

Part 5: Bus Priority Gaps

DESPITE RECENT PROGRESS, THE REGION STILL HAS A LONG WAY TO GO

In order to meet regional goals, we must continue to invest in transit priority

The Vancouver region's Transport 2050: 10-Year Priorities is a "bus-first" plan for growth, guided by goals to make transit convenient, reliable, affordable, safe and comfortable, and carbon-free. Enhancements to the bus network can be quicker and more cost-effective than other approaches, and they enable the region to deliver fast, frequent, and reliable rapid transit service more quickly, affordably, and broadly than would otherwise be possible with a rail-only approach.

Transit priority is essential to this plan, which requires accommodating more bus riders on the existing road network. New RapidBus and Bus Rapid Transit projects, running along existing roads, are a keystone of the vision.

In addition, **the region's 10-Year Priorities Plan aims to expand bus priority measures to the entirety of the existing Frequent Transit Network (FTN)** and up to 25% of an expanded frequent bus network. Bus priority investments along the FTN will improve the trips of a majority of our customers (more than 60% of boardings). And these projects will not only improve the speed and reliability of the buses running today, they can also ensure bus service remains reliable, even if traffic congestion increases in the future.

This report finds that:

- **We have greatly expanded the amount of bus priority in the region in recent years.** Coverage of the FTN has increased from 10% to 17% since the launch of the BSR funding program in 2019.
- **However, buses are rarely fully protected from traffic.** More than 75% of the FTN has no bus priority infrastructure, and more than 90% does not fully protect buses from traffic; buses must still share lanes with other traffic for some or all of the day.
- **Over 700 km of the existing FTN remains to be improved,** if we are to achieve full coverage of the FTN with bus priority.

EXISTING BUS PRIORITY IN METRO VANCOUVER

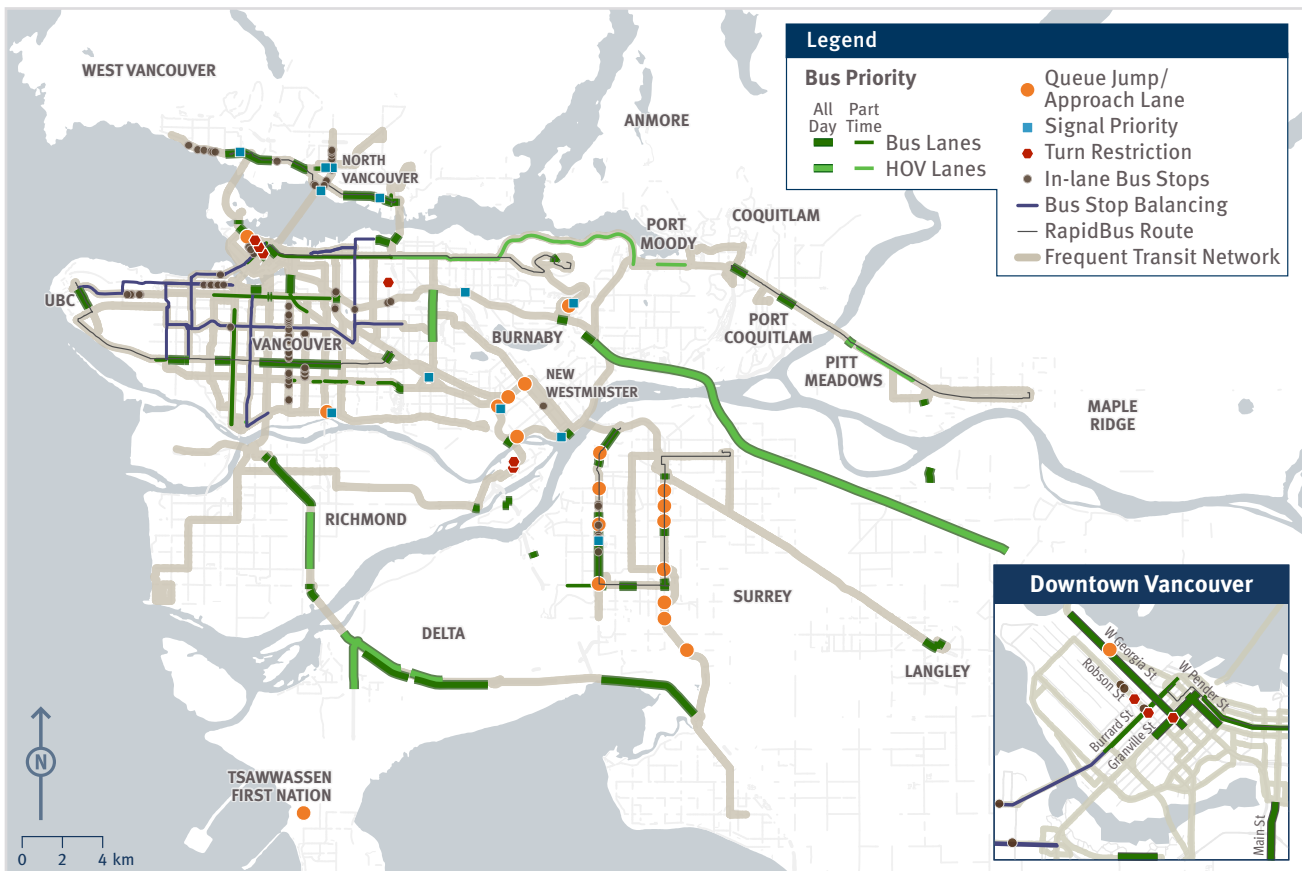
Recent expansions in bus priority have been **significant**. Since 2019, transit priority on the FTN has increased by over 70 km, from 10% to 17%—a big step forward. This is an expansion of 80% over what existed before. And this under-represents projects not measured in kilometres (e.g., bus stop balancing and intersection improvements).

Bus priority makes service faster and more reliable for nearly 280,000 passenger trips on an average weekday. On an average weekday in fall 2021 over 280,000 trips are more reliable as a result of all the transit priority investments that are in place across our region. And nearly 200,000 trips on Saturdays and 150,000 on Sundays.⁴¹

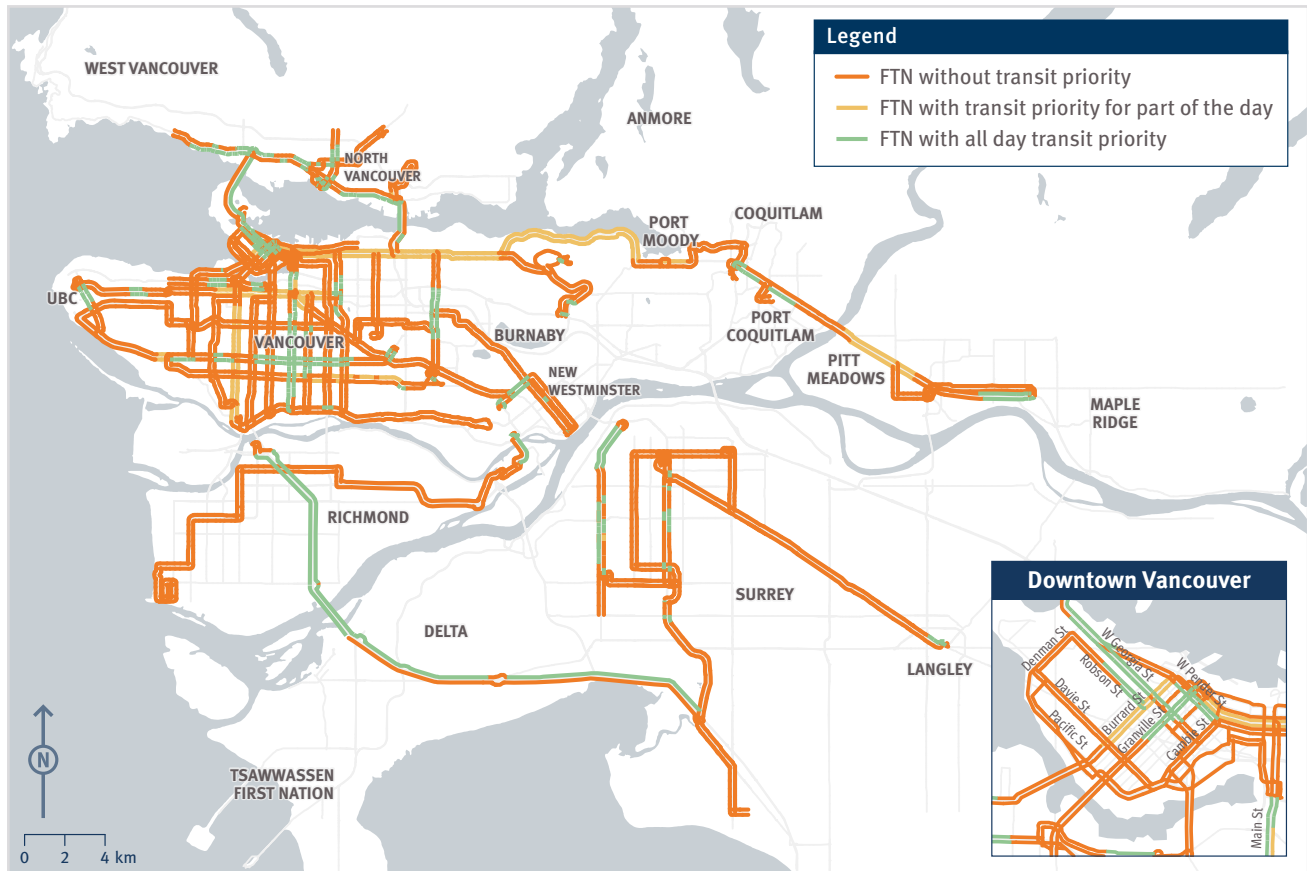
However, buses are still rarely fully protected from **traffic**. Although much of the growth has been in all-day, bus-only lanes, these are still just 7% of the FTN.

Most of the FTN has limited or no bus priority. Yet even with these and our previous investments, buses are still delayed throughout the region. 80% of the FTN has no bus priority lanes; and along more than 90%, buses must travel in general traffic lanes for some or all of the day. That means that more than 700 km of the existing FTN can be improved for bus service.

Existing Transit Priority, including built before 2019 and Under Construction



Transit Priority Gaps on Frequent Transit Network



Note: Map illustrates each direction separately.

The FTN represents nearly 940 km of our transit network—approximately 30%. The table below shows both how much we have expanded bus priority since before 2019, and also that we have a long way to go to address the needs on the existing FTN.

Bus Priority and Share of FTN with Bus Priority

| Type of Bus Priority Infrastructure | Prior to 2019 | 2019–2022 | Including Infrastructure under Construction |
|---|---------------|--------------|---|
| All Bus Priority (km) | | | |
| All types of bus priority (including HOV and peak only lanes) | 140 km | 197 km | 212 km |
| All-day / bus only priority | 27 km | 56 km | 72 km |
| Bus Priority on FTN (km and % of FTN) | | | |
| All types of bus priority (including HOV and peak only lanes) | 90 km (10%) | 147 km (16%) | 162 km (17%) |
| All-day / bus only priority | 25 km (3%) | 54 km (6%) | 69 km (7%) |

FUTURE BUS RAPID TRANSIT WILL BE A FOCAL POINT FOR NEW TRANSIT PRIORITY

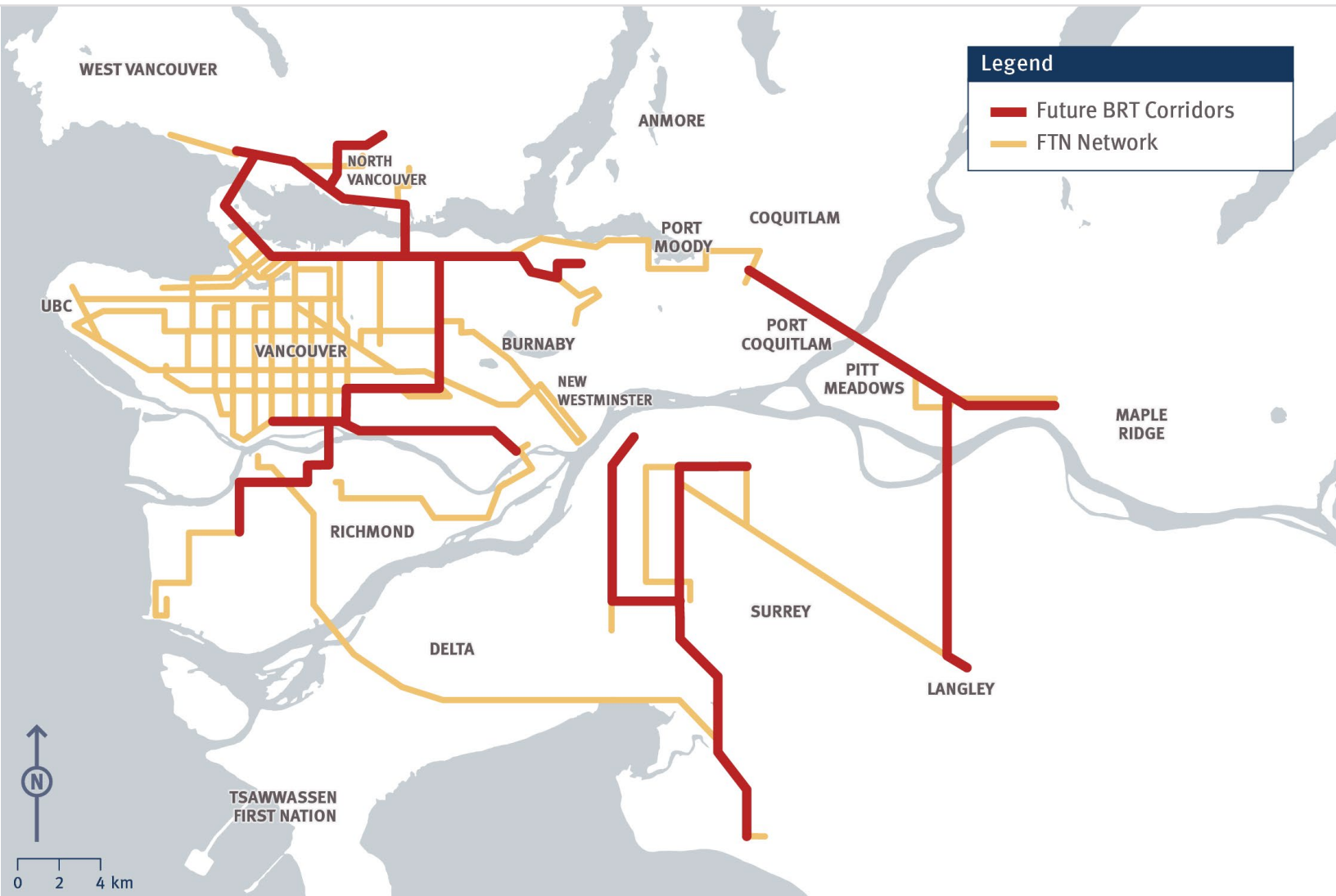
TransLink’s BRT Action Plan calls for developing nine new BRT corridors—collectively nearly **150 km**. These corridors would address **almost 30%** of the passenger delay in our bus system. Currently just **11%** of the total length of these corridors has some form of transit priority—and only about **7%** has all-day, bus-only priority.

Future BRT Corridor Statistics

| Corridor Name | One-Way Corridor Length (km) | Existing Passenger Delay, Passenger-Hours, Fall 2021 | | Share with Existing Bus Priority, 2023, Including Under Construction | |
|--|------------------------------|--|-----------------------|--|----------------------------|
| | | Pax-hours | % of Systemwide Total | All Types of Priority | All-Day, Bus-Only Priority |
| Metrotown / Richmond (R7) | 18.4 | 1,110 | 3.9% | 6.3% | 1.8% |
| 22nd St Station / Marine Dr Stn (Via Marine Way) | 13.6 | 430 | 1.5% | 0.9% | 0.7% |
| Hastings | 20.5 | 1,450 | 5.2% | 28.8% | 0.7% |
| Langley / Haney Place | 21.6 | 290 | 1.0% | 4.7% | 4.7% |
| Lougheed Hwy | 17.3 | 320 | 1.1% | 26.1% | 7.6% |
| Lynn / Downtown | 16.3 | 1,250 | 4.4% | 21.0% | 20.2% |
| Metrotown / Park Royal | 22.3 | 1,460 | 5.2% | 35.1% | 24.9% |
| Scott Road | 14.8 | 1,240 | 4.4% | 25.5% | 24.0% |
| Surrey / White Rock | 22.8 | 1,420 | 5.0% | 5.9% | 3.5% |
| All Corridors | 148.7 | 7,890 | 27.9% | 11.0% | 6.5% |

Note: BRT alignments are illustrative and subject to revision during concept planning.

Future BRT Corridors and the FTN



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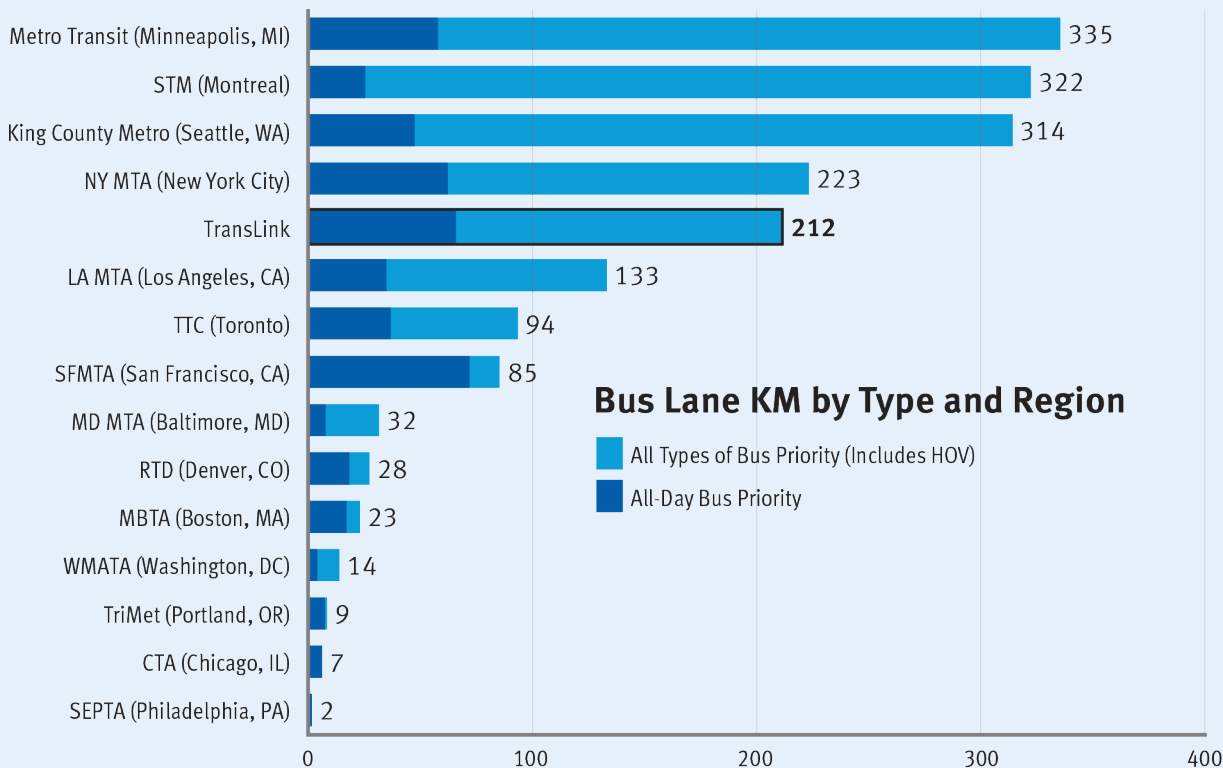
How does bus priority in Metro Vancouver compare to other regions?

The chart below and table on the next page compare bus priority in Metro Vancouver to bus priority in other regions in the US and Canada, including both all types of bus priority and all-day (24-7) bus-only priority. Highlights include:

- **Metro Vancouver has 212 km of total bus priority (including HOV lanes).** This is less than the Minneapolis Twin Cities, Montreal, and Seattle regions (all over 300 km) and the New York region (over 220 km) but more than the Los Angeles, San Francisco, and Toronto regions (close to or exceeding 100 km).
- Comparing based on the number of people in the region and the number of bus passenger-km travelled, **Metro Vancouver has nearly 80 km of bus priority per million people and over 15 km per passenger-km**—third and seventh highest among this set of agencies.

- **Metro Vancouver is among the leaders, with nearly 72 km of all-day bus priority.** This is most comparable to the New York City and Minneapolis Twin Cities regions. The City of San Francisco leads all regions in terms of all-day bus priority km, both total and relative to passenger-km.⁴²
- **Metro Vancouver is also a leader in all-day priority relative to population or passenger-km.** Relative to population, Metro Vancouver has the third highest amount of all-day bus lanes per person among the agencies compared, and seventh highest relative to passenger-km.
- **Many regions are implementing ambitious plans to expand bus priority.** For example, San Francisco is continuing to implement and make permanent Temporary Emergency Transit Lanes first rolled out during the pandemic.

Comparison of Bus Priority in Metro Vancouver to Selected US and Canadian Transit Agencies



Comparison of Bus Priority in Metro Vancouver (2023) to Selected US and Canadian Transit Agencies, 2021 or 2022/2023

| Region and Agency | Regional Pop. | Bus passenger-km | All Types of Bus Priority | | | All-Day Bus-Only Priority | | |
|---|---------------|------------------|---------------------------|--------------------|----------------------------------|---------------------------|--------------------|----------------------------------|
| | | | Km | Per million people | Per 100M annual bus passenger-km | Km | Per million people | Per 100M annual bus passenger-km |
| Metro Transit (Minneapolis, MI) | 1.7 M | 150 M | 335 | 193 | 223 | 58 | 33 | 39 |
| STM (Montreal) | 4.2 M | 674 M | 322 | 75 | 48 | 26 | 6 | 4 |
| King County Metro (Seattle, WA) | 2.3 M | 303 M | 314 | 137 | 104 | 48 | 21 | 16 |
| NY MTA (New York City) | 8.8 M | 1,662 M | 223 | 25 | 13 | 62 | 7 | 4 |
| TransLink | 2.6 M | 1,410 M | 212 | 80 | 15 | 72 | 27 | 5 |
| LA MTA (Los Angeles, CA) | 10.5 M | 683 M | 133 | 13 | 19 | 35 | 3 | 5 |
| TTC (Toronto) | 6.5 M | 869 M | 94 | 15 | 11 | 37 | 6 | 4 |
| SFMTA (San Francisco, CA) | 0.9 M | 175 M | 85 | 97 | 48 | 72 | 82 | 41 |
| MD MTA (Baltimore, MD) | 7.8 M | 255 M | 32 | 4 | 13 | 8 | 1 | 3 |
| RTD (Denver, CO) | 2.9 M | 150 M | 28 | 9 | 18 | 19 | 6 | 12 |
| MBTA (Boston, MA) | 3.1 M | 217 M | 23 | 7 | 11 | 17 | 6 | 8 |
| WMATA (Washington, DC) | 4.9 M | 251 M | 14 | 3 | 6 | 4 | 1 | 2 |
| TriMet (Portland, OR) | 1.6 M | 159 M | 9 | 5 | 5 | 8 | 5 | 5 |
| CTA (Chicago, IL) | 3.2 M | 478 M | 7 | 2 | 1 | 7 | 2 | 1 |
| SEPTA (Philadelphia, PA) | 3.4 M | 309 M | 2 | 1 | 1 | 2 | 1 | 1 |
| TransLink Rank | - | - | 5 | 4 | 7 | 2 | 3 | 7 |

Source: National Transit Database, 2021; Data for STM and TTC from agency communication (2023); TTC (2022); All-Day Bus-Only Priority for Metro Transit, King County Metro, SFMTA, and RTD from agency communications or data (2023). Data for SFMTA reflects only bus-only lanes within the City of San Francisco.

SUB-REGIONAL BREAKDOWN OF BUS PRIORITY

The share of the FTN where transit priority protects bus speed and reliability varies by sub-region, but at most 16% of the FTN has all-day priority exclusively for buses in any sub-region.

The table below shows the amount of bus priority that exists by sub-region. Considering all types of bus priority including HOV and peak-only lanes, system-wide 10% of the FTN had bus priority prior to 2019, which will grow to 17% of the FTN including facilities that are currently under construction. Within the sub-regions, between 12% and 23% of the FTN will have any type of bus priority.

Considering only facilities that provide all-day bus priority, system-wide 7% of the FTN will have bus priority including facilities that are currently under construction. Among the sub-regions, within the Southwest sub-region 16% of the FTN will have all-day bus priority (18 km of 114 km). Within the Vancouver/UBC sub-region 24 km of the FTN will have all-day bus priority (6% of nearly 400 km).

The map on the following page illustrates the share of all-day bus-only priority in each sub-region.

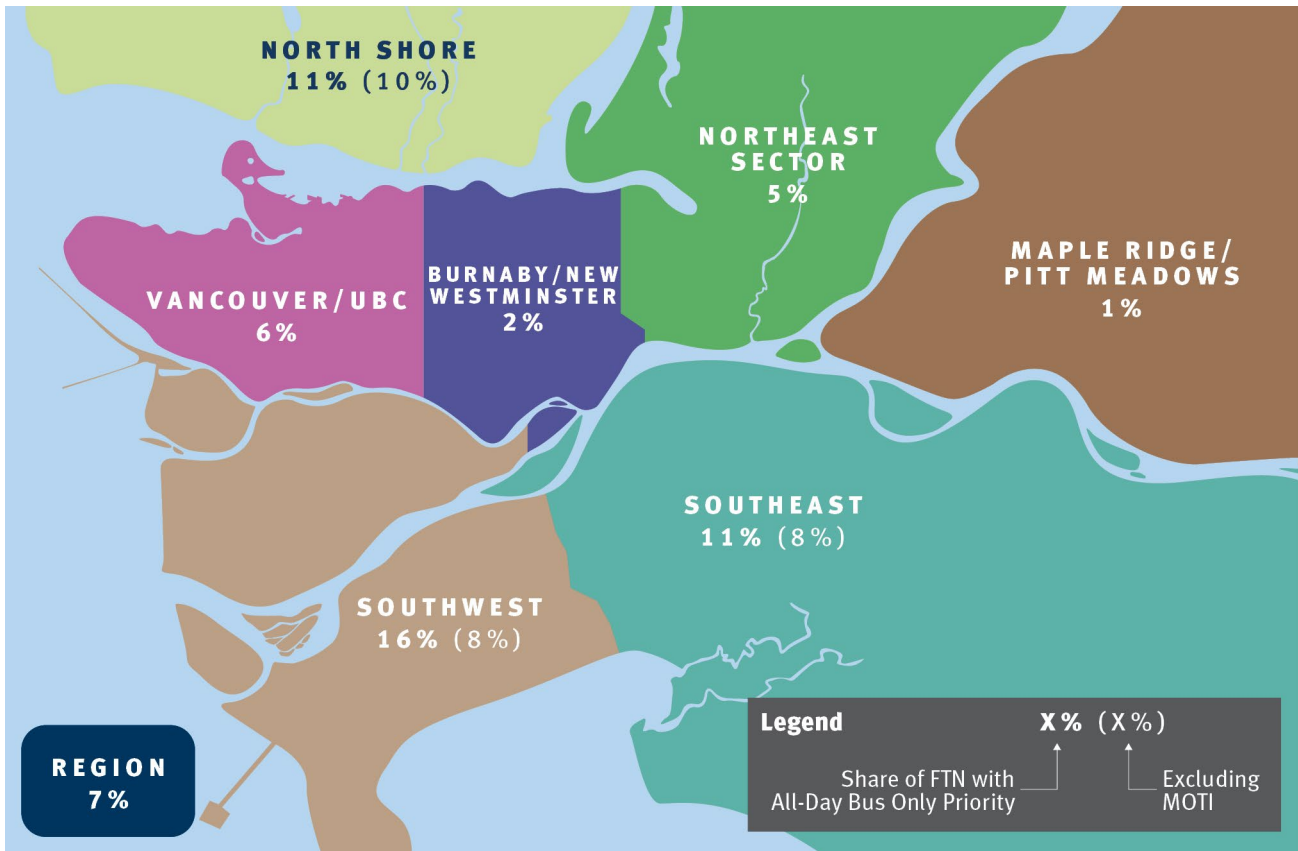
Appendix A includes a map of bus priority measures and the FTN in each subregion.

Bus Priority Measures by Sub-region and Share of FTN

| Sub-Region | FTN km | Prior to 2019 | | | | | | 2023 (Including Under Construction) | | | | | | Recent Expansion (Including Under Construction) | |
|----------------------------|-----------|---------------|----------|----------|-------------------|----------|----------|--|----------|----------|-------------------|----------|----------|--|-------------------|
| | | All Types | | | All-Day, Bus-Only | | | All Types | | | All-Day, Bus-Only | | | All Types | All-Day, Bus-Only |
| | | km (total) | km (FTN) | % of FTN | km (total) | km (FTN) | % of FTN | km (total) | km (FTN) | % of FTN | km (total) | km (FTN) | % of FTN | km (FTN) | km (FTN) |
| Burnaby / New Westminster | 132 | 27.5 | 26.6 | 20% | 2.1 | 1.5 | 1% | 28.3 | 27.5 | 21% | 3.0 | 2.3 | 2% | 0.8 | 0.8 |
| Maple Ridge / Pitt Meadows | 41 | 0.2 | 0.2 | 1% | 0.2 | 0.2 | 1% | 7.3 | 7.3 | 18% | 0.2 | 0.2 | 0.5% | 7.1 | 0.0 |
| North Shore | 58 | 2.8 | 2.8 | 5% | 2.5 | 2.5 | 4% | 6.8 | 6.8 | 12% | 6.5 | 6.5 | 11% | 4.0 | 4.0 |
| Northeast | 41 | 19.9 | 7.5 | 18% | 0.0 | 0.0 | 0% | 21.8 | 9.5 | 23% | 1.9 | 1.9 | 5% | 1.9 | 1.9 |
| Southeast | 149 | 41.9 | 9.2 | 6% | 9.2 | 9.2 | 6% | 49.3 | 16.7 | 11% | 16.3 | 16.3 | 11% | 4.3 | 4.3 |
| Southwest | 114 | 17.9 | 13.8 | 12% | 7.4 | 5.8 | 5% | 29.9 | 25.9 | 23% | 19.4 | 17.8 | 16% | 12.0 | 12.0 |
| Vancouver / UBC | 397 | 29.7 | 29.7 | 7% | 5.5 | 5.5 | 1% | 68.4 | 68.4 | 17% | 24.2 | 24.2 | 6% | 38.7 | 18.6 |
| Full Region | 938 | 140 | 90 | 10% | 27.0 | 25 | 3% | 212 | 162 | 17% | 71.5 | 69.2 | 7% | 69 | 42 |

Note: FTN km excludes SkyTrain and SeaBus. Approximately 6 km of the FTN are not classified as part of any sub-region. “All-Types” includes HOV and peak-only lanes; excludes full length of RapidBus corridors. “All-Day, Bus-Only” excludes HOV and peak-only lanes and the full length of RapidBus corridors.

All-Day Bus-Only Priority Measures by Sub-region as Share of FTN



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