



REPORT FOR ACTION

Open Data Request - Cycling and Infrastructure Programs - Bike Share Ridership

Date: October 15, 2020

To: Board of Directors, Toronto Parking Authority

From: Acting President, Toronto Parking Authority

Wards: All

SUMMARY

This report responds to City Council's request to the Toronto Parking Authority Board to direct the President, Toronto Parking Authority (TPA) to release, on a monthly basis, in a suitable data format, all relevant ridership information for Bike Share Toronto to the Toronto Open Data Portal.

RECOMMENDATIONS

The Acting President, Toronto Parking Authority recommends that:

1. The Board of Directors, Toronto Parking Authority, forward this report to the Infrastructure and Environment Committee for information.

FINANCIAL IMPACT

There is no financial impact resulting from the adoption of the recommendation in this report.

DECISION HISTORY

City Council, at its meeting on June 29, 2020, adopted the following:

City Council request the Toronto Parking Authority Board of Directors to direct the President, Toronto Parking Authority to release immediately, on a monthly basis in a suitable data format, all relevant ridership information for Bike Share Toronto to the Toronto Open Data Portal, each dataset to include:

- a. trip duration (seconds) all;
- b. start and end date and time;
- c. start and end station name, ID, latitude, longitude;
- d. bike identification number;
- e. user type ("Customer" = 24-hour or 7-day pass user; "Subscriber" = annual member);
- f. gender (0=unknown; 1=male; 2=female);
- g. year of birth; and
- h. datasets include only trips taken by customers from publicly available stations that are longer than 60 seconds in duration.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.EX14.10>

COMMENTS

TPA has been, and is in regular communication with the City of Toronto Open Data Team responding to public or internal inquiries concerning live feed data and historical Bike Share Toronto datasets and working to publish Bike Share Toronto data since 2011. Bike Share data is currently available in two formats; a live JavaScript Object Notation (JSON) file and a historical ridership dataset (CSV).

Bike Share Toronto publishes a JSON file, which updates in real-time by connecting to the Bike Share backend software; the open Application Programming Interface (API) transmits live data under the General Bikeshare Feed Specification (GBFS). This live data reporting system is used by over 230 bike share systems worldwide. The JSON file includes information on all operational Bike Share Toronto terminal locations, including station occupancy data. This means that in real time it relays how many bicycle and docking points are available at each individual station and tracks the release and docking of bikes in stations.

Historical ridership is posted on an annual basis. The latest posting was on January 7, 2020 after the 2018 data was audited, cleaned and reviewed as the raw data contains personal information which cannot be shared (Protection of Privacy Act).

The published historical bike share ridership dataset contains the following attributes:

- Trip identification number
- Trip duration
- The start/end date and time of each trip
- The start/end station of each trip
- Whether or not the user was an annual or casual member

Toronto Parking Authority Plan to Meet City of Toronto Open Data Requirements

Of the requested data, Bike Share Toronto currently captures the following:

- a. trip duration (seconds) all;
- b. start and end date and time;
- c. start and end station name, ID, latitude, longitude;
- d. bike identification number;
- e. user type ("Customer" = 24-hour or 7-day pass user; "Subscriber" = annual member);

Bike Share Toronto systems do not capture a customer's gender or year of birth. Datasets will be filtered and produced to ensure that only trips longer than 60 seconds will be published on Open Data.

Open Data Requirements Project Status

In order to meet the on-going Open Data requirements for Bike Share Toronto, Toronto Parking Authority has been working closely with its software vendor, PBSC Urban Solutions.

These are the project deliverables with expected completion date:

Project Milestone	Expected Completion Date	Comment
Set up of new API	Completed	Allows Bike Share Toronto ability to capture data required (excludes gender and year of birth)
Testing of data extraction	October 15, 2020	Includes transforming and processing of data in a format that is accessible for City of Toronto Open Data team
Producing historical data from January 2019 to August 2020	October 22, 2020	
Automating processes for fulfilling Open Data requirements	October 30, 2020	With automation, the previous month's data will be available by the fifteenth day of the following month (ie. November 15 for October data)

The current project is moving according to the planned timelines and will satisfy the requirements set out by City Council on June 29, 2020.

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SIGNATURE

Robin Oliphant, Acting President
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