INFORMATION REPORT

TO:	Chair and Members Planning Committee
COMMITTEE DATE:	October 1, 2019
SUBJECT/REPORT NO:	Parking Technology Update (PED19197) (City Wide)
WARD(S) AFFECTED:	City Wide
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COUNCIL DIRECTION

N/A

INFORMATION

This Report provides an update on the new parking technology and the related equipment that has been installed or is scheduled to be installed by Q2 - Q3 of 2020.

1.0   Background

The City of Hamilton Municipal Parking System, (HMPS) Parking Operations Section, has taken steps over the last few years to invest in maintaining its existing assets, and, at the same time, moving the bar higher in providing updated equipment that enables a superior customer experience and payment options. Modernized equipment and supporting technologies will provide customers with a variety of payment options (coins, credit card, debit), while generating an increase in revenue (no unused time to be passed forward) and providing the ability for the collection and analysis of real time data to support the implementation of effective parking management strategies. The objective of introducing effective parking management strategies is to encourage users to shift to different modes of transportation, drive at different times of the day, combine trips etc. Ultimately, such actions help reduce traffic congestion and pollution, as well as, better utilization of existing inventory, off-setting the need to add additional parking supply.

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2.0   Existing Parking Facilities

HMPS currently operates 61 surface parking lots and two parking structures (Parkades), which combine, to have approximately 4,400 parking spaces. There are 2,741 metered on-street parking spaces. These parking facilities are a mixture of permit parking and paid hourly parking. Included, within the off-street parking space inventory, are accessible parking spaces, spaces that are used for Electric Vehicle Charging Stations (EVCs), spaces allocated to car share vehicles, and protected locations for bicycle storage.

3.0   Pay and Display Parking Payment Machines (off-street lots)

The first step in moving HMPS forward in this project was to undertake a review of parking technology offerings. Until recently, the existing parking payment machines, in inventory, only accepted coins, and provided inadequate metric data to support the development of parking management strategies.

There are many different technologies currently in market that are part of smart parking solutions. These technologies range from payment methods to in-ground sensors that can be used as an aid in parking enforcement. The technology accepted, to move forward with, was the Pay and Display (PD) machine. This new technology had the advantage of providing customers with a variety of payment options, coins, credit card, and debit. They had the following additional features:

- Solar powered;
- An electronic display;
- Easy-to-use from a customer perspective;
- AODA compliant; and,
- Licence plate input.

This project was a phased approach that allowed for transition of the customer experience from the old to the new parking equipment. In the first phase of the project, staff installed 34 new parking payment machines that accept both coinage and credit cards in 23 Municipal Car Parks. Phase two of the project includes receiving an additional 32 parking payment machines in the last quarter of this year. These machines will be installed throughout the City, including along Locke Street to assist both businesses and customers in that area.

The third and final phase of this project has identified that, by the end of 2019, all of the new parking payment machines will be pay-by-plate capable, meaning there will be no need for a physical receipt or to display anything on a dashboard after you pay for your parking. In addition to credit cards, some machines, in areas with higher volumes, will also receive debit card "tap-to-pay" readers that will allow people to pay for parking from their chequing accounts. We expect to have all Municipal Car Parks updated with new credit card machines by late spring 2020.

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4.0 Enforcement System Upgrade

In summer 2018, HMPS implemented a major upgrade of the parking enforcement system and equipment. This included the implementation of a live parking ticket issuance and management system as well as replacing outdated hand-held ticketing equipment with new smart phones. The new system enables live contact with enforcement officers and real-time tracking of enforcement activity. The upgrade was also a prerequisite for pay by phone (as discussed below).

5.0   Pay by Phone Application

This project involved the implementation of a mobile app for Pay-by-Phone parking which provides customers the ability to pay for and extend parking sessions at City-managed parking lots and at on-street metered parking from their phones using their licence plate as the identifier. This will provide flexibility to our customers by allowing an extension of their parking session, so they can avoid a ticket. It also provides customers with an additional payment option for on-street meters other than coins.

Staff are currently in the first phase of the project with a soft launch projected for early 2020. Staff are currently working out implementation details and supporting IT needs with a supplier. Once systems have been tested, implementation involves the placement of a sticker on each parking meter explaining the new payment method. No other changes to the existing meters are required.

6.0   Use of Licence Plate Recognition Technology for Enforcement

The use of licence plate technology for payment of parking also allows its use for enforcement. There are two phases to this project. The first involves the beta testing and ultimately the implementation into the existing hand-held devices that staff currently uses to enforce parking violations. The second is the purchase of enforcement vehicles that are enhanced/fitted with the camera technology and software/hardware to recognize whether or not the vehicle is parked legally. Illegally parked vehicles are issued a citation in real-time on the windshield or through a post-processed mail out method (future consideration). This process allows the enforcement/compliance officer to quickly determine who has and has not paid resulting in a better utilization of the officers' time, improved management of our parking facilities, and potentially increased revenues for the City through citations and/or compliance.

The 2020-2044 proposed Capital Budget identifies the financial costs associated with the procurement of the purchase of enforcement vehicles that are enhanced/fitted with the camera technology and software/hardware to recognize whether or not the vehicle is parked legally (Project ID 4902057200).

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7.0   Other Parking Technology Projects on the Horizon

Staff is currently reviewing the Parking Access and Revenue Control Technology (PARCT) for both the York Boulevard and Convention Centre Parkades. The new system(s) will be leveraged to ensure improved management of these parking facilities and enhance the customer experience through offering more convenient and fast options for payment, be user friendly, and integrate seamlessly with the software component. Staff will also be looking to standardize the new technology (on-street, off-street lots, and Parkades) to enhance the ability for data collection and analysis leading to providing a more efficient use of parking resources.

APPENDICES AND SCHEDULES ATTACHED

N/A

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