtyard garden and local farms for almost 10 years. This year, they adapted the program for COVID-19 and have held masked pop-up markets selling local, seasonal, organic produce and delivering workshops for canning, pickling and making lip balms and salves.'

Progress on Food and Materials Objectives

Objective	Where we were		Where we are at		2030 Target	2050 Target
	Status	Year	Status	Year		
Saanich's consumption-based emissions related to food are reduced	19%	2015	TBD	TBD	TBD	TBD
0% compostable organic waste and paper is landfilled	21% organics 15% paper	2016	New data expected 2022		0% 0%	0% 0%
Emissions from consumer choice and industry transition (e.g. refrigerants, aerosols, foams, equipment, livestock, fertilizer, etc.) are reduced i.e. Industrial Processes and Product Use (IPPU) and Agriculture, Forestry and Other Land Use (AFOLU)	29,627 t CO_2e	2017	11,397 t CO_2e	2018	TBD	TBD
Agricultural land is protected: Hectares of land in Saanich within the ALR	1,843 ha	2018	TBD	TBD	TBD	TBD
A greater proportion of food is grown and consumed locally: Hectares of land and % of total land that is actively farmed in Saanich	1,713 ha 17%	2006	2,222 ha 21%	2016	TBD	TBD
The majority of local farmers have the ability to adapt their production practices to a changing climate			Metrics to be developed			

Ecosystems

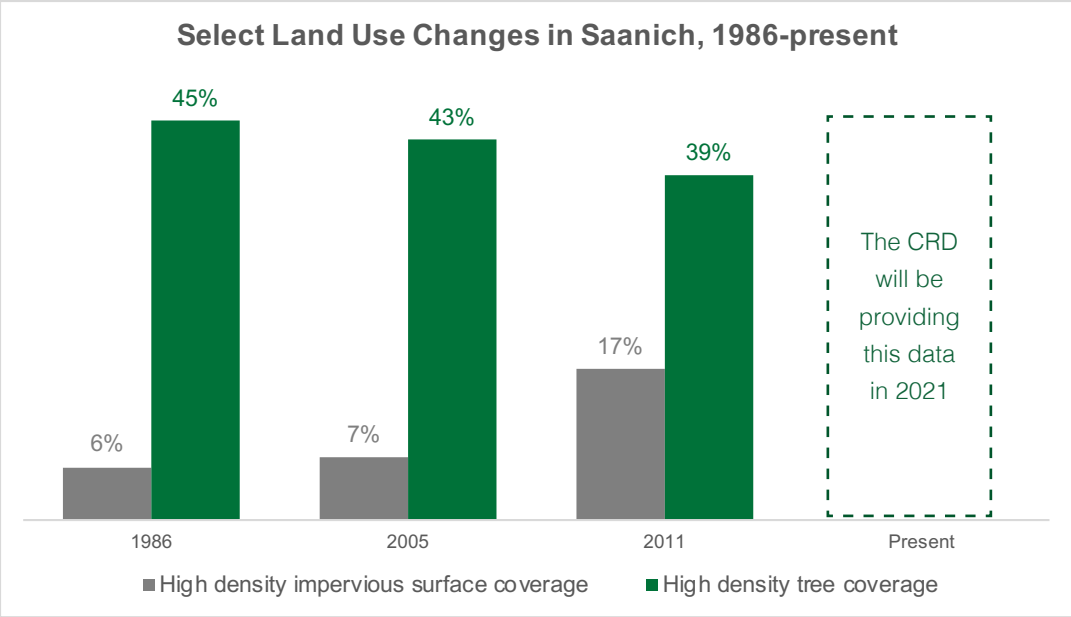


Ecosystems Summary

Ecosystems and natural areas can be both sinks and sources of greenhouse gas (GHG) emissions and contribute towards our territorial emissions inventory through the Agriculture, Forestry and Other Land Use (AFOLU) category. As such, they can also assist in reaching our targets through carbon sequestration. However, estimates for land use carbon emissions and sequestration have a high degree of uncertainty today and so they are not reported on separately at this time. Work is underway to explore data in this field to potentially report specifically on this emissions sector in future years.

There are three Ecosystems Objectives within the Climate Plan and appropriate metrics are expected to be developed as part of the Resilient Saanich: Environmental Policy Framework over the next couple of years. In the interim, the Climate Plan Report Card will focus on reporting on Ecosystem actions; eight of which were identified as either underway or to commence in 2020. Six of these 2020 actions (75%) are *Ongoing* or *On track* and two additional actions identified for 2021 have commenced and are also *On track*. However, additional resources are required to get the remaining 2020 actions back on track and make further progress in 2021, including on *First Priority Action 5 (Climate Action E1.1) Double the rate of planting trees to enhance urban forest* and *First Priority Action 6 (Climate Plan Strategy E2): Improve climate resilience of Saanich's infrastructure, such as our stormwater system, flood hazard planning and engineering design specifications.* The resources needed to do this are identified against specific actions in the Ecosystems Actions tables in the Appendix.

"Saanich has started a process to develop an Environmental Policy Framework that is referred to as "Resilient Saanich". "Resilient Saanich" is based on three pillars: Biodversity Conservation Strategy, Climate Plan and Enhanced Environmental Stewardship. It will consider existing and potential future policies, plans, and programs to integrate sustainability and the natural environment."



"Saanich Parks Staff, Council, and community members have been celebrating Tree Appreciation Day in Saanich since 1995. The 25th anniversary celebration was held in Mount Douglas Park this year. Over 600 native trees, shrubs and ferns were planted to help restore the barren forest floor understory adjacent to the Beach Parking Lot."

Photo supplied courtesy of Parks, Recreation and Community Services

Progress on Ecosystems Targets

Baseline:	In 2007, Saanich's emissions from Agriculture, Forestry and Other Land Use (AFOLU) were	(5,946)	t CO_2e
Latest measurement:	As of 2018, Saanich's emissions from Agriculture, Forestry and Other Land Use (AFOLU) were	(27,332)	t CO_2e

Progress on Ecosystems Objectives

Objective	Where we were		Where we are at		2030 Target	2050 Target
	Status	Year	Status	Year		
Ecosystem health and biodiversity are protected			Metrics to be developed			
The removal of carbon from the atmosphere by trees, plants, and ecosystems in Saanich is increased			Metrics to be developed			
Ecosystem services are maintained or enhanced			Metrics to be developed			

Community Well-being

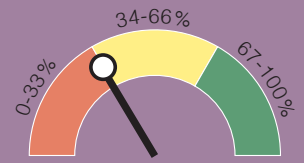
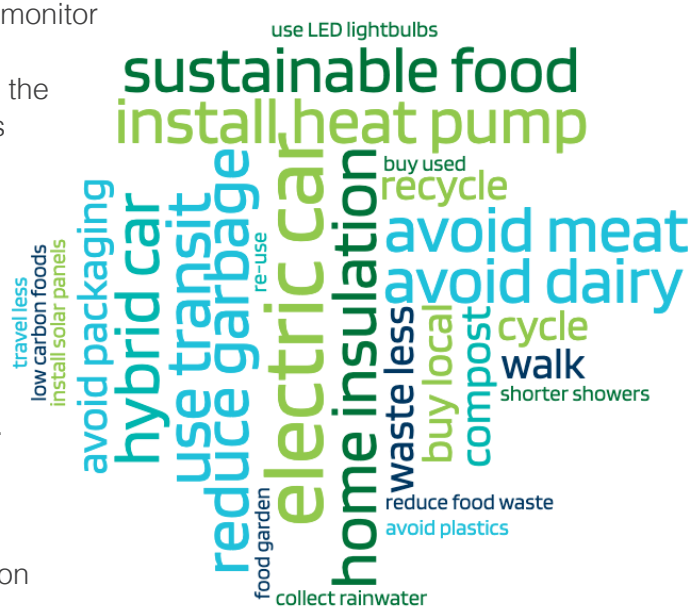


Photo supplied courtesy of Parks, Recreation and Community Services

Community Well-being Summary

The objectives, strategies and actions within Community Wellbeing focus on the ability of people and organizations in Saanich to be resilient in a changing climate and empowered to take climate action. This also emphasizes the need to consider equity - we must work towards the just distribution of the benefits of climate actions and alleviate unequal burdens created or worsened by climate change. We are fortunate to have multiple existing and potential future partners within the region that support us in embedding equity in our climate actions.

Metrics are yet to be developed to monitor and report on progress towards achieving this vision. In the interim, the Climate Plan Report Card will focus on reporting on Community Wellbeing actions; nine of which were identified to commence in 2020. Three of these nine actions (33%) are either *Achieved* or *On track* and three additional actions identified for future years have commenced and are also *On track*. However, additional resources are required to get the remaining 2020 actions back on track and make further progress in 2021, including on *First Priority Action 7 (Climate Plan Strategy C2): Catalyze community actions by developing a supportive network and resources to encourage and sustain personal efforts.*



People in Saanich learned to measure their personal GHG emissions and develop a simple three point action plan to become more climate-friendly and resilient using the Residents' Climate Action Guidebook. Then they shared their climate commitments with us – here's a word cloud of their answers.

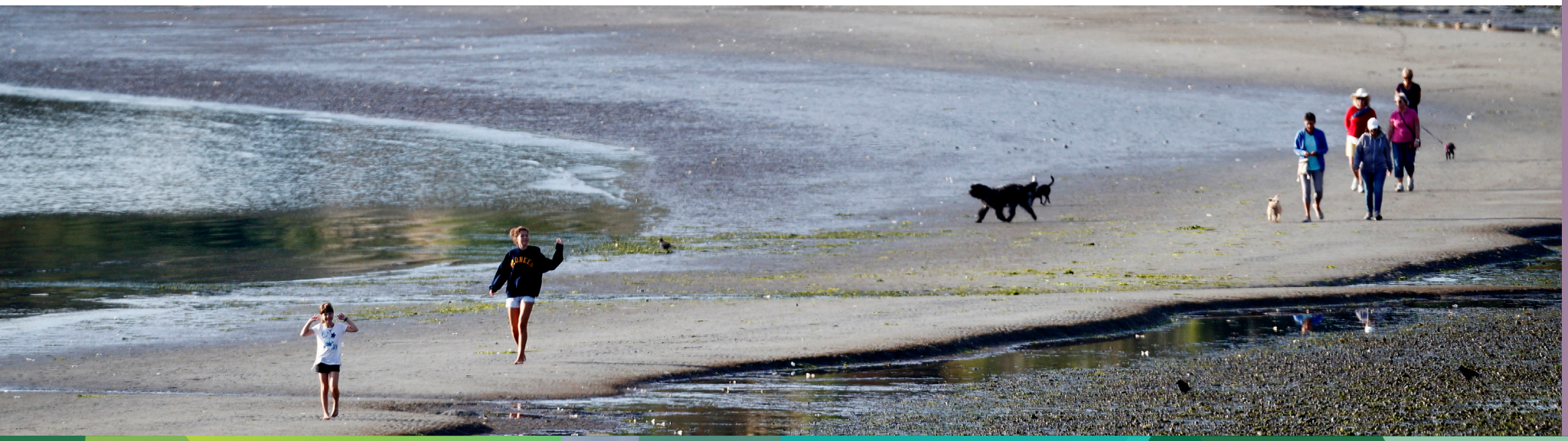
"The Institute for Global Solutions at Claremont Secondary School, a One Planet Saanich stakeholder, adapted to COVID-19 by hosting their guest speaker series at Cordova Bay. They've now entered a working agreement with Penninsula Streams to conduct research at Cordova Bay as part of their Environmental Science class."

Progress on Community Well-being Targets

There are no territorial GHG emissions targets associated with Community Well-being.

Progress on Community Well-being Objectives

Objective	Where we were		Where we are at		2030 Target	2050 Target
	Status	Year	Status	Year		
Emergency and community health services are adequate to respond to identified climate risks			Metrics to be developed			
Climate Action benefits people in Saanich, helping to improve air quality and community health while supporting clean energy jobs and a diverse economy			Metrics to be developed			



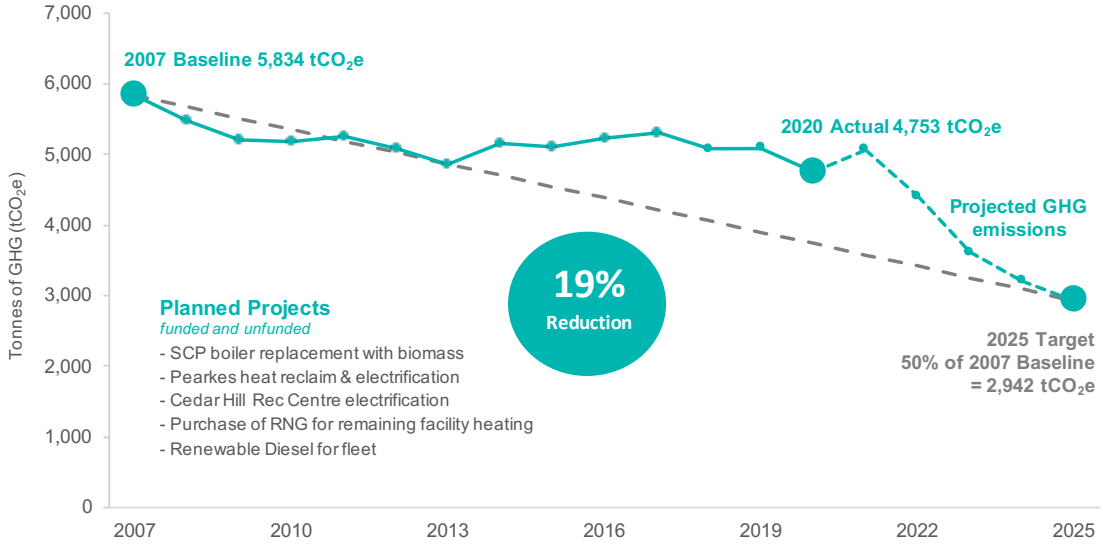
Leadership in District Operations

Leadership in District Operations Summary

The latest 2020 corporate greenhouse gas emissions (GHG) inventory indicates that there has been a 19% reduction in Saanich's GHG emissions since our 2007 baseline. While, 2020 marked a climate milestone for the municipal fleet, with all light duty cars now fully electric, our heavy duty vehicles and trucks continue to be the main contributor to our corporate GHG emissions. Progress on fleet emissions is primarily hindered by the lack of market available medium and heavy duty electric vehicles. However, there is the potential to purchase Renewable Diesel as an interim solution to help meet our 2025 corporate GHG emissions reduction target while the electric vehicle market further develops.

Multiple Leadership in District Operations actions were progressed in 2020 with eight of the 16 actions identified for 2020 either achieved or on track. The feasibility, design work and grant applications to support several future corporate climate projects progressed in 2020 and these are listed in the Figure below. Many of these projects are currently unfunded and their implementation will be required if we are to reach our 2025 corporate GHG emissions target. Specific resources and needs required to get back on track for the remaining actions are identified within the Appendix.

Distrct of Saanich Corporate GHG Emissions



"In 2020 G.R. Pearkes took delivery of a new Electric Zamboni to replace the propane powered ice resurfacer. Each year, we estimate our Zamboni fleet drives the equal distance of Victoria to Halifax, meaning the shift to an electric Zamboni will save 5.7 tonnes of GHGs each year because our electricity in BC is 97% renewable".

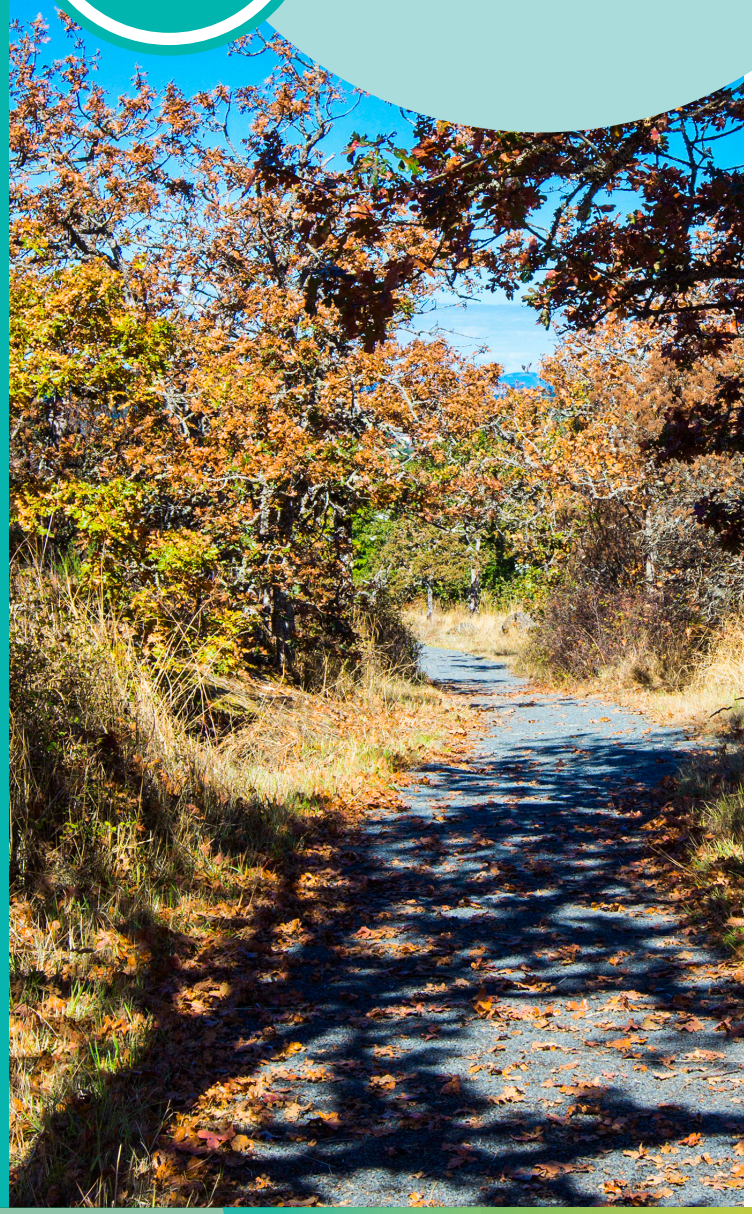
Progress on Leadership in District Operations Targets

Baseline:	In 2007, Saanich's corporate emissions were	5,834	t CO_2e
Latest measurement:	As of 2019, Saanich's corporate emissions were	4,999	t CO_2e

Progress on Leadership in District Operations Objectives

Objective	Where we were		Where we are at		2030 Target	2050 Target
	Status	Year	Status	Year		
The District of Saanich is a recognized leader in climate action: CDP report score	not reported	2019	A	2020	A	A

Conclusions and Next Steps



At the beginning of 2020, Council approved the Climate Plan: 100% Renewable & Resilient Saanich. The District of Saanich was awarded the Community Energy Association's 2020 Climate & Energy Action Award and the Planning Institute of British Columbia's 2020 Silver Award for Excellence in Policy Planning for the Climate Plan, and was recognized for demonstrating exceptional climate leadership. Council also made the commitment to implement the plan and monitor progress; approving climate action funding requests in principle and joining the Global Covenant of Mayors for Climate, reporting publicly through the CDP platform. In 2020, the District of Saanich was recognized by the CDP as one of 88 global cities and 6 within Canada to score the top 'A' grade based on our global environmental reporting and disclosure.

However, while Council unanimously adopted the Climate Plan and approved in principle the funding and resources required for its implementation, the outbreak of COVID-19 led to an unprecedented situation for budget discussions and, as such, resulted in a status quo budget being approved for 2020. Given this, some of the climate plan actions identified for 2020 have not been initiated or are behind schedule.

Despite this, there has been an incredible amount of climate work implemented by the District of Saanich, our partners and community members in this difficult year with many inspiring examples of adapting climate action to new constraints. We have also seen some small progress on our community-wide and corporate GHG emissions reductions in the latest inventories. However, we recognize that we are still not on track to meet our 2030 climate targets and considerable work is required. As directed by Council, the climate action resource requests deferred from the 2020 budget have been resubmitted for Council deliberation as part of the 2021 Budget to assist with getting back on track throughout 2021 and beyond.

Appendix: Progress on Individual Actions

Progress on Mobility Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy M1: Invest in active transportation						
M1.1 ✹	Accelerate the implementation of the Active Transportation Plan	●		2020	Behind schedule	Funding required. Resource requests will be made as part of the 2021 Budget.
M1.2	Pilot an electric bicycle incentive program	●		2020	Behind schedule	Program design underway. Grant application to be made. Funding required - resource requests will be made as part of the 2021 Budget.
M1.3	Expand the Active School Travel planning program	●		2020	Behind schedule	Resources required. Resource requests will be made as part of the 2021 Budget.
M1.4	Improve bike parking at existing buildings	●		2020	Behind schedule	Requires review and amendments to the Zoning Bylaw delayed due to resource restrictions. Expected to commence in 2021.
M1.5	Explore integration between transit and other shared mobility providers	●		2022-2024	Future action	Future action.
M1.6	Support bike shares and other shared mobility services	●		2020	Achieved	Completed bylaw updates to permit these and provided license for operation of U-bike. Staff will monitor results of the Phase 1 BC Motor Vehicle Act pilot on e-mobility devices.
M1.7	Support lower speed limits on residential streets	●		Underway	On track	Application to the Province for a Phase 2 BC Motor Vehicle Act pilot project on reduced statutory speed limit in development and endorsed by Council.

Implementation Priority: ✹ **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Mobility Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy M2: Prioritize transit-supportive policies and practices						
M2.1	Work with partners (VRTC, BC Transit) to accelerate service level improvement and increase transit mode share	●		Underway	Ongoing	COVID-19 resulted in transit expansion budget put on hold. Rapid Bus Program - due for VRTC approval early 2021. Implementation will require considerable investment to achieve necessary service level improvements.
M2.2	Support increased residential density along public transit routes	●		2021-2022	Future action	Uptown Douglas Plan complete. Regulations adopted to permit garden suites on RS lots within the sewer service area. However, other Local Area Plans on hold. McKenzie Corridor study required in 2021 as part of Rapid Bus project and would be supported through the transportation 2021 budget requests.
M2.3	Make transit travel time-competitive	●		2021-2022	Future action	Requires funding to implement the Rapid Bus Program. Transit Priority Signals installed at key Saanich locations - but investment in BCT fleet is required for this technology to be utilized.

Implementation Priority: **First Priority** **High Priority** **Medium Priority** **Low Priority**

Progress on Mobility Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
M2.4	Investigate and consider updating off-street parking requirements to support a mode shift towards active transportation	●		2021-2022	Future action	Requires review and amendments to the Zoning Bylaw. Resource requests will be made as part of the 2021 Budget.
M2.5	Advocate for increased funding for transit service expansion and improvement	●		2020-2022	On track	Early work with BC Transit to determine funding shortfall to meet targets. Council presentations/delegations due early 2021.
M2.6	Advocate for climate-informed ride hailing regulations	●		2020-2022	On track	Input to Province ongoing. Limited control at the municipal level.
M2.7	Work with BC Transit to incorporate latest best practices and new technology needs	●		2022-2024	Future action	Future action.
M2.8	Develop policies and resources for parking management and enforcement	●		2024-2029	Future action	Future action.

Implementation Priority: **First Priority** **High Priority** **Medium Priority** **Low Priority**

Progress on Mobility Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy M3: Accelerate electric and renewable mobility						
M3.1	Create a community-wide Electric Mobility Strategy	●		Underway	Achieved	Electric Mobility Strategy adopted by Council in November 2020.
M3.2	Require EV-ready infrastructure for new development	●		Underway	Achieved	EV-Ready Infrastructure Requirements bylaws adopted by Council and came into effect September 1, 2020.
M3.3	Support EV infrastructure retrofits in existing buildings	●		Underway	On track	Draft feasibility template developed for Multi-unit residential buildings. Advocated to province for increased incentives. Implementation expected 2021.
M3.4	Expand public EV charging network	●		Underway	On track	Grant funding for 20 new Level 2 EV charging stations secured. Installation expected 2021.
M3.5	Optimize the use of public EV charging stations	●		Underway	Achieved	EV charger Management Plan, associated Bylaws and User Fee implemented Jan 1, 2021.
M3.6	Support “Right to Charge” legislation	●		2020	On track	Province has committed to bringing this forward and is included in the ministerial mandate letters. Staff continue to input and monitor.
M3.7	Work with organizations in Saanich to reduce emissions from fleets	●		2022-2024	Ahead of schedule	Discussions underway. BC Transit RFP posted Q4 2020 for heavy duty electric buses.

Implementation Priority: **First Priority** **High Priority** **Medium Priority** **Low Priority**

Progress on E-Mobility Strategy Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Electric Bikes						
EB.1	Accelerate the implementation of the Active Transportation Plan	●		2020-2025	On track	Funding required. Resource requests will be made as part of the 2021 Budget.
EB.2	Plan compact, complete communities and focus density in nodes and corridors	●		2020-2025	Behind schedule	Uptown Douglas Corridor Plan complete. However, other Local Area Plans on hold. McKenzie Corridor study required in 2021 as part of Rapid Bus project and would be supported through the transportation 2021 budget requests.
EB.3	Identify and plan for infrastructure to ensure the safety and security of e-bike riders and others	●		2020-2025	Behind schedule	Not started due to resource restrictions. Will be supported by the sustainability resource request for the 2021 Budget.
EB.4	Advocate to the provincial and federal governments for an e-bike incentive program not linked to Scrap-It	●		2020-2022	On track	Communication with provincial staff ongoing. Saanich e-bike incentive program may provide the proof of concept.
EB.5	Provide 'top-up' incentives to augment provincial/ federal e-bike incentive programs	●		2020-2022	Behind schedule	Awaiting provinical e-bike incentive program.
EB.6	Pilot an e-bike incentive/trial program	●		2020-2022	Behind schedule	Program design underway. Grant application to be made. Funding required - resource requests will be made as part of the 2021 Budget.
EB.7	Increase awareness of e-bikes through a comprehensive communications campaign	●		2020-2023	On track	E-bike factsheet developed and engaging regionally on developing a communication campaign.

Implementation Priority: **First Priority** **High Priority** **Medium Priority** **Low Priority**

Progress on E-Mobility Strategy Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
EB.8	Support lower speed limits on residential streets	●		2020-2023	On track	Application to the Province for a Phase 2 BC Motor Vehicle Act pilot project on reduced statutory speed limit in development and endorsed by Council.
EB.9	Review and update the Zoning Bylaw to consider amendments that support e-bikes	●		2021-2023	Future action	Requires review and amendments to the Zoning Bylaw. Expected to commence in 2021.
EB.10	Advocate to BC Transit and the CRD to update their infrastructure design guidelines to support e-bikes	●		2021-2023	Future action	Future action.
EB.11	Develop policies and infrastructure to support other kinds of e-mobility in collaboration with the Province and regional partners	●		2021-2023	Future action	Future action.
Electric Vehicles						
EV.1	Advocate to provincial and federal governments to maintain EV incentive programs	●		2020-2025	On track	Communication and input ongoing
EV.2	Increase awareness of EVs through a comprehensive communications campaign	●		2020-2023	On track	Collaborating regionally on the development of a communications campaign
EV.3	Explore E-mobility requirements and incentives for business licenses and fees	●		2021-2022	Future action	Will be supported by the sustainability resource request for the 2021 Budget.
EV.4	Encourage and support regional organizations to convert their fleets to Zero Emission Vehicles (ZEVs)	●		2020-2025	On track	Discussions underway. BC Transit RFP posted Q4 2020 for heavy duty electric buses.
EV.5	Support car sharing organizations to electrify their fleet	●		2021-2023	Future action	Future action. Will be supported by the sustainability resource request for the 2021 Budget.

Implementation Priority: **First Priority** **High Priority** **Medium Priority** **Low Priority**

Progress on E-Mobility Strategy Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
EV.6	Advocate that higher levels of government work to remove barriers to EV adoption	●		2021-2024	Ahead of Schedule	Ongoing input to higher levels of government.
EV.7	Explore the potential for EVs to act as backup power supply	●		2021-2025	Future action	Future action.
Home and Workplace Charging						
H+W.1	Monitor Saanich EV Infrastructure Requirements for New Developments and share knowledge regionally	●		2020-2025	On track	EV Infrastructure requirements implemented, monitoring system to be established early 2021.
H+W.2	Advocate for Right to Charge legislation	●		2020-2021	On track	Province has committed to bringing this forward and is included in the ministerial mandate letters. Staff continue to input and monitor.
H+W.3	Create guidelines for 100% EV-ready feasibility studies in existing multi-unit residential buildings	●		2020-2021	On track	In development with funding support from BC Hydro.
H+W.4	Promote incentives for EV charging infrastructure	●		2020-2023	On track	Promoted through multiple channels, e.g. webpage, social media, utility bill mailouts etc.
H+W.5	Provide 'top-up' incentives to augment provincial/ federal EV charging infrastructure incentives for existing MURBs as required	●		2021-2022	Future action	Will be supported by the sustainability resource request for the 2021 Budget.
H+W.6	Explore the need for and provide incentives for EV charging infrastructure feasibility studies in existing MURBs if required	●		2021-2022	Future action	Will be supported by the sustainability resource request for the 2021 Budget.
H+W.7	Provide EV charging infrastructure education for MURBs	●		2020-2021	On track	Early actions, increased engagement will be supported by the sustainability resource request for the 2021 Budget.

Implementation Priority: **First Priority** **High Priority** **Medium Priority** **Low Priority**

Progress on E-Mobility Strategy Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
H+W.8	Identify and address potential policy barriers to EV infrastructure in existing buildings	●		2021-2023	Future action	Funding required. Resource requests to update the Development Permit Area Design Guidelines and review and update the Zoning and Building bylaws will be made as part of the 2021 Budget.
H+W.9	Support off-site EV charging for MURBs	●		2021-2023	Future action	Future action.
H+W.10	Support workplace EV charging	●		2021-2023	Future action	Future action.
H+W.11	Support dedicated EV charging access for car shares near MURBs	●		2022-2023	Future action	Future action.
H+W.12	Explore various financial approaches to overcome the capital cost barrier to EV charging	●		2022-2023	Future action	Future action.
Public Charging						
PN.1	Identify priority areas in Saanich for the provision of additional public EV charging stations	●		2021-2022	Future action	Future action.
PN.2	Work with BC Hydro and the provincial and federal governments to install more DC fast charging stations in Saanich	●		2020-2022	On track	Ongoing discussions with BC Hydro to demonstrate desire for additional DC fast chargers. Promoted provincial grants for DCFC installation.
PN.3	Explore how to encourage private sector investment in new EV charging infrastructure	●		2021-2025	Future action	Future action.
PN.4	Embed EV charging considerations in Saanich planning processes	●		2021-2023	Future action	Future action.

Implementation Priority: **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on E-Mobility Strategy Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Saanich Leadership						
Lead 1	Develop a fleet strategy to reduce corporate emissions	●		2020-2021	Behind schedule	Work underway e.g. Uvic partnership to develop options for EV charging requirements at new Public Works site, grant application for fleet EV chargers. Additional resources required. Will be addressed by the sustainability and fleet resource requests for the 2021 Budget.
Lead 2	Convert all light-duty fleet vehicles to zero emissions vehicles	●		2020-2025	On track	All municipal fleet cars have now been replaced with EVs. New Level 2 EV chargers at Engineering. Grant application submitted for 20 x Level 2 EV fleet chargers.
Lead 3	Develop an e-bike fleet program	●		2020-2022	On track	Research near completion. Initial purchase expected Q1 2021.
Lead 4	Implement a Climate Friendly Commuter Program and improve bike parking at all Saanich facilities	●		2020-2022	Behind schedule	Behind schedule due to resource restrictions. Will be addressed by the sustainability resource request for the 2021 Budget.

Implementation Priority: **First Priority** **High Priority** **Medium Priority** **Low Priority**

Progress on Buildings and Infrastructure Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy B1: Require efficient, net-zero carbon new construction						
B1.1	Identify and remove municipal barriers to high-performance buildings	●		2020	Behind schedule	Funding required. Resource requests to update the Development Permit Area Design Guidelines and review and update the Zoning and Building bylaws made as part of the 2021 Budget.
B1.2	Accelerate adoption of net-zero carbon new construction	●		2020	Behind schedule	Requires Action B1.1 to be initiated first. Should funding for this be approved in the 2021 budget, engagement on the next phase of the BC Energy Step Code could commence late 2021.
B1.3	Require new construction to achieve upper steps of the BC Energy Step Code by 2025	●		2021-2022	Future action	Future Action. Dependent upon delivery of Climate Action B1.1 and B1.2.
B1.4	Support building industry capacity development	●		Underway	Ongoing	Industry workshop and rebate to support Step Code implementation. Considerable engagement and training on retrofits through Transition 2050 e.g. workshops, Best Practice Installation Guides, factsheets, webinars etc.
B1.5	Encourage the adoption of low-carbon materials in new construction	●		2021-2022	Future action	Will be addressed by the sustainability resource request for the 2021 Budget.
B1.6	Advocate for GHG performance metrics in the BC Building Code	●		2020-2021	Ongoing	Requests both to the province and via the BC Energy Step Code peer network.
B1.7	Require energy benchmarking for new Part 3 buildings	●		2021-2022	Ahead of Schedule	Participating in Benchmark BC to present the business case for the introduction of benchmarking BC wide.

Implementation Priority: **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Buildings and Infrastructure Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy B2: Accelerate efficiency and renewable energy upgrades in existing buildings						
B2.1	Launch a Home Energy Retrofit Municipal Financing pilot project	●		Underway	Behind schedule	Program design underway. Delayed launch due to COVID-19.
B2.2	Phase out oil heating by 2030	●		2020	Behind schedule	Behind schedule due to limited resources. Will be addressed by the sustainability resource request for the 2021 Budget.
B2.3	Carry out effective communications campaigns to promote conversion to renewable energy systems	●		2020	Ongoing	Multiple actions e.g. Residents' Climate Action Guidebook, utility bill inserts, presentations, participation in Bring it Home 4 Climate program.
B2.4	Explore regulatory power to require efficiency and renewable energy upgrades	●		2020	Behind schedule	Not started due to limited resources. Will be addressed by the sustainability resource request for the 2021 Budget.
B2.5	Increase top-up rebates for conversion from fossil fuel to renewable energy systems	●		Underway	On hold	While Saanich top-up rebates continue, unable to increase due to limited resources. May be somewhat addressed by the sustainability resource request for the 2021 Budget.
B2.6	Develop a comprehensive building retrofit strategy	●		2020-2022	On track	T2050 project complete - includes high level strategy. Grant application for a Regional Retrofit Service submitted to FCM in Q3 (design in 2021, budget dependent). Financing component included.

Implementation Priority: **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Buildings and Infrastructure Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
B2.7	Work with partners to support skills development	●		2021-2022	Future action	Future action.
B2.8	Advocate for long-term, effective rebate programs	●		2020	Ongoing	Multiple avenues utilized to advocate to the provincial government, including on climate related stimulus funding. 'Double the Rebates' implemented Q4 2020.
B2.9	Advocate for provincial support on property assessed clean energy financing	●		2020	Ongoing	Participation in PACE BC program, multiple presentations and discussions on the Saanich Municipal Financing Pilot.
B2.10	Work with industry partners to support renewable energy retrofits	●		Underway	Ongoing	Partnered with BOMA BC on the Greater Victoria 2030 Resilient District, participating in Building Benchmark BC and collaboration through Bring it Home 4 Climate program.
B2.11	Develop incentive tools to encourage commercial and multi-unit residential buildings to undertake deep energy retrofits	●		2020	Behind schedule	Initiated a commercial retrofit design project. However, currently behind schedule due to resource restrictions.
B2.12	Work with the Province to prevent fuel switching from low-carbon to high-carbon energy sources	●		2020	On track	Provincial lead - ongoing input to Provincial legislation and programs. Electrification incentives launched Dec, 2020.
B2.13	Participate in retrofit code development	●		2020	Behind schedule	Provincial lead. Expected 2021.
B2.14	Introduce voluntary energy benchmarking for existing buildings	●		2024-2029	Ahead of schedule	Participating in Benchmark BC to present the business case for the introduction of benchmarking BC wide and partnered with BOMA BC on the Greater Victoria 2030 Resilient District, a voluntary program incorporating benchmarking.

Implementation Priority: **First Priority** **High Priority** **Medium Priority** **Low Priority**

Progress on Buildings and Infrastructure Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
B2.15	Advocate for home energy labelling and disclosure	●		2024-2029	Future action	Future action. Home energy labelling is required for all new homes in Saanich.
B2.16	Support mandatory recommissioning for existing Part 3 buildings	●		2024-2029	Future action	Future action.
B2.17	Support mandatory energy and emissions benchmarking for existing Part 3 buildings	●		2024-2029	Ahead of schedule	Participating in Benchmark BC to present the business case for the introduction of benchmarking BC wide.
Strategy B3: Increase energy resilience and renewable energy supply						
B3.1	Support development of local Renewable Natural Gas production	●		Underway	On track	CRD approval in principle with FortisBC for purchase of RNG from Hartland Landfill. Developed RNG factsheet, RNG communications and purchase RNG for our facilities.
B3.2	Support the Province and utilities to produce sufficient renewable energy	●		2021-2022	Ahead of schedule	Participating and/or providing input to utility strategic plans and rate option development.
B3.3	Develop a renewable energy guide for residents	●	●	2024-2029	Future action	Future action.
B3.4	Work with the province and utilities to incentivize local renewable energy production	●		2024-2029	Future action	Future action.

Implementation Priority: **First Priority** **High Priority** **Medium Priority** **Low Priority**

Progress on Buildings and Infrastructure Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy B4: Transition towards a climate-ready building stock						
B4.1	Develop strategies to preserve and enhance permeability and stormwater management		●	2021-2022	Future action	A strategy to develop an Integrated Stormwater Master Plan (ISMP) has been completed. The ISMP is a multi-year/multi-project program. Resources are required in 2021 and beyond to complete this work and will be submitted in the 2021 Budget.
B4.2	Develop a “programmed roof” policy	●	●	2021-2022	Future action	Likely delayed until ISMP is well underway.
B4.3	Advocate for the incorporation of climate adaptation considerations into the BC Building Code		●	2020	Behind schedule	Not started due to limited resources.
B4.4	Encourage building design or retrofit measures to reduce impacts from heat waves and poor air quality events		●	2022-2024	Future action	Future action.
B4.5	Consider a rainwater collection system requirement in new development		●	2024-2029	Future action	Future action.
B4.6	Encourage the implementation of engineered greywater systems		●	2024-2029	Future action	Future action.

Implementation Priority: **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Buildings and Infrastructure Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy B5: Increase the resilience of Saanich's infrastructure and assets						
B5.1	Include climate change considerations in the corporate asset management system		●	2021-2022	Future action	Resources request in the 2021 budget for an Asset Manager to develop an Asset Management Policy and Plan - to include natural assets and climate change considerations.
B5.2	Update engineering design specifications to account for future climate projections		●	2021-2022	Future action	Future action.
B5.3	Conduct flood hazard planning		●	Underway	On track	A regional Coastal Flood Inundation Mapping project was completed in 2020 in collaboration with the CRD. Resources are required in 2021 and beyond to complete inland flood hazard planning for waterways.
B5.4	Accelerate the completion of a stormwater master plan with climate change considerations		●	2021-2022	Future action	A strategy to develop an Integrated Stormwater Master Plan (ISMP) has been completed. The ISMP is a multi-year/multi-project program. Resources are required in 2021 and beyond to complete this work.
B5.5	Investigate on-site stormwater management practices on private lands		●	2024-2029	Future action	Future action.
Strategy B6: Prepare for long-term sea-level rise						
B6.1	Complete sea-level rise mapping		●	Underway	Achieved	A regional Coastal Flood Inundation Mapping project was completed in 2020 in collaboration with the CRD.
B6.2	Increase sea-level rise knowledge and adaptation capacity in the community		●	2022-2024	Future action	Future action.
B6.3	Develop a Coastal Adaptation Strategy		●	2022-2024	Future action	Future action.

Implementation Priority: **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Food and Materials Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy F1: Reduce the climate impact of food production and consumption						
F1.1	Reduce carbon emissions from local food production	●	●	2021-2022	Future action	Future action.
F1.2	Encourage residents to choose low-carbon foods and reduce food waste	●	●	Underway	Behind schedule	Joined the national Love Food Hate Waste campaign, launched the Residents' Climate Action Guidebook, which incorporates low carbon food information, updated the Saanich Carbon Calculator to incorporate food and consumption. However, limited marketing and impact due to limited resources.
F1.3	Encourage food service establishments to reduce carbon emissions from their operations	●		2022-2024	Future action	Future action.
Strategy F2: Move towards "lighting living" in Saanich						
F2.1	Reduce single-use plastics			Underway	On hold	Municipal bylaw on hold due to COVID-19. Federal engagement Q4 2020 on a national single-use plastic item ban.
F2.2	Develop and implement a Zero Waste Strategy	●		2022-2024	Future action	Future action.
F2.3	Work towards zero waste for large public events	●		2022-2024	Future action	Future action.

Implementation Priority: **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Food and Materials Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
F2.4	Work with partners on circular economy initiatives	●		2022-2024	Future action	Future action.
F2.5	Mobilize residents and businesses towards "lighter living"	●		2020-2022	Behind schedule	One Planet Saanich is due to pilot a 'Lighter-living app'. Saanich launched the Residents' Climate Action Guidebook and updated the Saanich Carbon Calculator to address consumption. However, limited marketing and impact due to limited resources.
F2.6	Advocate for expansion of extended producer responsibility programs	●		2024-2029	Future action	Future action.
F2.7	Improve monitoring of and compliance with a recyclable materials ban	●		2024-2029	Future action	Future action.
Strategy F3: Improve the resilience and self-sufficiency of the local food system						
F3.1	Accelerate the implementation of Agriculture and Food Security Plan		●	2021-2022	Future action	Future action.
F3.2	Support an Agricultural Adaptation Strategy for Vancouver Island		●	2021-2022	Future action	The Vancouver Island BC Agriculture and Climate Change Adaptation Strategies Plan now complete. Additional resources to support implementation of the plan will be required as part of the 2021 budget.
F3.3	Increase capacity for local food production	●	●	2022-2024	Future action	Future action.
F3.4	Increase adoption of water-wise agricultural practices		●	2024-2029	Future action	Future action.

Implementation Priority: **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Ecosystems Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy E1: Enable natural systems to thrive and adapt						
E1.1 ✸	Double the rate of planting trees to enhance the urban forest	●	●	2020	Behind schedule	Not started due to resource requirements. Will be included in the 2021 budget requests.
E1.2	Increase stewardship tools for private land owners		●	2020	On track	A series of educational booklets launched and additional stewardship tools will be developed through the Resilient Saanich initiative.
E1.3	Implement “Natural Intelligence” parks program		●	Underway	Ongoing	Program launched in 2020 with a summer media campaign. Further initiatives to be rolled out in 2021.
E1.4	Develop an operational approach to tree retention and replacement during development	●	●	2020	Behind schedule	Streetscape design guidelines developed but yet to be adopted - address public land. Tree retention on private land requires review of the Development Permit Area Design Guidelines, also necessary for Climate Action B1.1. Resource request will be made as part of the 2021 Budget.
E1.5	Protect and expand the urban forest	●	●	2020	On track	Created an Urban Forest Reserve Fund, some strengthening of the tree bylaw and funding approved to update the Urban Forest Strategy. Canopy cover data to be partially provided by CRD, additional resources requested in 2021 budget to support data collection and tree inventory.
E1.6	Develop and implement a Biodiversity Conservation Strategy		●	2020-2022	On track	The Resilient Saanich intiative is on track which includes development of a Biodiversity Conservation Framework.
E1.7	Expand, connect and restore natural areas		●	2021-2022	Future action	Future action. Potential outcome of the Resilient Saanich initiative.

Implementation Priority: ✸ **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Ecosystems Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
E1.8	Partner with school districts on environmental education	●	●	Underway	Ongoing	Several actions completed e.g. Park school partnerships, school and youth group participation in invasive species plant removal. Garry Oak Education Kit completed but requires additional resources for follow-up.
E1.9	Explore carbon dioxide removal measures with partners	●		2020	On track	Participated in project to analyse forest carbon sequestration dynamics across the capital region led by the CRD in partnership with NRCan and funded in part by Pacific Institute for Climate Solutions (PICS)
E1.10	Prevent planting and spread of invasive plants		●	2021-2022	Ahead of schedule	Pulling Together Program. Staff continue to work with CRISP to coordinate efforts. A revised Noxious Weeds Bylaw will likely include provisions to regulate the planting of invasive species.
E1.11	Improve monitoring of ecosystem health		●	2022-2024	Future action	Anticipted outcome of the Resilient Saanich initiative.
E1.12	Develop principles for assisted migration		●	2022-2024	Future action	Anticipted outcome of the Resilient Saanich initiative.
E1.13	Improve compliance with new bylaws and policies		●	2022-2024	Future action	Anticipted outcome of the Resilient Saanich initiative.
Strategy E2: ✸ Protect and manage natural assets as critical infrastructure						
E2.1	Evaluate services provided by natural assets	●	●	2021-2022	Future action	Resources request in the 2021 budget to develop an Asset Management Policy and Plan - to include natural assets and climate change considerations.
E2.2	Develop a strategy to maintain services provided by natural assets	●	●	2021-2022	Future action	While the district takes a strategic approach to park land acquisition, this action will likely be an outcome of an Asset Management Policy and Plan.

Implementation Priority: ✸ **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Community Well-being Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy C1: Ensure emergency and community health services keep pace with climate change						
C1.1	Retrofit municipal facilities to increase cooling and air filtration capabilities		●	2020-2022	On track	Cooling and air filtration considered during facility upgrades. Future-proofing often incorporated into design.
C1.2	Undertake urban heat mapping		●	2022-2024	Future action	Future action.
C1.3	Work with partners to ensure coordinated response during severe weather events		●	2022-2024	Future action	While the Provincial Extreme Weather Protocol Strategy exists, work to involve and coordinate with Island Health is a future action.
C1.4	Update Wildfire Protection Plan and Interface Fire Hazard Development Permit Area		●	2022-2024	Ahead of schedule	An update to the Community Wildfire Protection Plan is underway with grant funding support.
C1.5	Develop Saanich-specific wildfire prevention materials		●	2022-2024	Ahead of schedule	Anticipated to be included as part of the updated Community Wildfire Protection Plan.
C1.6	Work with service providers to vulnerable populations to develop adaptation strategies		●	2024-2029	Future action	Future action.
C1.7	Work with partners to minimize impacts from vector-borne diseases		●	2024-2029	Ahead of schedule	West Nile Virus Response Plan and Rat Control established
C1.8	Review severe weather protocols for vulnerable populations		●	2024-2029	Future action	Future action - the Extreme Weather Protocol Strategy is provincial but delivered at the local level and focuses on cold weather. Needs to be expanded for extreme heat/wildfire events and incorporate resources such as a concierge to enable input from vulnerable populations.

Implementation Priority: ✸ **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Community Well-being Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy C2: Empower Saanich residents and businesses to take climate action						
C2.1	Implement a tangible and hands-on neighborhood-level program	●	●	2020	Behind schedule	Neighbour-to-Neighbour website launched and many events adapted for social distancing. However, this action is behind schedule due primarily to COVID-19.
C2.2	Host an annual climate fair	●	●	2020	On hold	On-hold due to COVID-19
C2.3	Provide educational programming and workshops	●	●	2020	Behind schedule	Impacts from COVID-19. While educational programs were developed, launched and communicated e.g. the Bring it Home 4 Climate program and Neighbour-to-Neighbour webpage, greater action is required.
C2.4	Carry out a communications campaign on urgent climate action	●	●	2020	Behind schedule	Multiple actions including Residents' Climate Action Guidebook, utility bill inserts, presentations, social media, Bring it Home 4 Climate program. However, resources limited and greater action required.
C2.5	Host a Community Climate Collaborative	●	●	2020	On hold	On hold due to COVID-19.
C2.6	Develop an equity tool	●	●	2020	On track	Equity training supported by USDN. Completed an Energy Poverty Profile for Saanich. Housing Strategy and other programs will incorporate an equity lens. Recreation developing a Strategic Equity Plan with resources requested in the 2021 budget.

Implementation Priority: **First Priority** **High Priority** **Medium Priority** **Low Priority**

Progress on Community Well-being Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
C2.7	Develop a Saanich climate information webpage	●	●	2020	Achieved	Developed and regularly updated.
C2.8	Seek opportunities to work with neighboring First Nations	●	●	2020	Behind schedule	First steps being undertaken at the leadership level and through collaboration with Community Services and the development of the Strategic Equity Plan.
C2.9	Explore a bulk-purchase program	●	●	2022-2024	Future action	Future action.
C2.10	Develop a community grants program	●	●	2024-2029	Future action	Future action.
C2.11	Collaborate with researchers and post-secondary institutions	●	●	2024-2029	Future action	Future action.
C2.12	Work with the arts community	●	●	2024-2029	Future action	Future action.

Implementation Priority: **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**


BIGFOOT

Progress on Leadership in District Operations Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy L1: Integrate climate action into Saanich processes and decision-making						
L1.1	Establish a new Climate Action Reserve Fund	●	●	2020	Behind schedule	While a new Climate Action Reserve Fund has been established, resources are required as part of the 2021 budget to increase the carbon tax rate.
L1.2	Include a climate alignment scorecard in reports to Council for development projects	●	●	2020	On track	In development with potential implementation early 2021.
L1.3	Establish a carbon price policy	●		2020	Behind schedule	Not started due to resource restrictions.
L1.4	Create a climate leadership group	●	●	2020	Achieved	Internal Climate Working Group established.
L1.5	Develop a risk register and monitoring platform		●	2020	Behind schedule	Enterprise Risk Management Framework drafted but additional resources required to develop a Climate Risk Register. Part of budget requests in 2021.
Strategy L2: Become a climate friendly employer						
L2.1	Implement a Climate Friendly Commuter Program	●		2020	Behind schedule	Behind schedule due to resource restrictions. Will be addressed by the sustainability resource request for the 2021 Budget.
L2.2	Implement a training and capacity building program	●	●	2020	Behind schedule	Behind schedule due to resource restrictions. Will be addressed by the sustainability resource request for the 2021 Budget.
L2.3	Recognize innovation, successes and leadership	●	●	Underway	Ongoing	Climate Plan awarded CEA Climate & Energy Action Award, PIBC Silver Award for Excellence in Policy Planning and one of 88 global cities to achieve the CDP 'A' grade.

Implementation Priority: ✸ **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Leadership in District Operations Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy L3: Transition to an efficient, renewably powered fleet						
L3.1	Develop a fleet strategy to reduce corporate emissions	●		2020	Behind schedule	Work underway e.g. Uvic partnership to develop options for EV charging requirements at new Public Works site, grant application for fleet EV chargers. Analysis of low and zero carbon fuel and vehicle technologies completed and ongoing. Renewable Diesel potential interim solution while electric vehicle market develops. Sustainability and fleet resource requests in 2021 will support a comprehensive strategy.
L3.2	Convert all light-duty vehicles to zero-emissions vehicles	●		Underway	On track	All municipal fleet cars have now been replaced with EVs. New Level 2 EV chargers at Engineering. Grant application submitted for 24 x Level 2 EV fleet chargers.
L3.3	Develop an e-bike fleet program	●		2020	On track	Research near completion. Initial purchase expected Q1 2021.
L3.4	Review industry readiness to support medium- and heavy-duty fleet conversion pilot projects	●		2022-2024	Future action	Future action - will require additional resources.

Implementation Priority: **First Priority** | **High Priority** | **Medium Priority** | **Low Priority**

Progress on Leadership in District Operations Actions

ACTION	DESCRIPTION	MITIGATION	ADAPTATION	INITIATION TIMELINE	STATUS UPDATE	COMMENTS
Strategy L4: Transition to efficient and renewably-powered municipal buildings						
L4.1	Transition to highly efficient and renewably-powered municipal facilities	●		Underway	Ongoing	Multiple facility energy projects completed in 2020 e.g. lighting upgrades, design for biomass at SCP, carbon neutral design for Fire Hall 2, CleanBC grant application for heat recovery at Pearkes. New electrical and mechanical standards that incorporate energy efficiency and improve building performance.
L4.2	Pilot low-carbon materials in municipal new construction	●		Underway	Ongoing	New Facility Standards for materials incoporate low carbon, environmentally friendly products. Design of Fire Station 2 follows BC's Wood First Initiatives through the application of mass timber and steel and concrete are minimized as much as possible.
L4.3	Showcase efficient and renewably-powered municipal buildings	●		Underway	On track	Sustainability webpages, social media, awards, factsheets etc. Some engagement e.g. tours, impacted by COVID-19.
Strategy L5: Reduce waste and GHG emissions from goods and services						
L5.1	Model a low-carbon diet through corporate catering	●		2020	Behind schedule	Not started due to resource restrictions and COVID-19 limiting in-person engagement events.
L5.2	Develop a corporate Zero Waste Strategy	●		2024-2029	Future action	Future action.
L5.3	Update Saanich Sustainable Procurement Guidelines	●		2024-2029	Future action	Future action.

Implementation Priority: **First Priority** **High Priority** **Medium Priority** **Low Priority**

THE URBAN PROJECT | LE PROJET URBAIN

COVID-19 STREET REBALANCING GUIDE

How to temporarily redesign streets to ensure physical and mental health, safety, and well-being

Presented by the Federation of Canadian Municipalities | June 2020

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Winnipeg, Manitoba

About the Authors

Urban Systems is a professional consulting firm committed to supporting vibrant communities. Our interdisciplinary team works with governments, Indigenous communities, private industry, and non-profit organizations to help build communities that are safe, sustainable, and prosperous. Urban Systems works with clients on a range of multi-modal transportation projects to prepare strategic plans and design and deliver high-quality, innovative infrastructure that moves communities towards their goals.

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URBAN SYSTEMS SYSTÈMES URBAINS

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About the Urban Project

The Urban Project is a national platform convened by the Federation of Canadian Municipalities (FCM) for city leadership to meet and strengthen relationships with government, civil society, and the private sector to address pressing urban challenges and identify common solutions.

www.theurbanproject.ca

Methodology

This resource was created based on practitioner experience and observations of best practices and emerging trends around the world attained through the media and webinars presented by leading experts, along with conversations with and reviews by municipal staff and sector thought-leaders. Mobility responses to the COVID-19 outbreak are rapidly evolving. The guidelines in this document are based on research and current practices as of late May 2020.

Partners

This resource was made possible by our generous partners:

New Westminster, British Columbia | Credit: @jonathanxcote

1. Why Street Design Matters

The COVID-19 pandemic has impacted virtually all aspects of daily life in cities, from front-line emergency services and transit to housing and municipal finance, among many others.

Due to its ability to spread through close personal contact, physical distancing has proven to be one of the most effective ways to reduce the spread of the illness. This presents an immediate challenge for mobility and the need to provide safe spaces in the public realm while ensuring physical and mental health, safety, well-being, and resiliency of our communities and citizens.

As motor vehicle and transit use has decreased significantly in cities around the world, the increased demand for active transportation has created critical challenges for mobility, accessibility, and the use of public space, due to the limited space available.

These impacts are not felt equally, and this challenge threatens to exacerbate existing inequities in cities related to public space and transportation. Inaction disproportionately impacts vulnerable communities more than others, particularly those living in urban centres.

This is why street design matters.

And why we have created this guide to “rebalance” streets and provide more safe space for people to walk, bike and roll.

Expanded active transportation networks have emerged as an effective tool for cities in their fight against COVID-19, supporting physical distancing requirements while encouraging regular daily physical activity.

This moment presents a unique opportunity to invest in significant public works projects well beyond the current crisis. The demand for more physical space allows cities to quickly and effectively build out active transportation networks that address long-standing gaps, and support cities’ broader health, environmental, and equity priorities.

Even as some restrictions begin to lift across the country, physical distancing may remain a key public health recommendation. A transition from temporary to permanent solutions could create jobs in the short- to medium-term and provide a foundation for better connected communities in the long-run.

What is Physical Distancing?

Avoiding crowded places and gatherings

Avoiding common greetings

Limiting contact with people at higher risk

Keeping a distance of at least 2 metres from others as much as possible

Public health agencies across Canada are actively involved in improving street design because street infrastructure is health infrastructure. Improving active transportation networks improves both physical and mental well-being and helps reduce health risks associated with leading causes of death, including heart disease, diabetes, lung cancer and respiratory disease.

This guide has been developed to help cities and communities respond to the challenges presented by the COVID-19 outbreak on our streets, and to share strategies and treatments based on case studies that have emerged around the world over the past several weeks. It is intended for both decision-makers and practitioners, and includes a toolkit of response strategies and treatments, with detailed guidance for how to rapidly rebalance streets over three different phases of the response to the COVID-19 outbreak, ranging from immediate to longer-term responses.

Mobility responses to the COVID-19 outbreak are rapidly evolving.

The guidelines in this document are based on research and current practices as of late May 2020.

The options presented in this document are context sensitive and may not be appropriate in all circumstances.

Any local responses to rebalance streets should be in accordance with all relevant federal, provincial, and design territorial guidelines and recommendations for physical distancing.

Winnipeg, Manitoba

1.1 Response Strategies

RAPID RESPONSE

Many cities and communities are taking immediate emergency actions to address the most critical challenges noted above through the **rapid deployment of temporary traffic management devices** such as traffic cones, barriers, paint and signage to create immediate space for physical distancing. These rapid responses can be implemented within a matter of days.

Delivery Speed: Days
Treatments: Temporary

RECOVERY

As the COVID-19 outbreak is expected to continue over several months or years, cities and communities can look beyond temporary measures to consider the **physical installation of interim materials** such as flexible delineator posts, curbs, and planters, and to **consider other mobility strategies** to respond to evolving federal, provincial, and design territorial guidelines over the medium-term as physical distancing requirements are relaxed somewhat.

Delivery Speed: Weeks/months
Treatments: Interim

RESILIENCY

The COVID-19 outbreak has changed mobility patterns, and the way people travel may continue beyond. Many cities are using the current situation to **re-think how their communities are planned and designed to ensure they are more resilient** to respond to similar crises over the long-term.

A transition to a more permanent solution may include:

- Using flexible tools for street rebalancing that can be adapted to permanent treatments;
- Accelerating the funding and implementation of city-wide active transportation networks, particularly neighbourhoods that rely on transit and lack sufficient access to public space; and
- Considering the changes in travel behaviours, including an increase in telecommuting.

Delivery Speed: Months/Years
Treatments: Permanent

Montréal, Québec | Credit: City of Montréal

2. What Cities Have Done

Many cities around the world, including in Canada, have begun to temporarily reallocate road space away from motor vehicle traffic towards people walking, rolling, and cycling in response to the COVID-19 outbreak.

Many cities have initially followed **rapid response** approaches by rapidly reallocating road space using temporary traffic management decides to allow residents to maintain safe physical distancing from one another, and to provide residents with sufficient space to be physically active. These rapid response approaches have often been implemented to help address high pressure points on streets and sidewalks, and enable safe mobility options near essential services and in communities that rely more on walking and cycling. Rapid response approaches have been implemented to some degree in most cities across Canada, including temporary pedestrian lanes, temporary bicycle lanes, shared streets, and pedestrian waiting areas.

New Westminster, BC | Credit: @m_anderson1973

Tirana, Albania | Credit: @bike2workT

Montreal, QC | Credit: John Mahoney, Montreal Gazette

Milan, Italy | Credit: @demoscope

As some jurisdictions begin to move into the next phases of their COVID-19 response strategies, some cities are moving into **recovery** approaches that include transitioning away from temporary to interim treatments, and to consider opening additional space for seating and to support local businesses, including temporary parklets and patio spaces.

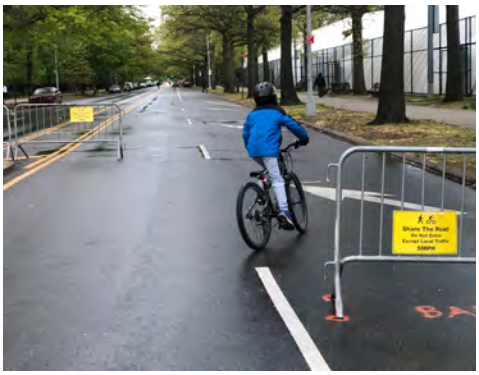
Many leading cities have also focused on long-term **resiliency** approaches to ensure they are more resilient to respond to similar crises over the long-term. Cities such as Paris, Berlin, Bogota, Oakland, New York, Montreal, and Toronto have developed ambitious plans for rolling out comprehensive networks of streets to enable physically distant active transportation. In several cases, this has involved accelerating the implementation of existing active transportation plans.

Each treatment in this guide is accompanied by examples of cities taking action, demonstrating best practices for other cities to learn from in this new context.

Salt Lake City, Utah | Credit: @MRC_SLC

Seattle, Washington | Credit: @MayorJenny

New York City, NY | Credit: Matthew Roe



Berlin, Germany | Credit: @James_J_Conway

North Vancouver, British Columbia

3. Challenges and Opportunities

Demand for street space is increasing.

The increased demand for active transportation, along with the need for physical distancing, has created a number of critical challenges for mobility, accessibility, and the use of public space, including unsafe spaces to move, unsafe spaces to wait, incomplete active transportation infrastructure, and insufficient spaces for outdoor exercise. These challenges form the basis of the four mitigation themes listed below.

This section outlines implementation challenges, key considerations, and the toolkit of response strategies, which is described in greater detail in **Section 5**. It is important that the needs of all street users, businesses, and residents are considered, but that vulnerable road users are prioritized when implementing the response strategies (see **Section 4** for details regarding planning, communication, and design).

3.1 Mitigation Themes and Implementation Challenges

THEME 1: CREATING SPACES TO MOVE

Implementation challenges:

- **Narrow sidewalks**. Sidewalks on most streets are typically less than 2 metres in width, which some cities have indicated is not wide enough to practice physical distancing and ensure two people are able to pass one another safely. While some public health officials do not consider passing someone on the sidewalk to be close contact or a significant risk for exposure to COVID-19, they do recommend stepping aside or passing others quickly. Both scenarios lead to potential unsafe movement where people may move onto adjacent streets to pass each other, creating the risk of being hit by vehicles.
- **Narrow and busy off-street pathways.** Off-street pathways typically accommodate a range of users, who are travelling at different speeds and have different operational requirements, such as people walking, cycling, jogging, in-line skating, and others. Many off-street pathways are not wide enough to safely accommodate the range and volumes of users while practicing physical distancing and have experienced overcrowding and residents seeking recreation opportunities.
- **Narrow bicycle routes.** Uni-directional bicycle lanes are typically less than 2 metres, while bi-directional bicycle lanes are typically 3 metres wide, which is not widen enough to allow two cyclists to pass one another safely.

- **Accessibility challenges.** The built environment should be designed to be accessible to people of all ages and abilities, regardless of physical or cognitive impairment. Narrow sidewalks can present particular challenges for people with accessibility challenges, including those using mobility aids.

THEME 2: CREATING SAFE SPACES TO WAIT

Implementation challenges:

- **Crowding and queuing outside essential businesses and services.** To reduce the risk of COVID-19 transmission, access to some essential businesses is being managed to allow only a limited number of people entering at a time. This can result in queuing and crowding on sidewalks and in public spaces while people wait to enter the premises. This can present challenges for safely accommodating people waiting to access the business with people walking along the sidewalk.

THEME 3: CONNECTING ACTIVE TRANSPORTATION INFRASTRUCTURE

Implementation challenges:

- **Lack of complete, connected cycling infrastructure.** While many cities have invested in cycling infrastructure, networks are often not connected and do not provide suitable connections between households, workplaces and other destinations.
- **Lack of connected pedestrian infrastructure, or insufficient space along existing routes.** As described in Theme 1, there is not always sufficient room for pedestrians to move given the physical distancing protocols. Providing a connected network of pedestrian facilities is needed to ensure safe travel and recreation.

THEME 4: PROVIDING SPACES FOR OUTDOOR EXERCISE

Implementation challenges:

- **Limited amount of parks and public spaces in many neighbourhoods.** Current guidelines encourage people to engage in outdoor exercise but recommend they do so close to home; however, many residents do not have access to parks and open space nearby.

3.2 Key Considerations

When planning and designing response strategies to address these themes, it is important to identify the specific issue that needs to be addressed and determine what success will look like. Some responses may be designed primarily to relieve pressure on existing facilities, connect major destinations, provide space for vulnerable populations, and/or other related objectives. Identifying the core set of issues will help clarify the best possible response strategy.

Planners and designers should note the following considerations when rebalancing streets and assessing specific response strategies:

- Gaps in the active transportation network (sidewalks, bicycle routes, and off-street pathways);
- Equity and concentration of vulnerable communities, including racialized populations, people living with low income, and those who do not have access to a vehicle;
- Universal accessibility for older populations, children and people with reduced mobility;
- Sidewalks below recommended widths;
- Proximity to parks and open space;
- Proximity to health care facilities;
- Presence of essential businesses such as grocery stores and pharmacies; and
- Access to transit.

Even during times like the COVID-19 emergency, it is important to recognize the role of streets and their civic function for enabling peaceful citizen protest and providing a space for civic expression. By doing so, cities can mitigate the risk of conflict and destruction to temporary street elements and interim networks and take a leadership role in protecting the diverse functions of streets which can enable inclusion and social equity.

3.3 Response Strategies

This report provides a toolkit of ten response strategies for how cities and communities can respond to these challenges. Each of these responses are presented below alongside the challenges they address. It is important that these response strategies balance the needs of different street users, prioritizing the most vulnerable, and consider adjacent land uses such as businesses.

		Creating Safe Spaces to Move	Creating Safe Spaces to Wait	Connecting Active Transportation Infrastructure	Providing Spaces for Outdoor Exercise
1.	Full Street Closures	✓		✓	✓
2.	Shared Streets	✓		✓	✓
3.	Temporary Pedestrian Lanes	✓		✓	✓
4.	Temporary Bicycle Lanes	✓		✓	✓
5.	One-Way Multi-Use Pathways	✓			✓
6.	Separated Bicycle and Pedestrian Pathways	✓			✓
7.	Curbside Queuing Areas	✓	✓		✓
8.	Priority Loading Areas	✓	✓		
9.	Pedestrian Pushbutton Automation	✓	✓		
10.	Temporary Parklets and Patios		✓		

4. Planning and Design

Rebalancing streets in response to the COVID-19 outbreak involves reallocating road space using the rapid implementation of a range of temporary or interim treatments. There are a number of planning and design considerations that need to be included in the decision-making process in order to mitigate risks and ensure an accessible, safe, and efficient environment for all street users. This section outlines overall guiding principles for planning, provides a response process, summarizes the types of materials that can be considered, and outlines operational considerations.

4.1 Guiding Principles

Cities and communities should consider the following guiding principles when considering any street rebalancing opportunities:

- **Physical Distancing and Active Transportation:** Streets should be designed to enable residents to safely engage in active transportation as a means of outdoor exercise while meeting recommended physical distancing guidelines.
- **Equity:** Opportunities for street rebalancing should centre on equity and prioritize treatments that support vulnerable populations most at risk of street-based violence, including traffic, gender-based, and racial violence.
- **Safety and Accessibility:** Streets should be designed to be safe and accessible for people of all ages and abilities and for all road users. This includes design considerations such as physical separation between pedestrians and cyclists from motor vehicles on higher volume streets, but also lighting to ensure safe commutes at all times of day.
- **Mobility:** Frontline workers should be able to access their places of employment safely and efficiently, while residents should be able to safely access essential businesses and daily needs.
- **Essential Access and Services:** Essential access must be maintained for emergency vehicles, transit, goods movement, waste management, and deliveries.
- **No New Destinations:** Street rebalancing should not create new destinations or gathering places and should not encourage unnecessary travel.
- **Predictability:** Changes in the street design should be clear, intuitive, and predictable through the use of appropriate traffic control devices, including physical barriers, signage, and pavement markings.

4.2 Response Process

Rebalancing streets in response to the COVID-19 outbreak requires an iterative decision-making process through all phases of the project life cycle, from identifying the issue to be addressed and the need for an intervention, to identifying what treatment would best address the issue and where it should be applied, through to considerations for the design, installation, and maintenance of the treatment.

Monitoring is an important step throughout, helping to evaluate performance, whether the treatment is achieving its desired goals and whether any design changes or refinements might be necessary. This can also be used to help inform the transition from a temporary installation to an interim or permanent installation.

This planning process is iterative and can result in changes leading back to the start of the planning process or evolution in design. Below are key considerations at each phase of the project lifecycle. Further details on each of these considerations for each specific treatment are provided in **Section 5**.

Communications *| Key considerations:*

Ongoing communication with impacted stakeholders is important at all stages of the planning process. Impacted stakeholders that should be consulted include:

- Elected decision-makers;
- Staff from various internal departments, including engineering, public works, parks and recreation, and waste management;
- Staff from external departments, such as transit operators and emergency service providers;
- Members of municipal active transportation committees and other relevant committees;
- Community champions, such as neighbourhood associations and/or Business Improvement Associations; and
- Directly impacted residents and/or businesses adjacent to the intervention.

Unlike conventional projects, there may be limited time or opportunity to engage with all of these stakeholder groups or with the broader public during the planning or design phases. However, as these projects are implemented rapidly using temporary materials, the project itself can be part of the communication and engagement process, and community input can be solicited after installation to obtain feedback

on how it is working along with any suggested design changes or refinements. Effective, well-defined, and responsive feedback loops make sure pain points are identified and can be addressed quickly.

Messaging is also important in any public or stakeholder communication. It is very important to outline the rationale for the project, including:

- What need or issue the project aims to address, including the fact the measure is being implemented as part of a COVID-19 response and the specific challenge it is being designed to address;
- Why the action needs to be taken now, including the need for urgency;
- How long the project will be in place;
- How the project will be evaluated; and
- To what degree it can be adjusted (or removed) in response to input.

Spotlight: Raising Public Awareness

A number of communication channels can be used to spread awareness of rebalancing initiatives. Communications should be clear, specific, concrete, and avoid jargon. Cities are using websites, local media (paper, radio, and television), and social media, including paid online advertising, to share news about street rebalancing initiatives. Cities are also using physical signage on billboards, bus shelters, buses, sandwich boards, and other forms of pop-up signage. Simple printed signs can be used for rapid implementation and replaced by more permanent forms of signage later.

Cities such as Vancouver and Auckland have developed a brand for street rebalancing signage, making them easily recognizable throughout the city.

Examples of temporary and more permanent signage are shown below:

Raleigh, North Carolina | Credit: City of Raleigh

Seattle, Washington | Credit: SDOT

Washington, DC | Credit: David Alpert

Planning *| Key considerations:*

- Identify and build political support for street rebalancing by:
  - Clearly articulating a vision and goals for interventions;
  - Identifying trade-offs and finding a balance between objectives;
  - Engaging with stakeholders and finding flexible and creative ways to get them on board (e.g. relaxing/expediting permit processes and reducing fees for parklet applications); and
  - Emphasizing the urgency and importance of making rapid changes.
- Develop criteria for selecting the treatment, including:
  - Review existing plan and policies, such as greenways plans or active transportation plans;
  - Identify existing programs that could be expanded, such as temporary open street events that could be made permanent; and
  - Conduct an analysis using Geographic Information Systems (GIS) examining the factors outlined in **Section 3.2**.
- Identify the issue that needs to be addressed (such as narrow sidewalks or crowding outside essential businesses);
- Determine the location and specific project extents;
- Establish goals and measures of success; and
- Communicate with stakeholders.

Spotlight: Network Approach

Milan released its ambitious Strade Aperte (Open Streets) plan to reduce motor vehicle use and provide space for active transportation as COVID-19 restrictions are lifted. The plan includes a rapid, experimental city-wide expansion of cycling and walking space, including reallocating 35 km of its streets for low-cost bicycle lanes, widening sidewalks, 30km/h speed limits, and pedestrian and cyclist priority streets. The reallocation is anticipated to take place over the summer.

New York has announced plans to reallocate up to 160 km of streets to create more space for active transportation and relieve its crowded sidewalks. The program will be phased in, with an initial 64 km of street closures, sidewalk widenings, and additional bicycle lanes over the course of a month, with a goal of focusing on communities hardest hit by the COVID-19 pandemic.

Montreal announced it would set up a “safe active transportation circuit”, a temporary, 100 km network to connect four of the city’s major parks, and complement the “health corridors” the city added in several boroughs to widen sidewalks.

Toronto is planning to create 57 km of “quiet streets” through its ActiveTO initiative, with the intent of providing more space for people walking and cycling. The initiative involves closing streets to through traffic using signage and temporary barricades. Toronto also piloted closures on portions of select major streets over May long weekend to alleviate weekend and holiday crowding.

Spotlight: Build on Early Successes

Bogota expanded the Ciclovía street closures from Sunday to the full week, in addition to adding other new bicycle lanes to the city's existing 550 km network.

Winnipeg extended local street closures that are normally in place each Sunday in summer months to being active daily from 8am to 8pm. The City started with four corridors and has since expanded to include an additional five corridors.

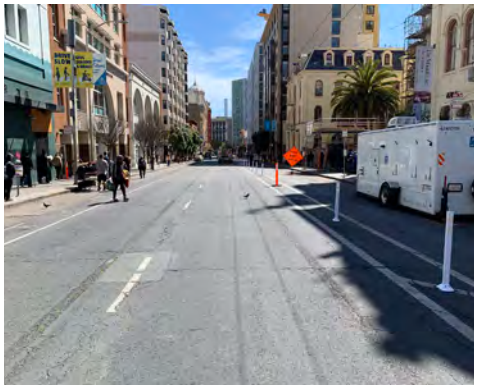
Spotlight: Access to Transit

Paris implemented many of its emergency bicycle lanes to mirror the routes of the RER commuter rail lines into Paris. Certain routes also have "express" versions specifically for the use of e-bikes.

San Francisco implemented a network of "slow streets" to supplement reduced or suspended Muni (transit), providing active transportation access to essential services. Many of these "slow streets" run parallel to major streets and transit routes.

Winnipeg, Manitoba


San Francisco, California | Credit: @kimmie_leung


San Francisco, California | Credit: @sfmta_muni

Design *| Key Considerations:*

- Determine the duration of the installation (temporary, interim, or permanent);
- Determine the type of materials to be used, including physical separation, signage, and pavement markings (with consideration for relevant anti-skid properties);
- Determine how the materials will be sourced or procured (in-house, rental, or purchase);
- Determine the duration of the installation (all day or only certain times of day);
- Consider the needs of transit, emergency services, and waste management;
- Prepare design drawings;
- Develop education materials and signage, including any local custom signage required (e.g., use of graphics or images to support communications with multi-lingual communities); and
- Communicate with stakeholders.

Spotlight: Tactical Urbanism

Tactical urbanism is a method of rapid, low cost project implementation using a set of techniques designed to enhance the built environment, with the intent of bringing about long-term change. It provides the opportunity to reimagine the look, function, and role of public spaces by quickly applying best practice street design principles to real world situations. Cities across the globe have been using tactical urbanism techniques to trial demonstration (lasting hours to days) and interim (lasting over a week) projects to determine the benefits and challenges of making permanent changes to the built environment. Tactical urbanism approaches can be used to implement meaningful short-term projects, while also considering how temporary materials can be used with interim materials with improved functionality, durability, and aesthetic appeal. The City of North Vancouver recently reallocated road space on Lonsdale Avenue using a combination of temporary and interim treatments, including umbrellas, astroturf, signage, and colourful street furniture to create a vibrant and attractive public space.

North Vancouver, British Columbia

North Vancouver, British Columbia

North Vancouver, British Columbia

Implementation and Maintenance *| Key Considerations:*

- Prepare an installation timeline and coordinate resources with Public Works staff;
- Determine whether installation will be completed in-house or through contracted staff;
- Determine staff resources for ongoing inspection and maintenance, particularly if temporary materials are used. The frequency of inspection will vary depending on street elements used, particularly if expected to be moved or damaged more often on busier streets;
- Determine staff resources required for temporary installations if daily set-up and take-down is required;
- Identify any community champions who may be able to assist with inspecting placement of temporary materials and adjust accordingly; and
- Communicate with stakeholders.

Monitoring and Evaluation *| Key Considerations:*

- Set up a monitoring and evaluation plan based on the goals and measures of success developed during the Planning phase;
- Collect data before and during the installation, including volumes of motor vehicles, pedestrians, and cyclists;
- Conduct on-site observations to monitor user behaviour;
- Conduct surveys of directly impacted stakeholders (residents and/or businesses) and users;
- Modify and adapt the design accordingly, and proceed back to the Planning phase if changes are required; and
- Communicate with stakeholders.

Spotlight: Monitoring New Facilities

The City of Vancouver and the Vancouver Board of Parks and Recreation have been monitoring user volumes along two of its COVID-19 road space reallocation interventions: Stanley Park Drive and Beach Avenue (see **Section 5** for details). The Parks Board recently released initial data for Stanley Park Drive, with a one-month snapshot comparing bicycle volumes through Stanley Park between 2019 and 2020. The data shows that on average, daily average bicycle volumes increased from 3,000 bikes per day in 2019 to over 5,300 bikes per day in 2020 during the COVID-19 road closures. Similar statistics from the City of Vancouver showed that daily volumes on Beach Avenue have at times exceeded those along the popular Seaside Greenway and on Burrard Bridge, which has been touted by the City as the busiest bicycle lane in North America.

Vancouver, British Columbia

Vancouver, British Columbia

Source: Vancouver Board of Parks and Recreation (May 11, 2020)

Feedback on social media and automated counters are two examples of monitoring techniques cities have used. Automated counters can be moved around and used for multiple projects over time, providing a reasonable investment for transportation departments as part of their data and analysis units. “Watch your speed” signs offer an additional opportunity to collect information about motorized vehicle speeds.

4.3 Evolution of Materials

Temporary (Rapid Response)

Initial rapid responses to rebalancing streets can take a light, quick, and cheap approach, using temporary traffic management devices to provide physical separation that are easy to procure, set up, and move around as needed. This includes low cost, basic materials, often with low durability – similar to what are used for construction management.

Typical types of temporary physical separation include non-continuous barriers such as traffic cones, construction markers, free-standing delineator posts, and flexible drums, as well as continuous barriers such as barricades, fences, and jersey barriers. Barriers should be provided along with warning signage both at the starting point along the street where road users need to do something new or different, and continuously along the new edge of the motor vehicle lanes.

Non-Continuous Physical Separation

Vancouver, British Columbia

Berlin, Germany | Credit: @PBroytman

New York City | Credit: @forniculum

Continuous Physical Separation

Lambeth, London | Credit: @CarParkAt

Denver, Colorado | Credit: @rightlegpegged

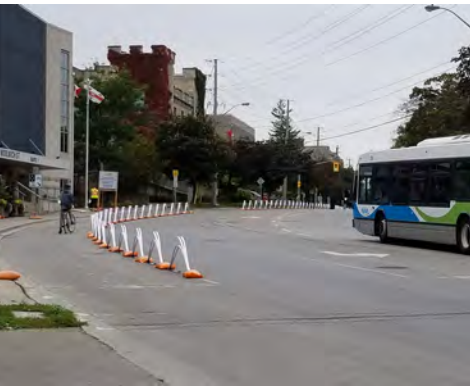
Washington, DC | Credit @jen_keesmaat

Informational signage should also be provided and can be made from a range of quick printed materials, while construction signs (e.g. TC-5/6/7) and other road signs can direct traffic operations. Pavement markings can consist of temporary paint, traffic tape, and even chalk for rapid, short-term applications.

Interim (Recovery)

As projects move from temporary rapid response measures to interim longer-term treatments, the materials can be improved in functionality, durability, and aesthetic appeal. Interim materials include semi-permanent materials that may be physically attached to the ground and require additional design, construction, and costs, but do not require full street reconstruction and remain lower cost than permanent materials. Interim materials that provide physical separation include curbs, installed delineator posts, landscaped planters, or concrete barriers. Interim surfaces and creative pavement markings can also be used to add to aesthetics with an eye to placemaking.

Physical Separation

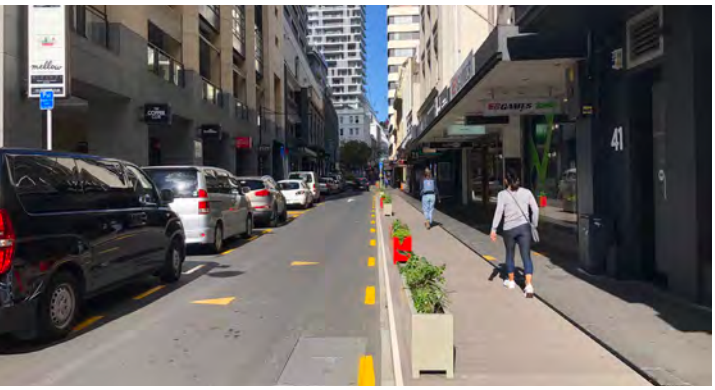


Guelph, Ontario | Credit: City of Guelph

Abbotsford, British Columbia

Toronto, Ontario | Credit: TheTrolleyPole via Wikimedia

Temporary Surfaces | Creative Pavement Markings



Auckland, New Zealand | Credit: @pv_reynolds

Vancouver, British Columbia

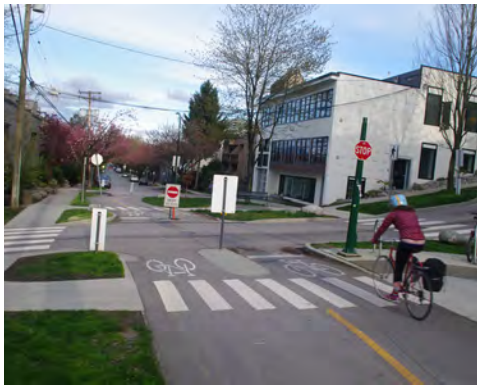
Permanent (Resiliency)

Over the longterm, higher cost, permanent materials that are fixed in place and provide greater function and aesthetics. These materials come at a high capital cost, require professional installation, and may involve reconstructing the streetscape to adjust curbs, drainage, and other elements. They can include additional placemaking elements such as landscaping and street furniture.

Protected Bicycle Lanes

Edmonton, Alberta

Vancouver, British Columbia



Vancouver, British Columbia

Permanent Parklet | Permanent Shared Street

Victoria, British Columbia

Seattle, Washington | Credit: Nick Falbo (Flickr)

Evolving Materials and Responses

The type of materials used can evolved based on the stage of response, ranging from temporary traffic management devices as an initial rapid response to more interim and permanent materials over time.

Auckland, New Zealand | Credit: @davidMcKenna18

4.4 Operational Considerations

Accessibility

- All temporary road rebalancing measures should include universal design considerations, ensuring that people of all ages and abilities are able to safely navigate the new environment. Designers should consider a full range of potential impairments or limitations, including mobility, vision, hearing, strength and dexterity, and comprehension, and follow accessibility design guidelines produced by local and regional governments.
- Avoid creating additional tripping hazards such as elements that jut out at the base and other navigation challenges such as designs that trap the base of a white cane used by the visually-impaired, or elements at head or eye level people could walk into.
- Consider those who require motor vehicles and accessible parking spaces to reach essential destinations. Where parking is removed, ensure there remains curbside access for people with reduced mobility.
- Temporary ramps should be used to provide access to street closures (pedestrian lanes, queuing areas, etc.).
- The width and turning radius of mobility devices such as manual and electric wheelchairs as well as electric mobility scooters should be considered in the design of temporary spaces.
- Navigation cues, including detectable warning surfaces and audible navigation cues, can be provided for people with reduced vision. Consider accessibility needs when planning for pedestrian push button automation.
- Wayfinding and signage should be simple and consistent, ensuring maximum comprehension.

North Vancouver, British Columbia

Vancouver, British Columbia

Traffic Operations

- The change in traffic patterns, including a significant reduction in the amount of transit and motor vehicle use in many cities across Canada, has significant implications for traffic operations such as signal timing and activation. With many fewer vehicles on the street, police agencies have noted a significant increase in speeding and stunt driving , which puts vulnerable road users at the most risk.
- The automation of pedestrian pushbuttons should consider accessibility needs (e.g. audible pedestrian signals) as well as the potential delay to both motorists and pedestrians. In some cases, pedestrian push buttons may actually decrease pedestrian delay.
- Street and lane closures should consider impacts on motor vehicle traffic patterns and should avoid rerouting vehicles through residential areas. Clear detour plans and signage should be provided to direct vehicles to the most efficient vehicle routes.
- Notice about changes to traffic or transit operations should be communicated in advance (e.g. press releases, websites) to ensure the public can plan accordingly.

Transit

- Reallocating lanes on streets with transit routes comes with a number of complications, such as access to transit and transit flow. Where possible, avoid transit routes and reallocate space on adjacent streets. Consider rerouting transit routes to adjacent streets where there is a demonstrated need for greater active transportation facilities along a certain corridor.
- In some cases, providing temporary pedestrian and/or bicycle facilities parallel to transit routes can help to supplement transit networks that are running below capacity or have suspended routes, ensuring that people who can no longer use transit can still reach their destination.
- Where the curbside lane has been reallocated for bicycle lanes, parklets, queuing space, etc., pop-up raised transit stops can be used to provide accessible bus stops away from the curb. Temporary transit stops can be constructed out of a variety of materials, including simple wooden designs, plastic, rubber, and metal.

Halifax, Nova Scotia

North Vancouver, British Columbia

Goods Movement

- In addition to providing additional spaces for quick pick-up and drop-off in front of businesses (see **Section 5**), regular goods movement (loading and unloading) and access for services (e.g. repairs, cleaning, etc.) must continue to be accommodated where the curbside lane is reallocated.

Street Maintenance

- Street sweeping and winter maintenance should be considered in the design of temporary road rebalancing strategies, especially those that are designed to last into the fall and winter months.
- Consideration should be given for existing maintenance practices and the size/ maneuverability of maintenance vehicles, especially where materials such as bollards are fixed in place.

Boston, Massachusetts | Credit: @Andytuckerman

5. Toolbox and Design Guidance

This section introduces ten response treatments that cities and communities can consider to rebalance streets, including:

1. Full Street Closures
2. Shared Streets
3. Temporary Pedestrian Lanes
4. Temporary Bicycle Lanes
5. One-Way Multi-Use Pathways
6. Separate Bicycle and Pedestrian Pathways
7. Curbside Queuing Areas
8. Priority Loading Areas
9. Pedestrian Pushbutton Automation
10. Temporary Patios and Parklets

Each response treatment includes a description of the treatment, the applicable context, and general design guidance, along with a summary of key considerations for design, signage and pavement markings, implementation and maintenance, and monitoring and evaluation.

There is a range of materials that can be considered based on whether the project will be installed using temporary, interim, or permanent materials. The figures in this section generally illustrate temporary materials, but as noted previously, these treatments can evolve to interim or permanent materials depending on the response strategy.

Vancouver, British Columbia

5.1 Full Street Closures

Description

Closure of the full street width to all motor vehicle traffic. Limited access for emergency vehicles and maintenance vehicles may be maintained as required. The full width of the street can be reallocated to active forms of transportation.

Applicable Context

Applicable on major streets with limited intersections and access requirements, such as streets through or alongside parks and waterfronts. Also applicable on local streets and for short segments (such as one or two blocks) on major streets in urban contexts.

Design Considerations

- Multiple light or heavy barricades should be placed at the start of the closure and at all intersecting streets.
- Barricades should be positioned to block motor vehicles but to allow pedestrian and bicyclist access.
- Where cyclist speed is a major concern, especially around pedestrian crossings, temporary chicanes may be installed using jersey barriers and bollards.

Signage and Pavement Markings

- Signage:
  - Road Closed and Entry Prohibited signs should be affixed to barricades at the start of the closure and at all intersecting streets.
  - Shared Pathway sign or other local custom shared bicycle and/or pedestrian space sign should be used.

  - Turn Control, Lane Designation, and/or Detour signs may be required to direct traffic in advance of the closure.
  - Where bicycle yielding is a concern, Yield to Pedestrians signs may be used at crosswalks within the street closure area.
  - Temporary wayfinding signage may be considered.
  - Custom informational signage related to closures, detours, and physical distancing practices may be used.
  - Where limited motor vehicle access is maintained (e.g. Stanley Park, Vancouver), custom signage can be used to set temporary speed limits (15 km/h) and direct behaviour (turn on hazard lights, stay left, and share the road).
- Pavement markings
  - Not typically required.

Implementation and Maintenance

- Street closures should be communicated to impacted stakeholders (such as residents or businesses) in advance to ensure compliance.
- Detours must be provided for motor vehicles.
- Regular inspection should occur to ensure that temporary traffic control devices remain in place.

Spotlight: Full Street Closure

Bogotá has reallocated 76 km of streets away from motor vehicles to provide space for walking and cycling. This includes expanding the Ciclovía street closures from Sunday to the full week, in addition to adding other new bicycle lanes to the city's existing 550 km network.

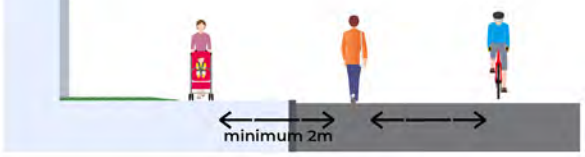
Vancouver has closed select roads and paths to limit large gatherings and help residents exercise while practicing physical distancing. Stanley Park was closed to all vehicles, with some exceptions for emergency services and key tenants. The road was reallocated to cyclists, while the bicycle path on the Seawall as reallocated to pedestrians.

Victoria has also closed streets in Beacon Hill Park and has reallocated road space from on-street parking to create on-street pedestrian lanes in some neighbourhoods.

FULL STREET CLOSURES

BEFORE

AFTER



KEY FEATURES

Road barrier or other similar devices

ROAD CLOSED

Road closure sign

Denver, Colorado | Credit: @rightlegpegged

5.2 Shared Streets

Description

Closure of the full street width to through or non-local motor vehicle traffic. Access is maintained for local residents, deliveries, emergency vehicles, and other local-serving traffic. Restricting motor vehicle traffic creates a low speed and low volume shared space for all modes of transportation that is comfortable for people of all ages and abilities. In some cities, drivers are expected to yield to other users traveling or crossing a shared street.

Applicable Context

Applicable on local streets. Traffic volumes should be less than 500 vehicles per day and traffic speeds should be 30 km/h or less. This same intervention could also be implemented on higher traffic streets.

Design Considerations

- One or more light or heavy barricades should be placed at the start of the closure and at major intersections.
- Barricades should be positioned in the centre of the roadway, leaving space on either side to allow motor vehicle access.

Signage and Pavement Markings

- Signage:
  - Large custom Local Access Only or Road Closed to Through Traffic signs affixed to barricades at the start of the closure and at major intersections.
  - Smaller custom Local Access Only or Road Closed to Through Traffic signs can be affixed to stop signs at minor intersections without barricades.
  - Signage indicating the end of the shared street should be affixed to the back of the barricades to warn people they are leaving the shared environment.
  - Custom informational signage related to closures, detours, and physical distancing practices may be used, emphasizing the need to “Slow Down” or adhere to reduced speed limits.

  - Turn Control, Lane Designation, and Detour signs may be required to direct traffic outside of the shared street.
  - Temporary wayfinding signage may be considered.
  - Custom informational signage related to closures, detours, and physical distancing practices may be used.
- Pavement Markings:
  - Not typically required.

Implementation and Maintenance

- Partial street closures should be communicated to impacted stakeholders (such as residents or businesses) in advance to ensure compliance. It is important to make users aware that the street is still open to limited motor vehicle traffic, and that caution is required.
- Shared streets may be in effect at all times or during designated times (e.g. Winnipeg) to allow partial motor vehicle access; however, temporal applications are labour intensive if materials need to be set up and taken down daily. Alternatively, the materials can be installed at all times with no enforcement outside of the designated time periods.
- Regular inspection should occur to ensure that temporary traffic control devices remain in place.

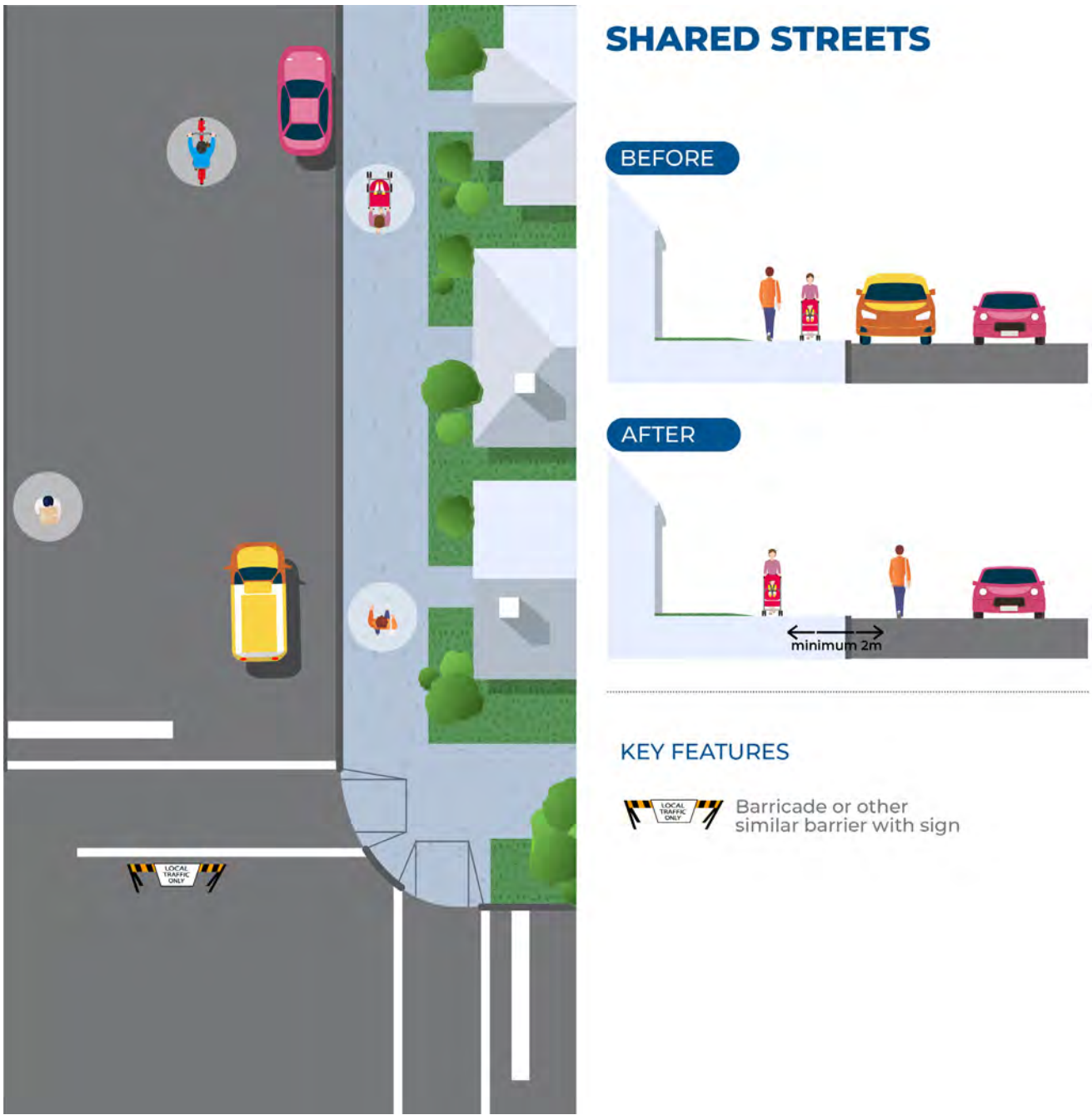
Spotlight on Shared Streets

Brussels will be transforming its entire city core into shared streets, creating a priority zone for pedestrians and cyclists. Speed limits will be reduced to 20km/h and motorists will be required to yield to active transportation users.

Oakland's Slow Streets program has made space for active transportation by closing all existing and proposed neighbourhood bike routes (nearly 10% of the city's streets) to through traffic to support safe physical activity by creating more space for physical distancing. The program uses traffic cones, signage, and barricades to restrict through traffic and allow people to safely walk, roll, and cycle all across the city.

San Francisco has developed a new Slow Street program designed to limit through traffic on certain residential streets and allow them to be used more as a shared space for walking, rolling, and cycling. Twelve corridors have been identified as the first phase of Slow Streets and were selected on lower-traffic residential streets that connect residents to essential services in the absence of scaled back transit services. The Slow Streets are implemented using tools such as traffic signs and cones to deliver through traffic and slow down overall speeds.

Winnipeg has restricted motor vehicle traffic to one block only to make walking and cycling more comfortable. The first four corridors were part of the City's existing Sunday Street Closures and were implemented with barricades and signage at major cross-streets. The City is now implementing the treatment on several additional corridors with restrictions in place daily from 8:00am to 8:00pm.



Some shared streets incorporate winding features known as “chicanes” to calm traffic and make sure drivers stay alert.

Victoria, British Columbia | Credit: Hailey Steiger

5.3 Temporary Pedestrian Lanes

Description

Removal of on-street parking or closure of a motor vehicle travel lane to provide additional space for people walking.

Applicable Context

Applicable in urban areas with sidewalks that are narrow and/or crowded, making physical distancing a challenge. Corridor selection may consider residential density, land use, user volume, on-street parking demand, and access to open space for exercise. Planning should include an equity lens to ensure all people and areas of the community are considered.

Design Considerations

- Width of pedestrian lane determined by width of existing on-street parking/ motor vehicle travel lane.
- Traffic cones, construction markers, flexible delineator posts, or other similar light devices should be used to delineate the space. Taller/heavier/fixed devices may be required on roadways with high motor vehicle speeds/volumes.
- Provide a long taper at the leading edge of the lane using a series of traffic cones/delineators.
- Flexible drums or other similar heavy devices should be used at the beginning of the lane to reinforce the closure. Flexible drums should be spaced to allow access for people using mobility aids.
- Temporary curb ramps may be considered mid-block to provide accessibility. Ramps can be fixed in place with a traction surface. Ramp slope should not exceed 8%.
- Where mid-block motor vehicle access is required (e.g. driveways/laneways),

traffic cones should be arranged to allow motor vehicle entrance without impeding pedestrians.

Signage and Pavement Markings

- Signage:
  - Lane Closure Taper sign should be placed at the beginning of the pedestrian lane.
  - Temporary Lane Closed Ahead sign may be installed in advance of the closure, but is not necessary for a full-time parking lane.
  - Custom informational signage related to closures, detours, and physical distancing practices may be used.
  - Temporary No Parking signs may be attached to parking meters.
- Pavement Markings:
  - Pedestrian stencil and optional text may be placed at entrances of pedestrian lane and repeated at regular intervals.
  - Markings may be installed using a temporary decal made up of durable material suitable for longer-term installation.

Implementation and Maintenance

- A phased implementation approach can begin with temporary traffic control devices and but switch to flexible delineator posts, temporary fencing, jersey barriers, or other more permanent devices.
- Regular inspection should occur to ensure that temporary traffic control devices remain in place.
- Fixed or heavier traffic control devices such as jersey barriers or flexible bollards may help to reduce required maintenance.

Spotlight on Temporary Pedestrian Lanes

Auckland is creating temporary walkways as temporary measures to provide the ability to adapt available space on the road to reflect their use by Aucklanders during different alert levels. On-street parking on one side of the road has been removed to create physical space.

Victoria has created temporary pedestrian lanes by converting space within the roadway and reallocating it to pedestrians in the James Bay neighbourhood. The city is focusing on creating pedestrian temporary pedestrian lanes in areas of high pedestrian activity.

TEMPORARY **PEDESTRIAN** LANES

BEFORE

AFTER

KEY FEATURES

- Traffic delineators or other similar devices
- Flexible drums or other similar devices
- Lane closure and other warning signage
- Optional pedestrian stencil and text

Brampton, Ontario | Credit: @patrickbrownon

5.4 Temporary Bicycle Lanes

Description

Removal of on-street parking or closure of a motor vehicle travel lane to provide additional space for people cycling.

Applicable Context

Applicable in urban, suburban, or rural areas where bicycle facilities are required to provide important connections to destinations such as commercial areas, major employment areas, parks, and/or multi-use pathways. They are also applicable on roadways adjacent or close to multi-use pathways that have been converted to pedestrian only pathways, or where existing bi-directional bicycle facilities are not wide enough to accommodate physical distancing. They are also applicable along or adjacent to key public transit corridors where services have had reduced capacity.

Design Considerations

- Width of bicycle lane determined by width of existing on-street parking/motor vehicle travel lane.
- Traffic cones, construction markers, flexible drums, flexible delineator posts, or other similar light devices should be used to delineate the space. Taller/heavier/fixed devices may be required on roadways with high motor vehicle speeds/volumes.
- Provide a long taper at the leading edge of the lane using a series of traffic cones/delineators.
- Flexible drums or other similar heavy devices should be used at the beginning of the lane to reinforce the closure. Flexible drums should be spaced to allow access for people cycling.

- Where mid-block motor vehicle access is required (e.g. driveways/laneways), traffic cones should be arranged to allow motor vehicle entrance without impeding pedestrians.
- If on-street parking must be maintained, the bicycle lane should be placed adjacent to the curb and a travel lane should be reallocated to parking. Buffer space should be provided between the parking lane and bicycle lane to avoid 'dooring'.

Signage and Pavement Markings

- Signage:
  - Lane Closure Taper sign should be placed at the beginning of the bicycle lane.
  - Temporary Lane Closed Ahead sign may be installed in advance of the closure, but is not necessary for a full-time parking lane.
  - Bicycle Route sign or Reserved Bicycle Lane sign may be used.
  - Where bicycle yielding is a concern, Yield to Pedestrians signs may be used at any crosswalks.
  - Custom informational signage related to closures, detours, and physical distancing practices may be used.
  - Temporary no parking signs may be attached to parking meters.
- Pavement Markings:
  - Bicycle stencil may be placed at entrances of bicycle lane and repeated at regular intervals.
  - Markings may be installed using a temporary decal made up of durable material suitable for longer-term installation.
  - Temporary longitudinal pavement markings may be used to delineate the bicycle lane, using paint or tape (e.g. Berlin). Markings should be solid along the corridor and dashed where motor vehicles are permitted to cross (e.g. driveway/laneway accesses).
  - Temporary crossbike markings may be placed through intersections.

Implementation and Maintenance

- A phased implementation approach can begin with traffic cones and switch to flexible delineators, jersey barriers, or other more permanent devices.
- Regular inspection should occur to ensure that temporary traffic control devices remain in place.
- Fixed or heavier traffic control devices such as jersey barriers or flexible bollards may help to reduce required maintenance.

Spotlight on Temporary Bicycle Lanes

Berlin's Friedrichshain-Berlin's Friedrichshain-Kreuzberg district has installed a network of temporary bicycle lanes in just ten days using paint, traffic tape, and barriers, resulting in a more technical application than just using traffic cones. The City has also released a design guide for implementing temporary bicycle lanes, available in German, English, and French.

Lima will install a network of over 300 km of temporary emergency bicycle lanes, with plans to later replace them with permanent structures. This will double the City's bicycle network and will connect the existing network of bicycle facilities, creating a comprehensive network. The plan will be implemented in three phases, with the first stage seeing 142 km installed.

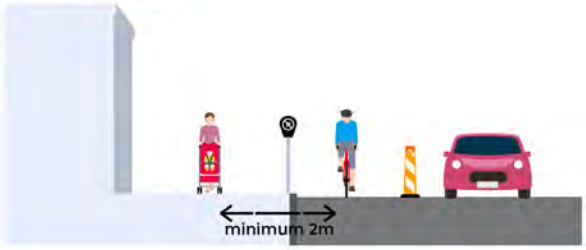
Brampton has installed interim bicycle lanes along the Vodden Street corridor to provide an alternative cycling option to recreational trails for residents and allow cyclists to maintain physical distancing. The bicycle lanes were identified as an important connection in the City's Active Transportation Master Plan and were installed by temporarily closing off curb lanes to vehicular traffic.

Mississauga has installed temporary lanes for cycling, walking and jogging on King Street and Glen Erin Drive to promote physical activity and provide local residents with connections to key essential destinations such as grocery stores in a way that allows for physical distancing. These lanes are referred to as active transportation lanes. Criteria for selecting lanes include areas with higher density, road corridors parallel to trails, areas with lower access to parks or lower incomes, and connections to essential destinations.

TEMPORARY **BICYCLE** LANES

BEFORE

AFTER



KEY FEATURES

- Traffic delineators or other similar devices
- Flexible drums or other similar devices
- Lane closure and other warning signage
- Optional bicycle stencil and text

Regina, Saskatchewan | Credit: Regina Leader Post

5.5 One-Way Multi-Use Pathways

Description

Conversion of an existing two-way off-street pathway to one-way operation to encourage physical distancing.

Applicable Context

Applicable where pathway width is insufficient for two-way operation while allowing safe physical distancing. Can be applied to multi-use pathways, walking paths, or off-street bicycle paths. This treatment should be applied only to loops, ensuring that people are able to return to their starting point.

Design Considerations

- Signage should be placed at typical pathway entrance points and junctions.
- Signage should be installed in a conspicuous place to raise awareness but should not block the pathway or reduce pathway width.

Signage and Pavement Markings

- Signage:
  - Custom temporary wayfinding signage should show pathway direction (using both directional arrows and a map) and provide a brief explanation for the change (e.g. “to support physical distancing practices, this pathway is now one-way”).
  - Custom signage should provide the total loop distance and remind users that they cannot reverse direction part way (e.g. “with one-way traffic on the pathways, you will need to complete the entire loop).
  - Custom informational signage related to physical distancing practices may be used.

- Pavement Markings:
  - Temporary one-way stencils or arrows may be considered.
  - Markings may be installed using a temporary decal made up of durable material suitable for longer-term installation.

Implementation and Maintenance

- Signage should be installed all at once to ensure users at all entrance points are aware of new pathway operation.
- Signage should be installed at regular intervals along the pathway.
- Positive communication through the use of Ambassadors (e.g. City of North Vancouver) or enforcement may be considered to ensure adherence to one-way operation.

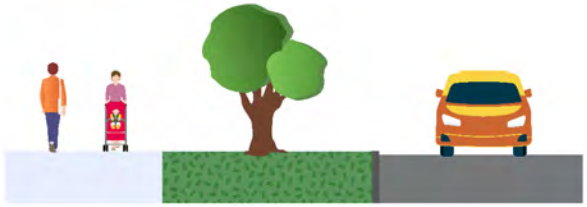
Spotlight on One-Way Multi-Use Pathways

Regina has restricted foot and bicycle traffic around Wascana Lake to one-way to encourage physical distancing. The pathway was not wide enough to accommodate two-way multi-use operation, and was converted to one-way for pedestrians and cyclists with directional signage on the path as well as information and maps in parking lots.

Kelowna has changed the Apex Trail at Knox Mountain Park to one-way circulation to support physical distancing between pedestrians and cyclists while allowing all users to still use the pathway. Directional signage was provided to guide trail users.

ONE-WAY **MULTI-USE PATHWAYS**

BEFORE



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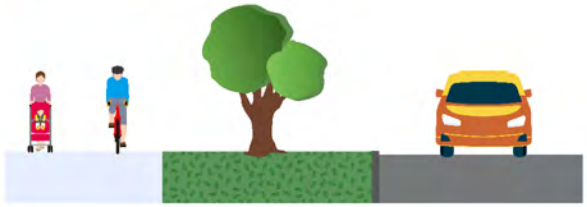


KEY FEATURES

- Optional pedestrian lane stencil and text
- Optional cycling lane stencil

North Vancouver, British Columbia | Credit: @jordanback

5.6 Separate Bicycle and Pedestrian Pathways

Description

Conversion of an existing two-way multi-use pathway to pedestrian-only usage and diverting bicycle traffic to an alternate route adjacent or close to the pathway.

Applicable Context

Applicable where pathway width is insufficient for two-way multi-use operation while allowing safe physical distancing, and where a safe alternative route can be created for bicycles adjacent or close to the pathway (e.g. by creating a temporary bicycle lane, full street closure, or shared street as described above). The alternate bicycle route should provide approximately the same levels of access, directness, safety, and comfort as the original pathway.

Design Considerations

- Signage should be placed at typical pathway entrance points and junctions.
- Signage should be installed in a conspicuous place to raise awareness but should not block the pathway or reduce pathway width.
- Design considerations for creating an alternate cycling route can be found above (see: Temporary Bicycle Lanes).

Signage and Pavement Markings

- Signage:
  - Custom temporary wayfinding signage should show new pathway operation and direct cyclists to the alternate route (using both directional arrows and a map).
  - Cycling Prohibited sign signage paired with Pedestrian Permitted sign can be used.

  - Any existing bicycle route signage may be temporarily covered (using a garbage bag or other temporary materials) to reinforce the pedestrian-only space.
  - Custom informational signage related to physical distancing practices may be used.
- Pavement Markings:
  - Temporary pedestrian only pavement markings may be considered.
  - Markings may be installed using a temporary decal made up of durable material suitable for longer-term installation.

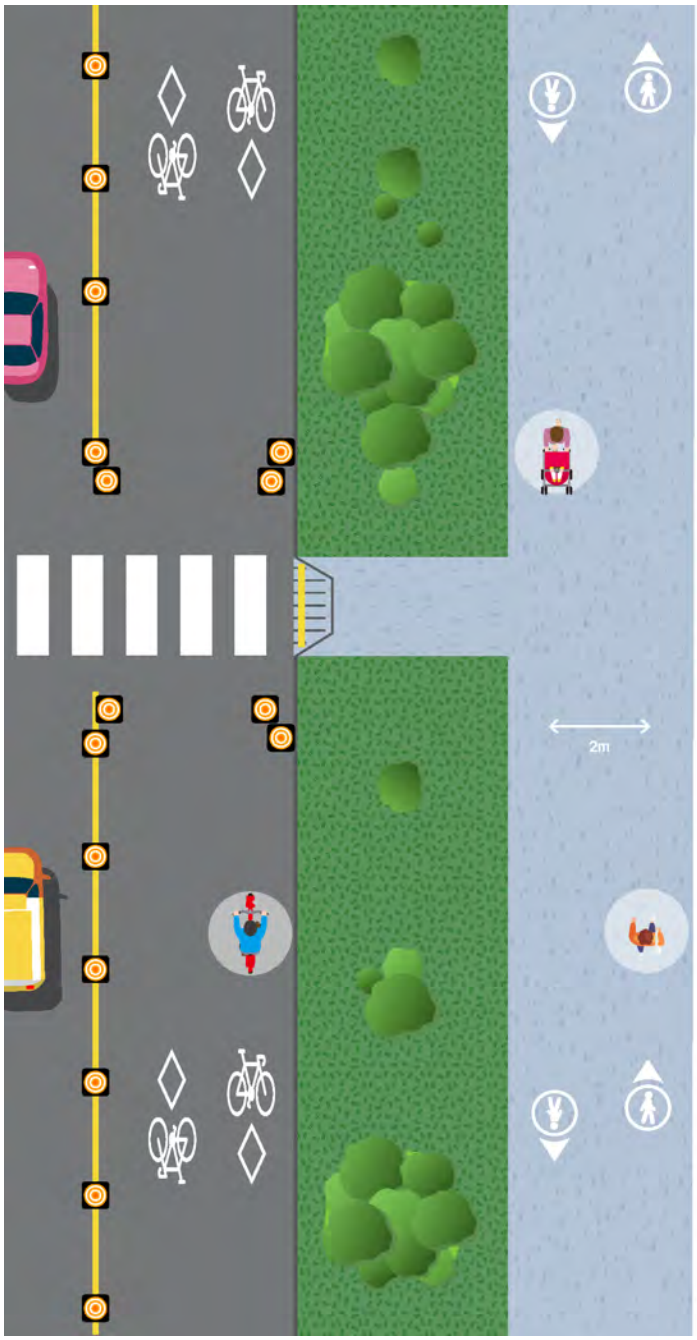
Implementation and Maintenance

- Signage should be installed all at once to ensure users at all entrance points are aware of the new pathway operation.
- Signage should be installed at regular intervals along the pathway.
- Positive communication through the use of Ambassadors (e.g. City of North Vancouver) or enforcement may be considered to reroute cyclists when prohibition is first implemented.

Spotlight on Separate Pedestrian and Bicycle Pathways

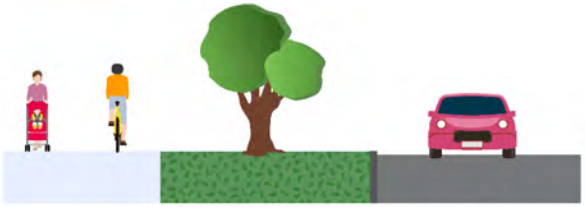
Vancouver has closed eastbound lanes to motor vehicles on Beach Avenue to create a temporary on-street walking and cycling path.

The **City of North Vancouver** has made several changes to provide a comfortable experience for pedestrians and to support physical distancing guidelines, including creating temporary two-way bicycle lanes on Grand Boulevard adjacent to a park along with conversion of park pathways to pedestrian only. The City also has City Park Ambassadors monitoring parks and trails everyday to ensure people are following public health guidelines.



SEPARATE **BICYCLE AND PEDESTRIAN PATHWAYS**

BEFORE



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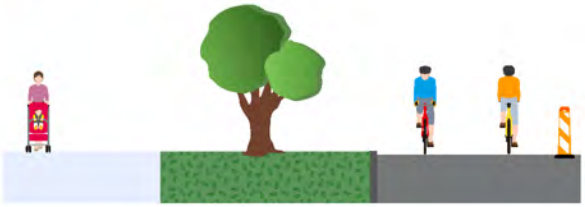


KEY FEATURES

- Traffic delineators or other similar devices
- Optional pedestrian lane stencil and text
- Optional cycling lane stencil

Toronto, Ontario | Credit: @myonlinelifenow)

5.7 Curbside Queuing Areas

Description

Creation of additional space for pedestrian queuing to access businesses, services, and other institutions by reallocating the curbside parking or travel lane.

Applicable Context

Applicable in urban areas with sidewalks that are narrow and/or crowded, making physical distancing a challenge. Planning should be done in coordination with adjacent businesses / institutions and users (e.g., Canada Post or commercial couriers) to identify areas of need and barriers to application. Example applications include outside grocery stores, pharmacies, restaurants, and other services where queues are expected, as well as retail corridors along commercial streets where multiple businesses have opened. Priority loading zones and curbside queuing areas can be paired together to provide multi-modal curbside access.

Design Considerations

- Curbside queuing lane should be installed directly outside of (or as close as possible) to the site it is intended to serve.
- Width of curbside lane determined by width of existing on-street parking/motor vehicle travel lane.
- Traffic cones, construction markers, flexible delineator posts, or other similar light devices should be used to delineate the space. Taller/heavier/fixed devices may be required on roadways with high motor vehicle speeds/volumes.
- Provide a long taper at the leading edge of the lane using a series of traffic cones / delineators.
- Flexible drums or other similar heavy devices should be used at the beginning of the lane to reinforce the closure. Flexible drums should be spaced to allow access for people using mobility aids.

- Temporary curb ramps may be considered mid-block to provide accessibility. Ramps can be fixed in place with a traction surface and should not exceed 8% slope.
- Curbside lane should not extend across driveways or laneways that require motor vehicle access.
- Length of curbside queuing area will depend on the number of businesses.

Signage and Pavement Markings

- Signage:
  - Lane Closure Taper sign should be placed at the beginning of the curbside lane.
  - Temporary Lane Closed Ahead sign may be installed in advance of the closure, but is not necessary for a full-time parking lane.
  - Custom informational signage explaining the purpose of the curbside space (e.g. designated space for queuing) and reminding users of physical distancing practices may be used.
  - Temporary no parking signs may be attached to parking meters.
- Pavement Markings:
  - Not typically required.

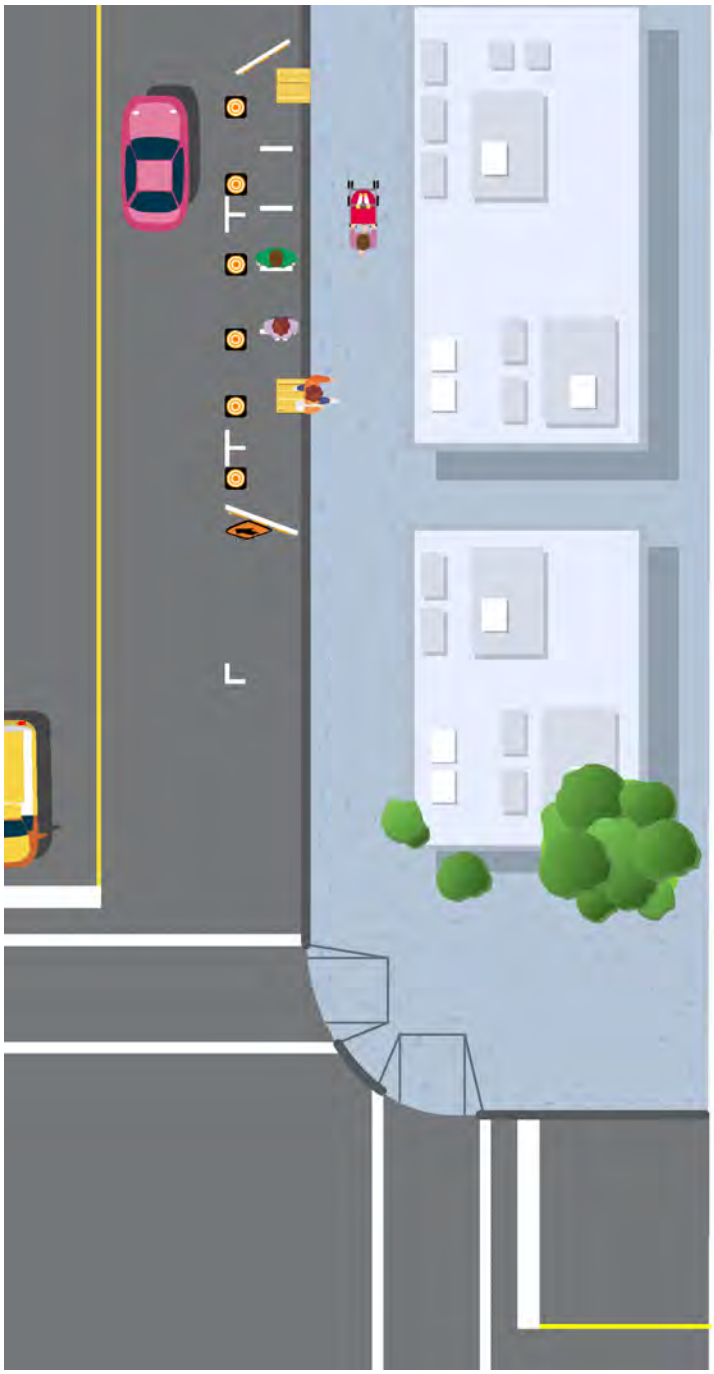
Implementation and Maintenance

- A phased implementation approach can begin with temporary traffic control devices and but switch to flexible delineator posts, temporary fencing, jersey barriers, or other more permanent devices.
- Regular inspection should occur to ensure that temporary traffic control devices remain in place.
- Fixed or heavier traffic control devices such as jersey barriers or flexible bollards may help to reduce required maintenance.

Spotlight on Curbside Queuing Areas

Toronto has launched the CurbTO Plan to address lineups and crowded sidewalks. The City has identified hotspots where there are lineups or pinch points on sidewalks that need to be addressed. The program will address 100 hotspot locations around the city, with the first ten being implemented on busy retail main streets.

Vancouver has installed its pedestrian waiting areas, known as Room to Queue, on several commercial corridors outside essential businesses.



CURBSIDE **QUEING AREAS**

BEFORE

AFTER

KEY FEATURES

- Traffic delineators or other similar devices
- Flexible drums or other similar devices
- Lane closure and other warning signage
- Accessible ramps

Seattle, Washington | Credit: @EricJensenTV / Twitter

5.8 Priority Loading Areas

Description

Creation of additional space for accessing businesses, services, and other institutions by reallocating the curbside parking or travel lane for priority quick pick-up/drop-off zones for motor vehicles (private or commercial), geared towards contactless curbside pickup (i.e. fulfilling online orders). Again, planning should be done in coordination with adjacent businesses / institutions and users (e.g., Canada Post or commercial couriers) to identify areas of need and barriers to application.

Applicable Context

Applicable in urban areas adjacent businesses and restaurants which have a high concentration of pick-up and drop-off requirements. Priority loading zones and curbside queuing lanes can be paired together to provide multi-modal curbside access.

Design Considerations

- Can replace one or more on-street parking spaces, as needed.
- Priority loading zones can be installed on either end of the curbside queuing lane, or can be installed independent of a queuing lane.

Signage and Pavement Markings

- Signage:
  - Temporary signs placed at on-street parking stalls to indicate pick-up and drop-off only.
  - Temporary no parking signs may be attached to parking meters.
- Pavement Markings:
  - Not typically required.

Implementation and Maintenance

- Coordination with adjacent businesses is important to ensure these zones are located in areas of high demand.
- Regular inspection should occur to ensure that signage remains in place.

Spotlight on Priority Loading Areas

Toronto has launched the CurbTO Plan to address lineups and crowded sidewalks. In addition to curb lane pedestrian zones, this program also includes temporary parking pick-up zones to drivers and delivery agents to park for up to ten minutes.

Vancouver has installed its Room to Queue on several commercial corridors outside essential businesses, and Priority Loading Zones for quick pick-up and drop-off.

Seattle is converting empty parking spaces into food short-term pick-up zones for temporary takeout and delivery services as well as contactless drive-thru options. Loading zone signs have been placed at on-street parking stalls near restaurants and are visible on posts and easels.

Sydney, Australia | Credit: @kent_institute

5.9 Pedestrian Pushbutton Automation

Description

Conversion of pedestrian actuated signals to automated signal timing so that pushing a button is no longer required to cross the street. Signal timing can also be adjusted to avoid pedestrian crowing and queuing at signalized intersections.

Applicable Context

Applicable at any signalized intersection with pedestrian push buttons, particularly in areas of high pedestrian activity.

Design Considerations

- Pushbutton should be covered with instructional signage to prevent use.
- Signal phase should be timed appropriately to ensure pedestrians can cross the street safely, and to avoid pedestrians crowding while waiting to cross the street.
- Consider noise impacts of audible signals, including limiting sound activation to daytime.

Signage and Pavement Markings

- Cover existing pushbutton and any associated signage with custom sign informing user that signal is now automated (e.g. Do not push pedestrian signal button; pedestrian walk signal is automatic).
- No pavement markings are required.

Implementation and Maintenance

- Notify residents through news release.

Spotlight on Pedestrian Pushbutton Automation

The **City of North Vancouver** has converted pedestrian activated signals to automated signals on busy commercial areas, and temporarily removing on-street parking at key locations to allow more space between business lineups and pedestrians.

Victoria has converted pedestrian activated pushbuttons to 'no-touch pedestrian signals' at 25 intersections. People walking and rolling no longer need to push a button to get the walk signal at selected intersections near high-activity areas like grocery stores, pharmacies, and greenways connecting parks and recreation areas. The City has also closed streets in Beacon Hill Park and has reallocated road space from on-street parking to create on-street pedestrian lanes in some neighbourhoods.

Hartford, CT | Credit: Anthony Cherolis, CTNewJunkie

City of North Vancouver | Credit: @KostelecPlan

Los Angeles, California | Credit: @awalkerinLA

Toronto, Ontario | Credit: Ed Kaiser / Postmedia

5.10 Temporary Patios and Parklets

Description

Creating temporary space for seating or gathering in a safe, physically distant manner by closing a curbside parking space, travel lane, or a larger stretch of roadway. Patios are typically associated with private businesses and can provide outdoor seating and/or space for business functions. These spaces can help to expand the potential customer base where businesses are reopening under physical distancing guidelines. Parklets are not typically associated with a specific business and are not restricted to customers, but can be used to provide informal seating to people eating take out food.

Applicable Context

Applicable in areas where public health guidelines dictate that it is appropriate to reopen certain businesses and additional space is required at these businesses to maintain physical distancing. Suitable in urban areas adjacent to businesses and institutions that attract people, and where public seating/gathering space is limited. Can be installed either on a main street or on a nearby side street with a full closure treatment, which can provide additional space for seating.

Design Considerations

- The design/content of the parklet or patio itself can be coordinated with the applicable business. Any seating should be designed and configured in a way that meets physical distancing requirements, allowing members of the same household to sit together while maintaining 2 metres from others.
- Consideration may be given to providing covers for shade and protection from wind / rain; however, adequate sightlines must be maintained for all road users.
- Width of parklet or patio determined by width of existing on-street parking/motor vehicle travel lane.
- Traffic cones, construction markers, flexible delineator posts, or other similar light devices should be used to create a continuous barrier to delineate the space. Taller/heavier/fixed devices may be required on roadways with high motor vehicle

speeds/volumes to protect patrons. If planters used as barriers, consider weighing them with cement blocks, or filled with soil and well-watered plants.

- Over time, more permanent delineation such as fencing or custom seating can help create a more comfortable space for pedestrians.
- Provide a long taper at the leading edge of the lane using a series of traffic cones / delineators.
- Flexible drums or other similar heavy devices should be used at the beginning of the lane to reinforce the closure. Flexible drums should be spaced to allow access for people using mobility aids.
- Temporary curb ramps may be considered mid-block to provide accessibility. Ramps can be fixed in place with a traction surface. Ramp slope should not exceed 8%.
- Parklets and patios should not extend across driveways or laneways that require motor vehicle access, nor should they inhibit storm water drainage.

Signage and Pavement Markings

- Signage:
  - Lane Closure Taper sign should be placed at the beginning of the parklet or patio.
  - Temporary Lane Closed Ahead sign may be installed in advance of the closure, but is not necessary for a full-time parking lane.
  - Custom informational signage explaining the purpose of the parklet or patio and reminding users of physical distancing practices may be used.
  - Temporary no parking signs may be attached to parking meters.
- Pavement Markings:
  - Not typically required.

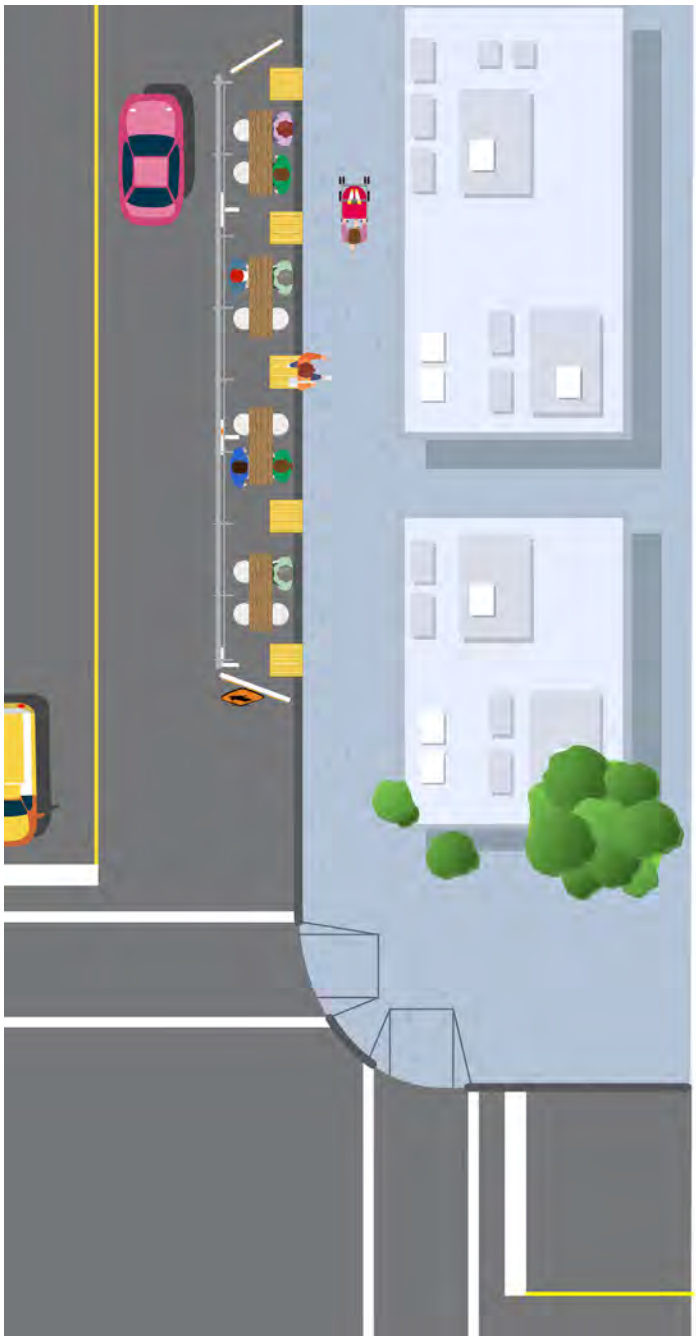
Implementation and Maintenance

- A phased implementation approach can begin with temporary traffic control devices and but switch to temporary fencing, custom seating that acts as a barricade to traffic, or other more permanent devices.
- Regular inspection should occur to ensure that temporary traffic control devices remain in place.
- Fixed or heavier traffic control devices such as jersey barriers or flexible bollards may help to reduce required maintenance.

Spotlight on Temporary Patios and Parklets

Winnipeg has followed the Province's next step in the COVID-19 recovery through the Restoring Safe Services Plan and has revised its temporary patio approval process to expedite the approval process for patios to enable restaurants to open while maintaining physical distancing guidelines.

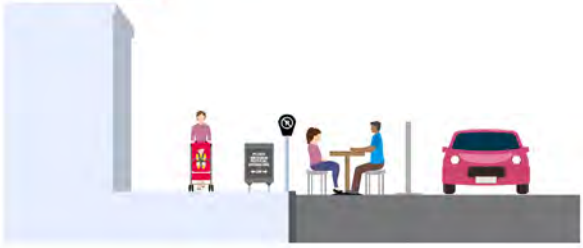
Vancouver has adjusted its permitting process to accept temporary patio permits and has committed to expediting the review of those applications.



TEMPORARY **PATIOS AND PARKLETS**

BEFORE

AFTER



KEY FEATURES

- Fencing, landscaping or other similar devices
- Flexible drums or other similar devices
- Lane closure and other warning signage
- Custom physical distancing signage
- Accessible ramps

Appendix A: Further Resources

Websites and Resources:

NACTO COVID-19 Transportation Response Center: https://nacto.org/program/covid19/

Institute of Transportation Engineers (ITE) COVID-19 Resources: https://www.ite.org/about-ite/covid-19-resources/?mc_cid=40e5909cf7&mc_eid=ad9fcccf6f

Transportation Association of Canada (TAC) COVID-19 Resources: https://www.tac-atc.ca/en/covid-19-resources

VeloCanadaBikes Bicycle and Pedestrian COVID-19 Response Database: https://docs.google.com/spreadsheets/d/19X2GhrVSv8_v5s3gfXvqt8rnM5iU99wpl51LbRYou2U/edit#gid=2054921953

National League of Cities and Bloomberg Philanthropies: COVID-19 Local Action Tracker: https://covid19.nlc.org/resources/covid-19-local-action-tracker/

Pedestrian and Bicycle Information Center – Local Actions to Support Walking and Cycling During Social Distancing Dataset: http://pedbikeinfo.org/resources/resources_details.cfm?id=5209

Smart Growth America: Complete Streets and Complete Communities Map: https://smartgrowthamerica.org/program/national-complete-streets-coalition/covid-19-how-is-your-community-responding/

Case Studies and Guidelines:

BC Ministry of Transportation & Infrastructure – Reallocation of Roadway Space for Physical Distancing: https://www2.gov.bc.ca/gov/content/transportation/transportation-infrastructure/engineering-standards-guidelines/traffic-engineering-safety/trafficmanagementmanual/reallocation-roadway-physical-distancing

NACTO Streets for Pandemic Response & Recovery: https://nacto.org/wp-content/uploads/2020/06/NACTO_Streets-for-Pandemic-Response-and-Recovery_2020-05-26.pdf?mc_cid=40e5909cf7&mc_eid=ad9fcccf6f

New Zealand Transport Authority – Innovating Streets COVID-19 Guidance: https://www.nzta.govt.nz/roads-and-rail/innovating-streets/covid-19-guidance/

Webinars:

Share the Road Cycling Coalition – Making Space for Physical Distancing: https://www.sharetheroad.ca/rebalancing-streets-p162633

Share the Road Cycling Coalition – Making Space: What, Where and How: https://drive.google.com/file/d/1hMNAGv_D3hmCpWkknWf5pNxuBaDnpZky/view

Share the Road Cycling Coalition – Making Space: Adapting to Change: https://drive.google.com/file/d/1yxQjbcNnQpFmtkBln2lHaxMmVoOUCTzr/view

Share the Road Cycling Coalition – Makin Space: Biking Out of the Pandemic: https://drive.google.com/file/d/1gvcEi4msxml9qAf1ZLsqQcMfrlV1Ub5U/view

NACTO – Slow, Shared, and Safe: Closing Streets to Thru-Traffic During the Coronavirus: https://vimeo.com/410872536

Smart Growth America – Complete Streets Responses to COVID-19: https://smartgrowthamerica.org/webinar-recap-complete-streets-responses-to-covid-19/


THE
URBAN
PROJECT
LE
PROJET
URBAIN

Saanich Visibility Campaign
A Draft Proposal for ATAC
Darrell Wick

Purpose: Promote active transportation safety through walker and cyclist visibility.

Overview:
Page 1 provides my personal inspiration for this campaign.
Page 2 provides initial thoughts related to possible different aspects of the campaign. If ATAC decides to proceed, these initial list items could be the focus of ATAC discussion.
Page 3 provides some background information on bicycle lighting.

Why a Visibility Campaign?
The impetus for this campaign arose while driving recently. I spotted a cyclists some distance ahead, travelling without a taillight and wearing dark clothing. As I got closer, the headlights of approaching cars made it impossible to see the cyclist. Being a narrow, two-lane road, I realized that not being able to see the cyclists, I needed to stop. If I hadn't previously spotted the cyclist, I would have continued, likely hitting him.

For pedestrians on our short winter days, it seems that fashionable walking attire is dark colours, the darker the better. Wearing dark clothing that absorbs light makes walkers essentially invisible, disappearing in the low light.

At the same time, too many cyclists ride with no reflectors, no lights and dark clothing. Part of the problem is that from the perspective of the walker or cyclists there is adequate illumination and automobiles, with their headlights, are easy to be seen, not realizing the reverse is not true.

And the problem isn't just at night. The very low winter sun shines directly into the eyes of southbound cyclists or auto drivers. As an example, from a sunshine area into a shaded area, the low bright sun obscures anything in the shaded area. And if the street is wet, as it often is, you can add the sun's reflection off of the street to the blinding sun light.

Try driving or cycling south on Lochside through Cordova Bay on a sunny winter day. It's impossible to see an approaching cyclists or walker that's hidden by the shade of overhanging trees. An example of where a bicycle headlight is invaluable, a sufficiently bright bicycle headlamp will show in the shadows.

Campaign Moniker: See Saanich, Saanich See, Be Seen?

Safety value: Being visible vs wearing a helmet: Proactive vs reactive.

Timing: Why now as we enter longer daylight hours?

- Aspects of a significant campaign might have long lead times.

Motto: Are you seeing but not seen, Be proud, stay visible

Promotion:

- Saanch provide visibility items as part of campaign (real visibility aids, not toys):
  - Reflective ankle bands, wrist bands, belts
  - Support recommended lights at supporting shops. A couple shops have indicated they would offer price discounts on some lights to support this campaign.
- Visibility awards
  - Offer weekly price for visible cyclists, walker. Announce through news.
- Publicity (e.g. Steve Wallace article)

Herd Compliance: Campaign goal should be to enlist sufficient compliance so that others feel "it's the thing to do". This might be the most effective and long lasting benefit.

Enforcement: Proactive Safety would benefit from some enforcement support or at least enforcement publicity.

- Although there are degrees of cyclists visibility, those that show no effort at visibility should receive conditional citations dependent on resolving visibility issue.
- What about walkers? There are more of them, and informal observations suggest far too many show no effort at visibility. Is any enforcement possible?

Success Measures: Subjective visible and invisible counts of cyclists and pedestrians over several days.

Be Seen Recommendations:

Information for "to be seen" cyclists. Cyclists needing "To See" riding at night in unlit roads or trail riding need much better front lights. (Some shops are recommending ineffective lights.)

- For cyclists: Note day illumination needs to be brighter than night illumination!
  - Rear flashing light, properly aimed, visible 400 metres, 100-200 lumens. (In store brightness isn't a good measure of light's visibility.)
  - Front flashing light, properly aimed, visible 400 metres, 100-200 lumens.
  - Reflective bicycle. The lower on bike, the better. On moving parts, e.g. back of pedals.
  - Reflective clothing: The lower the better. Reflective strips around ankles or back of thighs.
- For walkers;
  - Reflective clothing, reflective leg bands, arm bands, belts.
  - Reflectors mostly depend on car headlights which only illuminate from waist down.
  - Light coloured clothing

ATAC Action:

- Proceed: Yes or No
- Discussion of draft, changes?
- ATAC to take ownership?
- Next step?

Background Information

From https://www.bikeexchange.ca/blog/bicycle-light-buyers-guide

Do I need my lights to 'be seen' or 'to see' with?

Lights that are used to **see with** generally have a greater brightness, a larger battery to power the brighter light, and a narrow beam angle to see into the distance. Lights that are used **to be seen** will have a focus on being seen from more angles, with features such as a wide beam and side illumination. The number of lumens is generally lower as the priority isn't to see far into the distance. As a result, be seen lights are often lighter, with smaller batteries, fewer lumens, wide beam angles and lower cost than lights that are used to see with.

And while you may think you only need lights in the dark, a reported eight out of ten cycling accidents occurring during the day, and the use of lights during the day is the number one thing cyclists can do to make themselves safer according to a Denmark-based study. According to Bontrager's white paper on the matter, to classify a light as one suited to daytime use, it needs focused optics, an interruptive flash pattern, and a visible distance during the day of at least 400 meters. Bontrager claims – "Using a flashing tail light in the day makes you 2.4x more noticeable than with no lights at all and 1.4x than in steady mode."

So what's most important and how do you choose the right light?

Well, the answer is it depends. The type of riding you do, the specific discipline, what time of day you ride and on what kinds of roads all play a part in selecting the right light for you. Refer to the below checklist to help you select the right light for you.

- **Set your budget**. There's no point looking at lights you can't afford.
- Decide on whether your lights will be used **to see or be seen**, that will dictate the lumen and beam angle required. It may also dictate the price.
- Figure out **how long you will need the lights to run for**, i.e. all day, short commutes, bunch rides - that will dictate the approximate run time required and battery of choice.
- Does the battery have **USB rechargeability or will you require batteries**? And if so, is the type of battery required easily accessible?
- Check the different **mounting option** to ensure it is compatible with your bike.
- And finally, do you like the look of it? As Sam says, "vanity may be a curse, but's it's one we're all guilty of. If I'm putting something on my bike, I'd rather it looked like jewelry than a lump of coal."

From: https://www.velonews.com/gear/the-science-of-being-seen/
Another misconception revolves around the specifications of bike lights. Not all bike lights are created equal, and what you see in the store may not be representative of what drivers see out on the road. Indeed, a light may look impressive up close in the store, but from distance, it may not even be visible because the beam is scattered instead of focused. Advice to cyclists purchasing bike lights is to make sure that the light is visible from far distances before pulling out their credit card. A true daytime running light will have specific flash patterns designed to capture attention along with a focused beam that is visible and noticeable from far enough away for drivers to see the light, recognize the cyclist and react safely.