




# City of Richmond

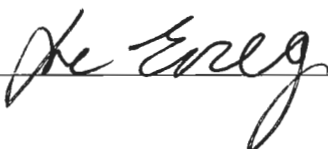
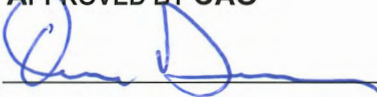
## Report to Committee

**To:** Public Works and Transportation Committee      **Date:** July 10, 2018  
**From:** Victor Wei, P. Eng.  
Director, Transportation      **File:** 02-0775-50-6286/Vol  
01  
**Re:** **Public Bike Share Pilot Program - Recommendation to Award Contract**

### Staff Recommendation

1. That the City establish a service of a public bike share system as a pilot project;
2. That a contract up to 18 months in length with U-bicycle North America Inc. (U-bicycle), based on the terms as outlined in the staff report titled "Public Bike Share Pilot Program – Recommendation to Award Contract" dated June 28, 2018 from the Director, Transportation, be endorsed;
3. That the Chief Administrative Officer and General Manager, Planning and Development, be authorized to execute the above contract; and
4. That staff be directed to report back on the outcome of the pilot program following its completion.

  
Victor Wei, P. Eng.  
Director, Transportation  
(604-276-4131)  
Att. 1

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Administration & Compliance	<input checked="" type="checkbox"/>	
Economic Development	<input checked="" type="checkbox"/>	
Purchasing	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Parks	<input checked="" type="checkbox"/>	
Business Licences	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
Community Bylaws	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> CJ	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

At its March 26, 2018 meeting, Council directed staff to issue a Request for Proposals (RFP) for the development and operation of a public bike share system as a pilot project, and report back on the responses to the RFP with a recommendation. This report recommends the award of a contract up to 18 months in length to U-bicycle North America (U-bicycle).

This report supports Council's 2014-2018 Term Goal #3 A Well-Planned Community:

*Adhere to effective planning and growth management practices to maintain and enhance the livability, sustainability and desirability of our City and its neighbourhoods, and to ensure the results match the intentions of our policies and bylaws.*

3.3. *Effective transportation and mobility networks.*

This report supports Council's 2014-2018 Term Goal #5 Partnerships and Collaboration:

*Continue development and utilization of collaborative approaches and partnerships with intergovernmental and other agencies to help meet the needs of the Richmond community.*

5.2. *Strengthened strategic partnerships that help advance City priorities.*

### Analysis

#### Procurement Process

An RFP for the development and operation of a pilot public bike share program was issued by the City on May 9, 2018 with a closing date of May 28, 2018. Three proposals were received and all of the proponents have a demonstrated ability to operate a public bike share system, including experience in Canada.

#### Evaluation of Proposals

The proposals were evaluated by a staff team from Transportation and Community Bylaws in accordance with the following evaluation criteria identified in the RFP:

- project methodology and timeline;
- form of bicycle parking and use of public realm;
- safety and quality of equipment;
- operations, customer service, maintenance, and rebalancing of bicycles;
- user experience and affordability;
- data security, sharing and reporting;
- risk management;
- financial projections;
- proponent qualifications; and
- proposal quality.

### Recommended Operator

Following the proposal evaluation process, staff have selected U-bicycle North America (U-bicycle) and recommend that the company be awarded a contract to serve as the public bike share system owner and operator operating at arm's length from the City for a pilot project term of up to 18 months. In this owner/operator role, U-bicycle would:

- manage, fund and maintain the operations;
- assume the financial, operational and liability risks associated with the system;
- install and maintain any infrastructure associated with geo-fenced “virtual” docking stations (e.g., bike racks, helmet kiosks);
- operate and optimize bicycle and helmet redistribution; and
- be responsible for sales, education, marketing, and customer service.

The City would provide support to the pilot program in the forms of:

- access to City lands including streets and open spaces for the installation of any bike racks and related signage and wayfinding;
- in-kind support primarily comprised of staff support for the station siting process; and
- monitoring system performance during the pilot period.

Staff time and resources can be accommodated within existing divisional operating budgets.

### System Description

The system recommended for Richmond would be a balance between a free-floating dockless system and a station-based docked system that features geo-fenced virtual stations as designated bike parking areas to help avoid potential obstructions in the public realm by improperly parked bicycles. Virtual parking stations have the advantage of easy modification if there is a need to adjust the size and location of stations to address changes in system demand or to accommodate special events or construction work.

#### *Bikes, Helmets and Infrastructure*

System users will be able to rent bicycles at one location and end their trip at another location through a self-service process available 24/7 during the pilot period. Each self-locking bicycle has a helmet that locks to the frame of the bike and helmet liners will be available via a kiosk at stations. Additional bicycle features include automatic front and rear lights, an adjustable seat height, front cargo basket and cup holder, bell, and three gears (Figure 1). Instructions on how to use the U-bicycle system and customer service hotline number are provided on the rear-wheel guard and the basket.



Figure 1: Proposed U-bicycle Model

Communications, including payment transactions, are completed wirelessly via a smartphone app. Selected stations along the Canada Line will have beacons to convert them to free WiFi zones. U-bicycle will also seek to partner with local retailers, malls, restaurants, and hotels to leverage their WiFi.

The bicycles have a chip and are GPS-ready; however, initially, the device will not be enabled, which limits the ability to track the real-time locations of bicycles between trips. U-bicycle is currently pursuing the certification process to enable the GPS device (estimated to take six months as of June 2018). U-bicycle will monitor the usage of the bikes in the initial weeks after the launch and commits to activating the GPS in all bikes by the beginning of January 2019 if issues are demonstrated to arise (e.g., incorrectly parked bikes, theft of bikes).



Figure 2: Proposed Kiosk

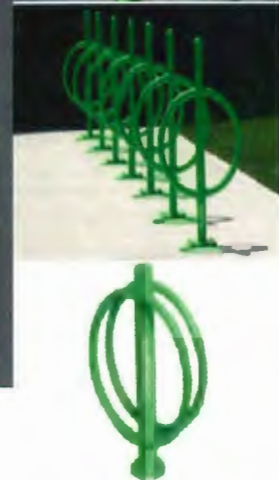


Figure 3: Proposed Bike Racks

The majority of stations will feature signage that contains instructions for use, the nearest bike route and nearby attractions and destinations (Figure 2). At high density locations where usage is expected to be higher and space constraints may be present, U-bicycle would provide its own bicycle racks to better identify its bicycles and ensure unrented bikes are parked in an orderly and space-efficient manner (Figure 3). The use of existing public bicycle racks is not encouraged in order to maximize availability for cyclists not using the bike share system.

#### *Deployment Areas and Station Siting*

Should demand warrant, the system will have the capacity at its full launch to consist of up to 470 bikes at 110 stations located within the City Centre core and Steveston area (see Attachment 1 for system coverage areas). An initial launch will deploy a much smaller number of bicycles and stations with increases to the system being phased in subject to a monitoring period. The boundaries of the City Centre area will be generally similar to those of the City Centre planning area: No. 2 Road to the west, Blundell Road to the south, No. 4 Road-Shell Road to the east and the Fraser River to the north. The Steveston Village area will be bounded by the water to the west and south, Williams Road-Steveston Highway to the north, and No. 2 Road to the east.

The exact number of bikes and stations will be determined via U-bicycle's three-step approach to determine the locations of the virtual parking stations:

- (1) Feasibility Study: identify and recommend proposed locations for initial deployment.
- (2) Consultation: Share the first draft of the virtual station plan for public consultation via U-bicycle's and the City's channels. Adjust the number of stations proposed based on the feedback.
- (3) Finalization: Prepare a final draft for the City's review and approval.

The virtual parking zones are intended to be within a 50 m radius from the following locations: community centres, Canada Line stations, bus stops, and commercial centres. The distance between each virtual parking station would be between 300-500 m. Station locations are anticipated to be a mix of on-street (e.g., at corner clearances), off-street (e.g., boulevard or other City-owned property) and privately owned lands. The proximity of a proposed station to an existing cycling facility will be a consideration as part of the station siting process. It is the responsibility of U-bicycle to secure all station locations.

After determination of the locations of the virtual parking stations, a small-scale launch of 10 stations with 50 bikes will be deployed along the Canada Line and major bus stops. The trial deployment will allow evaluation of users' feedback on the signage and user-friendliness of the interface. The trial will last for a minimum of one week and minor adjustments will be undertaken as necessary prior to implementation of the rest of the proposed stations.

System usage operations will be monitored and, if warranted, a second phase with deployment of up to a further 250 bicycles may be considered in Spring 2019.

### *Pricing*

U-bicycle intends to offer three rental plans:

- *Pay-as-You-Go Rental*: users pick-up and return a smart bike at any virtual dock station. Rental will be charged at \$1.00 per 30 minutes. Trips will not end unless the user returns the bike to a virtual dock. However, the user can temporarily park at any public bike rack during the rental.
- *Membership Rental*: members can enroll in an annual pass program at \$150 per year. The membership would provide unlimited trips.
- *Tourist Rental*: offered at \$14 per day, this pass provides unlimited 24-hour rental. During the 24-hour period, the bikes can be parked temporarily outside of geo-fenced boundaries and virtual dock locations but bikes must be returned to the virtual dock for the trip to end.

Multiple payments can be processed per one app so that one person could pay for all bike rentals in his/her group. As a theft-protection mechanism, each person in the group will need the U-bicycle app in order to unlock his/her own bike.

### *Operations*

Rebalancing (e.g., from low to high demand areas) will be done on a daily basis with one operations staff for every 100 bikes. Operations staff will track bike usage, observe weekly changes, and adjust rebalancing attention accordingly. Priority will be given to moving bikes left unused for seven days, in low-demand residential or industrial zones, or in areas with high theft and vandalism risk. Maintenance checks are performed on all bikes at least once every seven days and bikes in high-usage zones are checked more frequently.

Customer support coverage will be available 8:00 am to 8:00 pm during the week and 9:00 am to 6:00 pm on weekends. Users can access customer support in-app or via the customer service hotline number, also highlighted in the app. The City and Richmond RCMP will have the contact details for the Operations Manager, who is the first point of contact and on-call 24/7. A



local base of operations will be established to store bikes and parts, to recycle and repair bikes, and to respond to public concerns.

### *Promotion and Community Engagement*

U-bicycle plans to undertake a two-phase (pre- and post-launch) marketing plan to:

- raise awareness of the bike share pilot program among residents and visitors, and
- inform and educate the public on how to use the system, how to ride safely and where to find Richmond's bike routes.

Avenues to raise awareness include U-bicycle's use of its social media, website and blog, sponsorship of community events, local media advertising, marketing partnerships with local businesses, and free weekend bike tours hosted by U-bicycle staff.

### *Monitoring and Performance Measurement*

The City will be provided with weekly and monthly reports to assist in understanding system use including data such as number of registered and active users, number rides and bikes being used, trip start and end points, trip distance and time, and system usage by time of day and day of week. A set of key performance indicators will be developed to track and evaluate U-bicycle's overall performance. Potential indicators include minimum performance levels in bike, helmet and station availability, customer service response times, and bicycle parking management.

The pilot program will include a provision for the City to terminate service should the system features not be kept in a condition acceptable to the City. Upon written notice from the City, U-bicycle anticipates a three week timeframe to allow for deactivation of their service in Richmond, including removal of all program equipment.

### *Timelines*

Should Council approve the staff recommendation, U-bicycle anticipates being able to launch the system approximately eight weeks after contract finalization and execution.

### **Financial Impact**

None.

### **Conclusion**

Based on staff's evaluation, the U-bicycle proposal would provide the community and the City with the following benefits:

- provision, management, operation, and maintenance of a public bike share system at no cost to the City;
- an engaging, easy to use and affordable user model; and
- an adaptable and responsive operations plan.

Acceptance of U-bicycle's proposal would enable the City to explore and evaluate the potential of a public bike share system to advance the objective of providing expanded travel choices in support of the City's mobility goals and targets in the most cost-effective manner.



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JC:jc

Att. 1: Proposed Deployment Areas – City Centre and Steveston

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Proposed City Centre Deployment Area





**Proposed Steveston Deployment Area**

