KING STREET TRANSIT PILOT

December Update

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#kingstreetpilot

TORONTO

DECEMBER UPDATE

King Street Transit Pilot ★ December 2017

The King Street Transit Pilot is about moving people more efficiently on transit, improving public space, and supporting business and economic prosperity along King Street. The transit pilot aims to improve transit reliability, speed, and capacity on the busiest surface transit route in the city by giving transit priority on King Street from Bathurst Street to Jarvis Street.

The monitoring and evaluation of the pilot project involves the collection of data before and during the pilot in order to assess the impacts and benefits of the pilot project. Data is collected through methods such as the tracking of TTC streetcars using GPS, and the monitoring of car travel times using Bluetooth sensors. Monthly updates will be provided reflecting the latest data and information available to the City. This update provides an overview of the results of pilot monitoring through the month of December.

TRANSIT RIDERSHIP

In late November, the first series of post-pilot transit ridership counts were completed. While the comprehensive results of these counts are still being tabulated, early indications are as follows

- Estimates from standing ridership counts indicate that the morning peak hour passenger volumes have increased by up to 25%. This is based on an observed increase in volume from 2,100 passengers to 2,600 passengers eastbound at the peak location of Spadina Avenue.
- The scheduled passenger capacity of streetcars running on King Street has increased from 1,890 passengers per hour per direction to 2,620 passengers per hour per direction through the pilot area, including four streetcars that are added when and where demand is highest.

TRANSIT TRAVEL TIMES & RELIABILITY

- Improvements to the reliability of streetcar travel times observed in November have continued through December in both the morning (7-10 a.m.) and afternoon (4-7 p.m.) rush hours.
- The most significant improvement continues to be during the afternoon rush hours, where the slowest streetcar travel times have improved by about 4 minutes in each direction. Eastbound travel times have improved from 25.0 minutes to 21.3 minutes and westbound travel times have improved from 24.0 to 19.7 minutes when comparing December to before the pilot.
- This improvement to the slowest trips indicates that fewer streetcars are experiencing congestion-related delays and that trips through the pilot area that exceed 20 minutes are becoming less frequent.
- In addition, there has been a 33% improvement the reliability of streetcar travel times. Prior to the pilot the majority of travel times varied over a 10.0 minute range, whereas in December this range was reduced to 6.7 minutes. This means that there is less variability, and more reliability, in the streetcar travel times.
- Average streetcar travel times in December continued to show similar trends as first observed in November. The most significant improvement has been westbound in the afternoon rush hour, with a 2.5 minute improvement in average travel time from before the pilot and December.
- Reliability (the even spacing of streetcars) in the eastbound direction in the AM peak has been affected by the time it takes to load and unload passengers onto the streetcar due to continued increase in passenger demand.
- Staff will continue to monitor travel times and reliability for streetcars and identify opportunities for improvements.

CAR TRAVEL TIMES

- Average travel times during the winter months are generally expected to be higher due to winter weather. In December the higher travel times on snowy days were offset by lower traffic volumes during the last weeks of the month surrounding the holiday season.
- Average vehicle travel times on most streets, both east/west and north/south, continue to vary (+/-) less than a minute compared to before the pilot.
- In most cases where variations over 1 minute were identified in November, December variations have returned to within 1 minute of the travel times from before the pilot, indicating that general month-to-month variability or temporary conditions were the most likely causes, rather than a sustained impact arising from the pilot.
- Staff will continue to monitor travel times for vehicles during the pilot, and will identify opportunities for improvements as required. As an example, while improved from November's 2.0 minute increase, Adelaide Street in the afternoon rush hour was observed to be 1.8 minutes slower in December compared to before the pilot.

COMING SOON

Throughout the course of the pilot, the City will also be measuring or reviewing data on the following metrics, which will be made public as they come available in Q1 2018:

- Car Volumes
- Cycling Volumes
- Pedestrian Volumes
- Economic Point-of-sale Data
- Parking Utilization

As the pilot progresses, data collected for the pilot will become available on the City's open data catalogue. The catalogue can be accessed at:
https://www.toronto.ca/city-government/data-research-maps/open-data/

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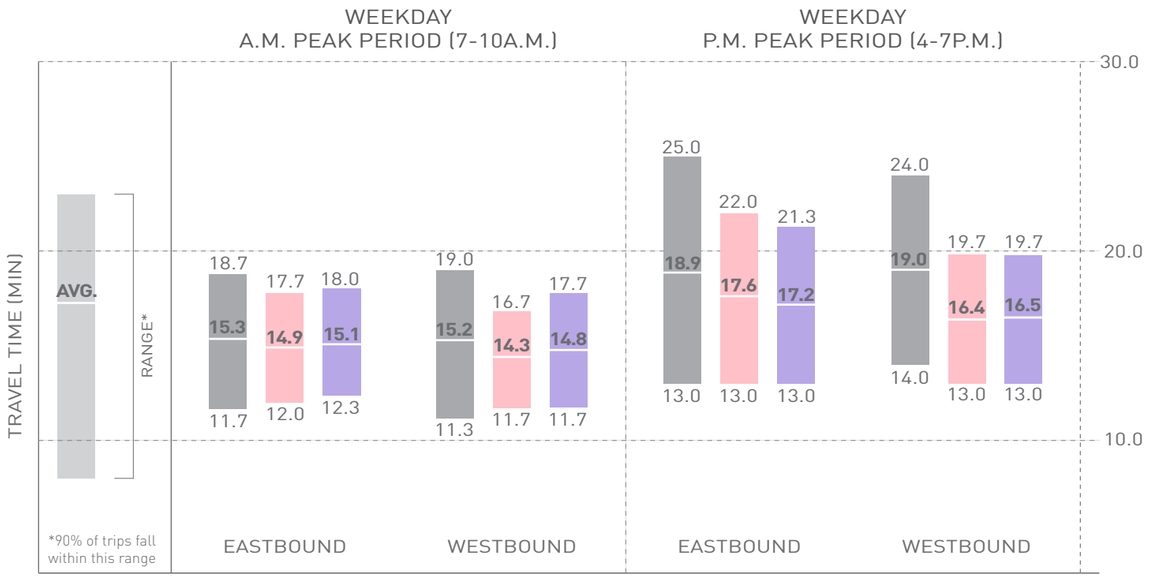
STREETCAR METRICS

King Street Transit Pilot ★ December 2017

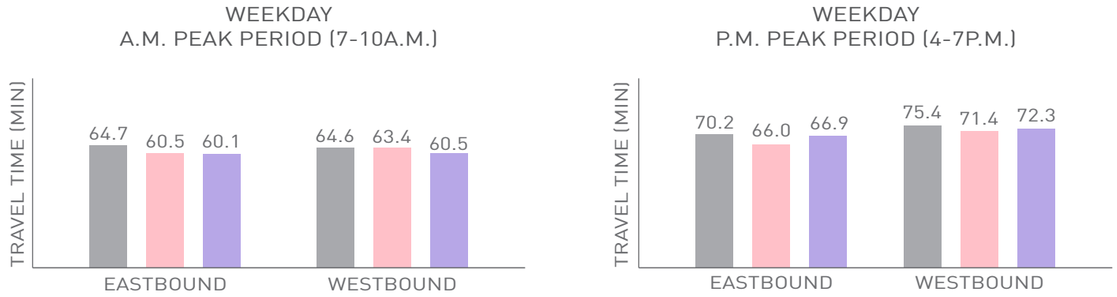
STREETCAR TRAVEL TIME RANGE

(BATHURST - JARVIS)



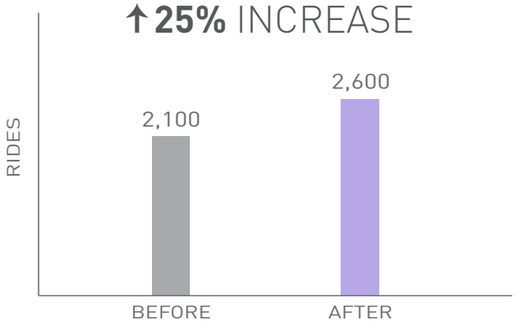
FULL ROUTE TRAVEL TIME

(DUNDAS W. STATION - BROADVIEW STATION)



PRELIMINARY TRANSIT RIDERSHIP

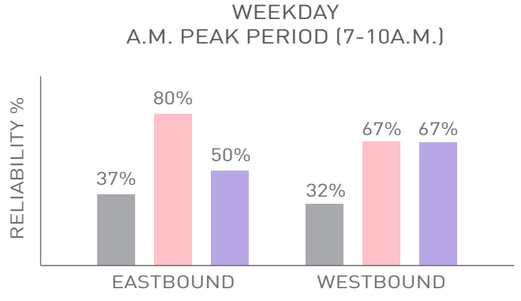
AM PEAK AT SPADINA AVE.

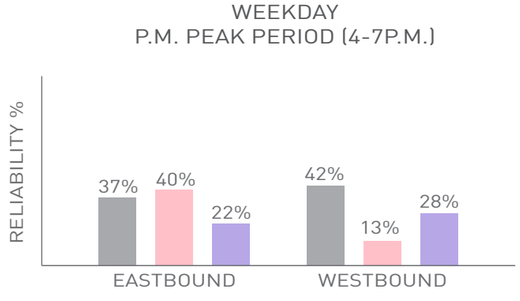


HEADWAY RELIABILITY*

% OF DAYS WITH ACCEPTABLE SPACING

***Headway Reliability:** The value shown represents the percentage of days where the target for headway reliability, or regular spacing of service, was achieved. More reliable wait times reduces overall journey times and allows for more even distribution of travel demand.





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STREETCAR METRICS

King Street Transit Pilot ★ December 2017

STREETCAR SEGMENT SPEEDS AND TRAVEL TIMES

BASELINE

WEEKDAY | A.M. PEAK PERIOD (7-10A.M.)				
BATHURST - SPADINA	SPADINA - UNIVERSITY	UNIVERSITY - YONGE	YONGE - JARVIS	WESTBOUND
11.9 KM/H	11.0 KM/H	9.8 KM/H	10.8 KM/H	**15.2min** AVERAGE TRAVEL TIME
12.0 KM/H	10.6 KM/H	8.9 KM/H	11.9 KM/H	**15.3min** AVERAGE TRAVEL TIME
				EASTBOUND

WEEKDAY | P.M. PEAK PERIOD (4-7P.M.)				
BATHURST - SPADINA	SPADINA - UNIVERSITY	UNIVERSITY - YONGE	YONGE - JARVIS	WESTBOUND
8.8 KM/H	9.5 KM/H	8.0 KM/H	9.6 KM/H	**19.0min** AVERAGE TRAVEL TIME
9.5 KM/H	9.2 KM/H	7.4 KM/H	10.3 KM/H	**18.9min** AVERAGE TRAVEL TIME
				EASTBOUND

NOVEMBER

WEEKDAY | A.M. PEAK PERIOD (7-10A.M.)				
BATHURST - SPADINA	SPADINA - UNIVERSITY	UNIVERSITY - YONGE	YONGE - JARVIS	WESTBOUND
14.5 KM/H	11.3 KM/H	9.7 KM/H	10.0 KM/H	**14.3min** AVERAGE TRAVEL TIME (-0.9MIN)
10.7 KM/H	11.5 KM/H	10.8 KM/H	10.1 KM/H	**14.9min** AVERAGE TRAVEL TIME (-0.4MIN)
				EASTBOUND

WEEKDAY | P.M. PEAK PERIOD (4-7P.M.)				
BATHURST - SPADINA	SPADINA - UNIVERSITY	UNIVERSITY - YONGE	YONGE - JARVIS	WESTBOUND
11.5 KM/H	9.5 KM/H	8.7 KM/H	9.3 KM/H	**16.4min** AVERAGE TRAVEL TIME (-2.6MIN)
9.9 KM/H	10.1 KM/H	9.1 KM/H	8.8 KM/H	**17.6min** AVERAGE TRAVEL TIME (-1.3MIN)
				EASTBOUND

DECEMBER

WEEKDAY | A.M. PEAK PERIOD (7-10A.M.)				
BATHURST - SPADINA	SPADINA - UNIVERSITY	UNIVERSITY - YONGE	YONGE - JARVIS	WESTBOUND
14.6 KM/H	11.0 KM/H	9.6 KM/H	9.6 KM/H	**14.8min** AVERAGE TRAVEL TIME (-0.4MIN)
11.2 KM/H	11.2 KM/H	10.7 KM/H	9.2 KM/H	**15.1min** AVERAGE TRAVEL TIME (-0.2MIN)
				EASTBOUND

WEEKDAY | P.M. PEAK PERIOD (4-7P.M.)				
BATHURST - SPADINA	SPADINA - UNIVERSITY	UNIVERSITY - YONGE	YONGE - JARVIS	WESTBOUND
11.5 KM/H	9.4 KM/H	9.1 KM/H	8.9 KM/H	**16.5min** AVERAGE TRAVEL TIME (-2.5MIN)
10.5 KM/H	10.1 KM/H	9.5 KM/H	8.4 KM/H	**17.2min** AVERAGE TRAVEL TIME (-1.7MIN)
				EASTBOUND

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CAR METRICS

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AVERAGE CAR TRAVEL TIMES (MIN) EAST-WEST STREETS

WEEKDAY | A.M. PEAK PERIOD (7-10A.M.)

EASTBOUND (BATHURST - JARVIS)

			CHANGE FROM BASELINE
DUNDAS	10.6		
	10.8		+0.2min
	10.3		-0.3min
QUEEN	11.3		
	11.8		+0.5min
	12.0		+0.7min
ADELAIDE*	7.9		
	8.0		+0.1min
	8.1		+0.2min
FRONT	11.9		
	13.5		+1.6min
	11.1		-0.9min

WESTBOUND (JARVIS - BATHURST)

			CHANGE FROM BASELINE
DUNDAS	9.4		
	9.8		+0.4min
	9.4		+0.0min
QUEEN	10.5		
	10.3		-0.2min
	10.5		+0.0min
RICHMOND	8.8		
	10.1		+1.3min
	8.2		-0.6min
WELLINGTON*	8.4		
	8.2		-0.2min
	8.4		+0.0min
FRONT*	9.0		
	8.5		-0.5min
	8.7		-0.3min

WEEKDAY | P.M. PEAK PERIOD (4-7P.M.)

EASTBOUND (BATHURST - JARVIS)

			CHANGE FROM BASELINE
DUNDAS	13.7		
	14.5		+0.8min
	15.2		+1.5min
QUEEN	16.4		
	16.3		-0.1min
	18.4		+2.0min
ADELAIDE*	14.7		
	16.7		+2.0min
	16.5		+1.8min
FRONT	17.3		
	18.5		+1.2min
	17.1		-0.2min

*Adelaide EB - Spadina to Jarvis

WESTBOUND (JARVIS - BATHURST)

			CHANGE FROM BASELINE
DUNDAS	15.1		
	14.9		-0.2min
	14.7		-0.4min
QUEEN	15.3		
	15.4		+0.1min
	15.8		+0.5min
RICHMOND	14.5		
	15.4		+0.9min
	14.0		-0.5min
WELLINGTON*	10.9		
	11.7		+0.8min
	10.6		-0.3min
FRONT*	14.3		
	16.9		+2.6min
	14.9		+0.6min

*Wellington WB - Jarvis to Blue Jays | *Front WB - Yonge to Bathurst

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CAR METRICS

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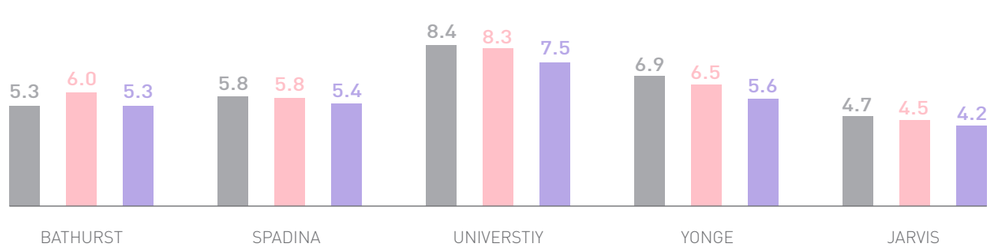
AVERAGE CAR TRAVEL TIMES (MIN) NORTH-SOUTH STREETS

WEEKDAY | A.M PEAK PERIOD (7-10A.M.)

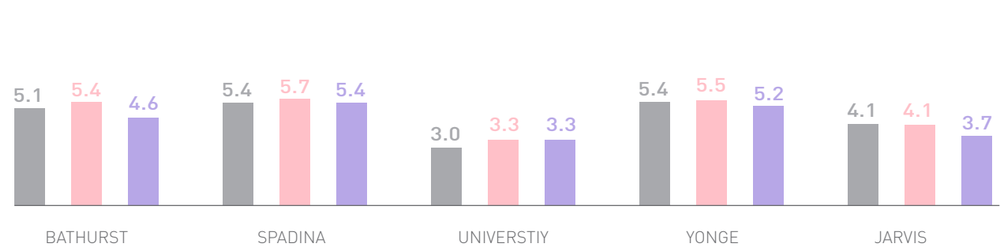
NORTHBOUND (FRONT - DUNDAS)

CHANGE FROM BASELINE	BATHURST	SPADINA	UNIVERSTIY	YONGE	JARVIS
NOV.	+0.7min	+0.0min	-0.1min	-0.4min	-0.2min
DEC.	+0.0min	-0.4min	-0.9min	-1.3min	-0.5min



SOUTHBOUND (DUNDAS - FRONT)

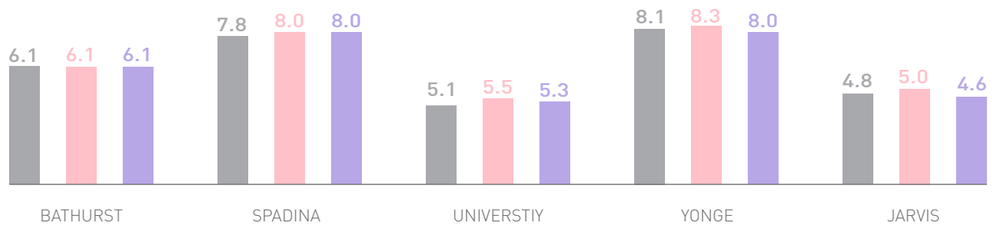
CHANGE FROM BASELINE	BATHURST	SPADINA	UNIVERSTIY	YONGE	JARVIS
NOV.	+0.3min	+0.3min	+0.3min	+0.1min	+0.0min
DEC.	-0.5min	+0.0min	+0.3min	-0.2min	-0.4min



WEEKDAY | P.M. PEAK PERIOD (4-7P.M.)

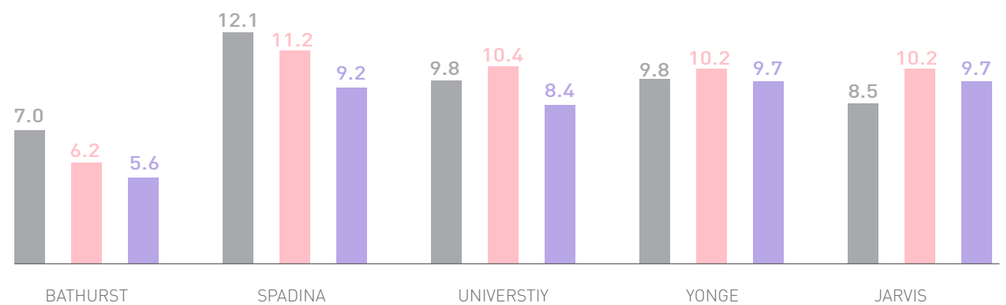
NORTHBOUND (FRONT - DUNDAS)

CHANGE FROM BASELINE	BATHURST	SPADINA	UNIVERSTIY	YONGE	JARVIS
NOV.	+0.0min	+0.2min	+0.4min	+0.2min	+0.2min
DEC.	+0.0min	+0.2min	+0.2min	-0.1min	-0.2min



SOUTHBOUND (DUNDAS - FRONT)

CHANGE FROM BASELINE	BATHURST	SPADINA	UNIVERSTIY	YONGE	JARVIS
NOV.	-0.8min	-0.9min	+0.6min	+0.4min	+1.7min
DEC.	-1.4min	-2.9min	-1.4min	-0.1min	+1.2min



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