



the
glebe

Glebe BIA Bank Street Research Project

Final Report
November 29, 2021



Introduction

Stantec Consulting Ltd. (Stantec) was retained by the Glebe Business Improvement Area (BIA) to undertake a research project to better understand the impacts of COVID-19 on travel behaviour and traffic volumes on Bank Street and the Glebe.

StreetLight, a cloud-based transportation analytics platform, was used to gain insights on transportation and mobility metrics.

This report is a combination of latest available data as well as previously completed reports: *2020 Glebe BIA Bank Street Research Project (December 2020)* and *2021 Glebe BIA Bank Street Research Project Interim Report (July 2021)*.





Background

The research project aimed at providing insights answering the following questions:

1. *How have traffic volumes and travel patterns on Bank Street change since the Coronavirus outbreak?*
2. *Who is currently visiting the Glebe? Where are they generally coming from within the National Capital Region (NCR)?*
3. *How have commuter-based trips that typically pass through the Glebe change over the last few months?*
4. *With changes in travel behavior due to increased teleworking, what are the potential medium and long-term implications to travel patterns*





Streetlight Overview

The StreetLight analytics platform was used to obtain average monthly historical traffic data. Streetlight is a cloud-based transportation analytics platform that utilizes cellular data to gain insights on transportation and mobility metrics. Streetlight generates travel metrics by aggregating anonymized location-based data.

The Streetlight Essential package was utilized for this project to obtain vehicular traffic data sets. Other modes of travel, such as walking, cycling and transit, are not reflected in this research project.





Study Area

The initial 2020 Report provided a comparison between 2019 (pre-COVID) and 2020 traffic levels for the months of January through to October. The interim report provided November 2020 to May 2021. This report is inclusive of all the data for 2020 and 2021 data available for 2021 to date (January 2020 to September 2021).

Consistent with the previous report, data was queried for the following study area zones:

- Zone 1: Bank Street North Screenline
- Zone 2: Bank Street South Screenline
- Zone 3: Bank Street Corridor (Glebe BIA)
- Zone 4: Lansdowne / TD Place
- Zone 5: Glebe West
- Zone 6: Glebe East

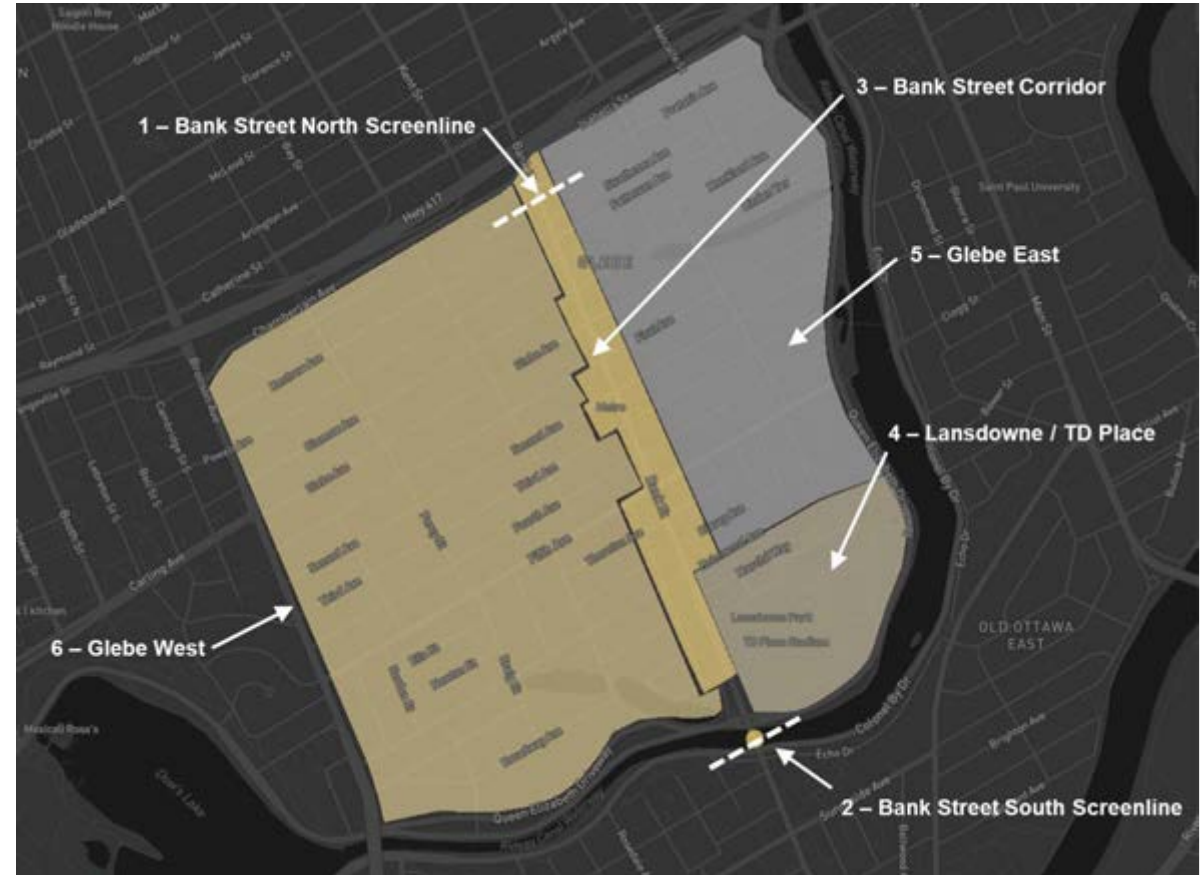


Figure 1 – StreetLight Data Zones



This final report covers the following:

- ✓ Vehicular traffic data for the time period between **January 2020** and **September 2021**
- ✓ Variations in traffic activity were measured against 2019 Baseline Conditions (i.e. pre COVID-19)
- ✓ Month-to-month review of average daily traffic activity
- ✓ Average daily traffic profiles for Weekday and Weekend

Detailed monthly traffic volume data is provided in [Appendix A](#).

Detailed average Weekday and Weekend traffic profiles are provided in [Appendix B](#).





Final Results – Bank Street Traffic Volumes

Based on previous data collected, 2020 traffic volumes between August and October 2020 were observed to rebound close to 2019 Baseline conditions (~6% lower).

General traffic volumes on Bank Street dropped further between May and September 2021 by ~40% in comparison to 2019 Baseline conditions. The lowest drop was observed in August 2021 with volumes dropping by ~42% from 2019 Baseline conditions. The drop in general traffic volumes coincide with the timing of COVID-19 related restriction measures. It is recommended that updated Turning Movement Count (TMC) data from the City of Ottawa be reviewed to verify the magnitude of declining traffic volumes observed in Summer 2021.

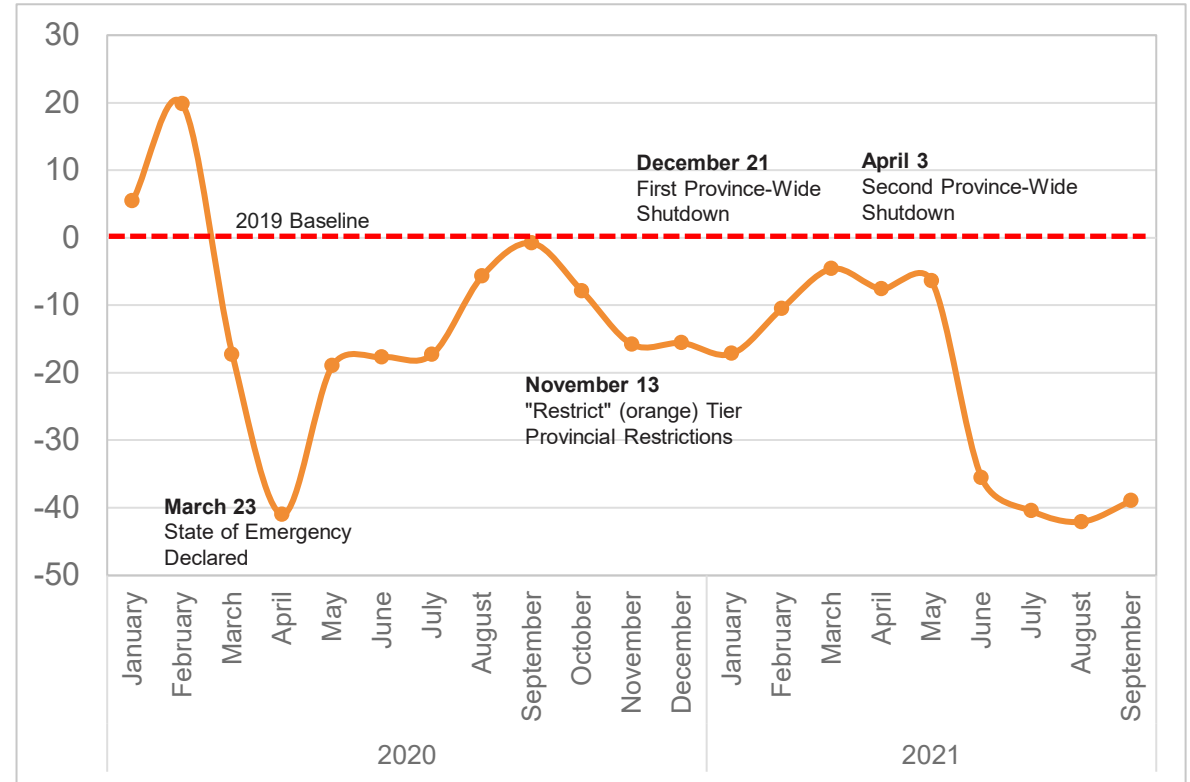


Figure 2 – % Change in General Traffic Volumes Bank Street (2020/2021 vs 2019)



Final Results – Bank Street Traffic Volumes

Despite COVID-19 related restrictions in 2021, total traffic volumes on Bank Street were observed to steadily rebound closer to 2019 Baseline conditions until May 2021.

In mid 2021, total traffic volumes were observed to be ~36% below 2019 Baseline conditions. That gap steadily shrunk over the course of 2021 with average daily traffic volumes approaching levels that are comparable to 2019 Baseline conditions until May 2021. However, the gap increased June 2021 onwards.

Detailed monthly traffic volume comparisons are provided in [Appendix A](#).

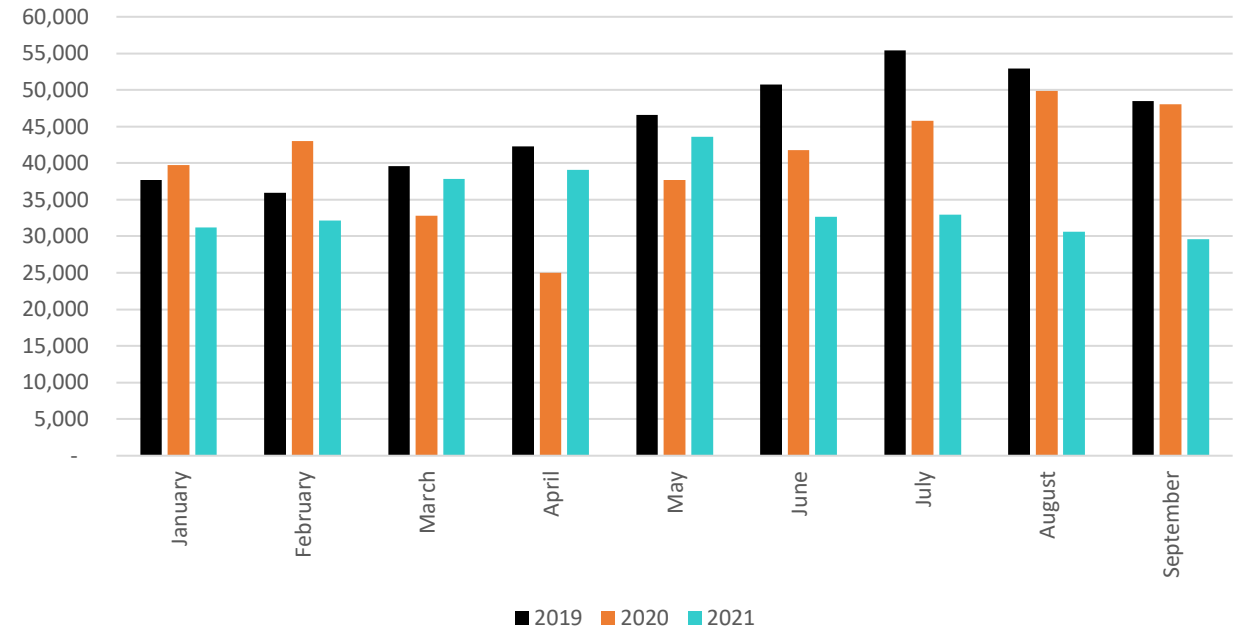


Figure 3 – Bank Street Total Traffic Volumes



Final Results – Vehicle Trips to Bank Street (Glebe BIA)

Trips headed to the Bank Street Corridor (i.e. Glebe BIA) were compared with the 2019 Baseline Conditions.

The change in restrictions with COVID-19 had direct correlation to the trips headed to the Bank Street Corridor.

As seen in **Figure 4**, trips were observed to first drop down by ~44% in April in comparison with 2019 Baseline conditions, bouncing back slowly in subsequent months to an all time high in September 2020 (~16% above 2019 Baseline conditions), before dropping in subsequent months with all time low in January 2021 (~55% below 2019 Baseline conditions).

This trend coincides with the timing of COVID-19 related restriction measures.



Final Results – Vehicle Trips to Bank Street (Glebe BIA)

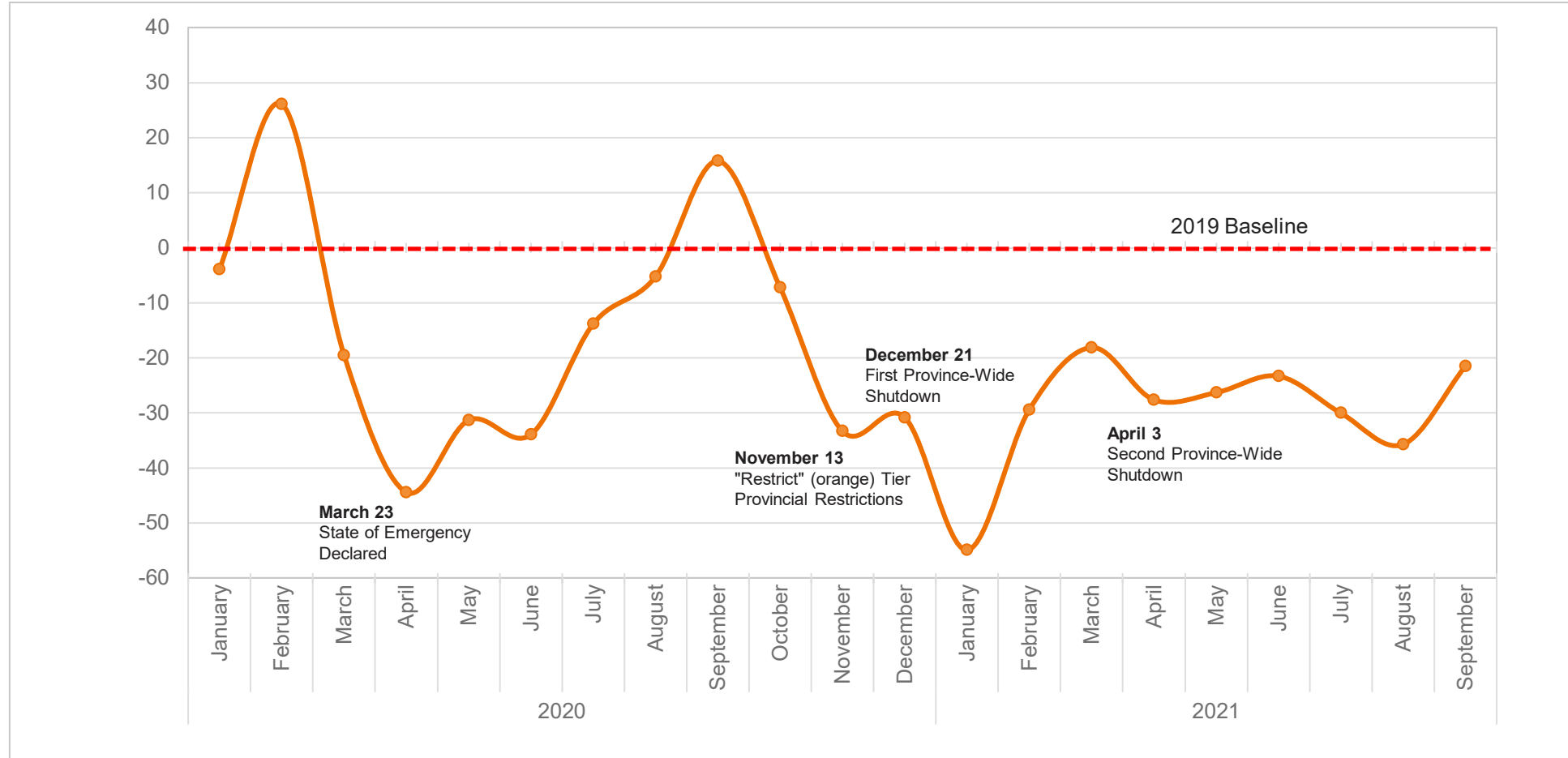


Figure 4 – % Change in Traffic Volumes Bank Street Corridor (2020/2021 vs 2019)



Final Results – Vehicle Trips to TD Place / Lansdowne

Trips headed to Lansdowne / TD Place compared with the 2019 Baseline Conditions.

The change in restrictions with COVID-19 had direct correlation to the trips headed to Lansdowne / TD Place.

As seen in **Figure 5**, trips were observed to first drop down by ~80% in April 2020 in comparison with 2019 Baseline conditions, bouncing back slowly in subsequent months to an all time high in August 2020 (~14% below 2019 Baseline Conditions), before dropping in subsequent months with a low in April 2021 (~59% below 2019 Baseline conditions). The trips to Lansdowne / TD Place are similar to trips to Bank Street Corridor.

This trend coincides with the timing of COVID-19 related restriction measures.



Final Results – Vehicle Trips to TD Place / Lansdowne

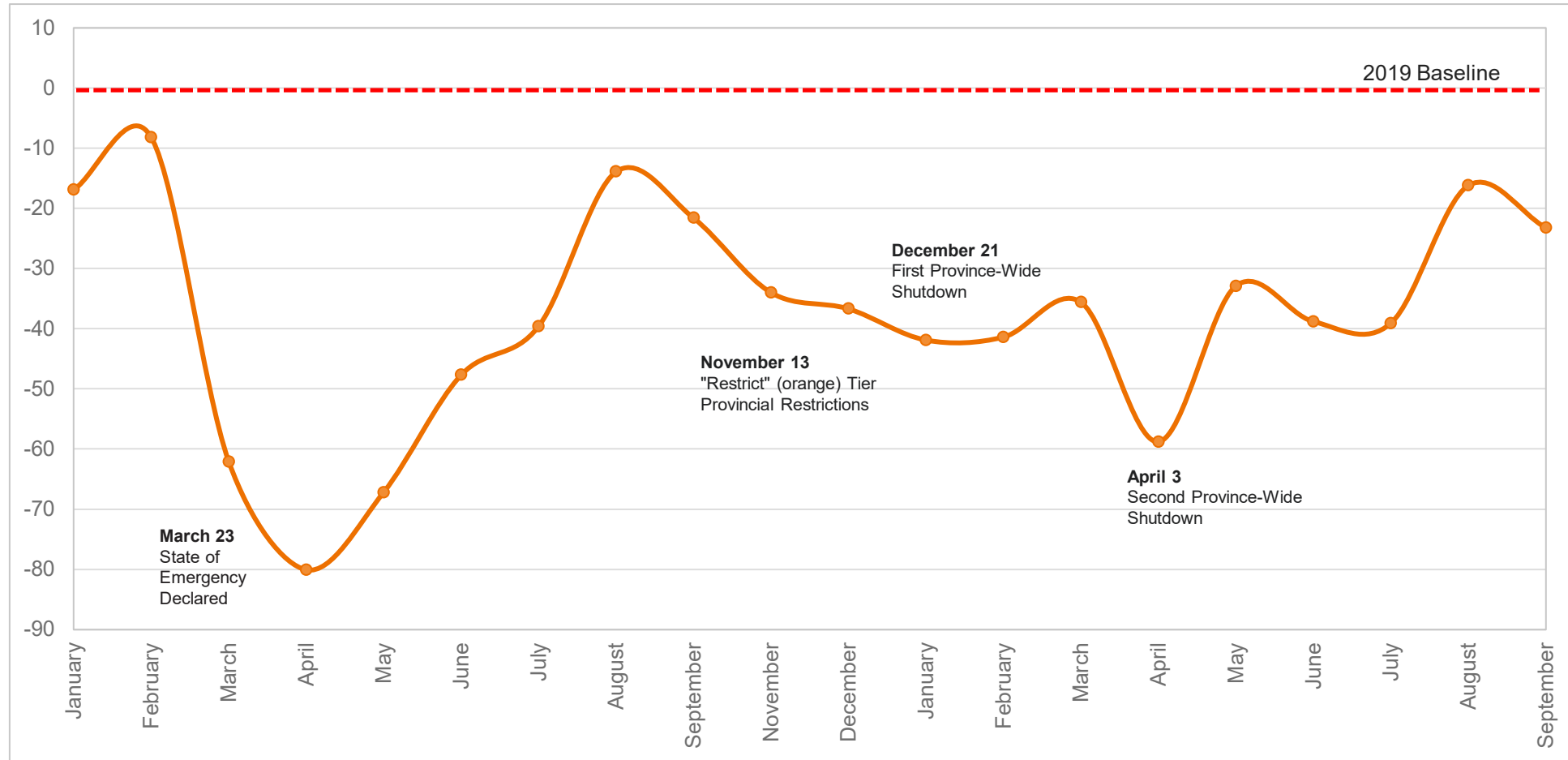


Figure 5 – % Change in Traffic Volumes
TD Place / Lansdowne (2020/2021 vs 2019)



Final Results – Weekday Daily Profile

Average weekday traffic volumes continued to spread throughout the day with lower demands during the traditional commute period (6:00 – 9:00 a.m., 3:00 – 6:00 p.m.), particularly in the afternoon.

Mid-day demands significantly increased.

Detailed average daily traffic profiles for each month observed are provided in [Appendix B](#).

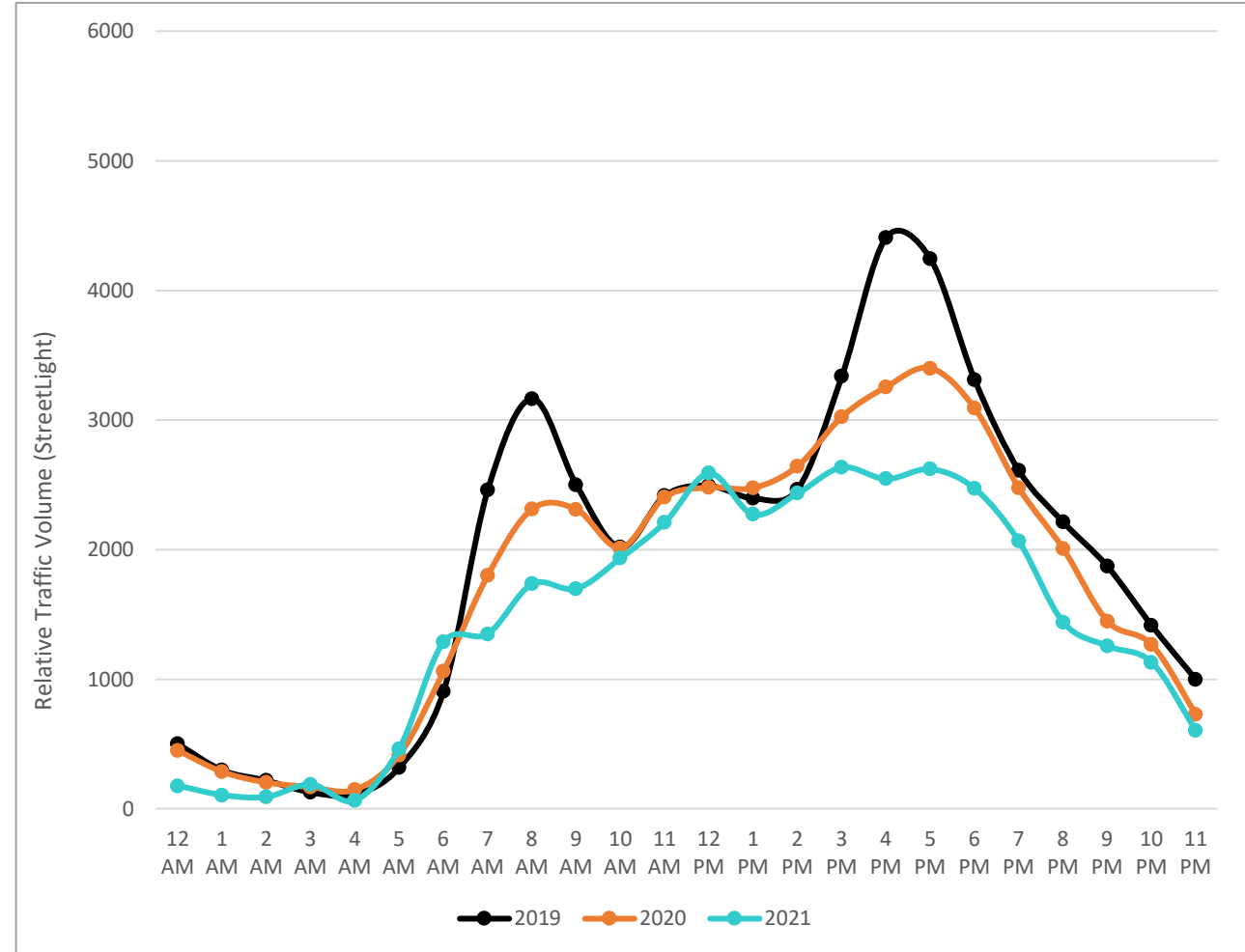


Figure 6 – Average Weekday Traffic Profile (January – September)



Final Results – Weekend Daily Profile

The average weekend traffic demand profile continue to resemble 2019 Baseline conditions.

2021 Weekend afternoon volumes were found to peak slightly higher than 2019 and 2020 conditions.

Detailed average daily traffic profiles for each month observed are provided in [Appendix B](#).

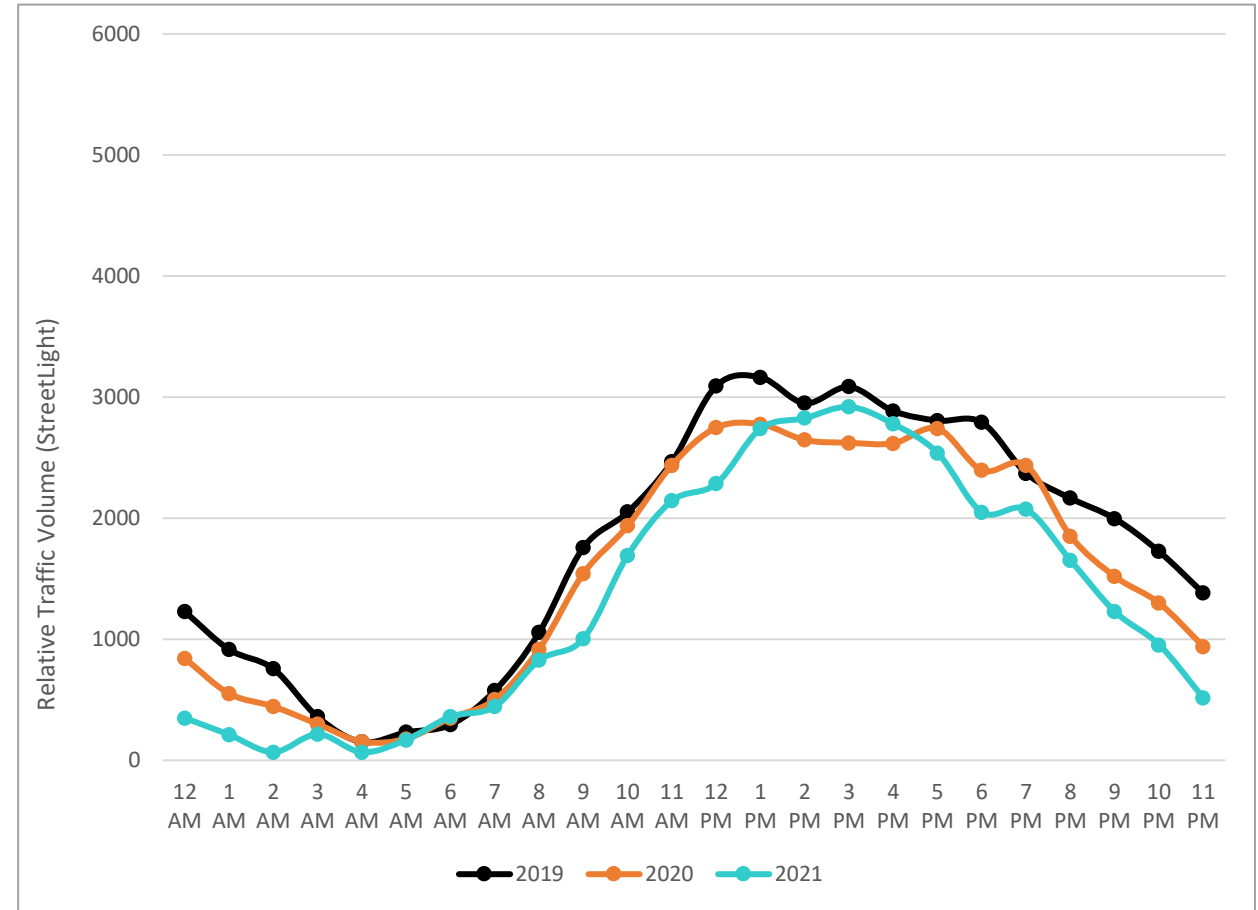


Figure 7 – Average Weekend Traffic Profile (January – September)



Key Findings

Based on the data available to date, the following key observations are made:

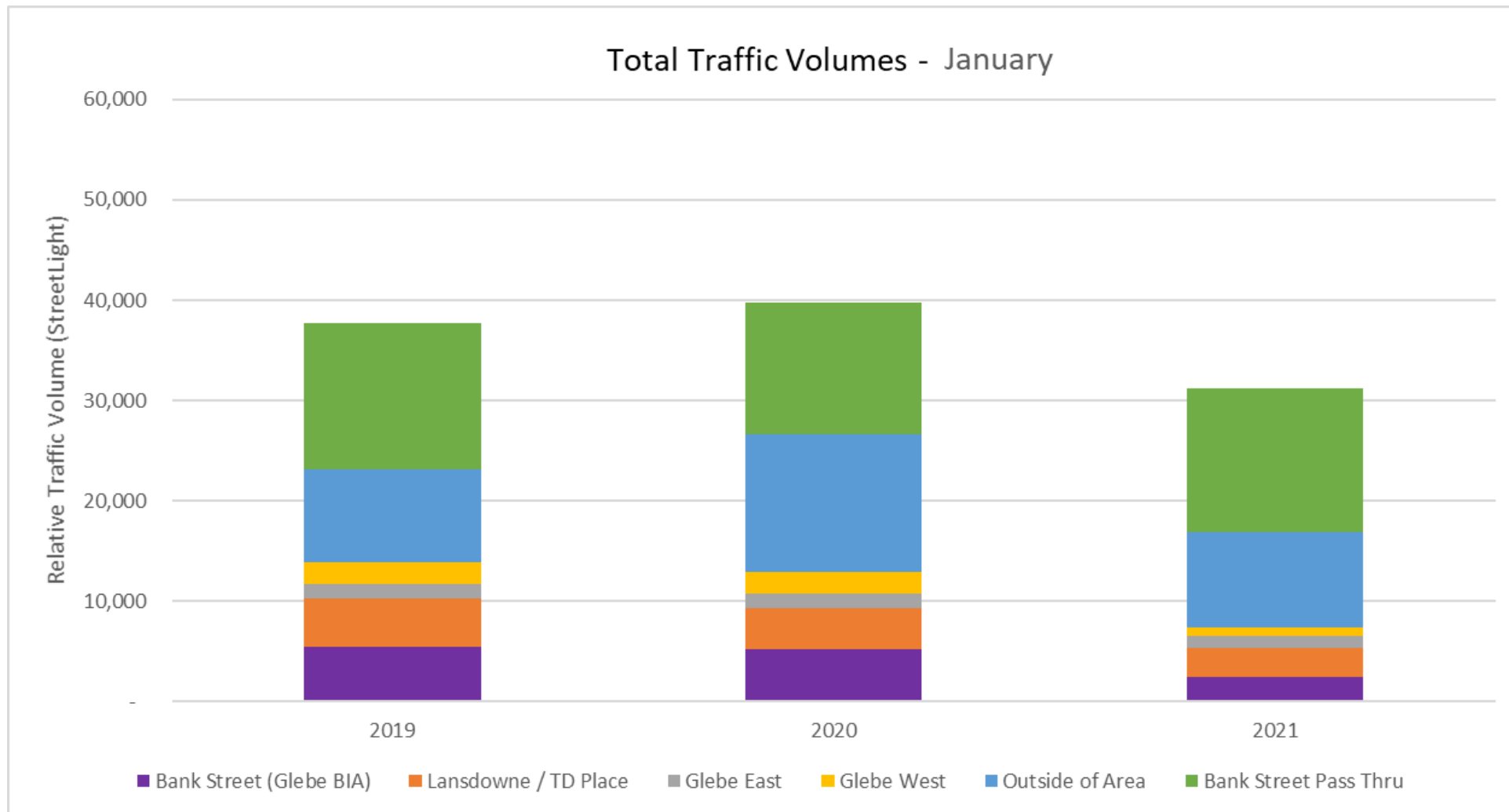
1. 2021 average daily traffic volumes on Bank Street continue to be below 2019 Baseline conditions. However, the gap is shrinking with total daily traffic volumes approaching pre-COVID levels (currently ~39% below 2019 Baseline conditions)
2. Average trips destined to Bank Street and Lansdowne / TD Place continue to be ~26% and ~35% below 2019 Baseline conditions, respectively.
3. Despite the significant reduction in Weekday morning and afternoon commuter-based trips on Bank Street, the total daily traffic volumes on Bank Street were observed to be close to 2019 Baseline conditions (~6% below) over the course of 2020 and early 2021. This indicated that while there has been a general reduction in commuter-based trips, a comparable number of trips were occurring on Bank Street over the course of the day for other trip purposes.
4. However, over the course of Summer 2021 (June through to September), a significant drop in overall traffic volumes on Bank Street was observed (~40% below 2019 levels). While StreetLight data was collected during a Province-wide COVID-19 lockdown, further investigation and comparison with City of Ottawa traffic data (if available) should be made to verify the magnitude of traffic volume reductions.



Appendix A: Monthly Traffic Volume Comparison

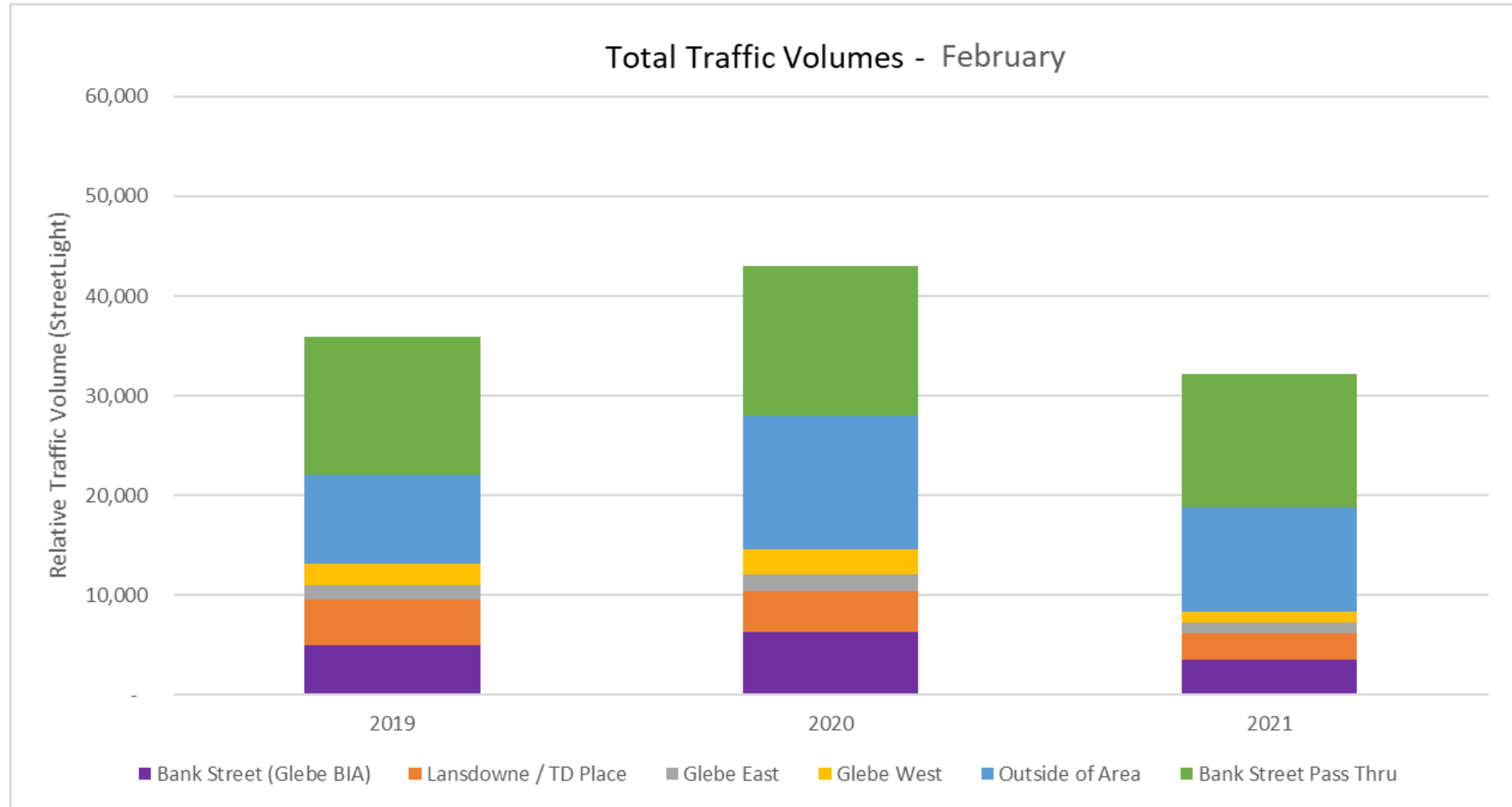


January	2019		2020		2019-2020 % Change	2021		2019-2021 % Change
Bank Street Total Traffic Volumes	37,683	100%	39,704	100%	5.4%	31,212	100%	-17.2%
<i>Destinations</i>								
Bank Street Corridor	5,404	14%	5,194	13%	-3.9%	2,438	8%	-54.9%
Lansdowne / TD Place	4,892	13%	4,067	10%	-16.9%	2,843	9%	-41.9%
Glebe East	1,409	4%	1,451	4%	3.0%	1,193	4%	-15.3%
Glebe West	2,204	6%	2,164	5%	-1.8%	957	3%	-56.6%
<i>Outside of Area*</i>	9,182	24%	13,803	35%	50.3%	9,473	30%	3.2%
<i>Bank Street Pass Thru</i>	14,592	39%	13,025	33%	-10.7%	14,308	46%	-1.9%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>								



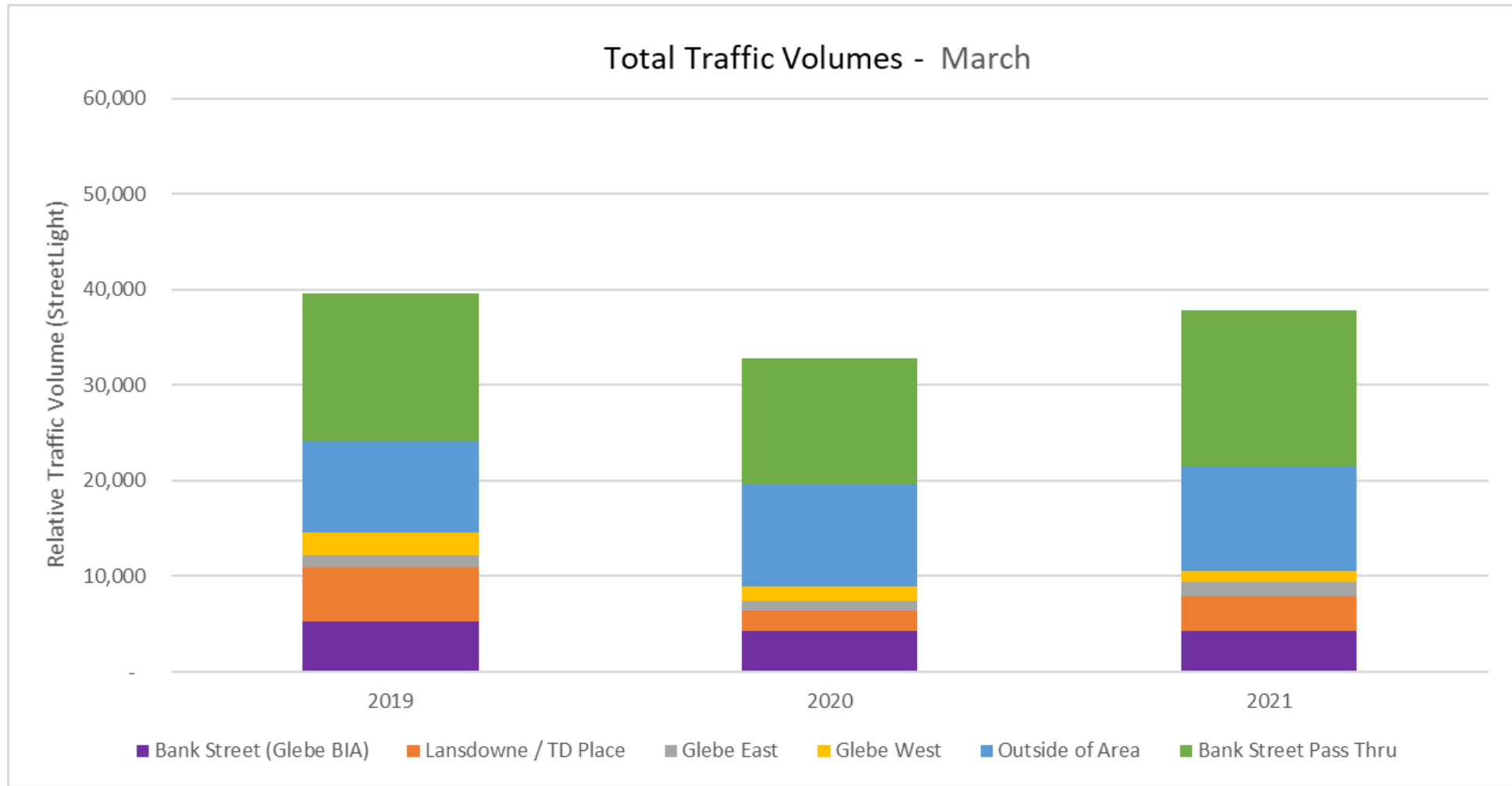


February	2019		2020		2019-2020 % Change	2021		2019-2021 % Change
Bank Street Total Traffic Volumes	35,921	100%	43,043	100%	19.8%	32,159	100%	-10.5%
<i>Destinations</i>								
Bank Street Corridor	5,009	14%	6,315	15%	26.1%	3,534	11%	-29.4%
Lansdowne / TD Place	4,493	13%	4,125	10%	-8.2%	2,634	8%	-41.4%
Glebe East	1,489	4%	1,588	4%	6.6%	1,121	3%	-24.7%
Glebe West	2,191	6%	2,564	6%	17.0%	1,102	3%	-49.7%
<i>Outside of Area*</i>	8,827	25%	13,330	31%	51.0%	10,476	33%	18.7%
<i>Bank Street Pass Thru</i>	13,912	39%	15,121	35%	8.7%	13,292	41%	-4.5%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>								



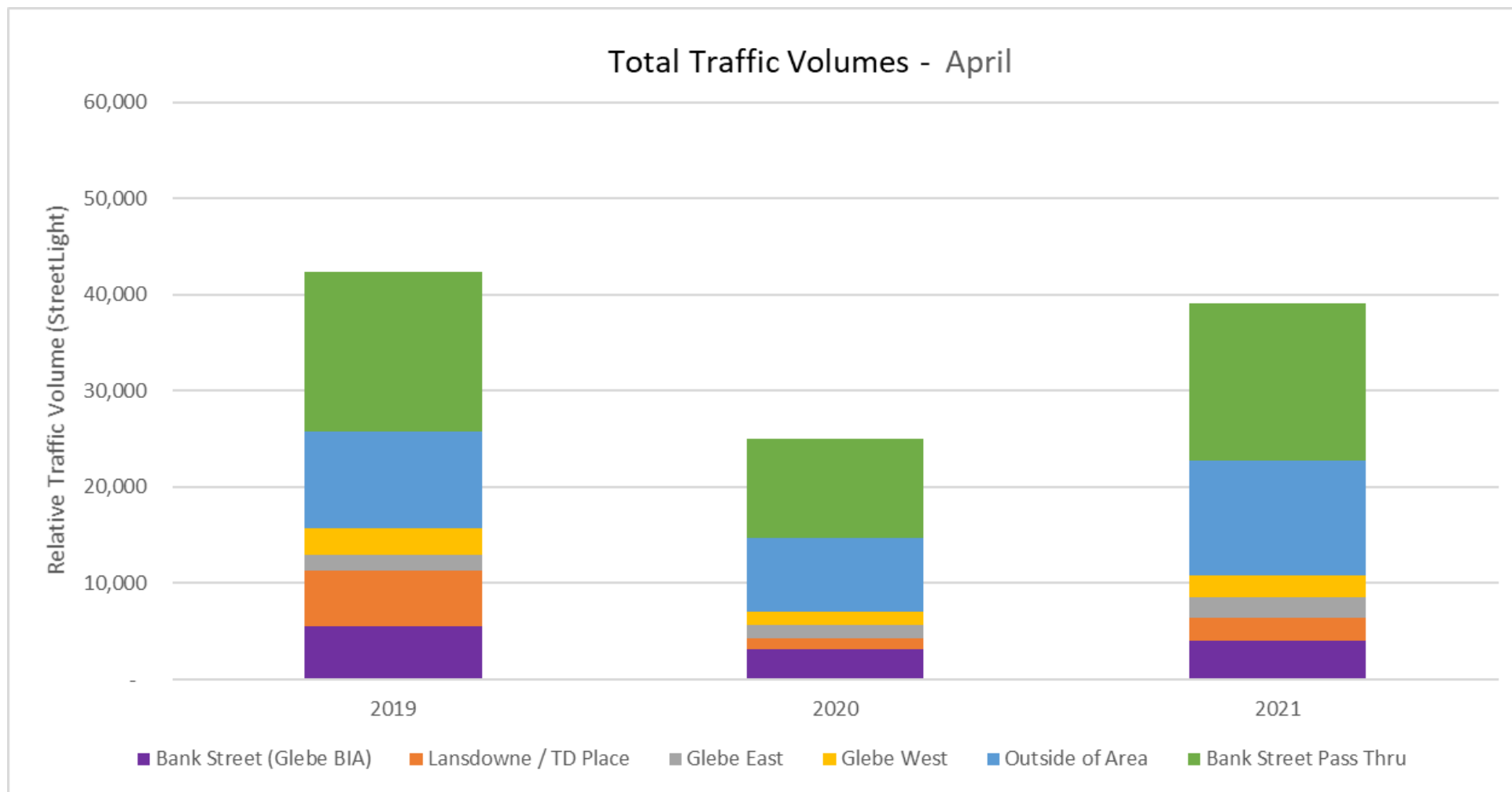


March	2019		2020		2019-2020 % Change	2021		2019-2021 % Change
Bank Street Total Traffic Volumes	39,629	100%	32,788	100%	-17.3%	37,814	100%	-4.6%
<i>Destinations</i>								
Bank Street Corridor	5,277	13%	4,249	13%	-19.5%	4,323	11%	-18.1%
Lansdowne / TD Place	5,609	14%	2,126	6%	-62.1%	3,612	10%	-35.6%
Glebe East	1,321	3%	1,041	3%	-21.2%	1,489	4%	12.7%
Glebe West	2,403	6%	1,537	5%	-36.0%	1,077	3%	-55.2%
<i>Outside of Area*</i>	9,528	24%	10,608	32%	11.3%	11,019	29%	15.6%
<i>Bank Street Pass Thru</i>	15,491	39%	13,227	40%	-14.6%	16,294	43%	5.2%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>								



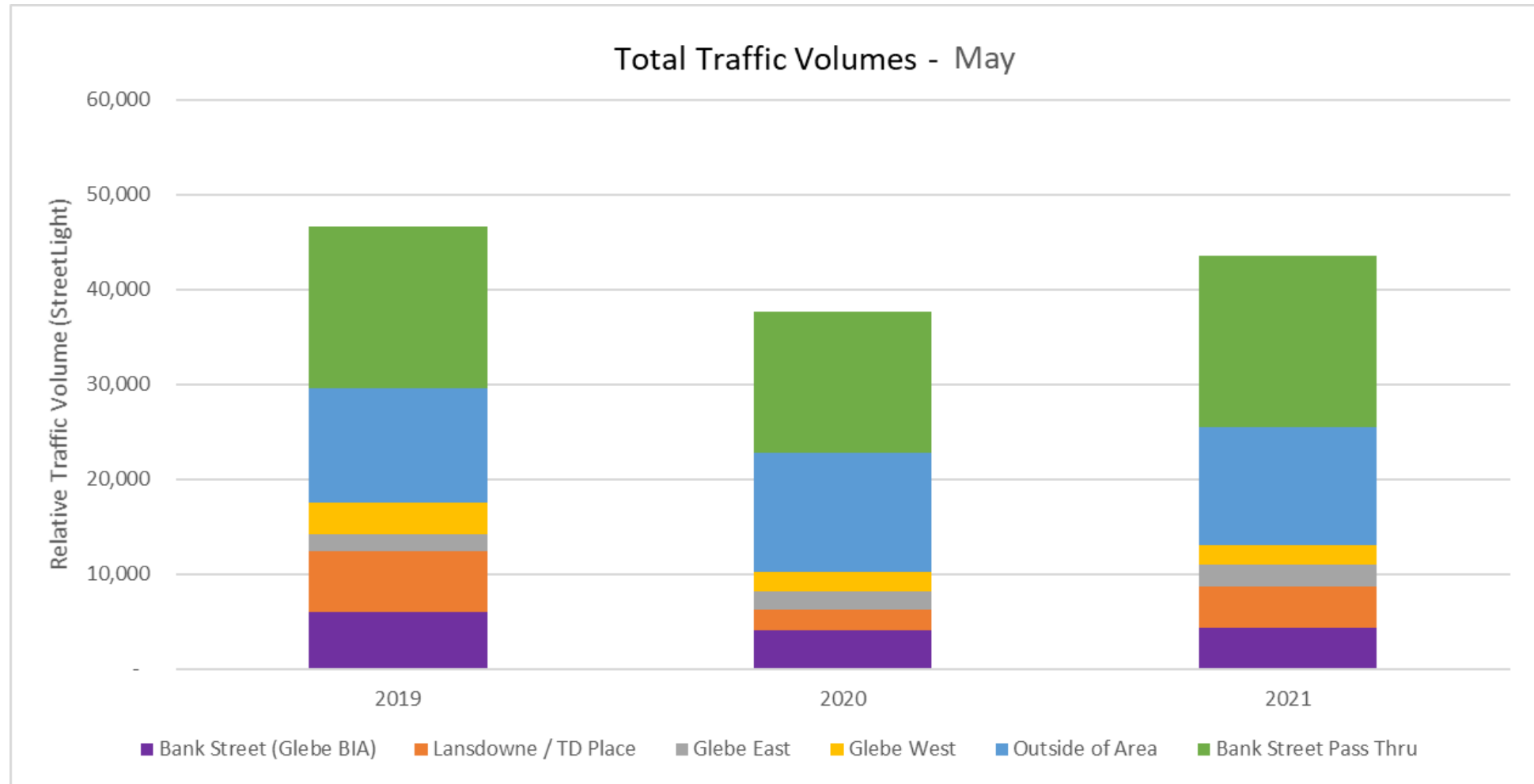


April	2019		2020		2019-2020 % Change	2021		2019-2021 % Change
Bank Street Total Traffic Volumes	42,325	100%	24,987	100%	-41.0%	39,091	100%	-7.6%
<i>Destinations</i>								
Bank Street Corridor	5,551	13%	3,085	12%	-44.4%	4,021	10%	-27.6%
Lansdowne / TD Place	5,720	14%	1,138	5%	-80.1%	2,356	6%	-58.8%
Glebe East	1,656	4%	1,485	6%	-10.3%	2,200	6%	32.9%
Glebe West	2,770	7%	1,364	5%	-50.8%	2,196	6%	-20.7%
<i>Outside of Area*</i>	10,079	24%	7,644	31%	-24.2%	11,989	31%	19.0%
<i>Bank Street Pass Thru</i>	16,549	39%	10,271	41%	-37.9%	16,329	42%	-1.3%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>								



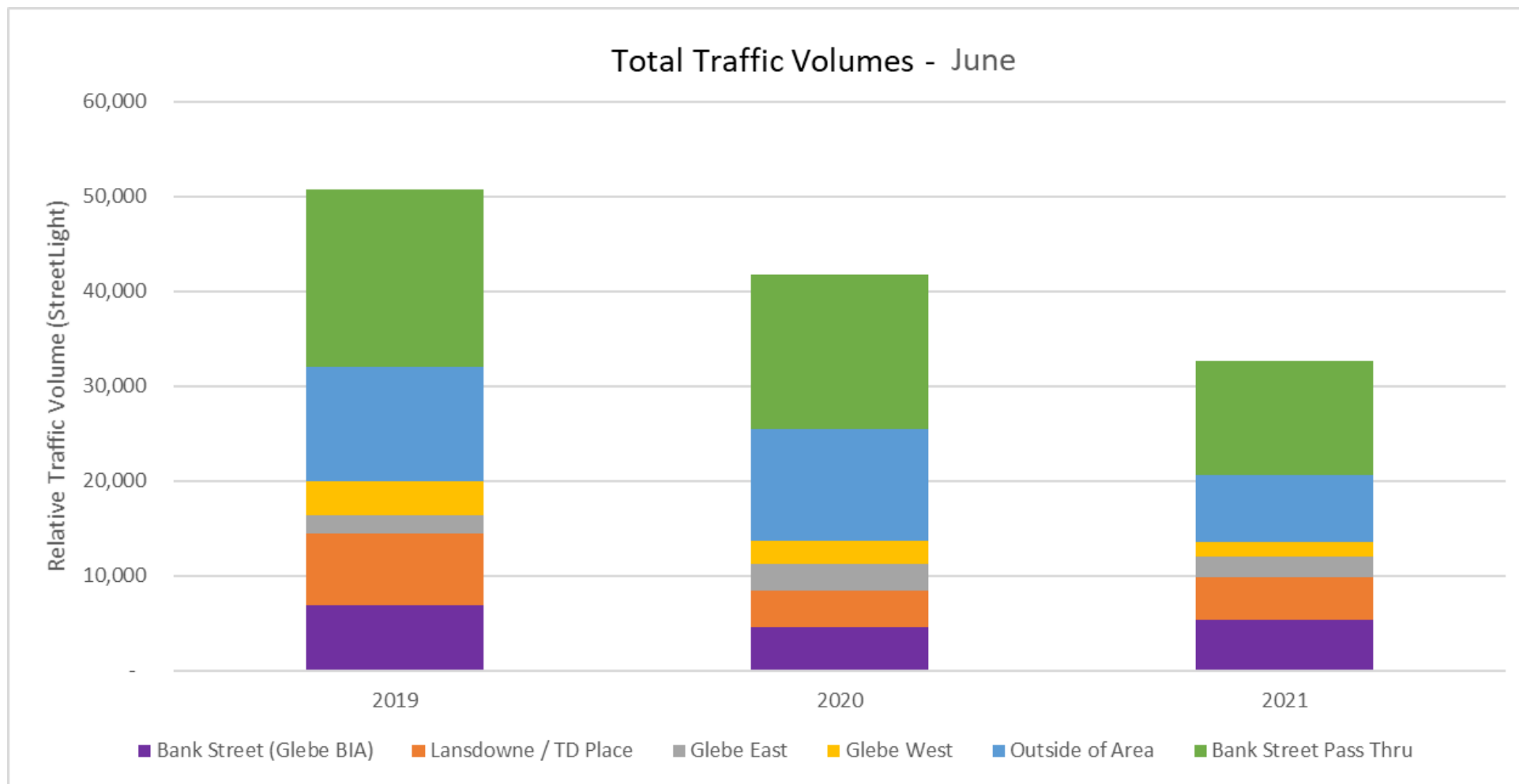


May	2019		2020		2019-2020 % Change	2021		2019-2021 % Change
Bank Street Total Traffic Volumes	46,571	100%	37,709	100%	-19.0%	43,601	100%	-6.4%
<i>Destinations</i>								
Bank Street Corridor	5,973	13%	4,101	11%	-31.3%	4,403	10%	-26.3%
Lansdowne / TD Place	6,497	14%	2,131	6%	-67.2%	4,359	10%	-32.9%
Glebe East	1,757	4%	1,999	5%	13.8%	2,238	5%	27.4%
Glebe West	3,343	7%	1,978	5%	-40.8%	2,064	5%	-38.3%
<i>Outside of Area*</i>	11,972	26%	12,558	33%	4.9%	12,359	28%	3.2%
<i>Bank Street Pass Thru</i>	17,029	37%	14,942	40%	-12.3%	18,178	42%	6.7%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>								



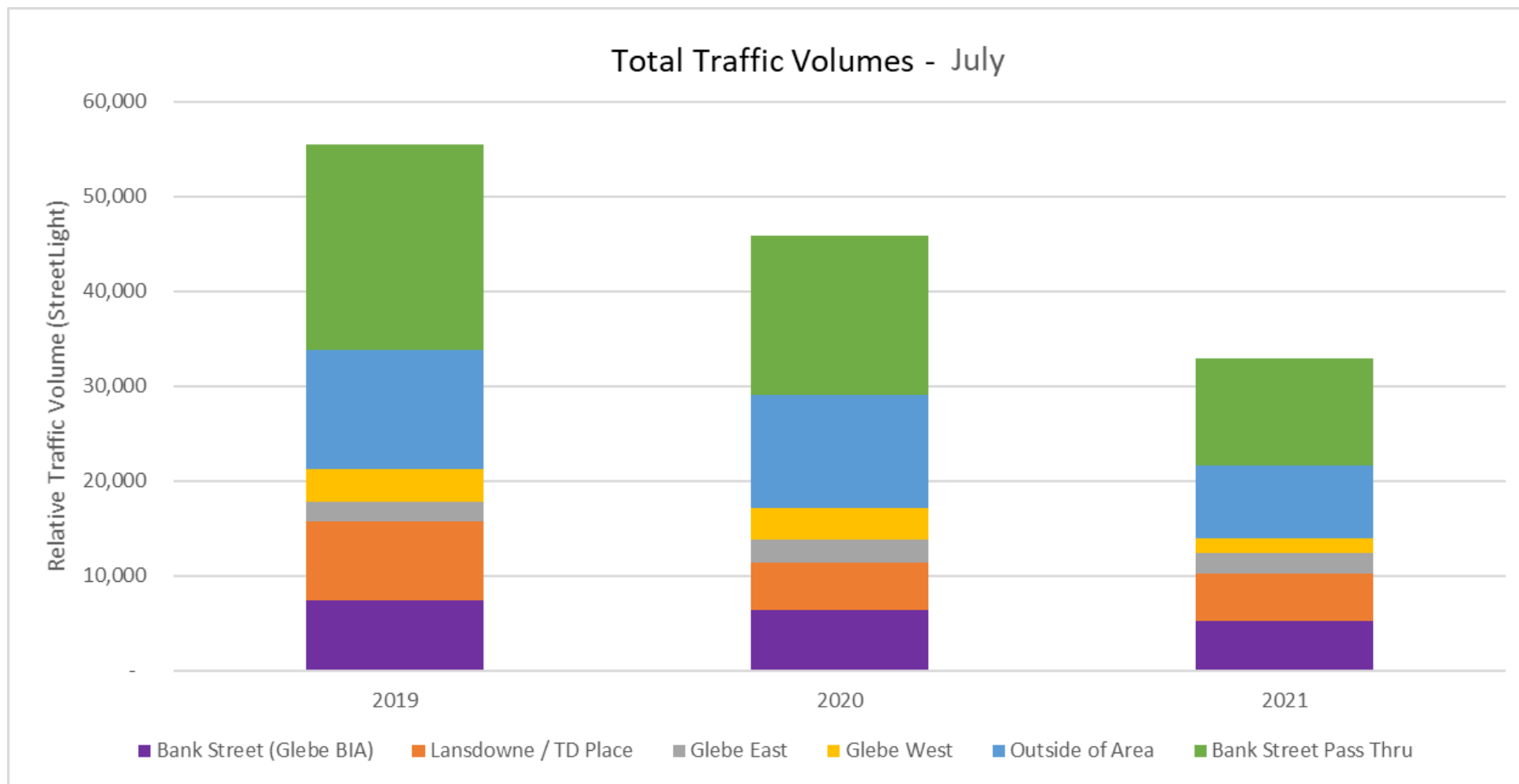


June	2019		2020		2019-2020 % Change	2021		2019-2021 % Change
Bank Street Total Traffic Volumes	50,753	100%	41,788	100%	-17.7%	32,664	100%	-35.6%
<i>Destinations</i>								
Bank Street (Glebe BIA)	6,956	14%	4,599	11%	-33.9%	5,334	16%	-23.3%
Lansdowne / TD Place	7,472	15%	3,905	9%	-47.7%	4,571	14%	-38.8%
Glebe East	2,013	4%	2,758	7%	37.0%	2,118	6%	5.2%
Glebe West	3,492	7%	2,426	6%	-30.5%	1,603	5%	-54.1%
<i>Outside of Area*</i>	12,108	24%	11,823	28%	-2.4%	7,030	22%	-41.9%
<i>Bank Street Pass Thru</i>	18,712	37%	16,277	39%	-13.0%	12,008	37%	-35.8%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>								



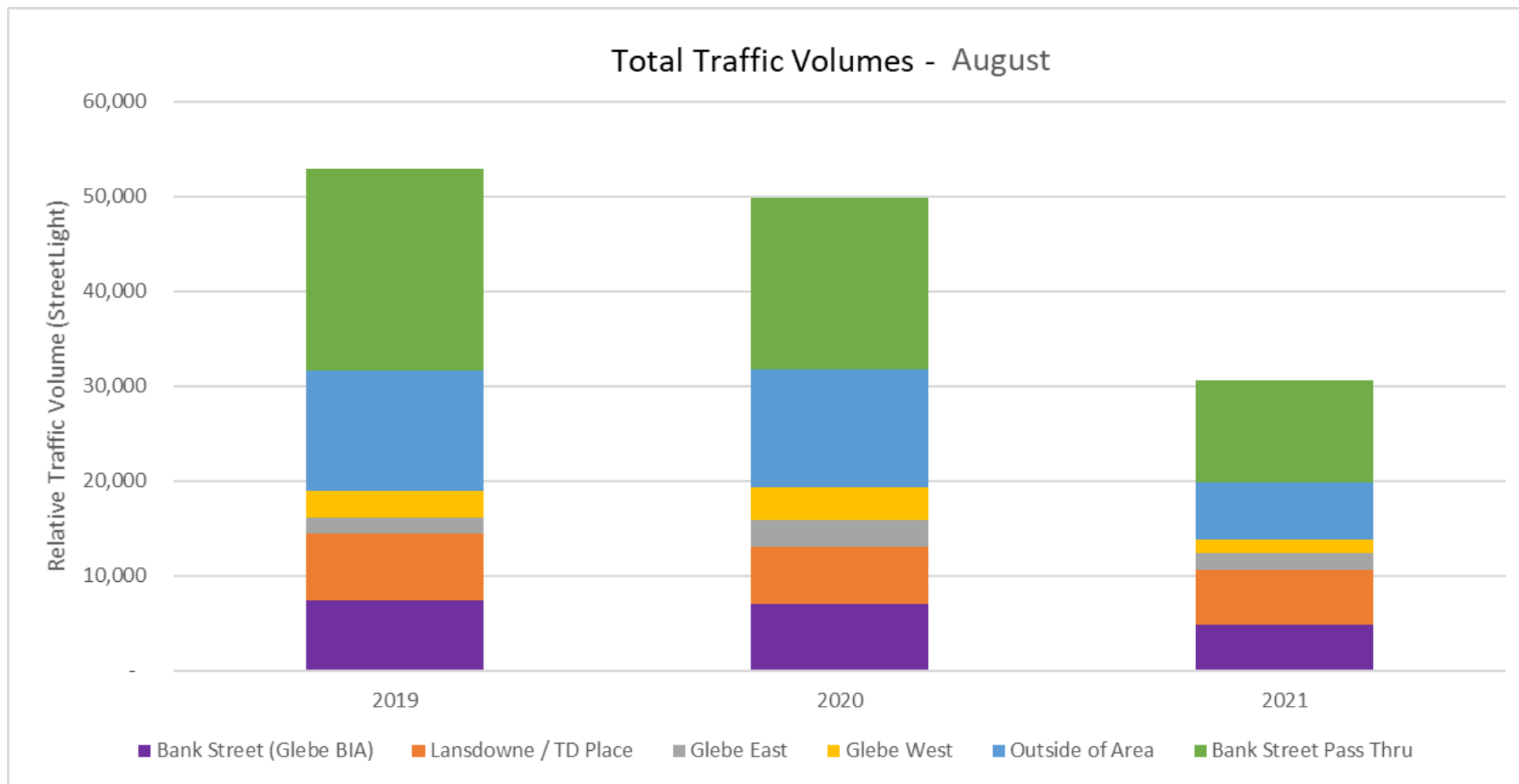


July	2019		2020		2019-2020 % Change	2021		2019-2021 % Change
Bank Street Total Traffic Volumes	55,447	100%	45,831	100%	-17.3%	32,978	100%	-40.5%
<i>Destinations</i>								
Bank Street (Glebe BIA)	7,464	13%	6,435	14%	-13.8%	5,222	16%	-30.0%
Lansdowne / TD Place	8,327	15%	5,028	11%	-39.6%	5,072	15%	-39.1%
Glebe East	1,976	4%	2,320	5%	17.4%	2,117	6%	7.1%
Glebe West	3,490	6%	3,381	7%	-3.1%	1,549	5%	-55.6%
<i>Outside of Area*</i>	12,554	23%	11,921	26%	-5.0%	7,709	23%	-38.6%
<i>Bank Street Pass Thru</i>	21,636	39%	16,746	37%	-22.6%	11,309	34%	-47.7%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>								



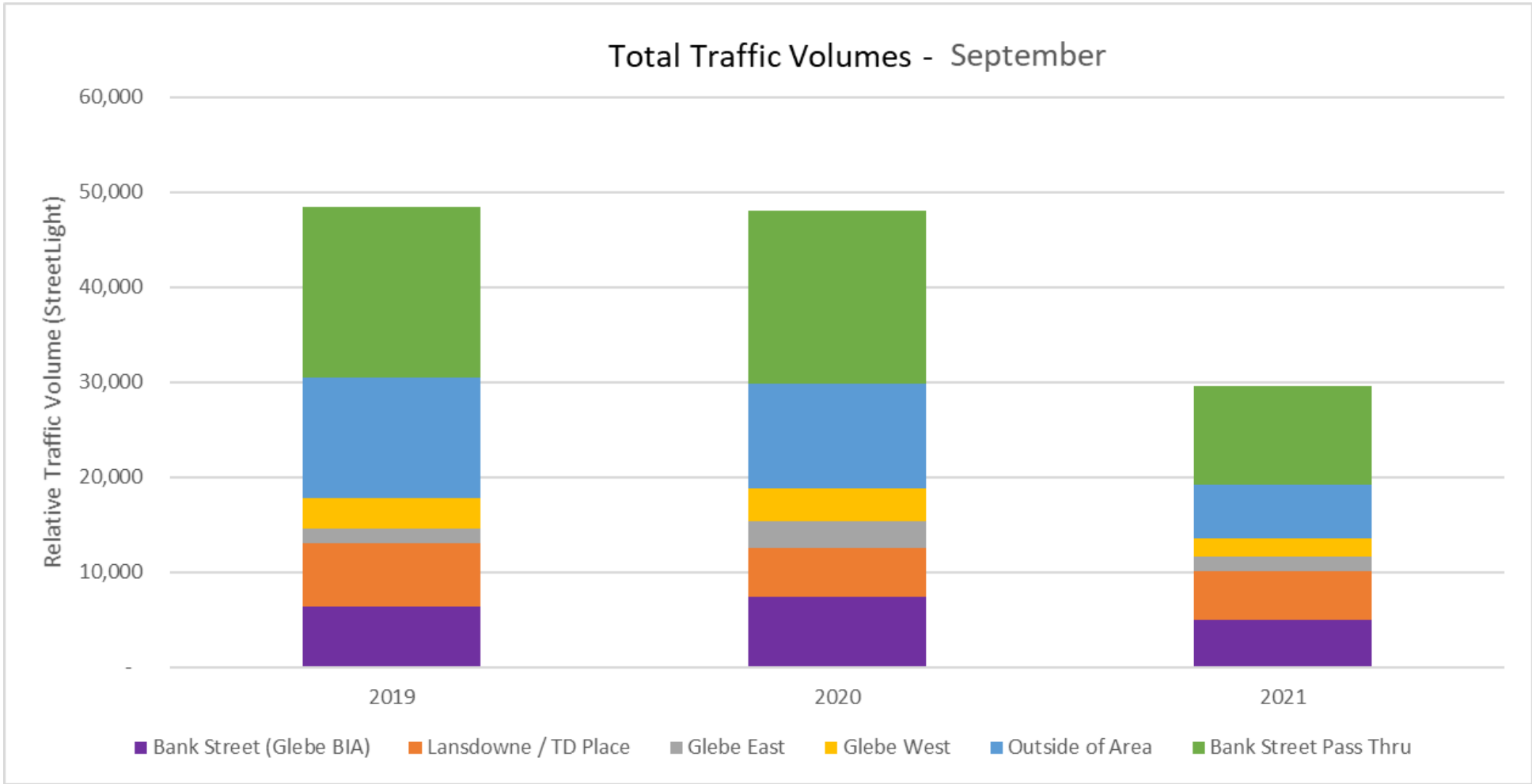


August	2019		2020		2019-2020 % Change	2021		2019-2021 % Change
Bank Street Total Traffic Volumes	52,917	100%	49,889	100%	-5.7%	30,645	100%	-42.1%
<i>Destinations</i>								
Bank Street (Glebe BIA)	7,484	14%	7,094	14%	-5.2%	4,815	16%	-35.7%
Lansdowne / TD Place	6,936	13%	5,969	12%	-13.9%	5,813	19%	-16.2%
Glebe East	1,763	3%	2,776	6%	57.5%	1,753	6%	-0.6%
Glebe West	2,745	5%	3,531	7%	28.6%	1,465	5%	-46.6%
<i>Outside of Area*</i>	12,734	24%	12,471	25%	-2.1%	6,059	20%	-52.4%
<i>Bank Street Pass Thru</i>	21,255	40%	18,048	36%	-15.1%	10,740	35%	-49.5%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>								





September	2019		2020		2019-2020 % Change	2021		2019-2021 % Change
Bank Street Total Traffic Volumes	48,478	100%	48,079	100%	-0.8%	29,592	100%	-39.0%
<i>Destinations</i>								
Bank Street (Glebe BIA)	6,427	13%	7,444	15%	15.8%	5,046	17%	-21.5%
Lansdowne / TD Place	6,592	14%	5,168	11%	-21.6%	5,065	17%	-23.2%
Glebe East	1,647	3%	2,740	6%	66.4%	1,519	5%	-7.8%
Glebe West	3,101	6%	3,448	7%	11.2%	1,980	7%	-36.1%
<i>Outside of Area*</i>	12,768	26%	11,056	23%	-13.4%	5,637	19%	-55.9%
<i>Bank Street Pass Thru</i>	17,943	37%	18,223	38%	1.6%	10,345	35%	-42.3%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>								



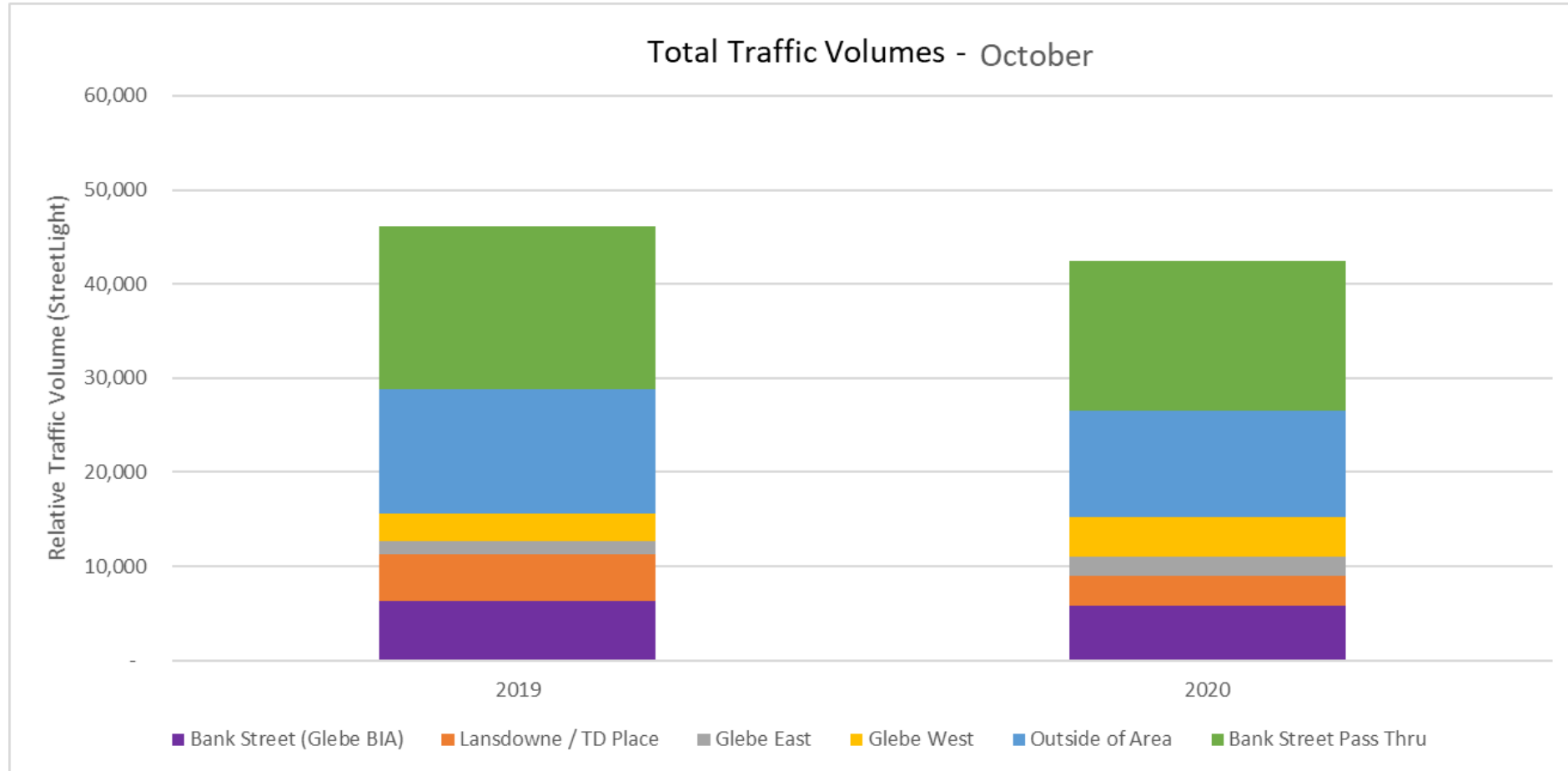


2019 / 2020 Data Only

October	2019		2020		% Change
Bank Street Total Traffic Volumes	46,089	100%	42,444	100%	-7.9%
<i>Destinations</i>					
Bank Street (Glebe BIA)	6,330	14%	5,877	14%	-7.2%
Lansdowne / TD Place	4,913	11%	3,124	7%	-36.4%
Glebe East	1,461	3%	2,012	5%	37.7%
Glebe West	2,929	6%	4,167	10%	42.3%
<i>Outside of Area*</i>	13,222	29%	11,374	27%	-14.0%
<i>Bank Street Pass Thru</i>	17,234	37%	15,890	37%	-7.8%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>					



2019 / 2020 Data Only



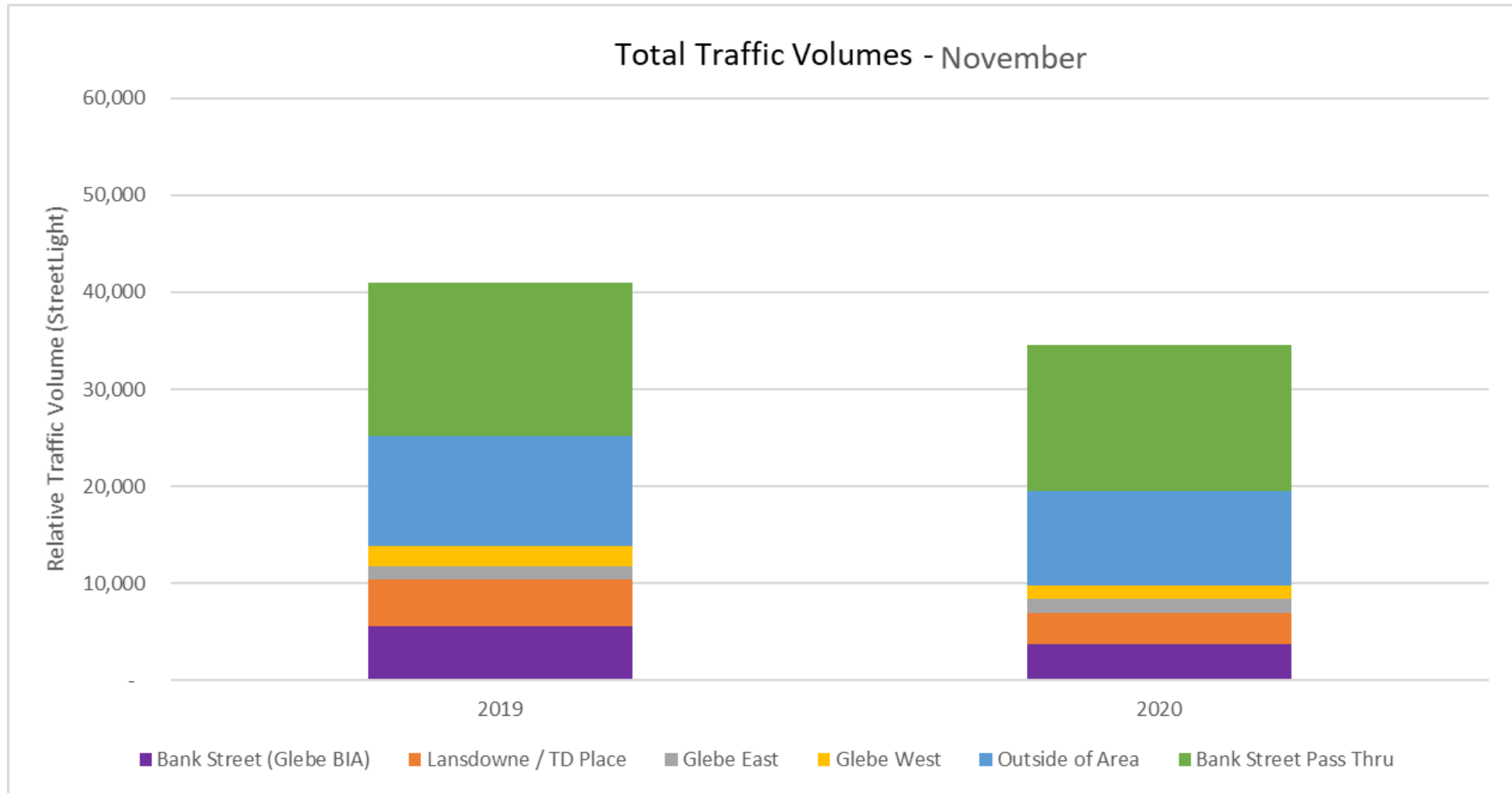


2019 / 2020 Data Only

November	2019		2020		% Change
Bank Street Total Traffic Volumes	40,992	100%	34,520	100%	-15.8%
<i>Destinations</i>					
Bank Street Corridor	5,613	14%	3,743	11%	-33.3%
Lansdowne / TD Place	4,821	12%	3,182	9%	-34.0%
Glebe East	1,368	3%	1,457	4%	6.5%
Glebe West	2,104	5%	1,421	4%	-32.5%
<i>Outside of Area*</i>	11,301	28%	9,713	28%	-14.1%
<i>Bank Street Pass Thru</i>	15,785	39%	15,004	43%	-4.9%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>					



2019 / 2020 Data Only





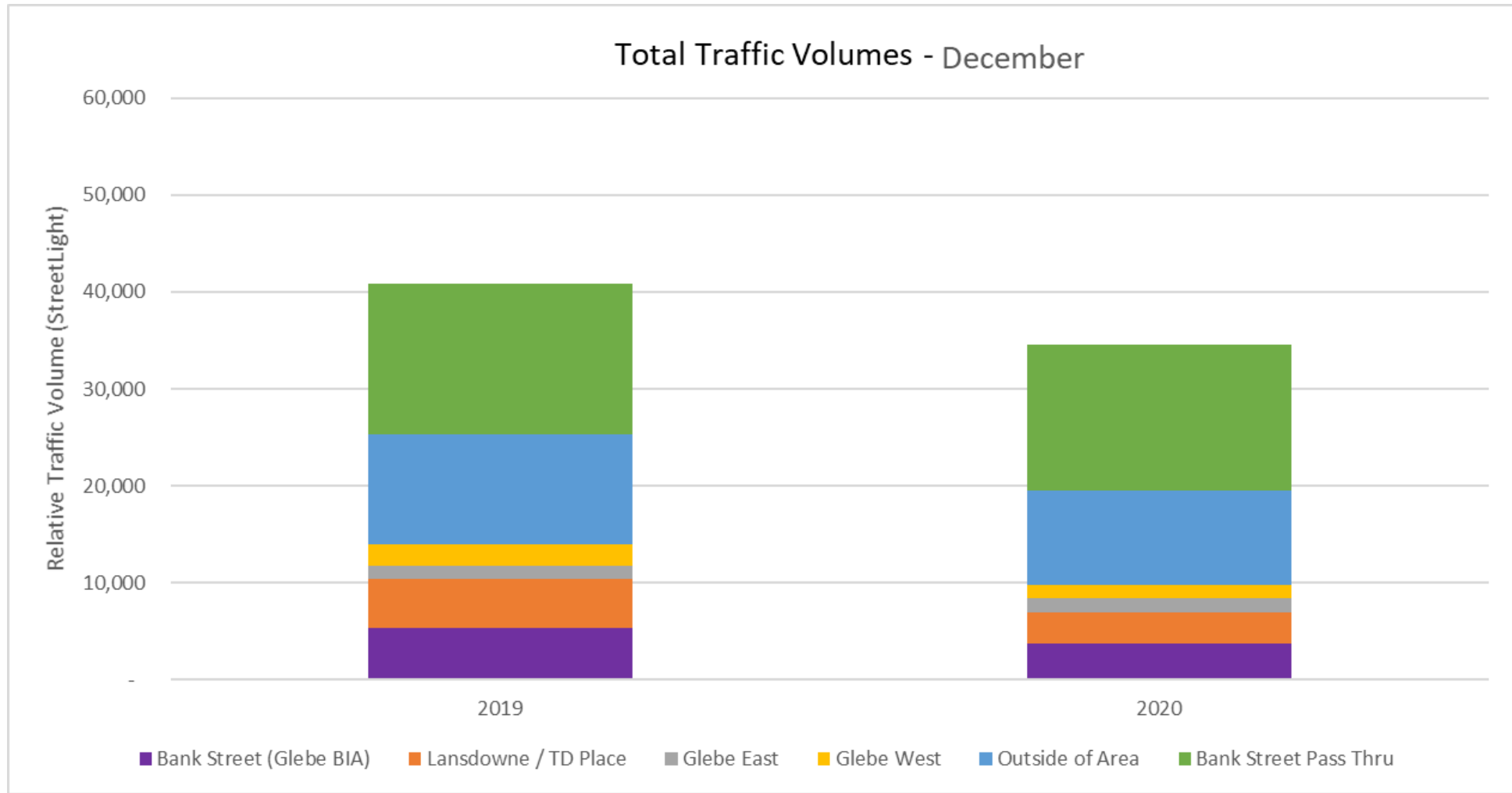
2019 / 2020 Data Only

December	2019		2020		% Change
Bank Street Total Traffic Volumes	40,891	100%	34,520	100%	-15.6%
<i>Destinations</i>					
Bank Street Corridor	5,409	13%	3,743	11%	-30.8%
Lansdowne / TD Place	5,025	12%	3,182	9%	-36.7%
Glebe East	1,307	3%	1,457	4%	11.5%
Glebe West	2,226	5%	1,421	4%	-36.2%
<i>Outside of Area*</i>	11,357	28%	9,713	28%	-14.5%
<i>Bank Street Pass Thru</i>	15,567	38%	15,004	43%	-3.6%
<i>* Denotes traffic destined to other areas through the Glebe (i.e. - QED, Bronson)</i>					



2019 / 2020 Data Only

MONTHLY TRAFFIC VOLUME COMPARISON

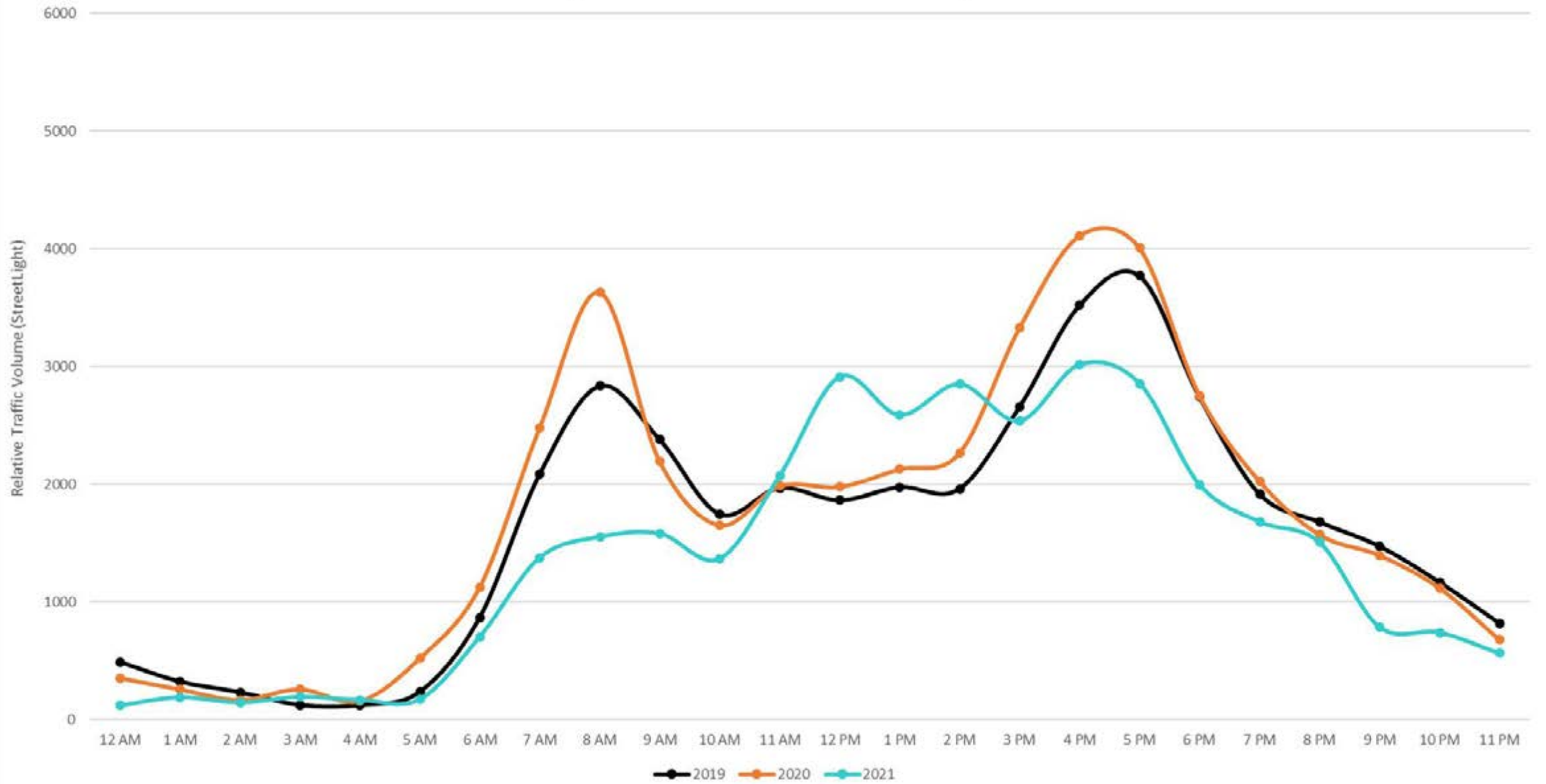




Appendix B: Average Daily Traffic Profiles

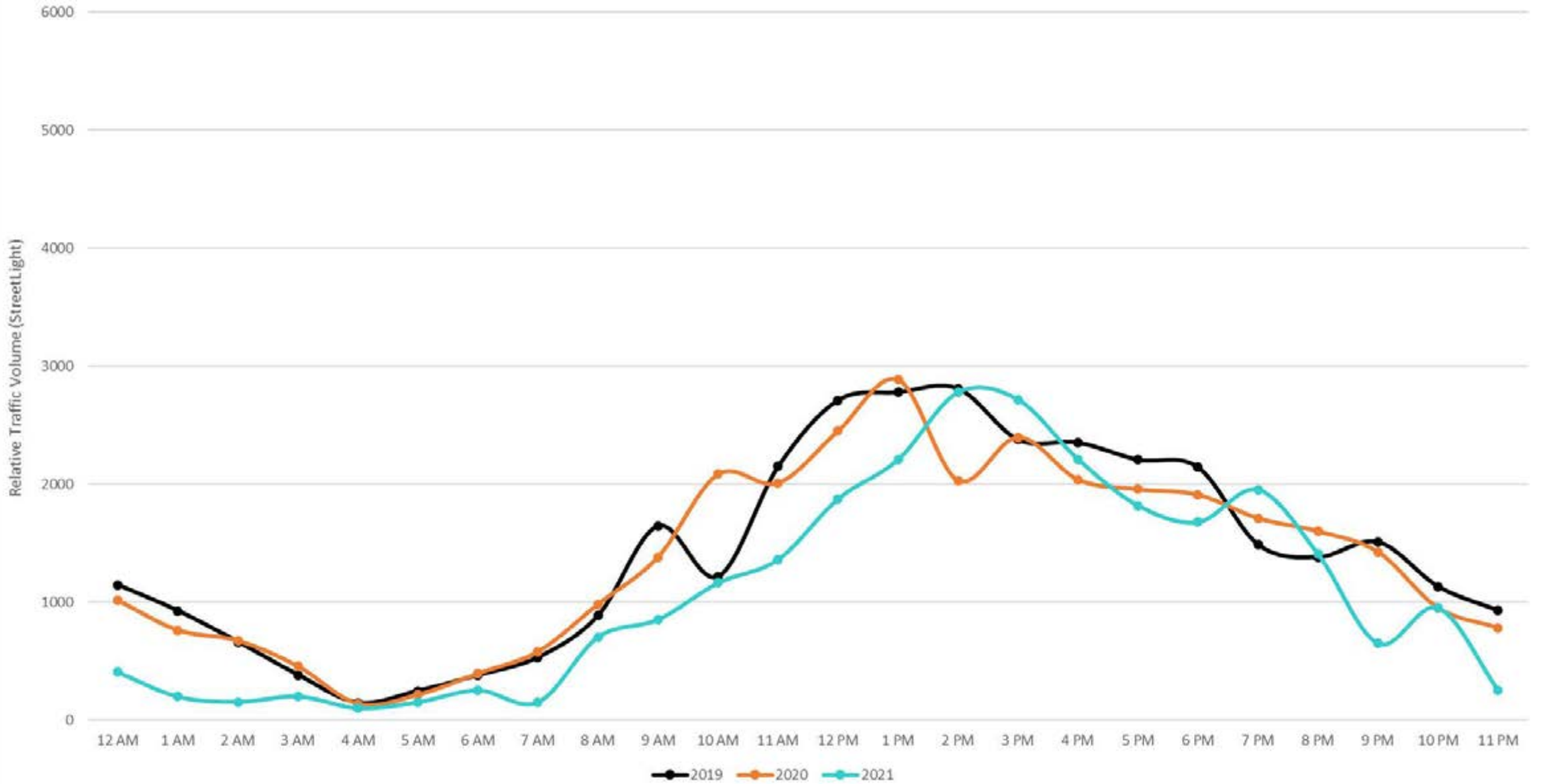


Weekday Bank Street Traffic Volumes - January

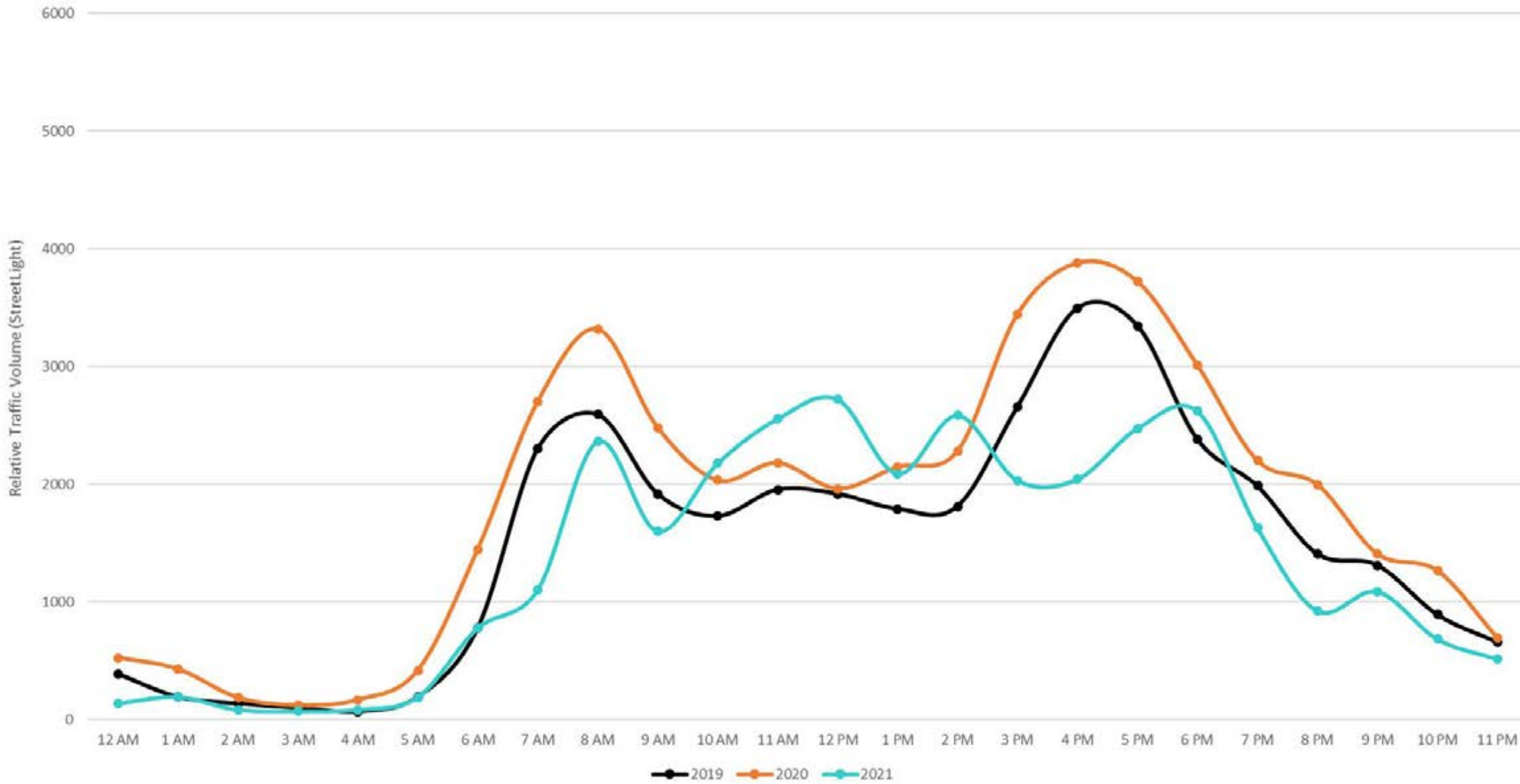




Weekend Bank Street Traffic Volumes - January

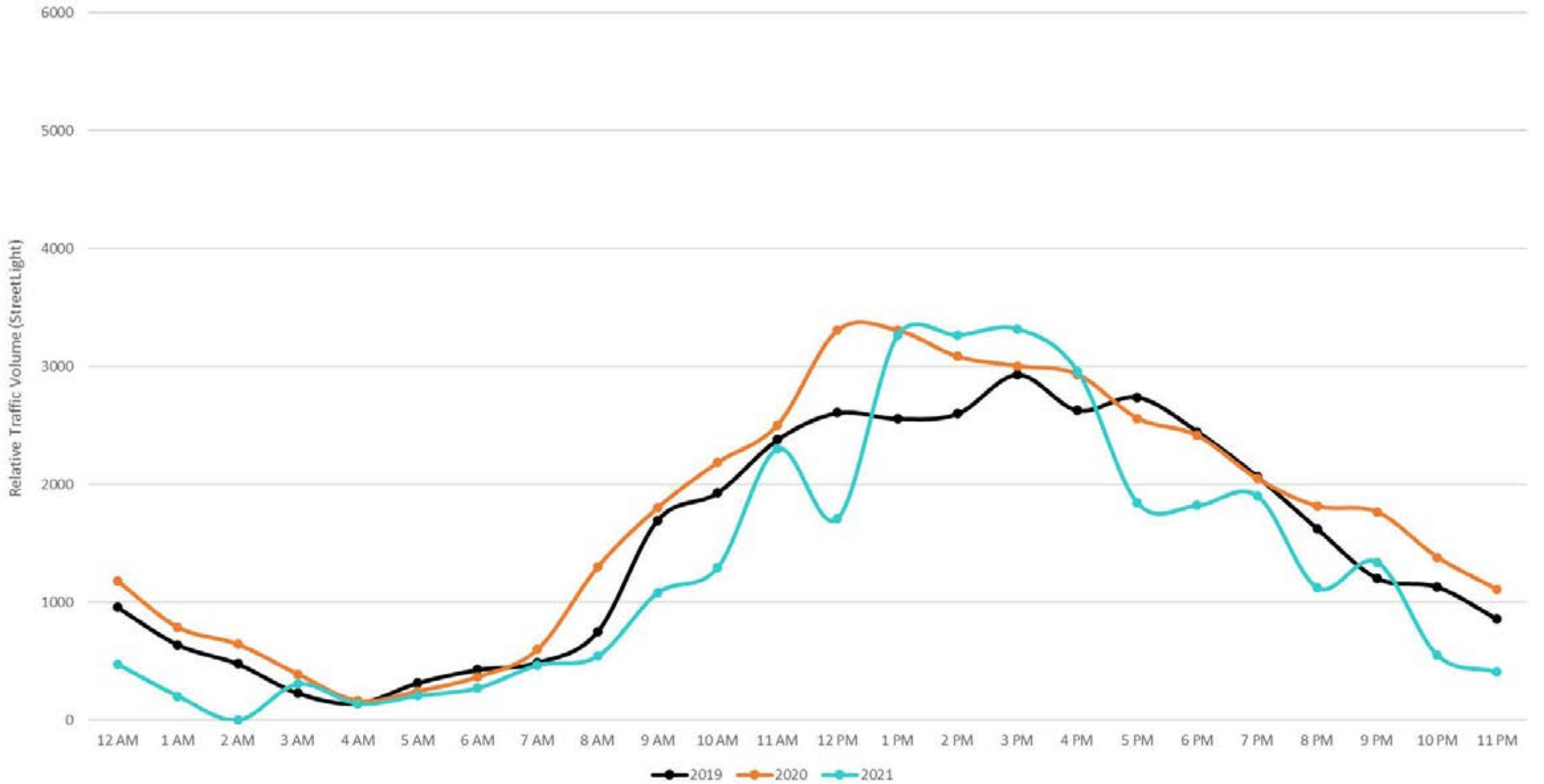


Weekday Bank Street Traffic Volumes - February

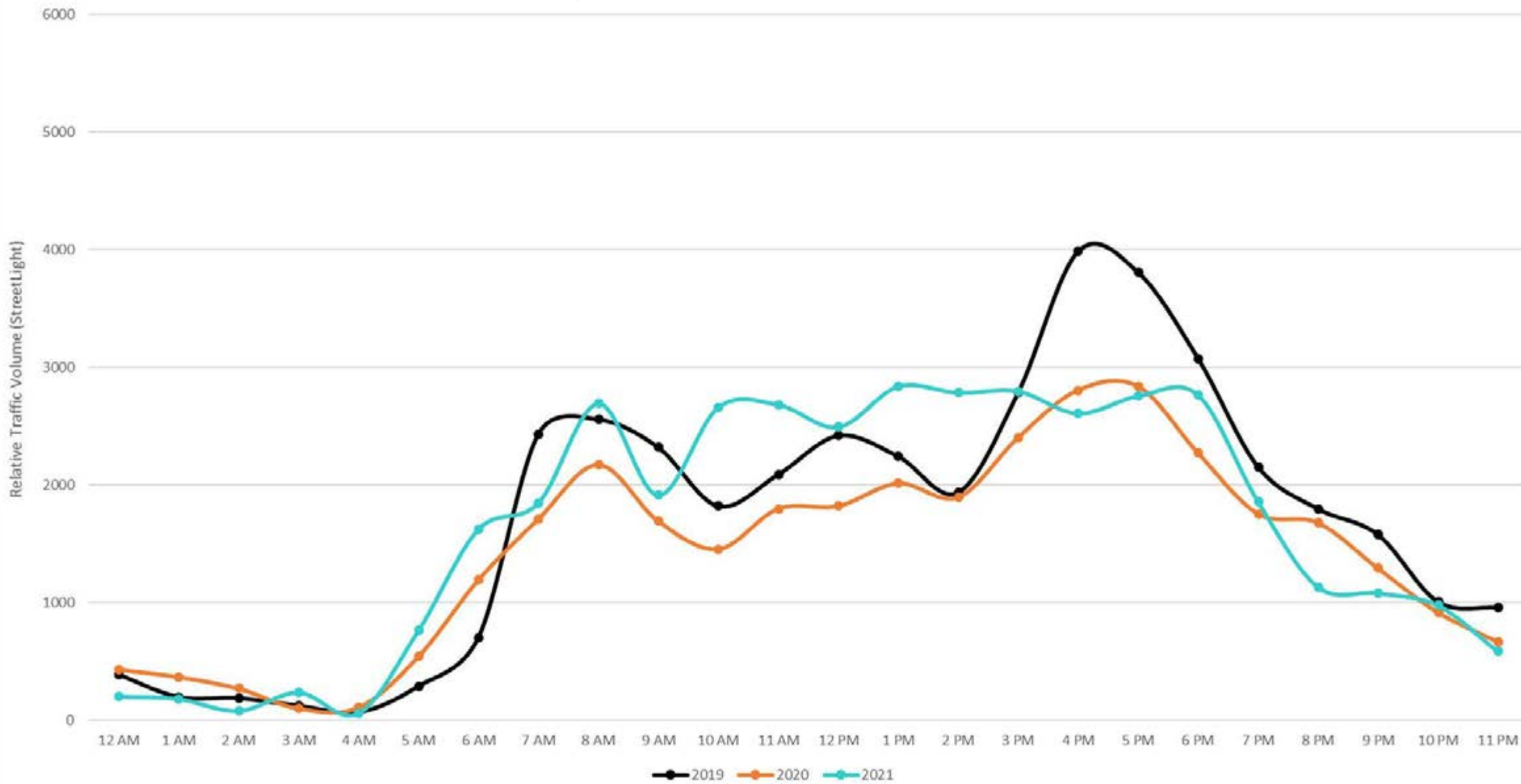




Weekend Bank Street Traffic Volumes - February

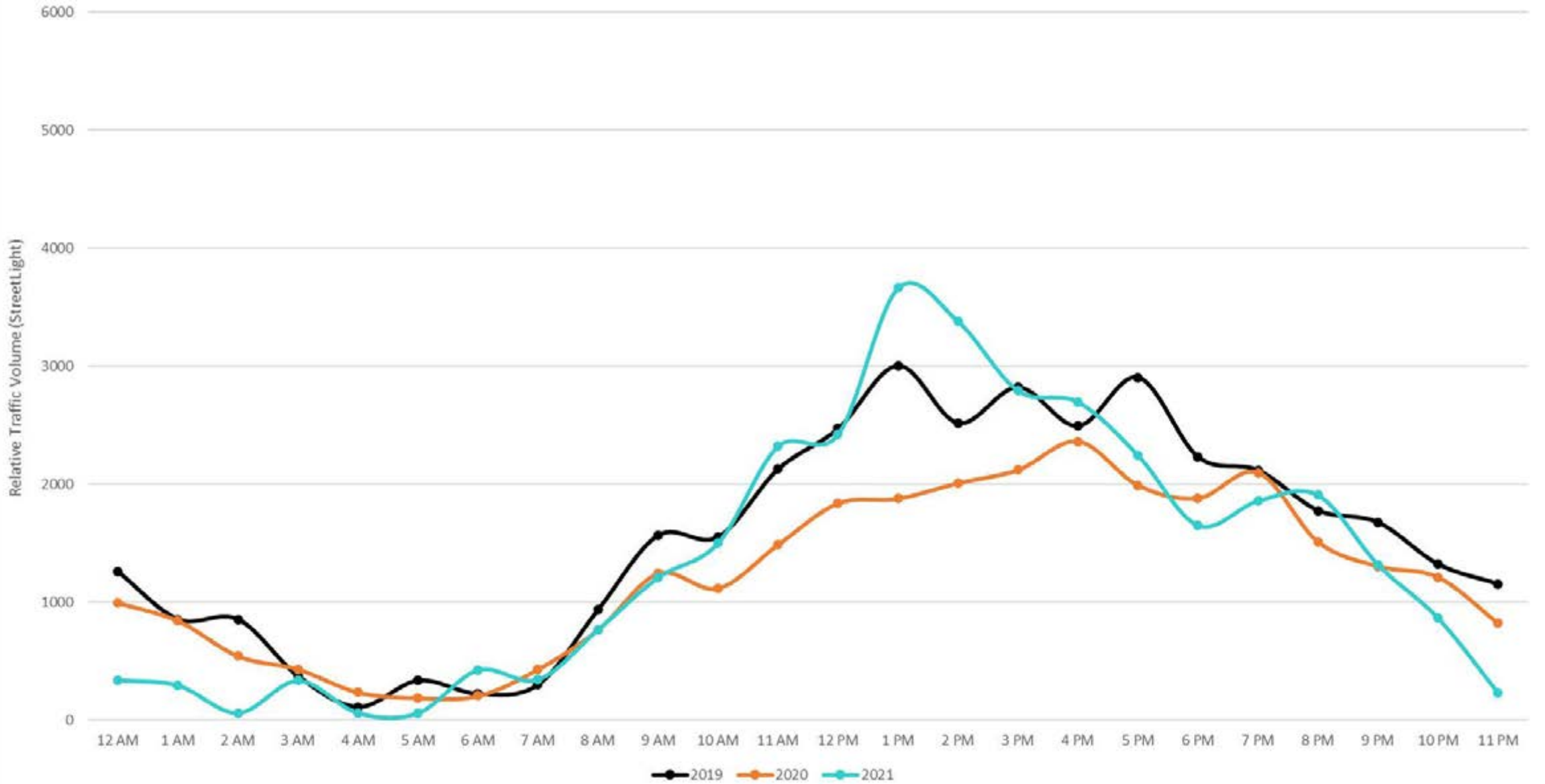


Weekday Bank Street Traffic Volumes - March



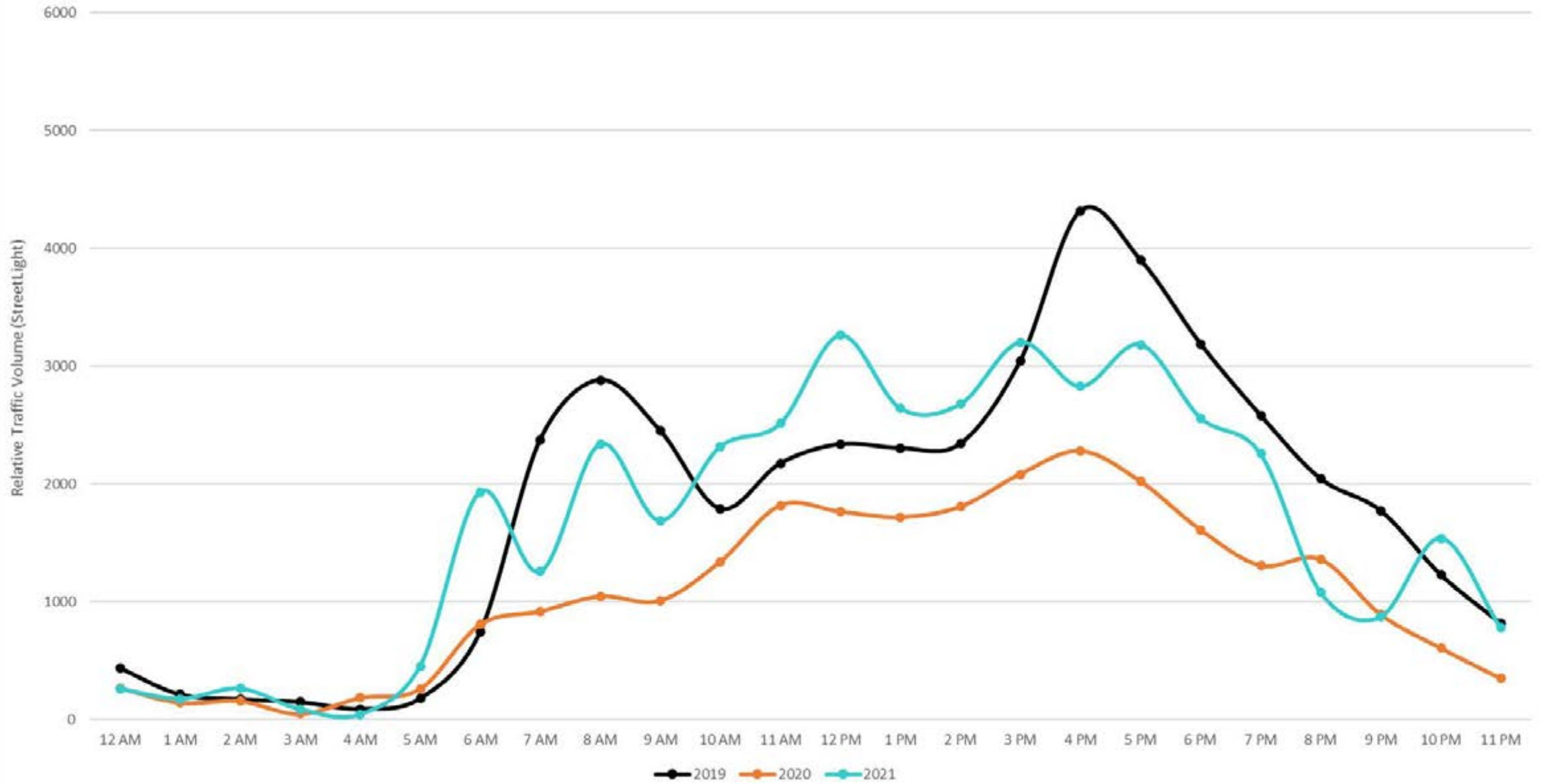


Weekend Bank Street Traffic Volumes - March



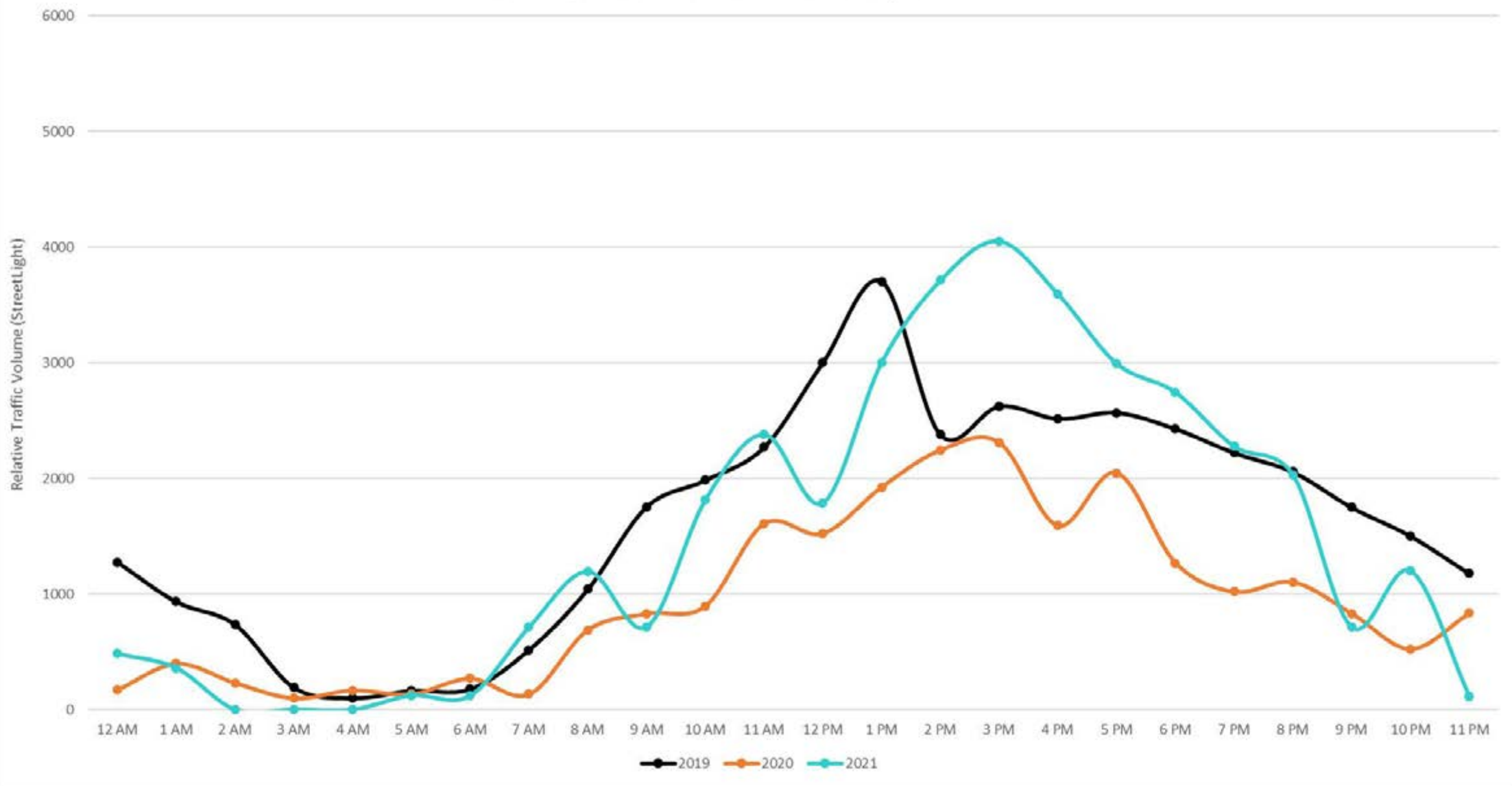


Weekday Bank Street Traffic Volumes - April



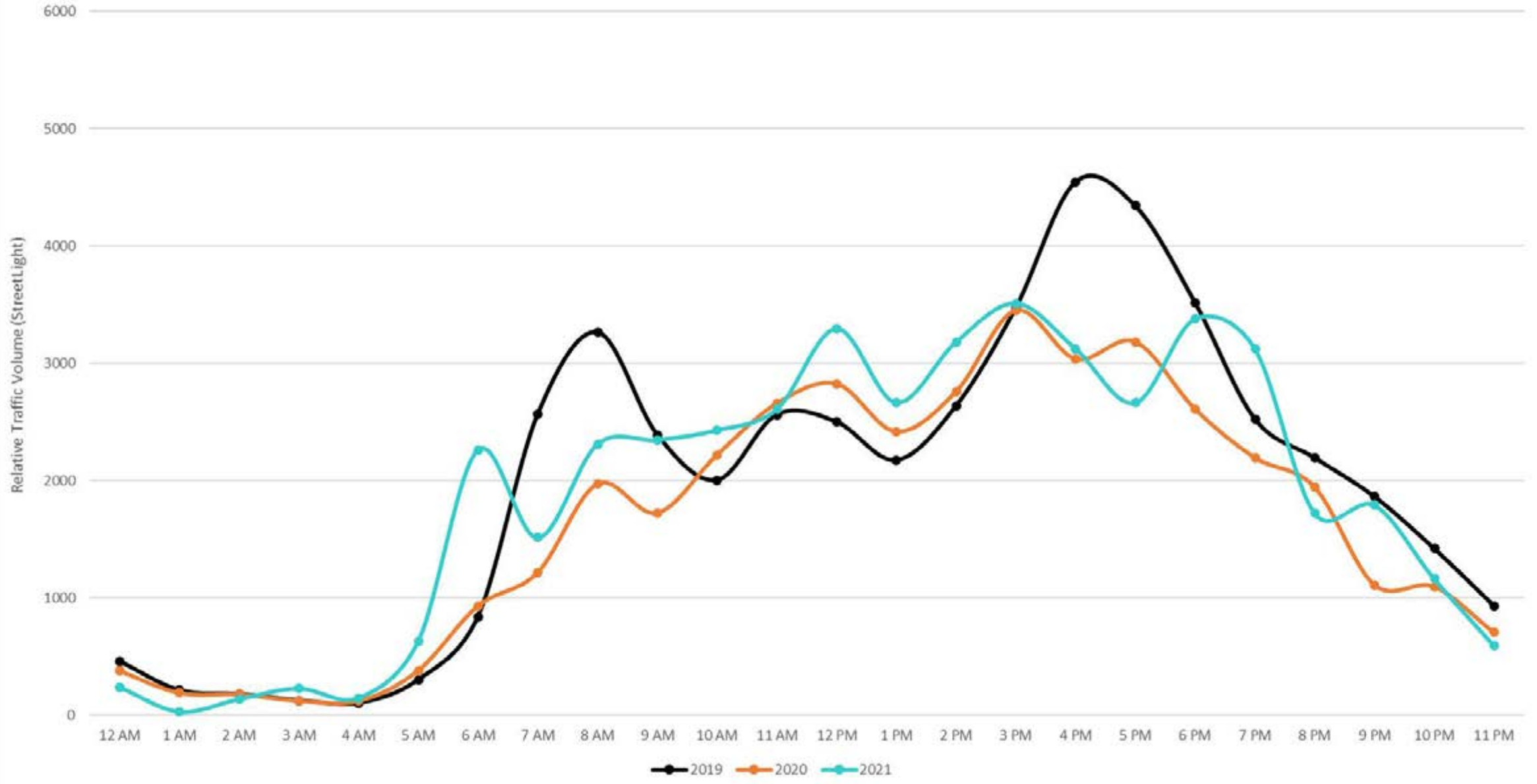


Weekend Bank Street Traffic Volumes - April



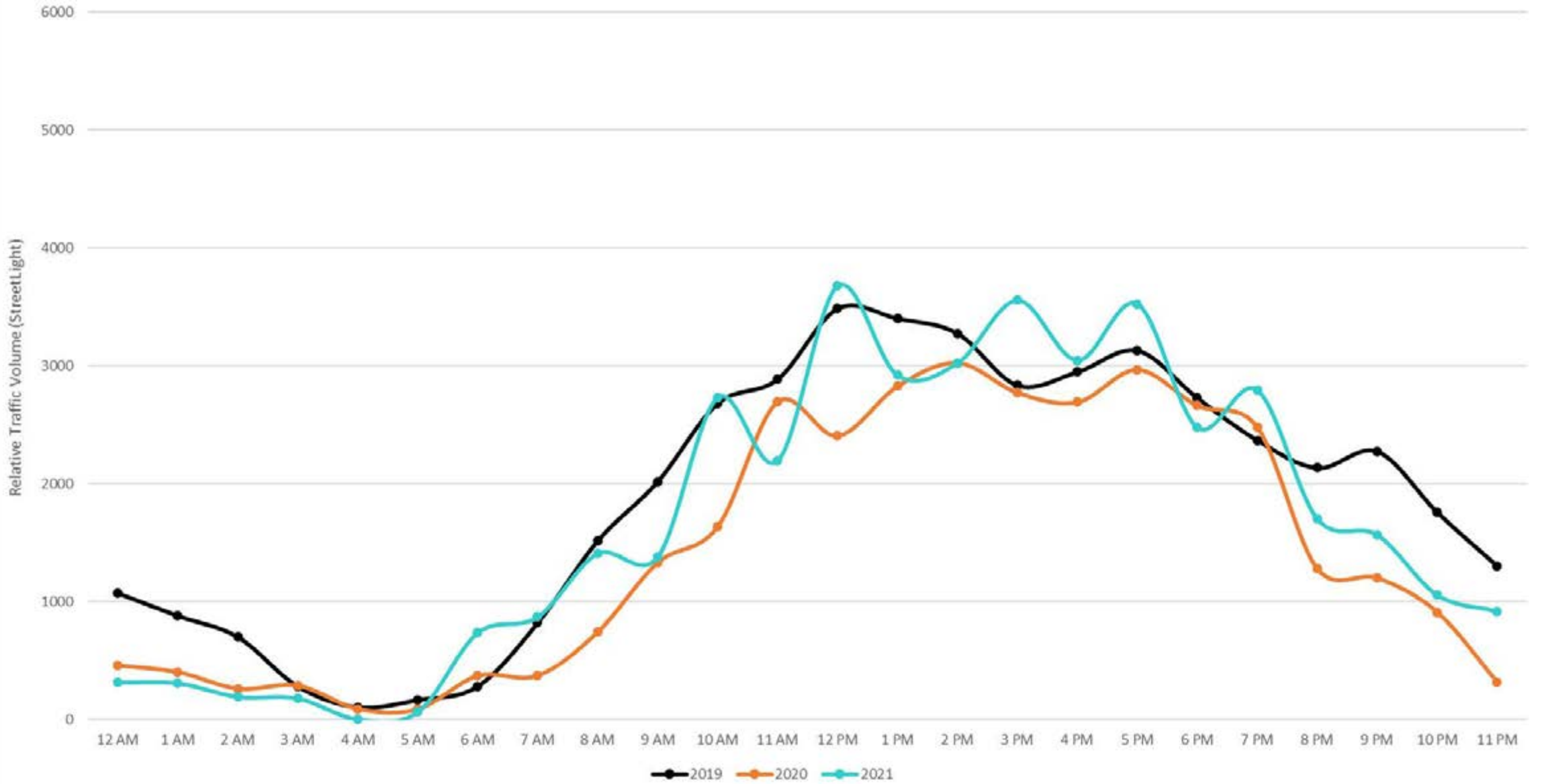


Weekday Bank Street Traffic Volumes - May



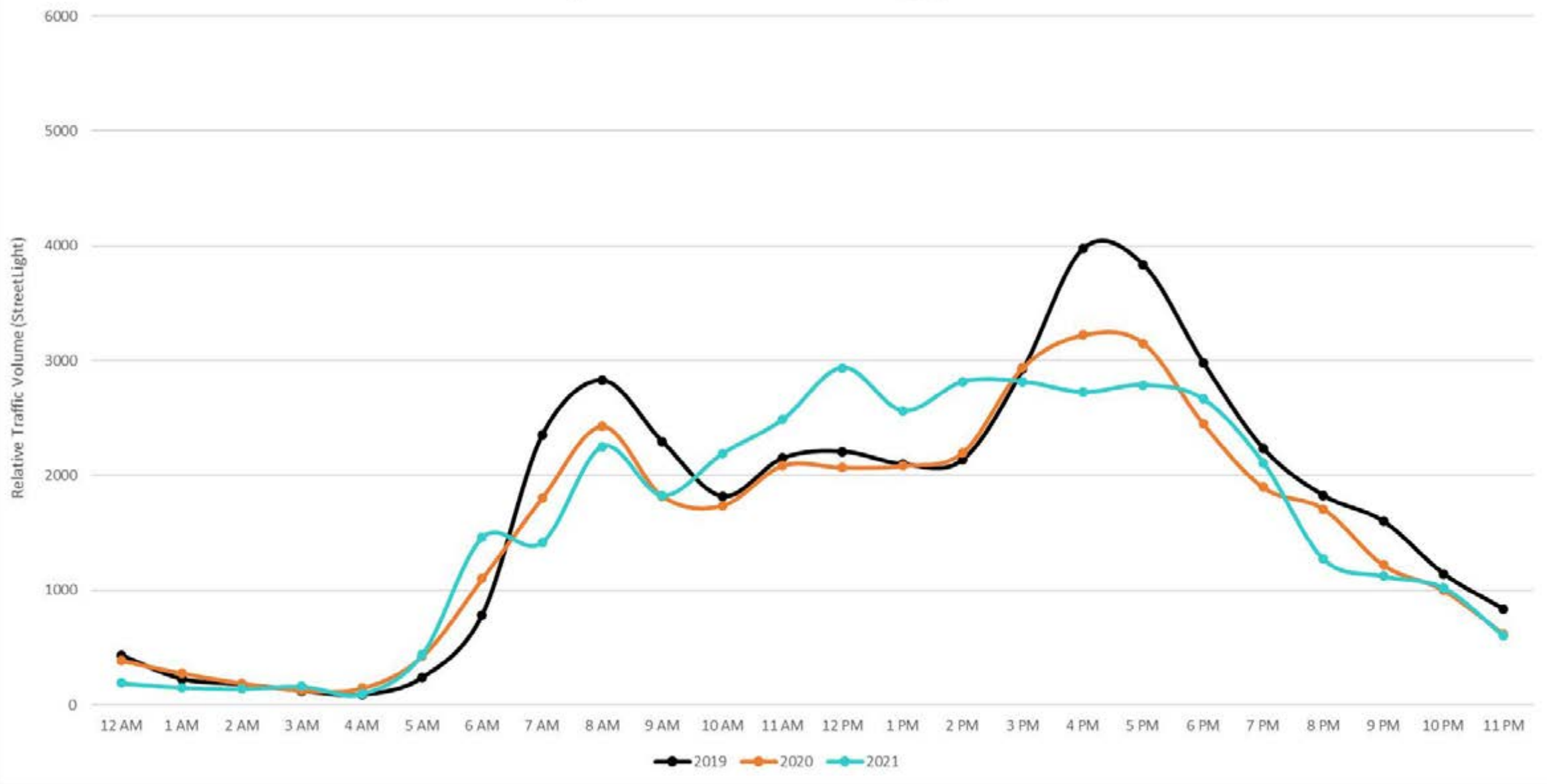


Weekend Bank Street Traffic Volumes - May



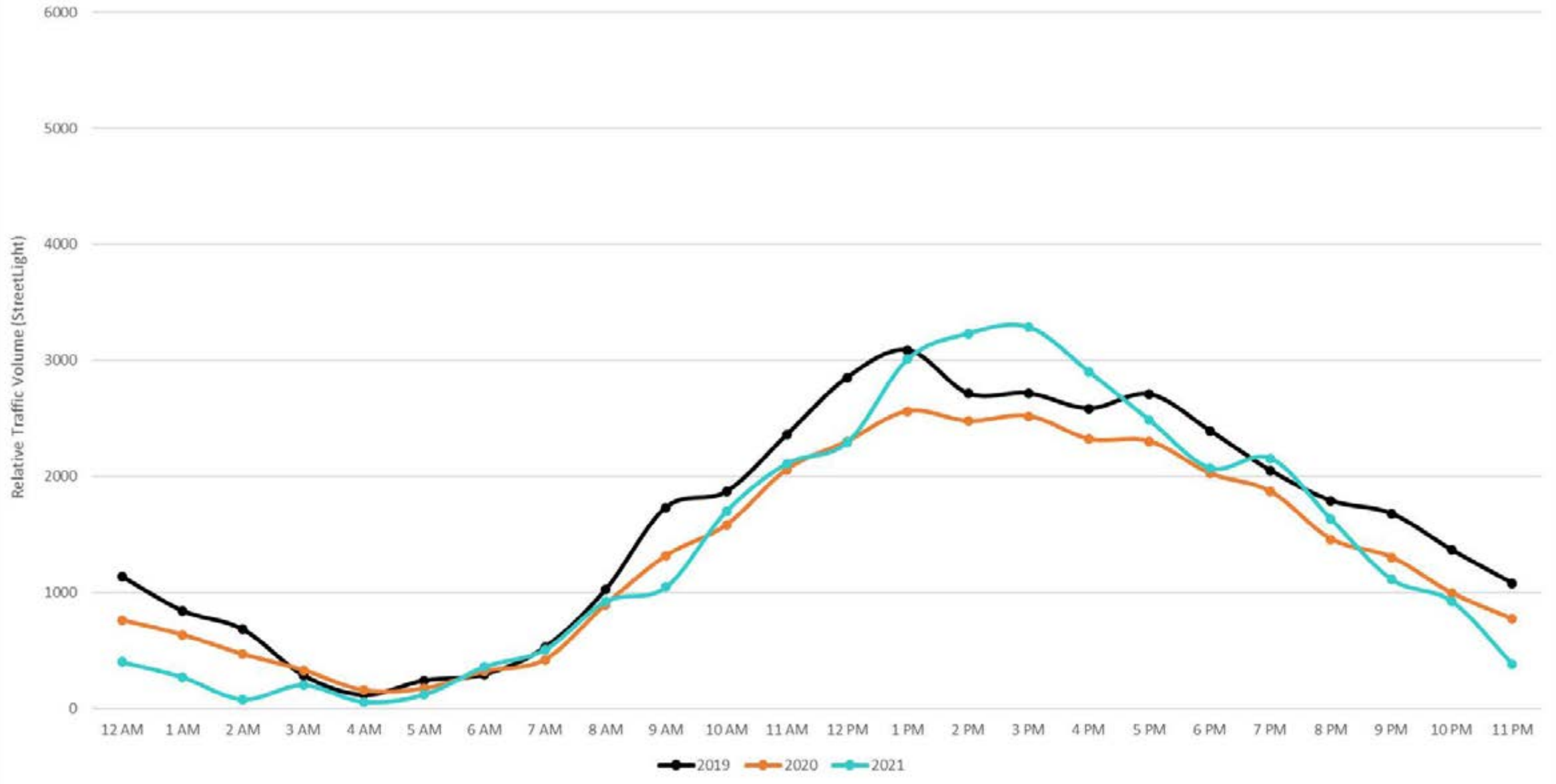


Weekday Bank Street Traffic Volumes - June



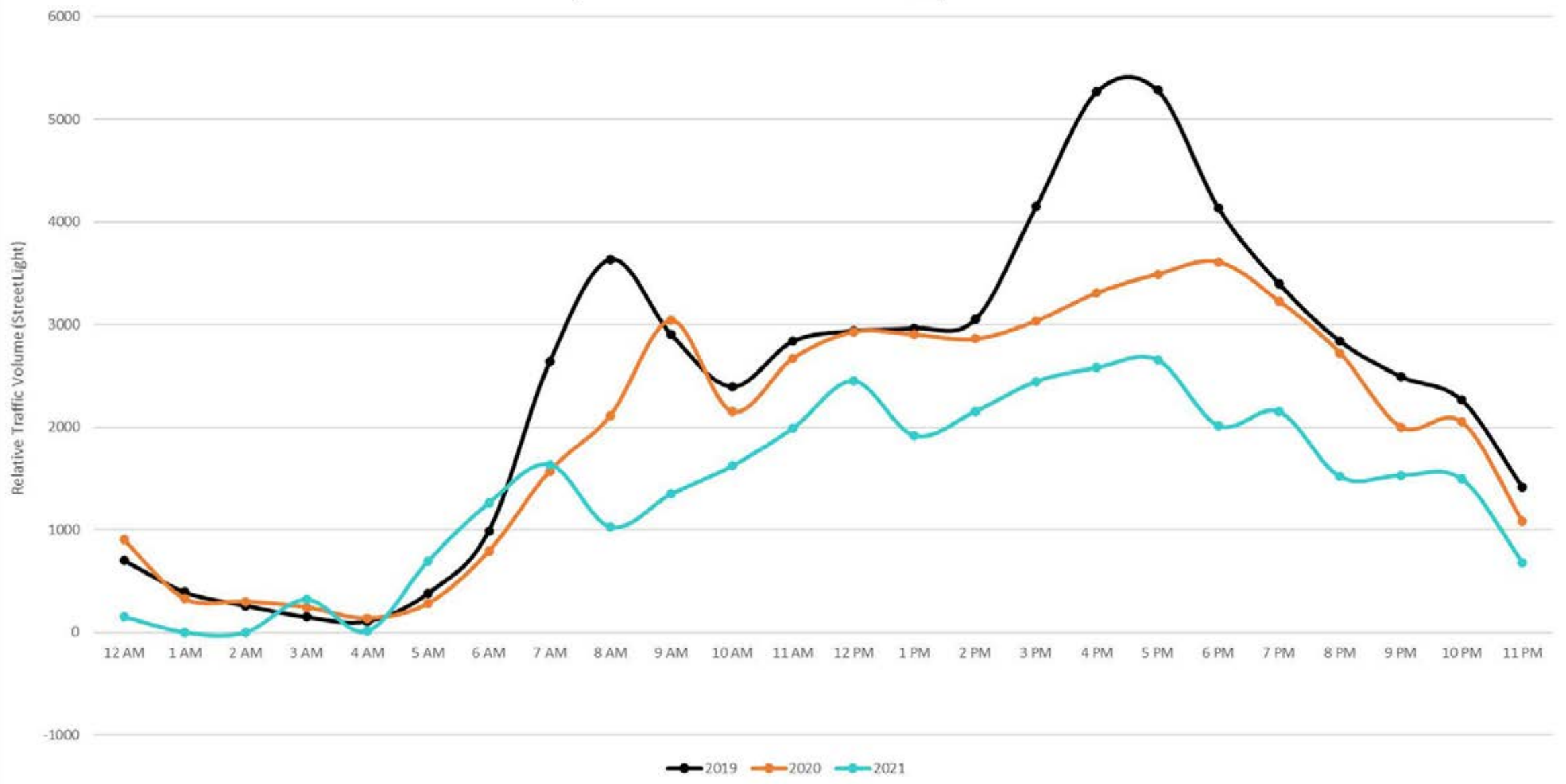


Weekend Bank Street Traffic Volumes - June



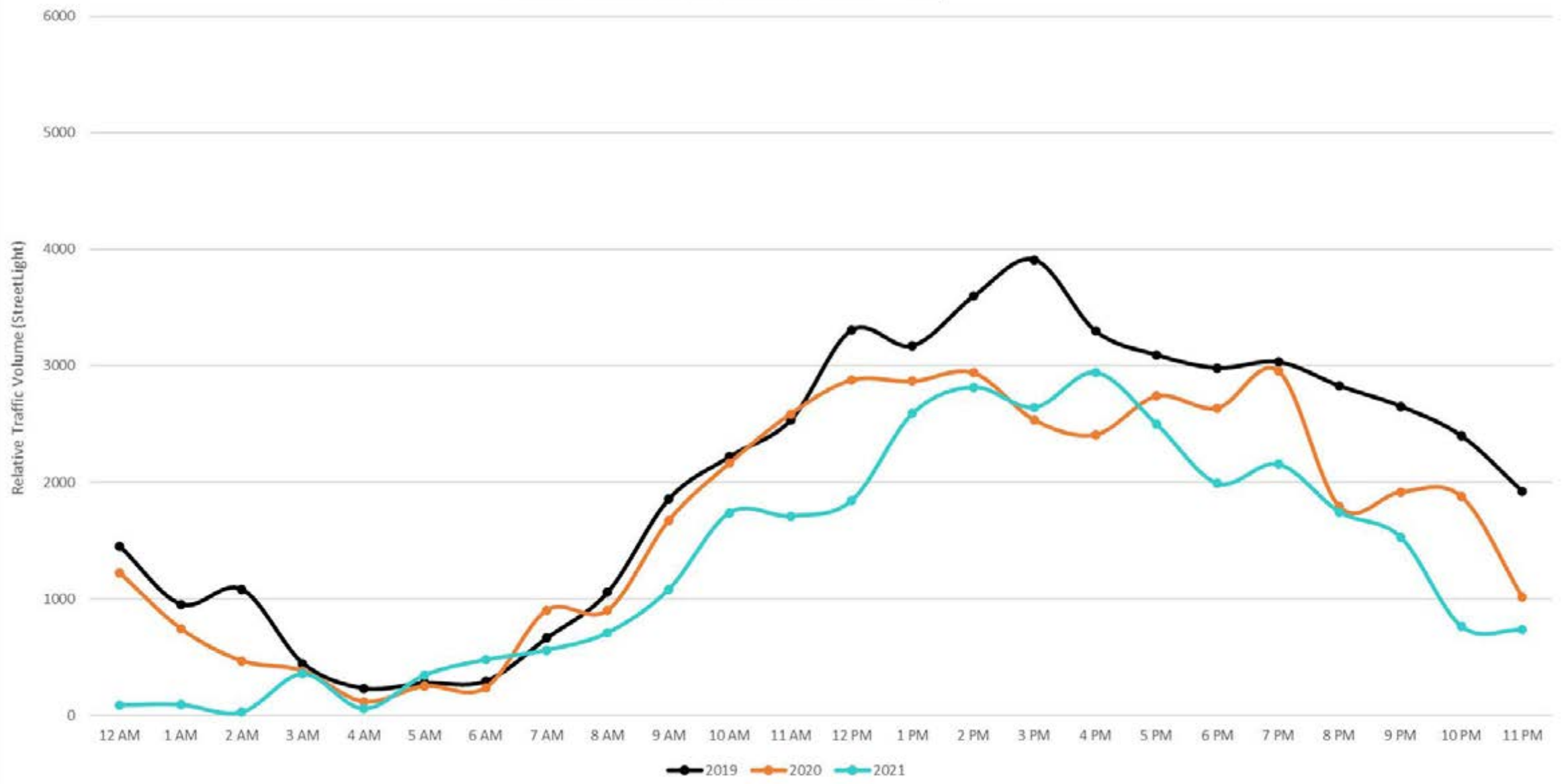


Weekday Bank Street Traffic Volumes - July



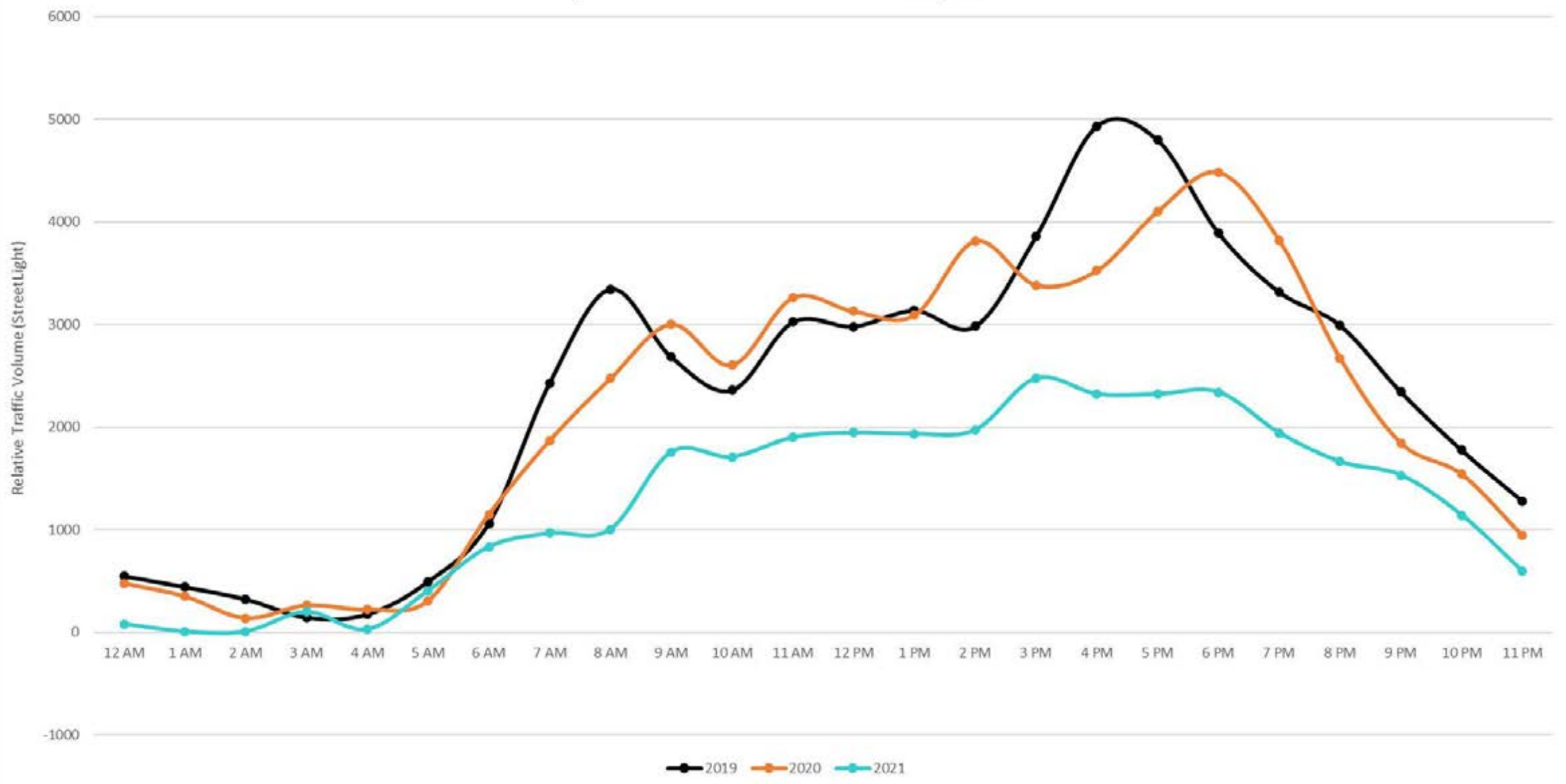


Weekend Bank Street Traffic Volumes - July



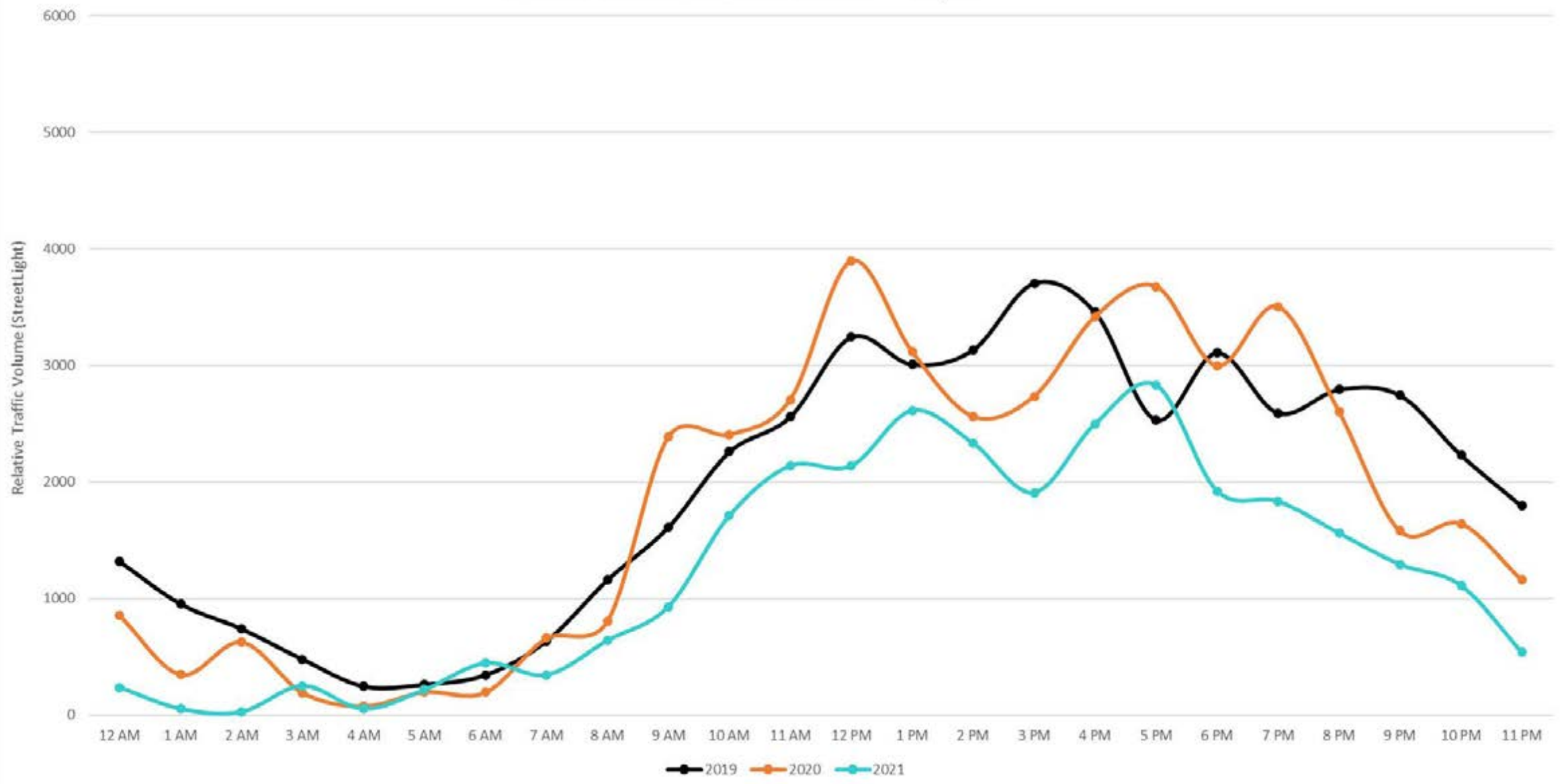


Weekday Bank Street Traffic Volumes - August



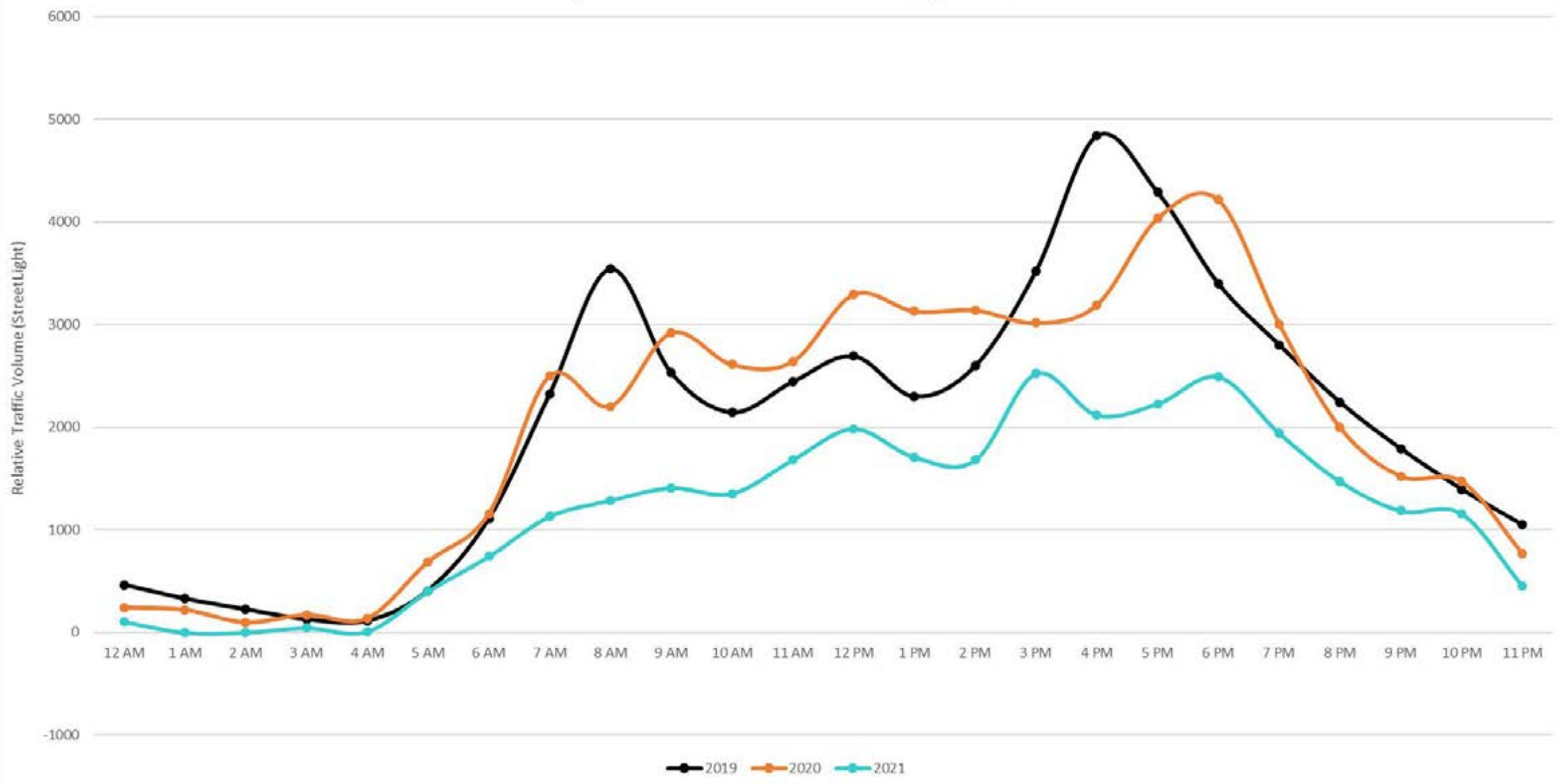


Weekend Bank Street Traffic Volumes - August



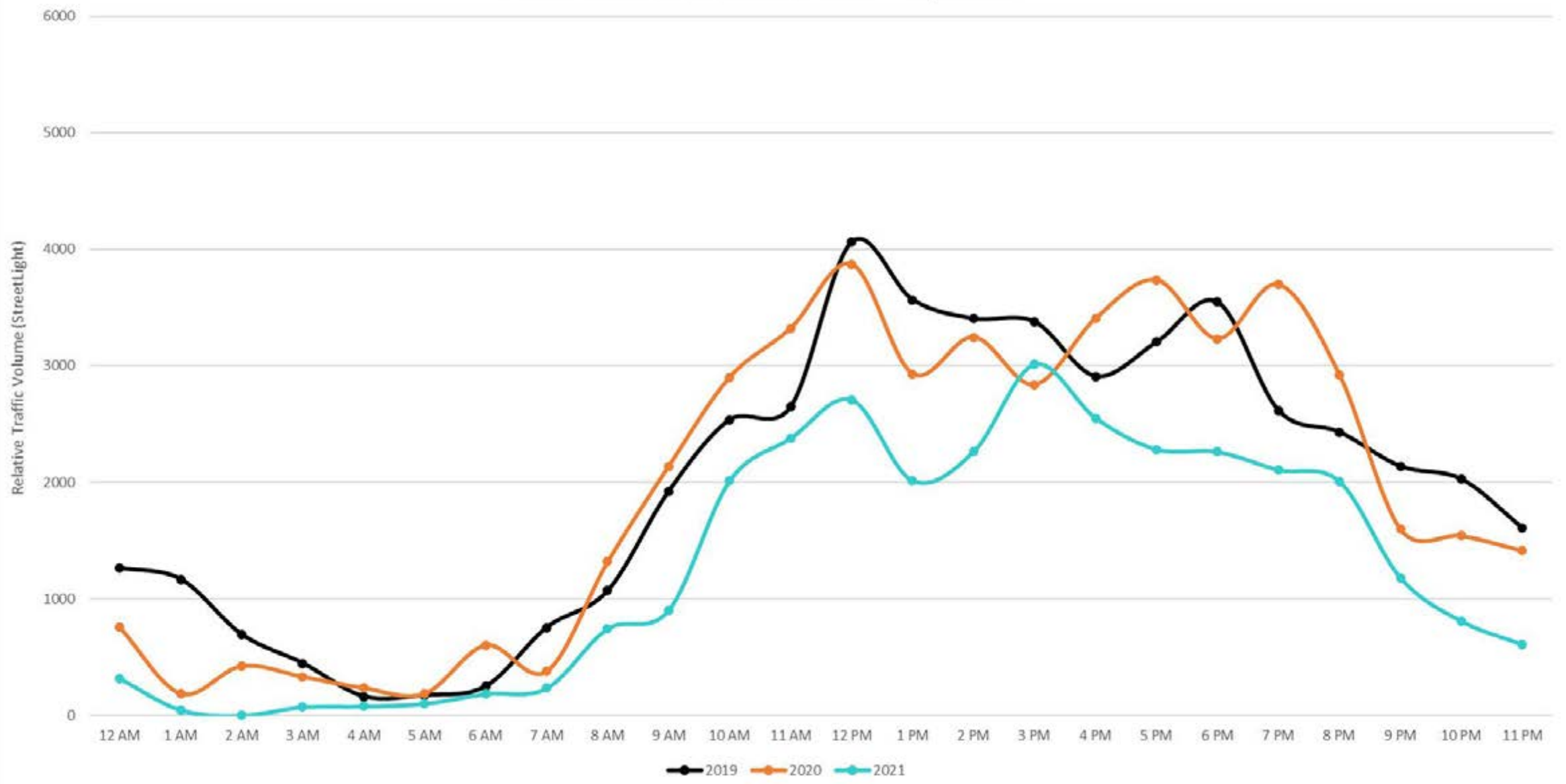


Weekday Bank Street Traffic Volumes - September



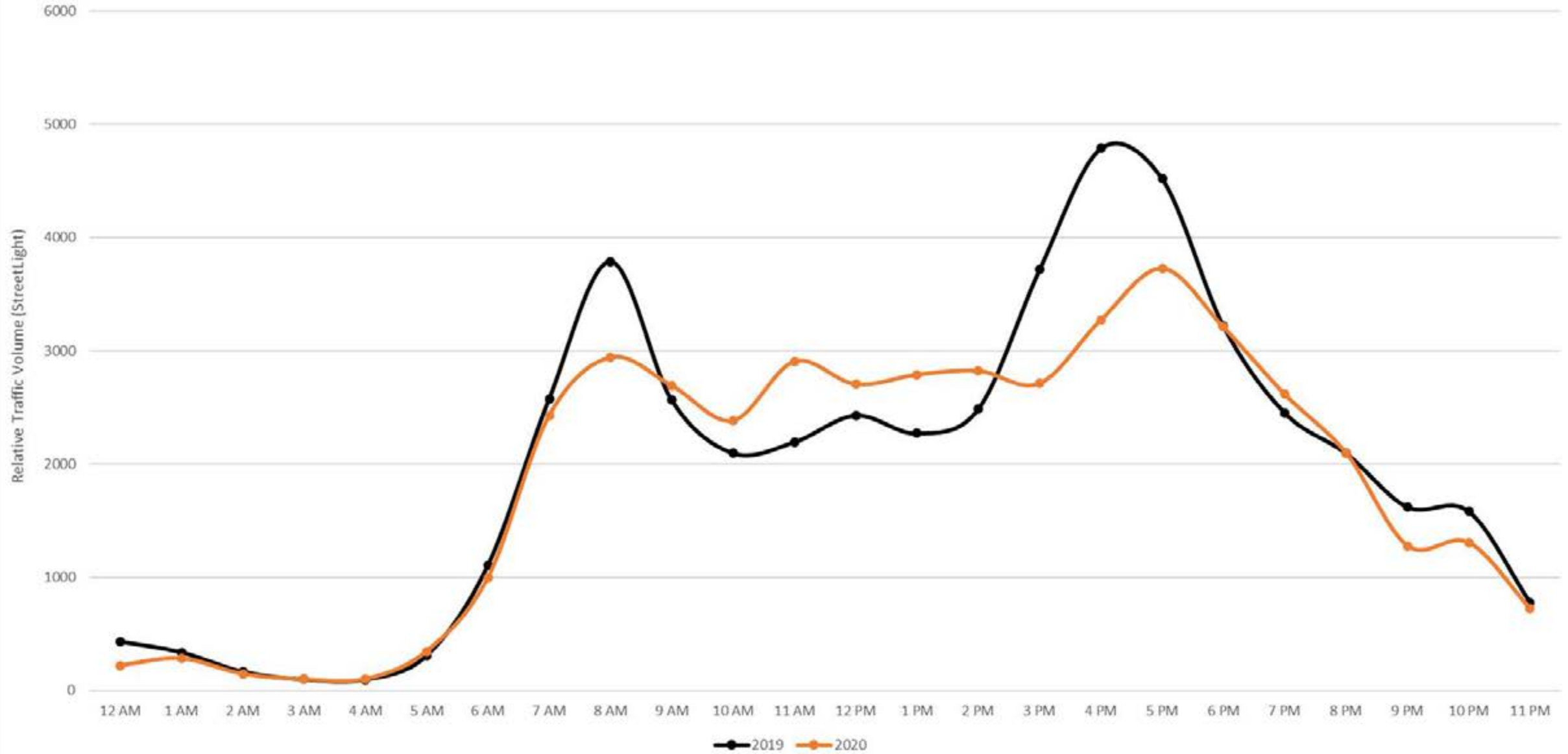


Weekend Bank Street Traffic Volumes - September



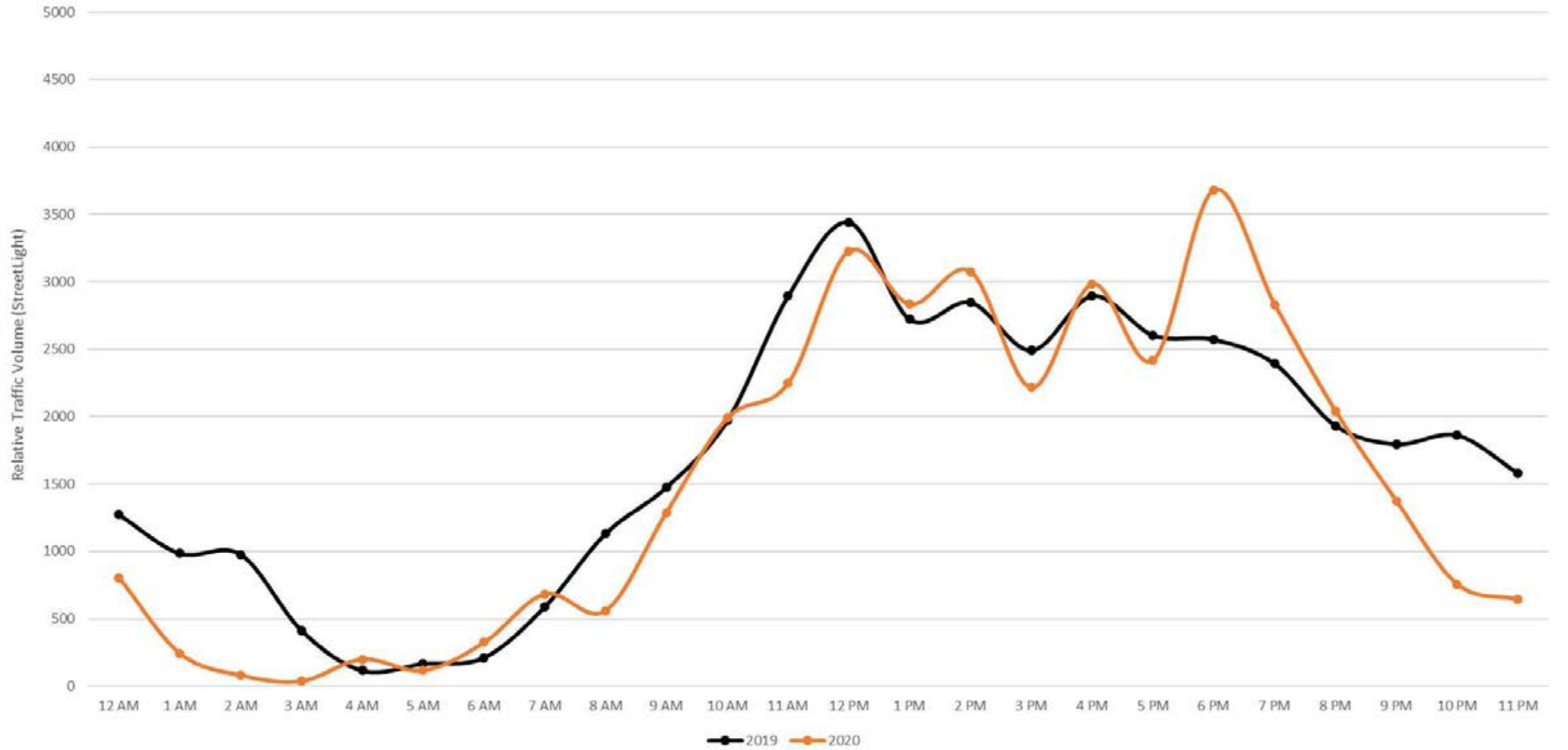
2019 / 2020 Data Only

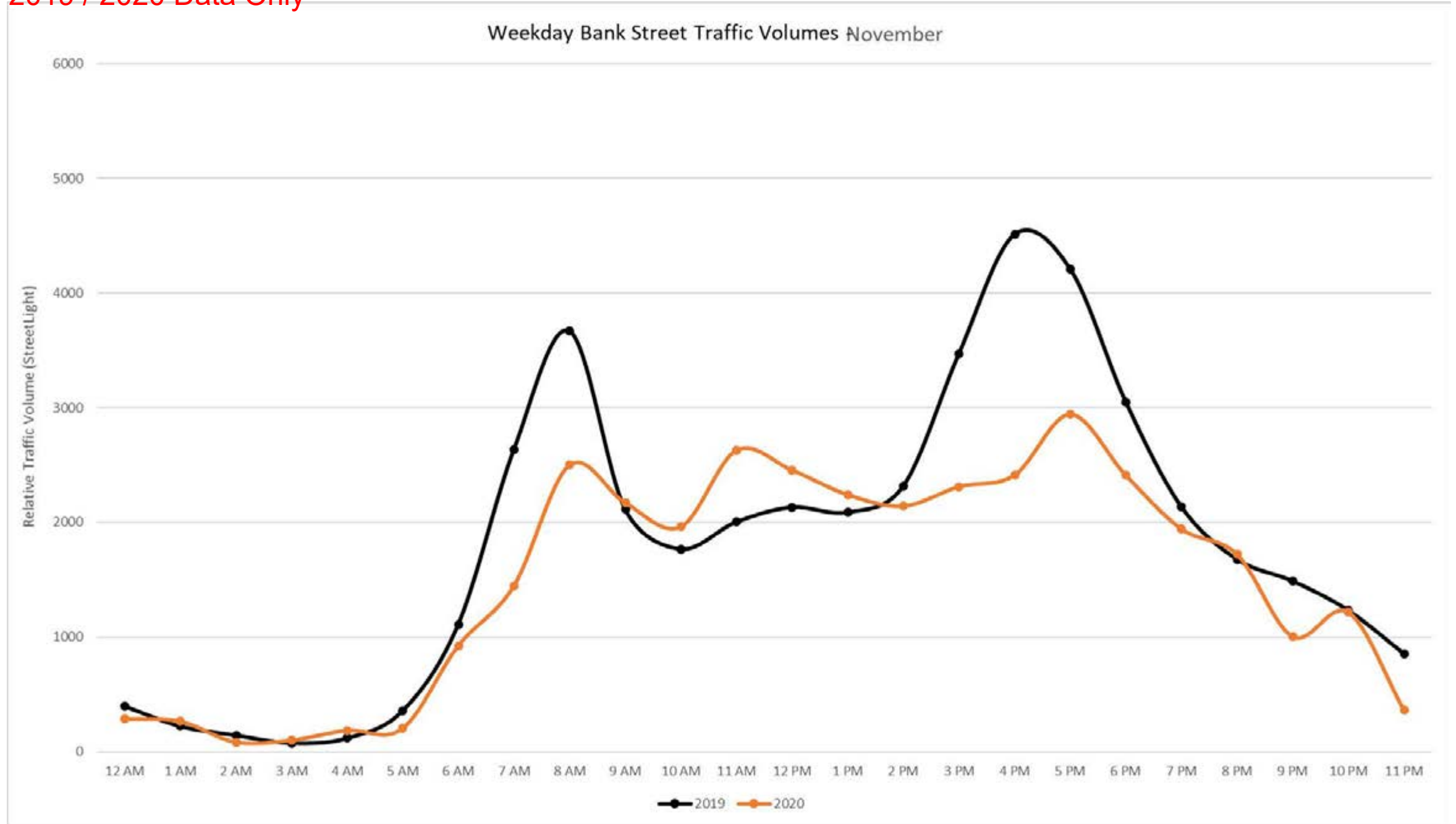
Weekday Bank Street Traffic Volumes - October



2019 / 2020 Data Only

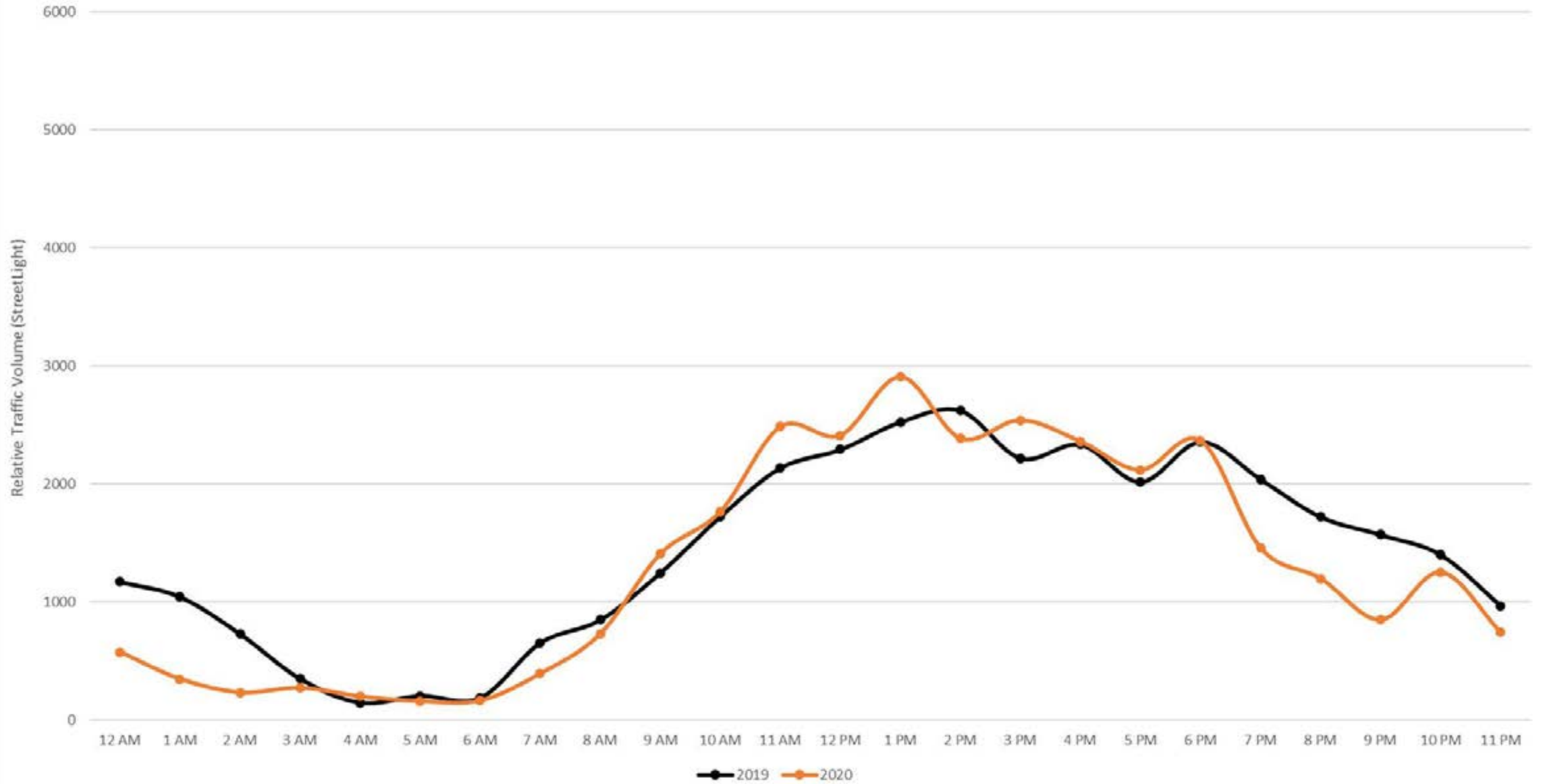
Weekend Bank Street Traffic Volumes - October





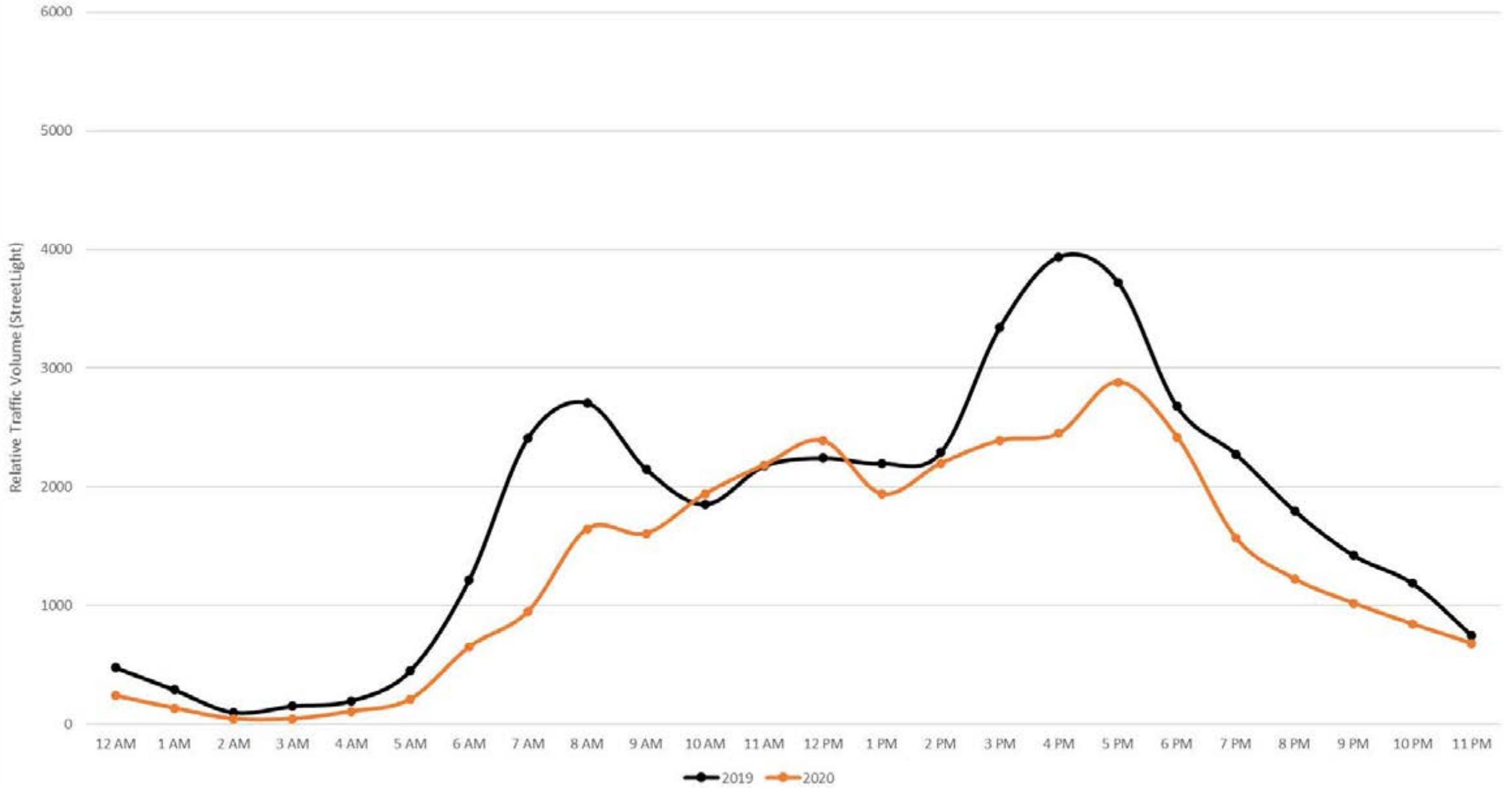


Weekend Bank Street Traffic Volumes - November





Weekday Bank Street Traffic Volumes - December





Weekend Bank Street Traffic Volumes - December

