



# 2020 Transit Service Performance Review

COVID-19 SNAPSHOT



## Table of Contents

A Message from TransLink .....	3
About this Report .....	4
Executive Summary .....	6
Introduction .....	10
Summary of 2020 Trends .....	13



# A Message from TransLink

## **Transit is key to ensuring essential travel and supporting B.C.'s recovery from COVID-19.**

Throughout the pandemic, TransLink provided a critical service to hundreds of thousands of customers across Metro Vancouver who continued to rely on us.

Public transportation helped ensure that people had access to medical services, food, supplies, and other essential needs. In addition, many frontline workers relied on TransLink to get to and from their jobs, including grocery store clerks, construction workers, childcare providers, and healthcare workers.

## **Transit service levels were maintained during the pandemic as a result of funding relief from the Federal and Provincial Governments.**

Emergency relief funding from senior levels of government enabled us to continue providing safe and reliable transit services for the people of Metro Vancouver. This funding, which extends until the end of 2021, helped avoid any major service reductions due to the financial pressures of the COVID-19 pandemic. Keeping service fast and frequent provided reliable service for essential workers and customers engaging in essential travel.

In 2020, transit played a critical role in supporting Metro Vancouver's economy amidst unprecedented challenges and uncertainty. Moving forward, TransLink will continue to deliver for our region, rebuild our ridership, and help drive our recovery from COVID-19.

A handwritten signature in white ink, appearing to be "Gigi Chen-Kuo", written over a dark blue background.

**Gigi Chen-Kuo**  
Interim Chief Executive Officer  
TransLink

## About this report

**TransLink manages Metro Vancouver’s integrated regional transit network. Our annual Transit Service Performance Review (TSPR) is one of the ways we regularly evaluate the network. We use information included in this report to inform network adjustments that ensure our transit services best meet customers’ needs.**

**This report also provides key information about how customers used the transit network in 2020. This information informed how we adjusted service throughout the year to respond to COVID-related changes in customer transit-use patterns.**

Although we maintained service at near-normal levels through most of 2020, the pandemic had a significant impact on our operations. During this time, our focus was on keeping our customers and employees safe, and providing service where it was needed most.

In order to ensure that our service responded to customers’ changing needs throughout the year, we used a number of metrics and sources typically included in the TSPR, along with customer feedback. This year’s TSPR, however, focuses on the most significant trends we observed on the transit network, particularly those that we expect will be most informative for service planning in 2021 and beyond as our region recovers from the pandemic.

### **Ridership fluctuations and data limitations constrain averaged data for 2020.**

Ridership in 2020 fluctuated greatly in response to rapidly evolving pandemic conditions – after the provincial state of emergency was declared on March 18, 2020, there was no 'average day' in 2020. For this reason, ridership data averaged over 2020 was not used to inform pandemic service planning and does not offer meaningful insights for future service planning. As a result, we will not be updating our online TSPR datasets (for example, the Bus and SeaBus Summaries dashboards) and mapping tool, nor providing appendices. This year, our online data platforms will remain populated with pre-pandemic (2019 and earlier) data. Some limited route-level data for 2020 will be available on our website.

In addition, while annual ridership figures provide meaningful insights, this report will be focusing on the most stable ridership period of 2020. This period provides the most relevant data because it indicates how customers are likely to use the transit network as the region recovers from COVID-19.

### **For 2020, this report provides a snapshot of transit ridership trends from the most stable eight weeks of ridership in 2020 during the pandemic.**

Between September and November 2020<sup>1</sup>, ridership was most consistent and reached its highest levels since pre-COVID. We expect that trends from this period are most indicative of how customers will use the system as Metro Vancouver's economy continues to reopen. We will rely on this information, customer feedback, and additional ridership data as it becomes available through 2021 and as we continue to adjust service to meet customer needs.

### **We compared ridership between September and November 2020 to ridership during the same time period in 2019.**

To determine how ridership trends at the regional, sub-regional, modal, and route level measured up to pre-pandemic trends, this report compares early fall 2020 ridership data to that from the same time period in 2019<sup>2</sup>.

Ridership throughout most other periods in 2020 was volatile and does not provide sufficiently stable or consistent data to inform future planning.

### **Ridership recovery is expressed as a percentage of 2019 ridership volumes.**

Throughout this report, ridership recovery is expressed as a percentage of 2019 ridership volumes for the same period. For example, system-wide ridership for the period of September to November 2020 was 41% of ridership volumes during the same period in 2019.



<sup>1</sup> Exact date range of the study period is September 14 to November 8, 2020, inclusive.

<sup>2</sup> Exact date range of the 2019 comparison period is September 16 to November 10, 2019, inclusive.

# Executive Summary

**Transit remains an important part of our regional transportation system. During early fall 2020, TransLink continued to serve 621,000 boardings (360,000 journeys) every weekday.**

Transit is fundamental to the way people move around the Metro Vancouver region, and despite significant ridership reductions during the COVID-19 pandemic, the volume of boardings on our system was still greater than that of larger North American metro areas. In September 2020, we had nearly 17 million boardings system-wide, exceeding boardings<sup>3</sup> during the same period in metropolitan regions<sup>4</sup> such as Boston, MA, Washington, DC, and Chicago, IL. We also had more system-wide boardings than the metropolitan areas of Seattle, WA, and San Francisco, CA, *combined*. This illustrates that despite major decreases in transit ridership on transit systems across North America, ridership on our system remained relatively high compared to other metropolitan regions. Note, however, that these findings reflect a point-in-time snapshot, and other metro regions may have been in different stages of their pandemic recovery and under different public health restrictions.

Within Canada, our ridership recovery during the pandemic has been in line with other major Canadian metro regions. Overall, in Metro Vancouver, transit ridership in early fall 2020 recovered to 41% of early fall 2019 levels, compared to 41% in the Greater Toronto and Hamilton area (GTHA), 40% in Greater Montreal, and 51% in Calgary<sup>5</sup>.

## Many aspects of transit network travel patterns remained stable.

While the world around us changed, many aspects of how our customers used the system prior to the pandemic remained stable in 2020. A few of these continuing trends were:

- Most of our bus ridership (85%) continued to be carried on routes that provide frequent service throughout the day and during peak periods, as was the case before the pandemic.
- Eight of the top 10 busiest bus routes in 2019 were still among the top 10 routes by boardings. Though there was some slight re-ordering within this top 10, the 99 B-Line (Commercial-Broadway Station/UBC) continued to have the highest number of boardings in 2020.
- The top bus routes by boardings in each sub-region remained mostly unchanged from 2019.
- HandyDART continued to provide critical access to health and medical services when customers were unable to use conventional service without assistance.

<sup>3</sup> As reported by the US Federal Transit Administration National Transit Database.

<sup>4</sup> Includes greater metropolitan region, or “urban area”, as defined by the US Census.

<sup>5</sup> In this instance, Calgary represents one municipal transit agency which accounts for the vast majority of metropolitan Calgary’s boardings, while figures for the GTHA and Greater Montreal include multiple agencies within their respective metropolitan regions.

## Changes in ridership patterns that *did* occur demonstrate the importance of transit for people making essential trips.

The pandemic also brought about new trends. Although ridership in September – November 2020 returned to 41% of pre-COVID levels system-wide, the distribution of that ridership across geography and time changed in a few notable ways:

- Across the region, ridership on bus routes that serve essential workers remained strong in 2020.**

For example, routes that primarily serve industrial areas, such as routes 116, 175, 418, and 640 were at nearly 70% of 2019 ridership volumes.
- Commuter services to Downtown Vancouver and routes that exclusively serve university/college campuses saw significantly lower ridership recovery.**

The West Coast Express, which primarily serves office commuters to Downtown Vancouver, recovered to only 17% of 2019 ridership volumes. Bus routes that exclusively serve campus-bound customers recovered to 20% of 2019 volumes.
- Bus ridership recovered more strongly in some parts of the region than in others.**

In particular, the Southeast sub-region (comprised of Surrey, Langley, North Delta, and White Rock) saw the highest return of bus ridership, with volumes at 55% of 2019 levels – higher than the bus network average of 44%. Lower rates of working from home<sup>6</sup> in the Southeast may have contributed to the higher relative use of transit by customers in the sub-region.
- Weekday off-peak periods and weekends have had higher ridership recovery than weekday peaks.**








Ridership during the weekday midday returned to a greater extent than ridership during the morning and afternoon peaks, which were lower and flatter in 2020 than in 2019 as people significantly reduced travel during regular weekday rush hour periods. Similarly, the rate of ridership recovery on weekends was higher than that of weekdays overall: *weekend* ridership was at 46% of 2019 volumes, while *weekday* ridership was at 41%. This is indicative of the importance of this service for people with a variety of work schedules as well as for customers who rely on transit for non-work trips.
- The times of day when customers use transit have changed.**

Late-night ridership (between 9:00 p.m. and 3:30 a.m.) declined significantly to 36% of 2019 volumes, but ridership data shows that there were still many customers relying on these services. Late-night transit provided a critical service for customers with fewer transportation options who travel to or from late-night or early morning shifts during these hours.
- Ridership recovered variably across modes, but our bus network had the highest recovery.**

With ridership at 44% of 2019 volumes, the highest ridership retention and recovery was on the bus network. Our extensive bus network reaches the greatest number of communities across the region and provides connections within and across sub-regions. In addition, most routes run throughout the day and week, thereby serving a wide variety of trips.

<sup>6</sup> BC Centre for Disease Control COVID SPEAK Survey (May 2020).

## Ridership by mode, early fall 2020.

Transit Mode	 System-wide (All Modes)	 Bus	 Expo & Millennium Lines	 Canada Line	 SeaBus	 West Coast Express	 HandyDART
Ridership Recovery*	41%	44%	39%	32%	30%	17%	37%
Average Daily Boardings (Mon-Fri)	621,000	413,000	148,000	51,000	6,000	2,000	2,000
Average Daily Boardings (Sat)	468,000	300,000	118,000	43,000	6,000	–	1,000
Average Daily Boardings (Sun/Hol)	355,000	229,000	88,000	33,000	4,000	–	1,000

Note: Figures here represent data from early fall 2020.

\*Early fall 2020 average weekday boardings as a percentage of early fall 2019.

### We prioritized service on bus routes when and where customers most needed it.

As a result of emergency relief funding from the Federal and Provincial Governments, we were able to maintain near-normal overall service levels to facilitate physical distancing and ensure people have access to medical services, jobs, food, supplies, and other basic needs. Our ability to provide reliable service throughout the pandemic is crucial to BC's recovery, particularly as the economy gradually reopens and customers return to using transit more regularly.

We shifted bus service in a few different ways during the pandemic to reflect the most current public health guidance and ridership trends.

- **We significantly reduced transit vehicle capacity targets on all conventional and custom modes in response to public health guidance on physical distancing.**

For example, in late March 2020, bus passengers were limited to every other seat, or approximately one-third of regular capacity. In alignment with BC's Phase 2 Restart, in June 2020 we increased target capacity on buses to approximately two-thirds to continue to facilitate physical distancing on board.



- **Although transit ridership decreased across the entire region, we added service to some bus routes in 2020 to ensure there was enough vehicle capacity for customers.**

Due to high levels of overcrowding on many of our routes *prior* to the pandemic, even with decreased ridership, passenger volumes continued to exceed the new, reduced vehicle capacity targets. Some routes also retained relatively high levels of ridership. For these reasons, we added service to prevent pass-ups and ensure customers could reach their destinations.

Eleven of the 24 routes that we increased in September 2020 were in the Southeast sub-region, including routes 310, 312, 319, 321, 322, 323, 324, 325, 364, 373, and 640. We also increased service on routes across the region at times of day when we saw high volumes of ridership. For example, in September 2020, we increased service on route 116 all day on weekends and on route 175 during weekday peak periods. These two routes provide service to industrial areas in Burnaby and Port Coquitlam.

- **To provide additional service where it was most needed, we reduced service on high-frequency bus routes and other modes with substantial decreases in ridership demand, particularly those serving Downtown Vancouver and university/college campuses.**

We reduced service primarily during weekday peak periods on routes and modes that were experiencing low ridership due to people working and attending classes remotely. To preserve convenience for customers who still needed to be on-site, we maintained service frequencies of 15 minutes or better on frequent routes. We also suspended five bus routes – 32, 44, 143, 258, and 480 – which served corridors where alternative routes with all-day, every day service continue to operate.



# Introduction

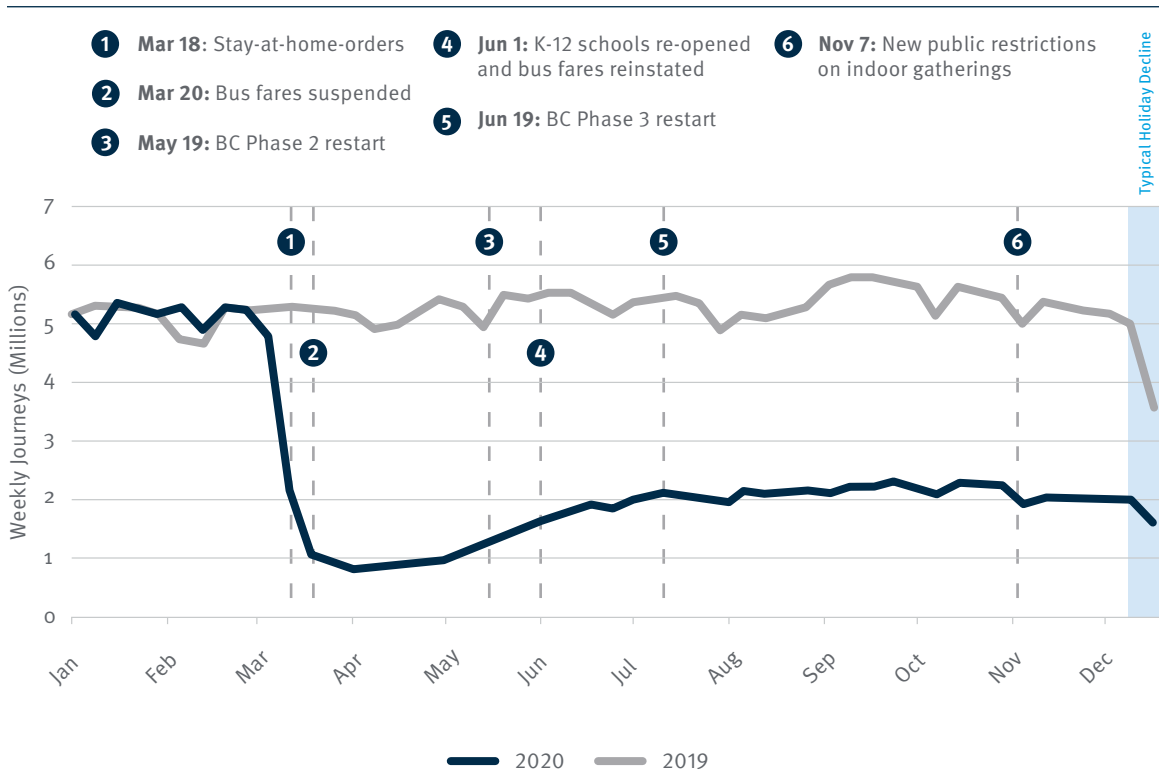
## Before the pandemic, 2020 kicked off with strong ridership and new services.

TransLink began 2020 with momentum, experiencing strong ridership across all modes, building upon a record-breaking year in 2019. Early on, we celebrated the introduction of new flagship RapidBus services that would provide customers with faster, more reliable transit options. New routes such as the 31 River District/Metrotown Station and 222 Metrotown Station/Phibbs Exchange Express also marked the beginning of improvements funded through Phase Two of the Ten-Year Vision. Between January and the end of February, average daily weekday boardings were nearly 1.4 million.

**Even at the lowest point of ridership, 75,000 people still relied on TransLink every weekday.**

Early in the spring as the COVID-19 pandemic tightened its grip, we saw a dramatic decline in ridership across our system. In April 2020, system-wide transit journeys dropped by 83% from April 2019. Despite this significant drop, 75,000 people still relied on the system every weekday in early April, near the lowest point of ridership. Based on surveys, these customers were mainly essential workers traveling to and from work or people going to medical appointments and grocery stores to fulfill basic needs.

Figure 1: Weekly transit journeys in 2020 vs. 2019, system-wide (all transit modes).



Note: Journeys are measured as a complete transit trip using Compass fare media or other proof of payment, regardless of the number of transfers. Decrease in November 2019 ridership was due to labour action; numbers were not adjusted to estimate what would have happened had labour action not occurred."

Table 1: 2020 Annual boardings.

Transit Mode	2020 Annual Boardings	1-Year Change* [2019 – 2020]
System-wide	218,800,000	-52%
Bus	140,090,000	-49%
SkyTrain		
Expo & Millenium Lines	54,550,000	-53%
Canada Line	20,330,000	-60%
SeaBus	2,330,000	-63%
West Coast Express	800,000	-69%
HandyDART	700,000	-55%

*Note: Figures in Table 1 are based on annual data.  
 \*1-Year Change figures are not the inverse of ridership recovery percentages provided in other sections of this report, which are based on data from early fall 2020. As noted above, 1-Year Change figures in Table 1 are based on annual data.*

**Following an unprecedented ridership decline in the spring, ridership began to recover over the summer.**

As BC proceeded into Phase 3 of its Restart Plan, more customers started to return to the transit system. Eased restrictions, newly re-opened businesses, and warmer weather contributed to an increase in ridership. In late August, we implemented a mandatory mask policy to minimize the risk of COVID-19 transmission on transit and keep our customers and employees safe. As we moved from summer into fall, our ridership continued to gradually increase.

**Recovery trends from September to November 2020 provide a snapshot of patterns we can anticipate in future recovery phases.**

Ridership was most consistent and reached its highest levels since pre-COVID between

**Overall, annual system-wide boardings were down 52% in 2020 when compared to 2019, as shown in Table 1. Although this report focuses on the September – November 2020 timeframe and our ridership recovery, Table 1 illustrates the overall change in annual boardings by mode for a year-over-year comparison. These numbers illustrate the impact of the COVID-19 pandemic and related health restrictions on transit ridership over the course of 2020.**

September and November 2020. This timeframe began after Labour Day and concluded as the second wave of COVID-19 transmission and additional public health orders began to impact travel behaviour in the region. Trends from this period can provide useful insights into what future ridership trends might look like as the COVID-19 pandemic moves into our rear-view mirror.



Our four key findings – which will be elaborated on in the following sections – are:

- Transit remained an important part of Metro Vancouver’s transportation system and continued to serve 621,000 boardings (360,000 journeys) every weekday.
- Many aspects of transit network travel patterns remained stable.
- Changes in ridership patterns that did occur demonstrate the importance of transit for people making essential trips.
- We were able to redistribute service during the pandemic to ensure it was provided when and where customers most needed it.

While these key trends are mostly focused on bus due to the complexity of trends across the network and service adaptations in response to COVID-19, this report also includes highlights from other modes.



Our services are categorized by frequency and span (hours) of service. Routes that operate every 15 minutes or better most of the day, every day, are classified as All Day Frequent. Routes that operate every 15 minutes or better during weekday peak periods and with lower frequencies throughout the day are classified as Peak Frequent.

# Summary of 2020 Trends

**Transit remained an important part of our regional transportation system. During early fall 2020, TransLink continued to serve 621,000 boardings (360,000 journeys) every weekday.**

While we were far from the record-breaking ridership volumes we saw in 2019, the volume of boardings on our system in early fall 2020 was still greater than that of larger North American metro areas.

In September 2020, we had nearly 17 million boardings system-wide, which exceeded boardings<sup>7</sup> during the same period in the greater metropolitan regions<sup>8</sup> of Boston, MA, Washington, DC, and Chicago, IL. In fact, we had more system-wide boardings than the metropolitan areas of Seattle and San Francisco *combined*. Notably, this volume of boardings during the pandemic is higher than metro Portland's *pre-pandemic* monthly boardings. This illustrates that despite major

decreases in transit ridership on transit systems across North America, ridership on our system remained relatively high compared to other metropolitan regions. Note, however, that these findings reflect a point-in-time snapshot, and other metro regions may have been in different stages of their pandemic recovery and under different public health restrictions.

Within Canada, our ridership during the pandemic was in line with other major Canadian metro regions. Overall, in Metro Vancouver, transit ridership in early fall 2020 recovered to 41% of early fall 2019 levels, compared to 41% in the Greater Toronto and Hamilton area (GTHA), 40% in Greater Montreal, and 51% in Calgary<sup>9</sup>.

**Many aspects of transit network travel patterns remained stable.**

Transit network usage remained remarkably similar to that of 2019 in many ways, albeit with smaller volumes. This section provides an overview of those trends.

**Most of our bus ridership continued to be on routes that provide frequent service.**

All Day Frequent and Peak Frequent routes comprise 40% (93 of 232) of our bus routes, yet between September and November 2020 they carried 85% of our bus ridership, consistent with

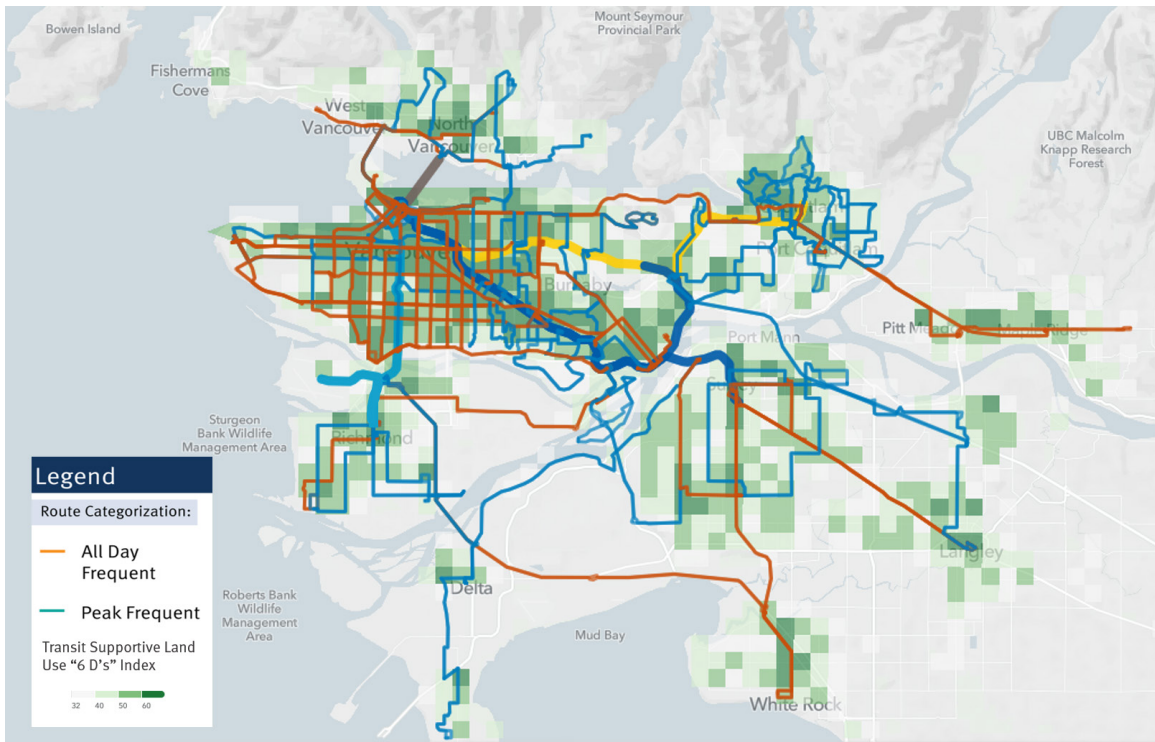
trends prior to the pandemic. The corridors these routes serve generally exhibit the key attributes that contribute to high levels of transit demand and productive transit service, such as a variety of destinations, a mix of residential, employment, and/or retail land uses, and population and job density. Such transit-supportive corridor characteristics have played a strong role in generating consistent ridership on these routes during the pandemic (refer to Figure 2).

<sup>7</sup> As reported by the US Federal Transit Administration National Transit Database.

<sup>8</sup> Includes greater metropolitan region, or "urban area", as defined by the US Census.

<sup>9</sup> In this instance, Calgary represents one municipal transit agency which accounts for the vast majority of metropolitan Calgary's boardings, while figures for the GTHA and Greater Montreal include multiple agencies within their respective metropolitan regions.

Figure 2: All Day Frequent and Peak Frequent routes and land uses, Fall 2020.



## TRANSIT-SUPPORTIVE LAND USE AND DEMAND

The 6 Ds below describe land use and built environment elements that influence demand for transit.

### DESTINATIONS

Proximity to destinations

### DISTANCE

Well-connected street networks

### DESIGN

Places for people

### DENSITY

Concentrated, intense land use activities near frequent transit

### DIVERSITY

Mix of uses

### DEMAND MANAGEMENT

Discourage unnecessary driving

## 8 of the top 10 busiest bus routes by boardings in 2019 remained our busiest during 2020 and the pandemic.

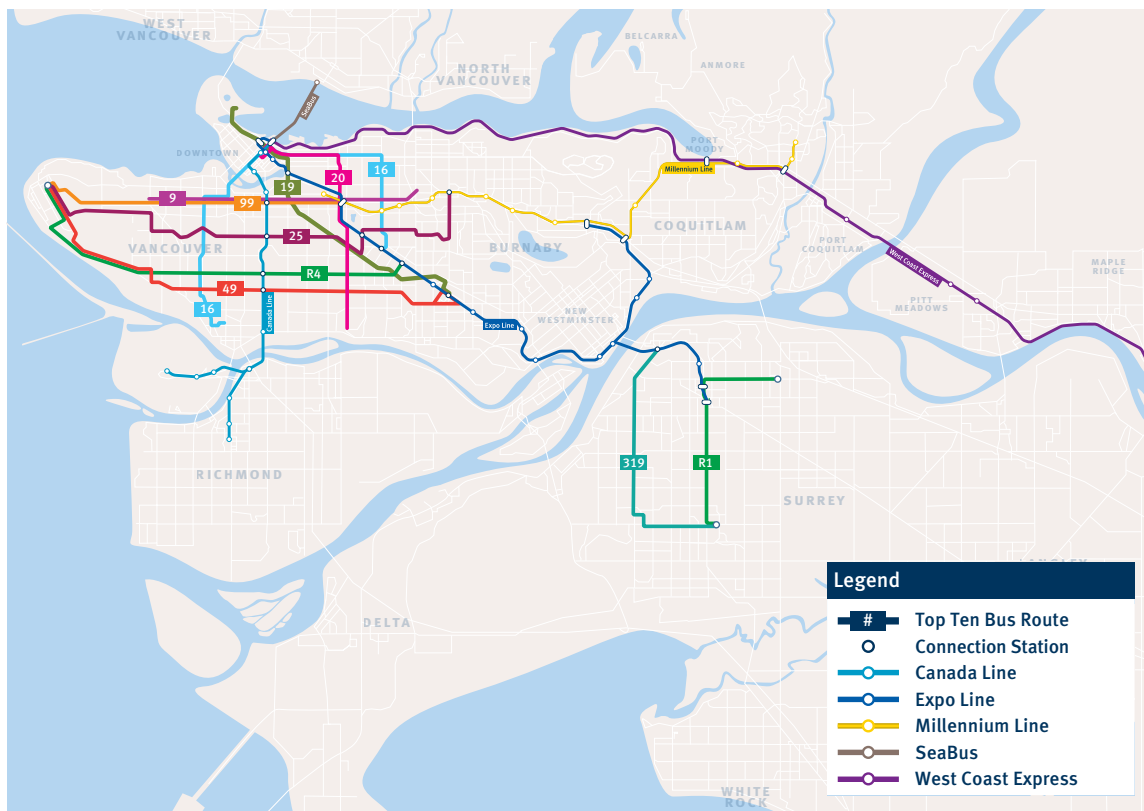
The 99 B-Line (Commercial-Broadway Station/ UBC) continued to have the highest number of boardings of all routes in the region. While there was some re-ordering within the top 10 (see Table 2), generally the routes that were busiest before the pandemic remained our busiest in 2020. Each serves many important destinations and trip purposes and generates all-day, everyday demand. While these routes might not have the highest recovery rates relative to their pre-COVID volumes, their high total ridership volumes in 2020 mean they have retained their significant role as major ridership drivers by serving high numbers of total customer boardings.

Table 2: Bus routes ranked by boardings – early fall 2019 vs. early fall 2020.

Rank	Early Fall 2019	Early Fall 2020
1	99 Commercial-Broadway/UBC (B-Line)	99 Commercial Broadway/UBC (B-Line)
2	49 Metrotown Stn/Dunbar Loop/UBC	R4 41st Ave* (▲2)
3	25 Brentwood Stn/UBC	49 Metrotown Stn/Dunbar Loop/UBC (▼1)
4	41 Joyce Stn/UBC	319 Scott Rd Stn/Newton Exch/Scottsdale (▲4)
5	20 Victoria/Downtown	20 Victoria/Downtown
6	9 Boundary/Commercial-Broadway/Granville/Alma/UBC	25 Brentwood Stn/UBC (▼3)
7	16 29th Avenue Stn/Arbutus	16 29th Avenue Stn/Arbutus
8	319 Scott Rd Stn/Newton Exch/Scottsdale	9 Boundary/Commercial-Broadway/Granville/Alma/UBC (▼2)
9	95 SFU/Burrard Stn (B-Line)*	R1 King George Blvd* (▲4)
10	3 Main/Downtown	19 Metrotown Stn/Stanley Park (▲1)

\*In 2020, the R4 replaced the 43 and the western segment of the 41 out to UBC; the R1 replaced the 96 B-Line; the 95 B-Line was replaced by the R5.

Figure 3: Map of the top 10 bus routes ranked by boardings, early fall 2020.



The top bus routes by boardings in each sub-region remained mostly unchanged from 2019.

**Burnaby/New Westminster**

Rank	Route (Early Fall 2019)	Route (Early Fall 2020)
1	95 SFU/Burrard Stn (B-Line)	R5 Hastings St*
2	130 Capilano University/Metrotown	106 New Westminster Stn/Edmonds Stn
3	106 New Westminster Stn/Edmonds Stn	130 Metrotown/Pender/Kootenay
4	119 Edmonds Stn/Metrotown Stn	119 Edmonds Stn/Metrotown Stn
5	145 SFU/Production Way Stn	123 New Westminster Stn/Brentwood Stn

\*The R5 Hastings St RapidBus replaced the 95 B-Line in January 2020.

The newly-upgraded R5 Hastings St RapidBus (formerly 95 B-Line) maintained its position as the route with the highest boardings in Burnaby/New Westminster.

In January 2020, the R5 Hastings St RapidBus replaced the 95 B-Line as an important, high-frequency east-west connector to many destinations along Hastings Street. For this

reason, higher relative ridership volumes were retained even as Downtown and campus-bound ridership dropped. Other routes in the Burnaby/New Westminster sub-region that serve customers to BCIT and SFU, such as the 130 and 145, fell in rank, given the rise in online learning and the reduction of on-campus activities in 2020.

Figure 4: Map of Metro Vancouver’s seven sub-regions for planning and reporting.





## Maple Ridge/Pitt Meadows

Rank	Route (Early Fall 2019)	Route (Early Fall 2020)
1	701 Haney/Maple Ridge East/Coq Stn	701 Haney/Maple Ridge East/Coq Stn
2	791 Haney Pl/Braid Stn	R3 Lougheed Hwy*
3	745 Haney Pl/Cottonwood	791 Haney Pl/Braid Stn
4	746 Haney Pl/Albion	745 Haney Pl/Cottonwood
5	744 Haney Pl/Maple Mdws Stn/Meadowtown	744 Haney Pl/Maple Mdws Stn/Meadowtown

\*The R3 Lougheed Highway RapidBus was a new route introduced in January 2020.

**The 701 maintained its position as the route with the highest boardings in Maple Ridge/Pitt Meadows and the new R3 RapidBus generated new ridership demand.**

The 701 continues to provide a key east-west connection between Maple Ridge and

Coquitlam. The route also provides important local service within Pitt Meadows and Maple Ridge and connects to many other routes. In addition, the new R3 Lougheed Highway RapidBus had the second-highest boardings in Maple Ridge/Pitt Meadows, generating new ridership demand in the sub-region in 2020.

## North Shore (City and District of North Vancouver/West Vancouver/Lions Bay/Bowen Island)

Rank	Route (Early Fall 2019)	Route (Early Fall 2020)
1	240 Lynn Valley/Vancouver	240 Lynn Valley/Downtown*
2	239 Capilano University/Park Royal	250 Horseshoe Bay/Dundarave/Vancouver
3	250 Horseshoe Bay/Dundarave/Vancouver	R2 Marine Dr**
4	257 Horseshoe Bay/Vancouver Express	257 Horseshoe Bay/Vancouver Express
5	210 Upper Lynn Valley/Burrard Stn	255 Dundarave/Capilano University

\*Between 2019 and 2020, the 240 Lynn Valley/Vancouver was renamed the 240 Lynn Valley/Downtown.

\*\*The R2 Marine Dr RapidBus replaced the 239 Capilano University/Park Royal in April 2020.

**East-west routes serving many destinations remained the busiest routes on the North Shore.**

With the highest number of boardings in the North Shore sub-region, the 240 Lynn Valley/Downtown maintained strong ridership in 2020. It serves many destinations within the North Shore, including Lions Gate Hospital, Capilano Mall, and now Lynn Valley Centre following a route extension in April 2020.

The R2 Marine Dr RapidBus replaced the 239 in April 2020. The R2 and 255 Dundarave/Capilano University, which entered the top five,

have long east-west corridors, each serving many destinations in West Vancouver, the City of North Vancouver, and the District of North Vancouver along the way. We also introduced the 222 Metrotown Station/Phibbs Exchange Express as a peak-only connector between the North Shore, BCIT, and the Expo and Millennium Lines in April 2020. As ridership returns in the latter part of 2021, we expect that this new route will become a well-used and important north-south service for the North Shore and Burnaby/New Westminster sub-regions.

### Northeast Sector (Tri-Cities/Anmore/Belcarra)

Rank	Route (Early Fall 2019)	Route (Early Fall 2020)
1	160 Port Coquitlam Stn/Kootenay Loop	160 Port Coquitlam Stn/Kootenay Loop
2	143 Burquitlam Stn/SFU	152 Coquitlam Central Stn/Lougheed Stn
3	152 Coquitlam Central Stn/Lougheed Stn	159 Coquitlam Central Stn/Braid Stn
4	180 Moody Ctr Stn/Lougheed Stn	180 Moody Ctr Stn/Lougheed Stn
5	159 Coquitlam Central Stn/Braid Stn	153 Coquitlam Central Stn/Braid Stn

**In the Northeast Sector, the 160 remained the busiest route by total boardings and the 159 saw high ridership due to its importance for essential workers.**

The 160 Port Coquitlam Station/Kootenay Loop continues to provide an important east-west connection to Vancouver and serves many destinations within the Tri-Cities, including Eagle Ridge Hospital.

The 159 Coquitlam Central Station/Braid Station, which serves industrial areas in Coquitlam and Port Coquitlam, moved up the list to become the route with the third-highest boardings in the sub-region. It provides a critical service to essential workers who continue to travel to in-person work.

The 143 Burquitlam Station/SFU did not appear in the top 5 in 2020 as the route was suspended while SFU classes were primarily online.

### Southwest (Richmond/South Delta/Tsawwassen First Nation)

Rank	Route (Early Fall 2019)	Route (Early Fall 2020)
1	410 22nd St Stn/Brighthouse Stn	410 Richmond-Brighthouse Stn/22nd St Stn
2	430 Metrotown/Brighthouse Stn	430 Metrotown/Brighthouse Stn
3	403 Bridgeport Stn/Three Road	403 Bridgeport Stn/Three Road
4	406 Richmond-Brighthouse Stn/Steveston	301 Newton Exch/Brighthouse Stn
5	408 Brighthouse/Ironwood/Riverport	406 Richmond-Brighthouse Stn/Steveston

**The top three routes with the highest total boardings in the Southwest sub-region were the same as 2019.**

The 410 22nd Street Station/Brighthouse Station is an important east-west connector between Richmond and the Expo Line and it remained

the top route in the Southwest. Within the top five, routes 430 and 301 also connect to areas outside of the Southwest sub-region. The 301 entered the top five following major service improvements in 2019, including the introduction of double-decker buses on the route.

### Southeast (North Delta/Surrey/Township of Langley/Langley City/White Rock)

Rank	Route (Early Fall 2019)	Route (Early Fall 2020)
1	319 Scott Rd Stn/Newton Exch/Scottsdale	319 Scott Rd Stn/Newton Exch/Scottsdale
2	96 Guildford/Newton Exch (B-Line)	R1 King George Blvd*
3	335 Newton/Surrey Ctrl Stn	321 White Rock/Newton/Surrey Ctrl Stn
4	321 White Rock/Newton/Surrey Ctrl Stn	323 Newton Exch/Surrey Ctrl Stn
5	323 Newton Exch/Surrey Ctrl Stn	335 Newton/Surrey Ctrl Stn

\*The R1 King George Blvd RapidBus replaced the 96 Guildford/Newton Exchange B-Line in January 2020.

#### The 319 and newly upgraded R1 RapidBus (formerly 96 B-Line) continued to see the highest ridership in the Southeast.

The 319 Scott Road Station/Newton Exchange remained the busiest route in the Southeast. In early fall 2020, its ridership was more robust than the bus network average, with ridership volumes at nearly 60% of 2019 levels. It has seen incredible ridership growth over the past few years and now has the fourth-highest boardings in the network, up from 16th in 2016. Its long route serves a diversity of land uses (residential, commercial, industrial, recreational, educational) and provides many connections to other routes, including the Expo Line SkyTrain.

In January 2020, the R1 King George Blvd RapidBus replaced the 96 B-Line and has retained its position with the second-highest boardings in the Southeast sub-region.

The 321 White Rock Centre/Surrey Central Station moved up to become the route with the third-highest boardings. While several bus routes connect Surrey and White Rock, the 321 is the only route that provides all-day, every day service between these two communities, and it also provides service to Surrey Memorial Hospital.

Overall, the top five routes continue to be very busy as ridership recovery is strong in the Southeast, which is further discussed in a later section of this report (see page 23).

## Vancouver/UBC

Rank	Route (Early Fall 2019)	Route (Early Fall 2020)
1	99 Commercial-Broadway/UBC (B-Line)	99 Commercial-Broadway/UBC (B-Line)
2	49 Metrotown Stn/Dunbar Loop/UBC	R4 41st Ave*
3	25 Brentwood Stn/UBC	49 Metrotown Stn/Dunbar Loop/UBC
4	41 Joyce Stn/UBC	20 Victoria/Downtown
5	20 Victoria/Downtown	25 Brentwood Stn/UBC

\*The R4 RapidBus replaced the 43 and the western segment of the 41 from Crown St. to UBC in January 2020.

### The 99 B-Line, R4 41st Ave RapidBus and other east-west routes remained the busiest routes in the Vancouver/UBC sub-region.

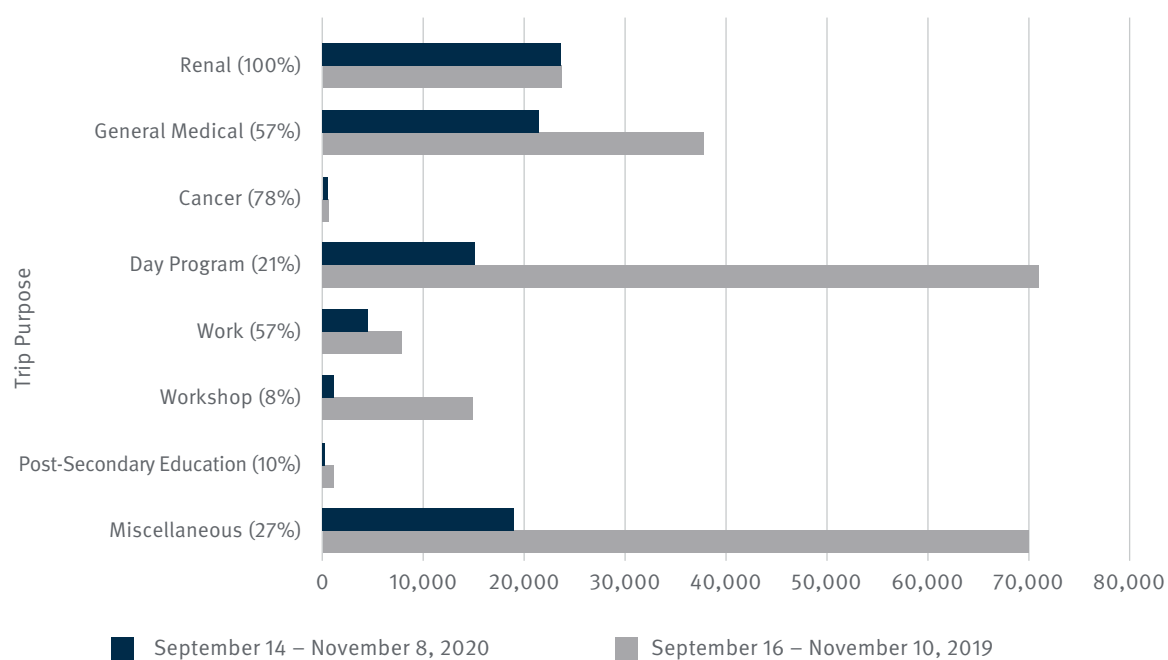
Four of the top five busiest bus routes in the Vancouver/UBC sub-region (99, R4, 49, 25) serve UBC campus and lost a significant portion of ridership in 2020 as UBC and other post-secondary institutions held classes online. However, these routes have maintained high ridership due to the importance of other destinations along their long east-west corridors, serving many different ridership markets and trip purposes and generating all-day, everyday demand. One such route, the R4 41st Ave RapidBus, was introduced in January 2020 to replace route 43 and the western segment of route 41 from Crown Street to UBC.

### HandyDART continued to provide critical access to medical services and other important destinations.

While overall HandyDART ridership was down to 37% of 2019 volumes, not all trip types were equally impacted. HandyDART customers continued to book 100% of renal appointment trips, 78% of cancer appointment trips, and 57% of general medical appointment trips, when compared to 2019 numbers. Customers continued to make many work-related trips, while trips related to day programs, post-secondary education, workshops, and other miscellaneous purposes were down significantly.

With a focus on safety during the pandemic, HandyDART established new capacity protocols to ensure all rides met the six-foot physical distancing requirement. More than 95% of trips provided had a maximum of two customers on a bus.

Figure 5: Volume of HandyDART trips by purpose – early fall 2020 vs. early fall 2019.



## Changes in ridership patterns that *did* occur demonstrated the importance of transit for people making essential trips.

The pandemic also brought about new trends. Although ridership between September and November 2020 returned to 41% pre-COVID levels system-wide, the distribution of that ridership across geography and time changed in a few notable ways.

### Across the region, ridership on routes that serve essential workers remained strong in 2020.

Given that many essential workers continued to attend their jobs in-person, ridership remained strong on routes that serve their

workplaces. For example, routes that primarily serve industrial areas had ridership at nearly 70% of 2019 volumes (on average) – much higher than the bus network average of 44%. This includes routes such as the 104, 116, 175, 418, and 640, which serve industrial areas across New Westminster, Burnaby, Coquitlam, Port Coquitlam, Richmond, Surrey, and Delta. Although ridership was lower on weekends, there was steady demand for these routes seven days a week.

As outlined later in this report, we reallocated service to some of these routes to ensure it was provided when and where it was most needed.

**Commuter services to Downtown Vancouver and routes that exclusively serve university/college campuses had significantly lower ridership recovery.**

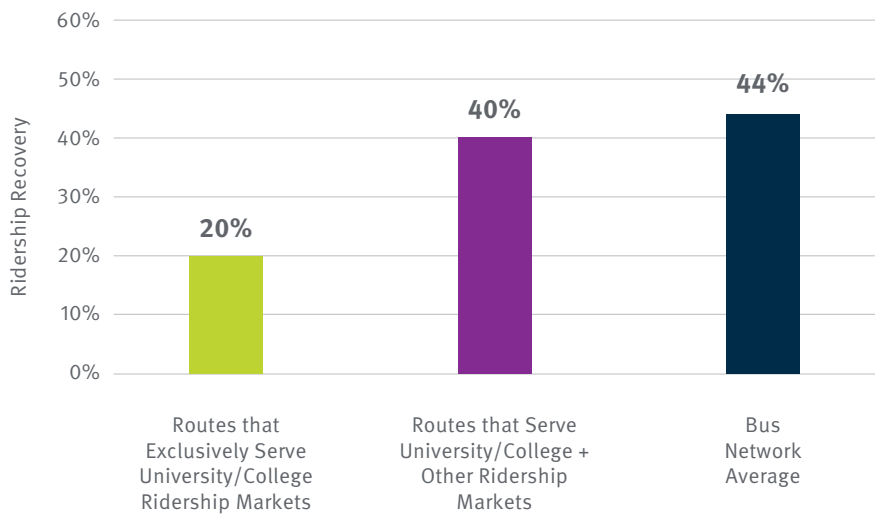
As widespread remote work continued, ridership into the Central Business District in Downtown Vancouver was significantly lower than the system-wide average of 41% of pre-COVID levels. Ridership on the West Coast Express only recovered to 17% of 2019 volumes. Bus routes that provide Peak Only service from the North Shore into Downtown Vancouver (e.g. 241, 247) were also significantly impacted, with ridership at 25%

of 2019 volumes. Ridership recovery of SeaBus was also lower than the system-wide average at 30% of 2019 volumes.

With post-secondary education being primarily online due to COVID-19 restrictions, ridership recovery on bus routes that exclusively serve campus-bound customers (e.g. 145, 245<sup>10</sup>) was also low, at around 20% of 2019 volumes.

Routes such as the R4, 144, 130, 188, and 562 that provide service to UBC, SFU, BCIT, Douglas College, KPU and TWU campuses, but also serve other ridership markets, had higher ridership recovery rates at around 40% of 2019 volumes.

**Figure 6: Ridership recovery of university/college bus routes, early fall 2020.**



<sup>10</sup> Route 245 was a new route added in April 2020, and for this reason we do not have 2019 baseline ridership to which we can compare its 2020 ridership. However, this route is still considered part of a small subset of routes that exclusively serve a university ridership market, in this case to Capilano University.

### Bus ridership recovered more strongly in some parts of the region than in others.

The highest ridership return was on routes in the Southeast sub-region (North Delta, Surrey, Langley, and White Rock). Bus ridership here reached 55% of 2019 levels, which is above the system-wide average of 41%. According to a survey<sup>11</sup> by the BC Centre for Disease Control (BCCDC), residents of Surrey and Langley reported lower rates of working from home compared to other areas of the region. This may have generated higher relative transit demand in the Southeast sub-region.



The Maple Ridge/Pitt Meadows sub-region saw greater than average ridership relative to 2019 with the introduction of the R3 Loughheed Highway RapidBus in early 2020.

In contrast, ridership in the Vancouver/UBC and Burnaby/New Westminster sub-regions was lower relative to 2019 levels as a higher proportion of their residents continued to work from home. Additionally, home to several large post-secondary institutions, routes in these

areas serve a high proportion of post-secondary students that continued to attend classes online. However, customer retention remained higher than in other sub-regions. This means a higher proportion of individual customers in these sub-regions who used the transit system prior to the pandemic continued to use the transit system during the pandemic in 2020, albeit less frequently than before. Ridership recovery, in contrast, is a measurement of the volume of trips, relative to the previous year, rather than individual customers.

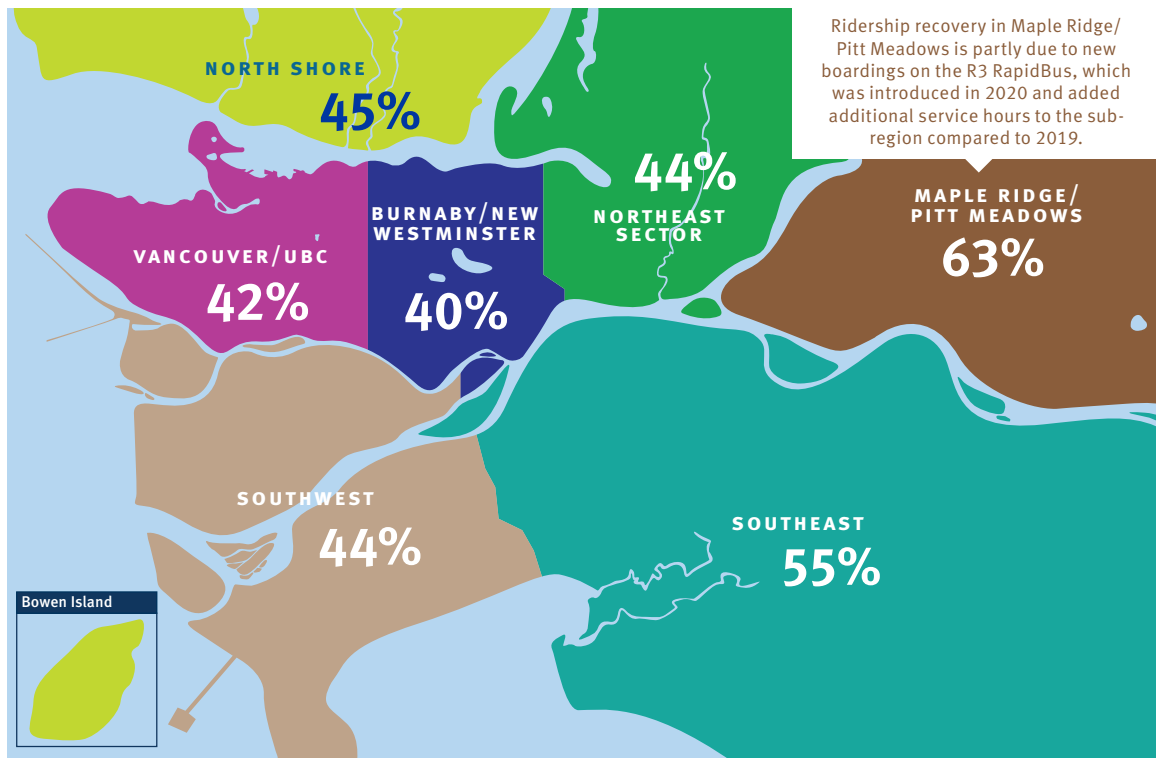
### ROUTE HIGHLIGHT: 116 EDMONDS STATION/METROTOWN STATION

**Route 116 serves industrial areas and two major retail areas in the Burnaby/New Westminster sub-region. During the pandemic, essential workers continued to rely on this service. Between September and November 2020, its ridership recovered to 60% of 2019 volumes, and ridership demand was seven days a week.**

**To facilitate physical distancing and better serve essential workers travelling to their shifts, in September 2020, we added capacity by changing the route's vehicle on weekends from a community shuttle to a standard 40-foot bus. We also started service an hour earlier on Sundays/Holidays. As a result of these service increases, we were able to provide a more reliable service for customers. We further increased service for January 2021 to accommodate higher ridership volumes during weekday peak periods.**

<sup>11</sup> BC Centre for Disease Control COVID SPEAK Survey (May 2020).

Figure 7: Ridership recovery by sub-region, early fall 2020.



**Off-peak periods had higher ridership recovery than peak periods.**

System-wide, ridership during the weekday midday returned to 43% of 2019 volumes, greater than ridership during the morning and afternoon peaks, which were lower and flatter

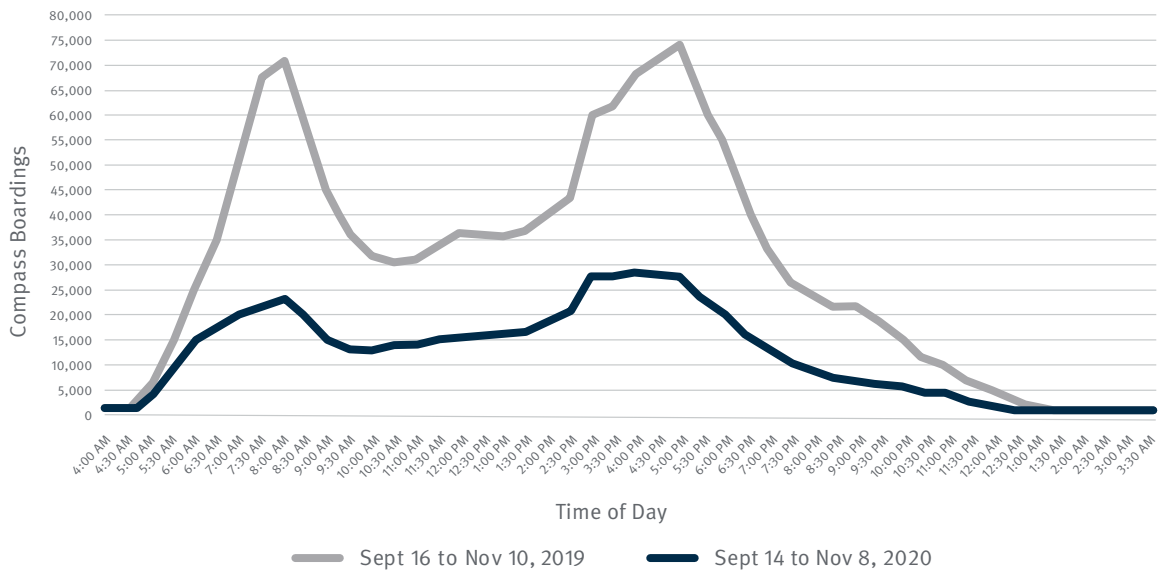
in 2020 than in 2019 and recovered to 38% and 41%, respectively. Transit customers may have continued to carry out daytime activities such as grocery shopping and medical appointments while reducing travel during regular weekday rush hour periods.



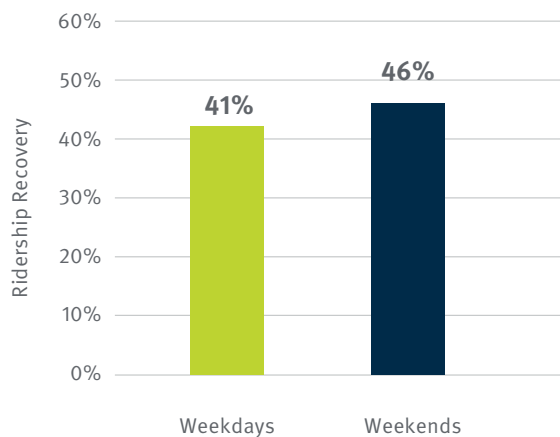
Similarly, the rate of ridership recovery on the weekends was higher than that of weekdays overall: weekend ridership was at 46% of 2019 volumes, while weekday ridership was at 41%. This higher recovery on weekends may be because essential workers continued to use the transit system to travel to work seven days a week. Transit customers may also have continued to travel on the system on weekends for errands or recreational activities while reducing travel during the week.



**Figure 8: Weekday bus and SkyTrain (Expo, Millennium, and Canada Lines) Compass boardings by time of day, early fall 2020 vs. early fall 2019.**



**Figure 9: Ridership recovery of weekends vs. weekdays, early fall 2020.**



**The times of day when customers use transit have changed.**

One dramatic change in when customers are using transit was late at night – ridership between 9:00 p.m. and 3:30 a.m. was reduced significantly to 36% of 2019 volumes. This was likely due to the limited operating hours of bars and restaurants and the closure of nightclubs under public health orders. However, some

ridership did remain as these late-night services provided vital mobility options for essential workers who travel to or from their shifts late at night. According to an SFU study<sup>12</sup>, at these times when transit service is limited, there is increased demand from low-income workers who are likely to identify as visible minorities.

Although late-night ridership was low in 2020, early morning ridership (between 4:00 a.m. and 6:00 a.m.) remained quite strong at over 60% of 2019 volumes. This may be because transit customers who work in sectors with earlier shift start times continued to travel on the system to in-person work, while many transit customers who work in sectors with ‘9-to-5’ business hours were working remotely.

<sup>12</sup> Hall, P. & Perl, A. (2020). Employer Transit Subsidy Study. Burnaby, BC: Simon Fraser University.

## Ridership recovered variably across modes, but our bus network had the highest recovery.

With ridership at 44% of 2019 volumes, the highest ridership retention and recovery was on the bus network. Our extensive bus network reaches the greatest number of communities across the region and provides connections within and across sub-regions. In addition, most routes run throughout the day and week, thereby serving a wide variety of trips.








SkyTrain and HandyDART had the second-highest rate of ridership recovery, having each recovered to 37% of 2019 ridership volumes. However, at the route level, while the Expo and Millennium Lines recovered to 39% of 2019 ridership volumes, the Canada Line recovered to only 32%. Ridership recovery on the Canada

Line was impacted by lower volumes of passengers travelling to and from Vancouver International Airport, which is normally a significant ridership driver for Canada Line. Airport-related Canada Line boardings were about 20% of 2019 volumes.

HandyDART continued to provide extensive reach and connections within and across sub-regions, providing an essential custom transit service when customers were unable to use conventional service without assistance.

As mentioned previously, SeaBus and West Coast Express had significantly lower ridership recovery as ridership demand for commuter services to Downtown Vancouver were very low. SeaBus recovered to 30% of 2019 ridership volumes, while West Coast Express only recovered to 17%.

## Ridership by mode, early fall 2020.

Transit Mode	 System-wide (All Modes)	 Bus	 Expo & Millennium Lines	 Canada Line	 SeaBus	 West Coast Express	 HandyDART
Ridership Recovery*	41%	44%	39%	32%	30%	17%	37%
Average Daily Boardings (Mon-Fri)	621,000	413,000	148,000	51,000	6,000	2,000	2,000
Average Daily Boardings (Sat)	468,000	300,000	118,000	43,000	6,000	–	1,000
Average Daily Boardings (Sun/Hol)	355,000	229,000	88,000	33,000	4,000	–	1,000

\*Early fall 2020 average weekday boardings as a percentage of early fall 2019.

## We prioritized service on bus routes when and where customers most needed it.

Emergency relief funding from the Federal and Provincial Governments made it possible to maintain near-normal overall service levels to facilitate physical distancing and ensure people have access to medical services, jobs, food, supplies, and other essential needs. Our ability to provide reliable service throughout the pandemic is crucial to BC's recovery, particularly as the economy gradually reopens and customers return to using transit more regularly. To reflect the most current public health guidance and ridership trends, and to ensure service was provided when and where it was most needed, we shifted service throughout the year to respond to customers' changing needs.

## We significantly reduced transit vehicle capacity targets on all conventional and custom modes in response to public health guidance on physical distancing.

As a safety measure, we reduced the capacity targets of our transit vehicles and provided direction to operators not to pick up additional passengers once targets were reached in order to provide more space for physical distancing on board. This meant that fewer people could be carried on our buses, trains, and vessels. For example, in late March 2020, bus passengers were limited to every other seat, or approximately one-third of regular capacity. In alignment with BC's Phase 2 Restart, in June 2020 we increased capacity targets on buses to approximately two-thirds to continue to facilitate physical distancing.

## Although transit ridership decreased across the entire region, we increased service on some bus routes in 2020 to ensure there was enough vehicle capacity for customers.

Due to high levels of overcrowding on many of our routes *prior* to the pandemic, even with decreased ridership, passenger volumes continued to exceed the new, reduced vehicle capacity targets. Some routes also retained relatively high levels of ridership. For these reasons, we reallocated service to prevent pass-ups and ensure customers could reach their destinations.



Nearly half of the routes with increased service were in the Southeast sub-region. Significant bus ridership growth over the past few years has led to overcrowding in the Southeast, even prior to the pandemic. With lower vehicle capacity targets and relatively high ridership levels in the sub-region, we had to increase service to meet demand. In response, we increased service on

24 routes in September 2020 – 11 of which were in the Southeast sub-region. These routes were 310, 312, 319, 321, 322, 323, 324, 325, 364, 373, and 640.

**We also increased service on routes across the region at times of day when we saw that more service was needed to accommodate customers.**

For example, in September 2020 we increased service on the 430 Richmond-Brighouse Station/Metrotown Station all day

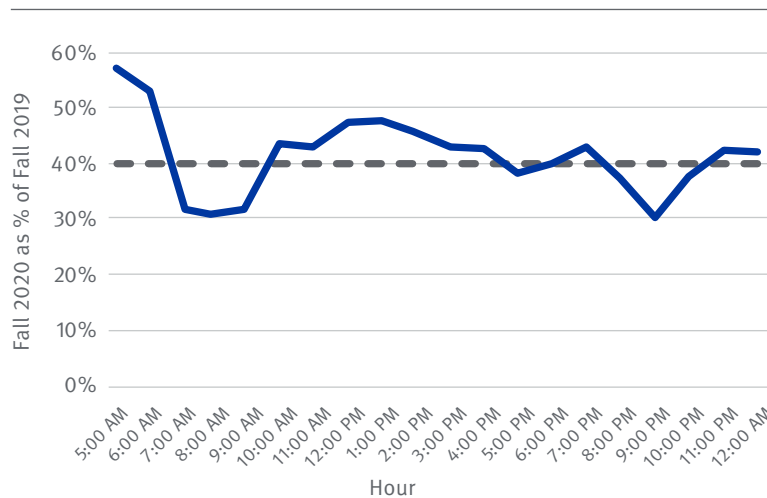
## ROUTE HIGHLIGHT: 25 BRENTWOOD STATION/UBC

Route 25 is an important, high-frequency east-west connector through Burnaby and Vancouver to UBC. It has a diverse ridership market that serves Burnaby Hospital and BC Women’s and Children’s Hospitals, in addition to BCIT and UBC.

As post-secondary institutions shifted to online classes, the 25 lost a significant segment of its ridership. Despite this, during the period of September to November 2020, the route remained one of the top 10 bus routes in the network with the sixth highest number of boardings. On average, ridership was about 40% of 2019 volumes, but ridership recovery varied throughout the day. Between 5:00 a.m. and 7:00 a.m., ridership recovery was highest at nearly 60% of 2019 volumes. In comparison, ridership recovery was much lower between 7:00 a.m. and 10:00 a.m., dropping to as low as 30% of 2019 volumes.

This suggests many shift workers – including essential front-line healthcare workers – with early shift start times were still using the 25 to access hospitals along the route, and fewer university and office commuters were travelling in the latter part of the morning peak period. In response, in September 2020 we slightly reduced service on this very high-frequency route from every 4 or 5 minutes to every 4 or 6 minutes during times of day with lower ridership volumes.

Figure 10: Route 25, early fall 2020 vs. early fall 2019 weekday boardings by time of boarding (40% daily average).



Across the system, routes like the 25 that have diverse ridership markets and serve many different destinations maintained higher ridership volumes despite losing other significant ridership segments. In general, we try to plan our transit routes to ensure they serve a variety of destinations and trip purposes, which generates greater ridership demand and makes for a more robust transit system.

on weekends and during peak periods on weekdays. We also added service on other routes that continued to have high ridership volumes during weekday peak hours, such as routes 175 and 240. Moving forward into 2021, we will continue to redistribute service to where it is needed the most.

**To provide additional service where it was most needed, we reduced service on high-frequency bus routes and other modes with substantial decreases in ridership demand, particularly those serving Downtown Vancouver and university/college campuses.**

For example, we reduced service on routes 3, 5/6, and 8, which serve Downtown Vancouver, as well as routes 9, 14, 25, and 144, which serve UBC and SFU campuses. For those who still required convenient access to these institutions and other destinations, we maintained service frequencies of 15 minutes or better on all routes that provided frequent service prior to the pandemic.

We also suspended five bus routes – 32, 44, 143, 258, and 480. Before the pandemic, these routes operated during peak periods or weekdays only to provide more capacity and service to UBC, SFU, or Downtown Vancouver. Alternative routes with all-day, every day service continued to operate along the same corridors. We will continue to monitor the need to restore these services as people become vaccinated and begin returning to work or school in-person.

Through the fall we continued to operate West Coast Express with fewer trains (three out of the usual five) and adjusted the number of cars as needed to maintain target capacities for physical distancing. We also continued to operate SeaBus at reduced frequencies during peak periods (every 15 minutes rather than every 10 minutes), while capacities were restricted to about 50% of normal passenger capacity. As previously highlighted in this report, ridership recovery of these services to Downtown Vancouver were significantly lower than the system-wide average in 2020, so even with lower capacity targets, the reduced service was enough to meet demand.

**We maintained near-normal service levels on SkyTrain and HandyDART.**

The passenger capacity targets implemented during the pandemic also applied to SkyTrain cars and HandyDART vehicles. This meant that these modes could carry fewer passengers. To ensure customers could reach their destinations conveniently and to prevent crowding on platforms, we continued to operate near-normal service levels on these modes. For HandyDART, we continued to operate on-demand service with lower trip denial<sup>13</sup> rates and about the same refusal<sup>14</sup> rates compared to 2019.

<sup>13</sup> Denial – A HandyDART customer trip request that is not accommodated. Denials occur because requests for trips cannot be accommodated in the schedule when they are received close to the desired travel day, for peak travel times with high demand for service, or for some long trips that cannot be served.

<sup>14</sup> Refusal – A HandyDART trip that a customer refuses when offered. Trip refusals occur when a requested trip time is unavailable, an alternative time is offered (up to an hour before or after the requested time), and the proposed time is not agreeable to the customer.

# Conclusion

## 2020 was a challenging year, but TransLink continued to provide a crucial lifeline for the people of Metro Vancouver.

In closing, 2020 was a year unlike any other in TransLink's history. Public transit agencies across the globe were faced with an unprecedented challenge as a result of the global health crisis, and TransLink was



This report provides an insightful snapshot of the impact the COVID-19 pandemic had on transit ridership in our region in 2020. As we head into 2021, we remain optimistic that our ridership will continue to rebuild, and the COVID-19 pandemic will slowly shift into the rear-view mirror. This report will inform our ridership recovery and service delivery plans as we rebound from COVID-19 over the weeks, months, and years ahead. The road ahead will likely be a long one, but TransLink will continue moving forward, driven by our vision to create a better place built upon transportation excellence.

no exception. Nonetheless, over the course of 2020, we remained committed to ensuring that our hundreds of thousands of customers from across Metro Vancouver could continue to safely rely on our transit network for their fundamental mobility needs.



[translink.ca/tspr](http://translink.ca/tspr)