

**Report to
Rapport au:**

**Transportation Committee
Comité des transports
07 Apr 2021 / le 07 avr. 2021**

**and Council
et au Conseil
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**Ward: City Wide / À l'échelle de la ville File Number: ACS2021-PWE-RPS-0001
(0)**

SUBJECT: Public Bike Parking Strategy

OBJET: Stratégie de stationnement public pour vélos

REPORT RECOMMENDATIONS

That the Transportation Committee recommends that Council approve the Public Bike Parking Strategy and Implementation Plan, attached as Document 1 and 2.

RECOMMANDATIONS DU RAPPORT

Que le Comité des transports recommande au Conseil d'approuver la Stratégie de stationnement public pour vélos et le plan de mise en œuvre ci-joints (documents 1 et 2).

EXECUTIVE SUMMARY

Assumption and Analysis

One of the outcomes of the Municipal Parking Management Strategy Refresh and Governance Review Report ([ACS2019-PWE-RPS-0016](#)) that was approved by Council on October 9, 2019, was to develop a Public Bike Parking Strategy. The intent in developing this strategy is to clarify and focus the City's efforts in providing this service and to align with and support the various related objectives and actions within the Official Plan, Transportation Master Plan, Ottawa Cycling Plan, Municipal Parking Management Strategy and Climate Change Master Plan.

As the updated Municipal Parking Management Strategy allows for funding for bike parking from parking fee revenues and contains direct references to supporting cycling and bike parking, there is a natural alignment between the Municipal Parking Management Program and a future Public Bike Parking Program. In developing the mandate within the Public Bike Parking Strategy (the Strategy), it was important to ensure a connection between both programs. The following policy statements were developed to capture the purpose of the Public Bike Parking Program and were confirmed through stakeholder engagement:

KEY PRINCIPLE:

In alignment with the Municipal Parking Management Strategy, the Public Bike Parking Program is committed to providing progressive bike parking solutions that meet the needs of the cycling community in an efficient, balanced and integrated manner towards supporting the growth of cycling and achieving the City of Ottawa's broader transportation goals.

OBJECTIVES:

1. Provide an appropriate and optimized supply of public bike parking that is accessible and convenient while balancing all needs associated with the public space;
2. Balance the bike parking requirements of various cycling trip generators to accommodate to all types of cyclists; and,
3. Adhere to data-based processes in the planning, implementation and maintenance of all types of bike parking.

The Public Bike Parking Strategy is attached as Document 1 and is made up of the following four components:

1. Bike Parking Types and Placement
2. Implementation Process
3. Supporting Measures
4. Management Approach

Associated with each of the Strategy components are various recommendations. These recommendations are summarized in the report that follows and also documented in the Implementation Plan (Document 2). The Implementation Plan also considers a number of initiatives which will be necessary to establish a Public Bike Parking Program and ensure alignment towards fulfilling the Strategy. A summary of the components, including some key highlights and implementation time frames is provided below.

The component relating to bike parking types and placement outlines that there are secured and unsecured bike parking options and security, convenience and the impacts of winter maintenance must all be considered when making decisions related to bike parking.

The Public Bike Parking Program will continue with the installation of unsecured bike parking in 2021 and will begin to apply the various lenses that are accounted for in the Strategy. Secured bike parking requires an additional level of planning and involvement but the identification of pilot locations can be expected by early 2022 for implementation later that year. Of note, OC Transpo has recently launched a new secured bike parking program at four LRT stations which will serve as a key reference point for the Public Bike Parking Program. Parking Services has also taken an active role in supporting the construction of a second secured bike cage at City Hall which is expected to be installed in 2021. A fulsome winter maintenance approach is scheduled to be implemented in Q4 2022.

The development of an Implementation Process, as outlined in the Public Bike Parking Strategy, will account for both a proactive and reactive approach, each of which considers various data inputs. This process and the corresponding tools will assist in identifying and prioritizing bike parking solutions by creating a geographically-based grid score that accounts for specific local characteristics and requirements. The Implementation Process is scheduled to be fully developed and in use by Q2 2022.

The supporting measures component captures best practices for bike parking determined through a broad municipal scan and seeks to identify those that would be optimal in the context of the City of Ottawa, the Public Bike Parking Strategy and its objectives. Development of a number of the initiatives, policies and frameworks associated with the supporting measures will begin immediately. Measures related to

data collection/management will be prioritized in 2021. By the end of 2022, it is expected that there will be a fully developed and implemented approach to handling abandoned bikes. Following that, initiatives related to event bike parking, wayfinding and business collaborations will be in place in 2023.

The fourth component of the Strategy contemplates options related to the management of bike parking as well as the implementation and administration of the Public Bike Parking Strategy. Currently, public bike parking is managed by multiple different service areas, the Strategy recommends this be more centralized. Through internal consultations, staff have started to clarify the framework for the Public Bike Parking Program. Parking Services is best suited to manage the centralized framework due to the natural alignment with the Municipal Parking Management Strategy, available funding, previously identified resources and an existing operational component. The development of the Public Bike Parking Program, clarification of roles and the establishment of a single intake point for public requests will all be completed in 2021.

The various measures and actions that comprise the Implementation Plan align closely with the Strategy objectives. The Public Bike Parking Strategy also contains a number of considerations that the Public Bike Parking Program will use as reference points. These include accessibility, equity and emerging trends in both bike design (e.g. e-bikes and cargo bikes) and micromobility transportation options that all need to be accounted for on an on-going basis. Altogether, the Public Bike Program is well set up to move towards providing appropriate bike parking in a measured and transparent way while being respectful of all residents of the City of Ottawa.

Moving forward, updates related to the development of the Public Bike Parking Program and progress in following through with the Implementation Plan will be incorporated into the Parking Services Annual Report.

More details on each of the components and how the strategy was developed are highlighted below.

As mentioned above, the approval of the Municipal Parking Management Strategy in 2019 led to the requirement to develop a Public Bike Parking Strategy and also resulted in the Funding Model being updated to allow for the Parking Reserve Fund to be used to install and maintain bike parking anywhere across the city, rather than only in paid parking areas. With funding more accessible it presented an opportune time to develop a Public Bike Parking Strategy and, in the process, better align roles and responsibilities related to bike parking.

Currently, the four main functions of managing bike parking (installation/maintenance, data collection/management, stakeholder management and project management/administration) are carried out by seven service areas across four different city departments (Public Works and Environmental Services, Recreation Cultural and Facility Services, Transportation Services and Planning Infrastructure and Economic Development). With many departments involved it can lead to confusion for stakeholders, inconsistencies in the types of facilities and inefficiencies in providing the service.

The development of a Public Bike Parking Strategy provides a number of opportunities and solutions to address these challenges. The following represents a high-level summary of some of these:

- Clarity and alignment of roles related to bike parking
- A coordinated and focused approach to supporting cycling
- Improve the process for the public to request bike parking and report issues
- Link bike parking with better demand-based metrics
- Better manage space within the public realm

Staff relied heavily on internal and external consultations to gather information, develop ideas and gather feedback through the development of the Public Bike Parking Strategy. Parking Services staff had multiple meetings with The Parking Stakeholder Consultation Group (PSCG), cycling groups, community groups, Councillors and an internal working group. There were also three virtual public open houses and an online survey. The PSCG was consulted early on to determine the scope and purpose of the Strategy. It was confirmed that the above opportunities would be addressed, and that the Strategy would focus on bike parking within the public right-of-way (e.g. sidewalks), at off-street parking lots managed by the City and at City facilities (e.g. parks, recreation centres, etc.).

The City hired Stantec Inc. (Stantec) to assist with the development of the Strategy. Stantec completed an as-is analysis to review the management of bike parking at the City of Ottawa and reviewed existing plans and policies in place. Stantec then began collecting data and conducting research through supporting consultations and reviewing best practices in other municipalities.

The following further summarizes the four components of the Public Bike Parking Strategy.

BIKE PARKING TYPES AND PLACEMENT

The Strategy clarifies two types of bike parking; secured and unsecured. Unsecured bike parking is exposed bike parking that everyone has access to (e.g. ring-and-post, bike corrals, etc.) and secured bike parking has more controlled access (e.g. bike cage, indoor bike parking, etc.). Both have a variety of options relating to capacity/footprint and costs vary accordingly.

The placement of the bike parking needs to take into account the security, convenience and impacts of winter maintenance. The following captures some of the key considerations associated with each of these:

Security

- Assist with theft prevention by placing in well-lit, high-traffic areas
- The facility should be secured to the ground
- Option to use video cameras
- Data collection of stolen bikes to identify trends

Convenience

- Cyclists choose available bike parking facility closest to their destination
- Generally, bike parking should be located within 20 meters of the destination
- When locating bike parking further away, incentives are required (e.g. security measures, weather protection, lighting, etc.)

Impacts of Winter Maintenance

- Permanent facilities need to consider winter maintenance to mitigate damages to facility and snow clearing equipment

IMPLEMENTATION PROCESS

To determine which bike parking option and placement is the best solution, an Implementation Process has been identified as part of the Strategy. The process accounts for the need for both a proactive approach (planning bike parking through capital investments such as road reconstruction or a new City facility) and a reactive approach (actioning as requests occur).

The Strategy outlines three general stages in the Implementation Process:

1. Context

2. Data
3. Solution

Context

First, the different options for bike parking solutions in the area are identified. Then different placement options are reviewed, and constraints are considered. Feasible options are then assessed and/or prioritized as part of the next steps.

Data

Inputs can be used to identify gaps that may exist between that demand (current and/or future), and the existing supply. As a starting point, the Public Bike Parking Strategy identifies a number of potential inputs, which include land use mix, employment density, population density and transit station proximity.

The inputs will be leveraged with the use of a Bike Parking Index Tool that will be used to prioritize the various bike parking solutions by creating a geographically-based grid score which accounts for specific local characteristics and requirements by applying weightings to the inputs. The grid score is then used either on its own to create a Bike Parking Demand Map or can be compared to existing bike parking to develop a Bike Parking Delta Map that can help to identify gaps. A fulsome overview of the Bike Parking Index Tool can be found in the Public Bike Parking Strategy.

Solution

The final step is to choose the best solution based on the grid score. In the event of a low score, the outcome is likely to be prioritized as such and it is likely to be a low capacity/low-cost solution. If the score is high, higher capacity/cost options should be considered.

SUPPORTING MEASURES

While conducting research, Stantec completed a municipal scan to review best practices for bike parking across the world. Specific considerations were identified and developed that reflected these and also best fit the specific requirements related to bike parking in Ottawa. The supporting measures that are summarized in this report and fully detailed in the Strategy are listed here:

- Data Collection
- Digital Access
- Abandoned Bikes

- Secured Bike Parking
- Business Collaboration
- Wayfinding
- Curbside Management
- Event Bike Parking

The initial steps to pursue all of these measures are detailed in the Implementation Plan.

Additionally, the following items will require monitoring and integration into the Public Bike Parking Program, some continuously and some as longer-term practices:

- Accessibility – As a lens, continuously used to balance all needs associated with the public space
- Accounting for Equity – As a lens, continuously used to consider equity and diversity impacts while implementing and administering the Public Bike Parking Strategy
- Advertising/Sponsorship – Referenced in the Ottawa Cycling Plan to assist with encouraging cycling
- Bike Repair Stations – Better integration of this service with bike parking infrastructure
- Artistic Bike Racks – Opportunities to improve the aesthetic and promote local artists
- Emerging Bike Parking Requirements – Accounting for oversized bikes, cargo bikes and e-bikes
- Micromobility – Overlapping requirements related to short-trip solutions (e.g. e-scooters)

MANAGEMENT APPROACH

As outlined earlier, various departments take on the four main functions of bike parking (installation/maintenance, data collection/management, stakeholder management and project management/administration). The Strategy contains a number of recommendations in regards to the management approach. An important part of what is required is the development of a Public Bike Parking Program which would help to clarify the responsibilities and structure of the implementation and administration of the Public Bike Parking Strategy.

PUBLIC BIKE PARKING PROGRAM

The Public Bike Parking Program would be managed by Parking Services to allow for many of the outcomes of the Strategy to be centrally coordinated and for simplicity when stakeholders and residents are making inquiries or requests. Parking Services is best suited to manage the centralized framework due to the natural alignment with the Municipal Parking Management Program, available funding and previously identified resources. Some departments will still lead portions of bike parking, but the Strategy and a centralized approach will ensure an organized and collaborative approach going forward. The proposed alignment by function is summarized below:

Installation and Maintenance

- All bike parking in the public right-of-way and abandoned bike issues would be managed by Parking Services
- Bike parking at facilities would be installed and maintained by Recreation Cultural and Facility Services, but through collaboration with the other departments and support from Parking Services
- Bike parking on OC Transpo property will be installed and maintained by Transportation Services, but through collaboration with the other departments

Data Collection and Data Management

- Maintenance of a consolidated inventory and the collection and management of utilization data would be the responsibility of Parking Services
- Parking Services will develop the implementation process and maintain the Bike Parking Index Tool, as outlined in the Strategy

Stakeholder Management

- Parking Services will intake requests and share/direct them internally to ensure proper resolution
- Parking Services will manage collaborations and programs with businesses, events and other organizations

Project Management and Administration

- Parking Services will take a primary role, where required, in the procurement and inventory management of bike parking facilities city-wide

- Contract management would fall to the department in which the bike parking is located (i.e. right-of-way vs city facility vs OC Transpo facility)

INVESTIGATION INTO BIKE SHARE

As addressed in 'Supporting Measures', the Public Bike Parking Strategy enables the City to consider the relationship between bike parking and existing and emerging micromobility options. Bike share programs are a micromobility option and one that Stantec and staff reviewed concurrently to the development of the Public Bike Parking Strategy. This was done in response to Motion [TRC 2020-9/2](#) that was tabled by Councillor Menard at the June 3, 2020, Transportation Committee. It directed staff to "investigate an in-house bike share program and report back to the Transportation Committee with its findings as part of the Bike Parking Strategy in early 2021".

Stantec and staff reviewed the history of bike share programs in Ottawa and identified four different models for consideration going forward:

1. City-Owned and Managed
2. City-Owned, Contractor Managed
3. Non-Profit Business
4. Profit Business

The City-Owned, Contractor Managed model was identified as the best option for the City on the basis that it would best support both a sustainable and transit-focussed solution. For the implementation of a bike share system to be successful, there would need to be a minimum size and it would need to be primarily orientated towards commuters making connections to transit and residents making short personal or work-related trips.

There are several other factors to take into consideration. A cost analysis, based on the experiences of other municipalities, demonstrated that there would be a significant investment required from the City. To fulfill just a minimum fleet size of 700 bikes, approximately \$4 million would be required to purchase the infrastructure with an estimated additional operating cost of \$3 million. Experiences from other cities indicate that revenues from the system would not be sufficient to fully cover operating costs.

At this time, in light of the continuance of the e-scooter pilot and the magnitude of costs involved, combined with financial pressures caused by the COVID-19 pandemic, staff do not recommend proceeding further in assessing bike share.

Financial Implications

The Implementation Plan of the Public Bike Parking Strategy identifies the requirement for two additional temporary FTEs to build momentum and fulfill anticipated inspection, installation and maintenance requirements. These would be at a cost of \$200,000 per year and be funded from the paid parking program through parking fee revenues.

Updates on the Public Bike Parking Program will be shared through the Parking Services Annual Report to Council each year.

Public Consultation/Input

Consultation played a significant role in the development of the Public Bike Parking Strategy.

Staff met with the Parking Stakeholder Consultation Group (PSCG) six times, an internal working group four times, members of TRC two times, offered meetings to remaining councillors twice, and multiple meetings with BIAs and community groups. In addition, staff also held three virtual public open house meetings and consulted the public via a public survey receiving 431 responses.

RÉSUMÉ

Hypothèses et analyse

Un des objectifs de la mise à jour de la Stratégie municipale de gestion du stationnement et du Rapport sur l'examen de la structure de gestion publique ([ACS2019-PWE-RPS-0016](#)), qui a été approuvée par le Conseil le 9 octobre 2019, était de mettre au point une Stratégie de stationnement public pour vélos. Cette stratégie a pour but de clarifier et de centraliser le travail de la Ville dans ce domaine, et de respecter les divers objectifs et mesures connexes du Plan officiel, du Plan directeur des transports, du Plan sur le cyclisme d'Ottawa, de la Stratégie municipale de gestion du stationnement et du Plan directeur sur les changements climatiques.

Comme la nouvelle version de la Stratégie municipale de gestion du stationnement permet de financer le stationnement pour vélos à partir des recettes municipales du stationnement, et qu'elle appuie clairement le cyclisme et le stationnement pour vélos, le futur Programme de stationnement public pour vélos devra naturellement s'aligner sur le Programme municipal de gestion du stationnement. Il était important que les deux programmes soient bien reliés lors de l'élaboration de la Stratégie de stationnement public pour vélos. Les énoncés de politique ci-dessous ont été mis au point dans

l'optique du Programme de stationnement public pour vélos et ont été confirmés après consultation des intervenants.

PRINCIPE CLÉ

Conformément à la Stratégie municipale de gestion du stationnement, le Programme de stationnement public pour vélos offrira des *solutions* progressives de stationnement pour les vélos qui répondent aux besoins de la communauté des cyclistes dans un souci d'équilibre et d'intégration afin de favoriser la croissance des déplacements à vélo et de réaliser les grands objectifs de la Ville d'Ottawa en matière de transport.

OBJECTIFS

1. Prévoir une offre adéquate et optimisée de places de stationnement public pour vélos qui sont accessibles et pratiques, en tenant compte de tous les besoins liés au domaine public;
2. Équilibrer les besoins en stationnement pour vélos des différents lieux générateurs de déplacements à vélo afin de tenir compte de tous les types de cyclistes;
3. Respecter les processus s'appuyant sur des données dans la planification, la mise en œuvre et l'entretien de tous les types de places de stationnement pour les vélos.

La Stratégie de stationnement public pour vélos est en pièce jointe (document 1) et est divisée en quatre grandes parties :

1. Types et emplacements des stationnements pour vélos
2. Processus de mise en œuvre
3. Mesures auxiliaires
4. Approche de gestion

Différentes recommandations sont rattachées à chacune de ces parties de la stratégie. Elles sont résumées dans le rapport ci-dessous et détaillées dans le plan de mise en œuvre (document 2). Le plan de mise en œuvre envisage aussi certaines initiatives qui seront nécessaires pour concevoir le Programme de stationnement public pour vélos et veiller à ce qu'il s'aligne sur la stratégie. On trouvera plus bas un résumé des composantes de la stratégie ainsi que certains points saillants et un échéancier de la mise en œuvre.

Selon la composante qui concerne les types de stationnements et les emplacements, il faut tenir compte de nombreux points pour prendre des décisions éclairées : stationnement sécurisé ou non, sécurité, praticité, entretien hivernal.

Le Programme de stationnement public pour vélos se poursuivra avec l'installation de stationnements non sécurisés en 2021 et commencera un travail dans l'esprit des objectifs exposés dans la stratégie. Les stationnements sécurisés nécessitent plus de planification et d'efforts, mais on peut espérer avoir une idée des emplacements pilotes début 2022 et les mettre en place plus tard dans la même année. Il est pertinent de noter qu'OC Transpo a récemment lancé un nouveau programme de stationnement sécurisé pour vélos dans quatre stations de train léger qui servira de référence pour le Programme de stationnement public pour vélos. En outre, l'équipe des Services du stationnement participe activement à l'aménagement d'un deuxième enclos sécurisé à l'hôtel de ville, qui devrait se terminer en 2021. Il restera à définir une approche globale concernant l'entretien hivernal afin de la mettre en place au dernier trimestre de 2022.

Comme il est souligné dans la stratégie, la conception du processus de mise en œuvre doit suivre une approche à la fois proactive et réactive, qui s'appuie sur divers intrants dans les deux cas. Ce processus et les outils connexes permettront de mettre au point une grille de notation géographique tenant compte des caractéristiques et des exigences locales, et ainsi de définir et de classer par ordre de priorité les solutions en matière de stationnement pour vélos. Il est prévu que le processus de mise en œuvre soit pleinement opérationnel au deuxième trimestre de 2022.

La partie sur les mesures auxiliaires expose les pratiques exemplaires qui ressortent après une vaste analyse de ce qui se fait dans d'autres agglomérations, et cherche à définir la meilleure solution pour Ottawa, dans l'optique de sa Stratégie de stationnement public pour vélos et de ses objectifs. L'élaboration de nombreuses initiatives, politiques et cadres liés aux mesures auxiliaires commencera incessamment. En 2021, l'accent sera mis sur la collecte et la gestion des données. D'ici fin 2022, l'approche concernant la gestion des vélos abandonnés devrait être au point et pleinement opérationnelle. Puis, en 2023, les initiatives liées au stationnement lors d'événements, à la signalisation et à la collaboration avec les entreprises seront mises en place.

La quatrième composante de la stratégie porte sur sa mise en œuvre et son administration, en plus de présenter les options concernant la gestion du stationnement pour vélos. À l'heure actuelle, le stationnement public pour vélos est géré dans différents secteurs d'activité, et la stratégie recommande de centraliser les rôles et

responsabilités. Grâce aux consultations internes, le personnel a commencé à clarifier le cadre du Programme de stationnement public pour vélos. Il a été conclu que les Services du stationnement étaient les plus à même de gérer ce travail centralisé étant donné les similarités avec la Stratégie municipale de gestion du stationnement, les fonds dont ils disposent, les ressources précédemment définies et la composante opérationnelle existante. L'objectif pour 2021 est de finir d'élaborer le Programme de stationnement public pour vélos, de clarifier les rôles et de créer un guichet unique pour les demandes du public.

Les différentes mesures et actions du plan de mise en œuvre sont étroitement liées aux objectifs de la stratégie. La Stratégie de stationnement public pour vélos contient aussi un certain nombre de points à prendre en compte, à titre de référence, dans le cadre du programme connexe, comme l'accessibilité, l'équité et les tendances émergentes (p. ex. vélos électriques et vélos de transport) et les options de micromobilité, qui sont des points à garder à l'esprit en tout temps. Dans l'ensemble, le Programme de stationnement public pour vélos dispose de tous les moyens pour offrir des stationnements de façon appropriée, mesurée et transparente, en tenant compte de l'ensemble de la population d'Ottawa.

Plus tard, les mises à jour du programme et les avancées réalisées dans le cadre du plan de mise en œuvre seront consignées dans le rapport annuel des Services du stationnement.

On trouvera ci-dessous plus de détails sur les composantes de la stratégie et la façon dont elle a été mise au point.

Comme il est indiqué plus haut, l'approbation de la Stratégie municipale de gestion du stationnement en 2019 nous a mené à la création du Programme de stationnement municipal pour vélos, mais aussi à l'actualisation du modèle de financement pour pouvoir utiliser le fonds de réserve pour le stationnement afin d'installer et d'entretenir des espaces de stationnement pour vélos partout dans la ville, plutôt que de se limiter aux zones de stationnement payant. L'accès aux fonds étant facilité, c'est un bon moment pour mettre au point une Stratégie de stationnement public pour vélos et en profiter pour harmoniser les rôles et les responsabilités relatifs au stationnement des vélos.

À l'heure actuelle, les quatre grands volets du stationnement pour vélos (installation et entretien, collecte et gestion des données, gestion des intervenants et gestion et administration de projet) sont orchestrés par sept secteurs d'activité dépendant de quatre directions générales de la Ville (Travaux publics et Environnement; Loisirs,

Culture et Installations; Transports; Planification, Infrastructure et Développement économique). Avec l'implication d'autant de services, il pourrait y avoir de la confusion chez les intervenants, mais aussi des incohérences en matière de types d'installations et un manque d'efficacité dans la prestation de ce service.

La mise au point de la Stratégie de stationnement public pour vélos permet de répondre à ces problèmes en proposant des solutions et différentes avenues à explorer. En voici la synthèse globale :

- Clarification et harmonisation des rôles quant au stationnement pour vélos
- Approche coordonnée et axée sur le développement des déplacements à vélo
- Amélioration du processus pour que le public puisse facilement demander un stationnement pour vélos et signaler les problèmes
- Relier le stationnement pour vélos à de meilleurs indicateurs fondés sur la demande
- Meilleure gestion des espaces du domaine public

Le personnel s'est largement inspiré des consultations internes et externes qui ont permis de compiler les informations, de formuler des idées et de recueillir des opinions tout au long de la mise au point de la stratégie. Le personnel des Services du stationnement s'est réuni de nombreuses fois avec le Groupe de consultation des intervenants du stationnement (GCIS), les clubs cyclistes, les groupes communautaires, les conseillers et un groupe de travail interne. Il y a aussi eu trois séances portes ouvertes virtuelles et un sondage en ligne. On a consulté le GCIS en amont pour définir la portée et l'objet de la stratégie. Il a été confirmé que les possibilités exposées plus haut seraient étudiées et que la stratégie serait axée sur le stationnement des vélos dans l'emprise publique (comme les trottoirs), dans les espaces de stationnement hors rue gérés par la Ville et dans les installations de la Ville (parcs, centres récréatifs, etc.).

La Ville a embauché Stantec Inc. (Stantec) pour l'aider à mettre au point cette stratégie. Stantec a procédé à une analyse de la situation actuelle pour étudier la gestion du stationnement pour vélos à la Ville d'Ottawa, ainsi que les plans et les politiques en vigueur. Stantec a ensuite commencé à recueillir des données et à effectuer des recherches par l'entremise de consultations et d'études des pratiques exemplaires dans d'autres municipalités.

La section suivante présente les quatre composantes de la Stratégie de stationnement public pour vélos.

TYPES ET EMPLACEMENTS DES STATIONNEMENTS POUR VÉLOS

La stratégie fait état de deux types de stationnements : sécurisé ou non sécurisé. Le stationnement non sécurisé est un espace auquel tout le monde peut accéder (supports à vélo avec anneau et poteau, parcs à vélos, etc.) et le stationnement sécurisé est un espace dont l'accès est limité (enclos à vélos, stationnement intérieur, etc.). Ces deux types de stationnements offrent des avantages et des inconvénients différents en matière de capacité, de superficie et de coûts.

L'emplacement du stationnement pour vélos doit prendre en compte la sécurité, la praticité et l'entretien hivernal. Voici la liste des principaux points relatifs à ces aspects :

Sécurité

- Éviter les vols en choisissant des emplacements bien éclairés et très fréquentés.
- Les installations doivent être fixées au sol.
- Possibilité d'installer des caméras vidéo.
- Recueillir les données sur les vols de vélos pour analyser les tendances.

Praticité

- Les cyclistes doivent pouvoir se stationner au plus près de leur destination.
- En général, le stationnement pour vélos ne doit pas se situer à plus de 20 mètres de leur destination.
- Si le stationnement se trouve plus loin, il faut que cela présente des avantages (protection contre le vol et les intempéries, éclairage, etc.).

Entretien hivernal

- Les installations fixes doivent tenir compte de l'entretien hivernal afin de limiter les dommages pour les installations comme pour les engins de déneigement.

PROCESSUS DE MISE EN ŒUVRE

Pour déterminer quels sont les meilleurs types et emplacements de stationnement, on a inclus dans la stratégie un processus de mise en œuvre. Ce processus permet d'être à la fois proactifs (anticiper l'installation de stationnements pour vélos en tenant compte des dépenses en immobilisations comme la reconstruction de routes ou les nouvelles infrastructures de la Ville) et réactifs (agir selon les besoins).

Le processus de mise en œuvre se déroule en trois étapes :

1. Contexte

2. Données
3. Solution

Contexte

Tout d'abord, on détermine les différentes possibilités en matière de stationnement dans une zone donnée. Puis on les étudie et on analyse les contraintes éventuelles. Les solutions envisageables sont ensuite évaluées et classées par ordre de priorité lors des étapes suivantes.

Données

Grâce aux données, on peut déterminer les lacunes existant entre la demande (actuelle ou future) et l'offre existante. Pour commencer, la stratégie définit les différentes données potentielles à exploiter, comme la combinaison d'utilisations du sol, la densité de l'emploi, la densité de la population et la proximité des stations de transport en commun.

Les données seront exploitées à l'aide de l'outil indiciel de stationnement pour vélos qui servira à classer les différentes solutions de stationnement par ordre de priorité en créant une grille de notation en fonction de l'emplacement géographique, qui tiendra compte des caractéristiques et des exigences propres à l'emplacement au moyen d'un coefficient de pondération des données. Cette grille de notation pourra ensuite être utilisée seule pour générer une carte de la demande en matière de stationnement pour vélos ou être mise en comparaison avec les stationnements existants pour créer une carte delta des stationnements pour vélos qui permettra de déterminer les lacunes. On trouvera dans la Stratégie de stationnement public pour vélos une présentation détaillée de l'outil indiciel de stationnement pour vélos.

Solution

Cette dernière étape consiste à retenir la meilleure solution d'après la grille de notation. Dans le cas où la note est basse, on attribuera une faible priorité à la solution et il est fort probable que la solution soit de faible capacité et économique. Dans le cas où la note est élevée, on envisagera des options de plus grande capacité et moins économiques.

MESURES AUXILIAIRES

En menant ses recherches, Stantec a effectué un tour d'horizon des municipalités pour étudier les pratiques exemplaires en matière de stationnement pour vélos dans le

monde entier. L'équipe a retenu et élaboré des points précis à prendre en compte à partir de ce tour d'horizon pour répondre au mieux aux exigences propres à Ottawa. Voici la liste des mesures auxiliaires qui sont résumées dans le présent rapport (et détaillées dans la stratégie) :

- Collecte des données
- Accès numérique
- Vélos abandonnés
- Stationnement sécurisé pour vélos
- Collaboration des entreprises
- Signalisation
- Gestion en bordure de rue
- Stationnement temporaire pour un événement

Les premières étapes pour appliquer ces mesures sont détaillées dans le plan de mise en œuvre.

De plus, les éléments suivants devront faire l'objet d'un suivi et être intégrés au Programme de stationnement public pour vélos, pour certains dès maintenant et de façon continue, les autres étant à envisager à plus long terme :

- Accessibilité : optique à garder en tête pour envisager continuellement tous les besoins associés à l'utilisation des espaces publics.
- Prise en compte de l'équité : optique à garder en tête pour toujours prendre en compte les répercussions en matière d'équité et de diversité dans le cadre de la mise en place et de la gestion de la Stratégie de stationnement public pour vélos.
- Publicité et commandite : mentionnées dans le Plan sur le cyclisme d'Ottawa pour encourager le cyclisme.
- Stations de réparation de vélos : une meilleure intégration de ce service dans les infrastructures de stationnement pour vélos.
- Supports artistiques pour vélos : possibilité d'améliorer l'aspect esthétique en plus de soutenir des artistes locaux.
- Nouvelles exigences en matière de stationnement pour vélos : vélos surdimensionnés, vélos de transport et bicyclettes électriques.
- Micromobilité : exigences qui font double emploi pour les déplacements de courte distance (trottinette électrique).

APPROCHE DE GESTION

Comme mentionné plus haut, différents services se chargent des quatre principaux volets du stationnement pour vélos (installation et entretien, collecte et gestion des données, gestion des intervenants et gestion et administration de projet). La stratégie contient un certain nombre de recommandations en ce qui concerne l'approche de gestion. Parmi les mesures les plus importantes, mentionnons l'élaboration d'un Programme de stationnement public pour vélos pour clarifier les responsabilités, la structure et l'administration de la Stratégie de stationnement public pour vélos.

PROGRAMME DE STATIONNEMENT PUBLIC POUR VÉLOS

Le Programme de stationnement public pour vélos sera géré par les Services du stationnement pour centraliser de façon coordonnée les nombreux objectifs de la stratégie, mais aussi pour simplifier les choses lorsque les intervenants ou les résidents souhaitent se renseigner. Les Services du stationnement sont les plus aptes à gérer un cadre de gestion centralisé en raison des fortes similarités avec le Programme municipal de gestion du stationnement, des fonds dont ils disposent et des ressources précédemment définies. D'autres services continueront de se charger de certains aspects du stationnement pour vélos, mais la stratégie et l'approche centralisée garantiront que les tâches sont organisées et s'effectuent dans un esprit de collaboration. Cette recentralisation des tâches est expliquée ci-dessous :

Installation et entretien

- Tous les stationnements pour vélos situés dans l'emprise publique et toutes les questions concernant le vol de vélos seront gérés par les Services du stationnement.
- Les stationnements pour vélos situés dans des immeubles seront installés et entretenus par la Direction générale des loisirs, de la culture et des installations, en collaboration avec d'autres services et avec l'aide des Services du stationnement.
- Les stationnements pour vélos sur les propriétés d'OC Transpo seront installés et entretenus par la Direction générale des transports, mais avec la collaboration des autres services.

Collecte et gestion des données

- Les Services du stationnement tiendront à jour un inventaire commun, en plus de recueillir et de gérer les données concernant l'utilisation.

- Les Services du stationnement élaboreront le processus de mise en œuvre et tiendront à jour l'outil indicial de stationnement pour vélos, conformément à la stratégie.

Gestion des intervenants

- Les Services du stationnement accuseront réception des demandes et les transmettront aux services concernés afin qu'elles soient traitées.
- Les Services du stationnement encadreront la collaboration et les programmes avec les entreprises, les organisateurs d'événements et les autres organisations.

Gestion et administration de projet

- Les Services du stationnement joueront au besoin un rôle central pour ce qui est de l'approvisionnement et de la gestion des stocks des installations de stationnement pour vélos à l'échelle de la Ville.
- La gestion des contrats reviendra au service responsable de la zone dans laquelle est situé le stationnement pour vélos (emplacement dans l'emprise publique OU installation de la Ville OU propriété d'OC Transpo).

ÉTUDE SUR LE VÉLOPARTAGE

Comme précisé dans la partie sur les mesures auxiliaires, la Stratégie de stationnement public pour vélos permet à la Ville de réenvisager la relation entre le stationnement pour vélos et les possibilités actuelles et futures de micromobilité. Les programmes de vélopartage représentent une solution de micromobilité qui a été étudiée par Stantec et le personnel de la Ville dans le cadre de l'élaboration de la Stratégie de stationnement public pour vélos. Cette étude a été effectuée dans la foulée de la motion du [Comité des transports n° TRC 2020-9/2](#) qui a été déposée par le conseiller S. Menard le 3 juin 2020, et dans laquelle il était demandé au personnel de faire l'étude d'un programme de vélopartage interne et de présenter ses conclusions au Comité des transports dans le cadre de la Stratégie de stationnement public pour vélos au début de 2021.

Stantec et le personnel ont étudié l'historique des programmes de vélopartage à Ottawa et ont défini quatre modèles à envisager pour la suite :

1. Système appartenant à la Ville et géré par ses services
2. Système appartenant à la Ville et géré par un entrepreneur

3. Système entièrement géré par un organisme sans but lucratif
4. Système entièrement géré par une organisation à but lucratif

Le modèle du système appartenant à la Ville, mais géré par un entrepreneur avait été retenu comme la meilleure solution pour Ottawa étant donné qu'il favorisait une approche durable et axée sur le transport en commun. Pour réussir à mettre en place un système de vélopartage, il faut en définir la taille minimale et veiller à ce que ce service soit principalement destiné aux navetteurs qui utilisent le vélo pour se rendre aux stations de transport en commun, et aux résidents qui s'en servent pour de courts déplacements personnels ou professionnels.

Il faut prendre en compte certains autres facteurs. L'analyse des coûts, qui s'appuyait sur l'expérience des autres municipalités, a démontré que la Ville devrait investir une somme importante. Ne serait-ce que pour avoir une flotte d'au moins 700 vélos, l'investissement se monterait à environ 4 millions de dollars en infrastructures, auxquels il faut rajouter environ 3 millions de dollars en coûts de fonctionnement annuels. L'expérience des autres villes indiquait que les recettes générées par le système ne couvriraient pas entièrement les coûts de fonctionnement.

À l'heure actuelle, à la lumière du projet pilote des trottinettes électriques et des importantes sommes à engager, ainsi que des pressions financières dues à la COVID-19, le personnel ne recommande pas de poursuivre l'évaluation du programme de vélopartage.

Répercussions financières

Selon le plan de mise en œuvre de la Stratégie de stationnement public pour vélos, il serait nécessaire d'embaucher deux autres équivalents temps plein pour continuer sur cette lancée et répondre aux exigences prévues en matière d'inspection, d'installation et d'entretien. Ces équivalents temps plein coûteront 200 000 \$ par an et seront financés à partir des recettes du programme de stationnement payant.

Les mises à jour du Programme de stationnement public pour vélos seront présentées chaque année au Conseil dans le Rapport annuel des Services du stationnement.

Consultation publique et commentaires

Les consultations ont grandement contribué à la mise au point de la Stratégie de stationnement public pour vélos.

Le personnel a rencontré six fois le Groupe de consultation des intervenants du stationnement (GCIS), quatre fois un groupe de travail interne, deux fois les membres du Comité des transports, et a aussi proposé deux fois des réunions avec les autres conseillers, et de nombreuses réunions avec les représentants de zones d'amélioration commerciale (ZAC) et les groupes communautaires. En outre, le personnel a aussi organisé trois séances publiques « portes ouvertes » et envoyé un sondage à la population qui a donné 431 réponses.

BACKGROUND

The importance of cycling in the City of Ottawa has been clearly identified and reinforced in recent years. [The Official Plan](#) (2013), [Transportation Master Plan](#) (2013) and [Ottawa Cycling Plan](#) (2013) all provide reference points with respect to developing transportation infrastructure. Notably, the Transportation Master Plan (TMP) and Ottawa Cycling Plan contain modal targets and acknowledge the role that providing public bike parking can play towards supporting a sustainable approach to transportation and a healthy city. Additionally, Council approved the Climate Change Master Plan and the Energy Evolution Model in 2020 ([ACS2019-PIE-EDP-0053](#)) with the target to reduce the City's corporate greenhouse gas emissions by 100 per cent by 2040. By providing adequate and appropriate bike parking the City will encourage residents to cycle more and drive less therefore reducing the greenhouse gas emissions from vehicle travel.

Currently, the City of Ottawa provides over 11,000 public bike parking spaces managed by various departments. On October 9, 2019, Council approved the Municipal Parking Management Strategy Refresh and Governance Review ([ACS2019-PWE-RPS-0016](#)). One component of the implementation plan for the updated Municipal Parking Management Strategy was the development of a Public Bike Parking Strategy. This was in recognition that there were opportunities to better clarify roles and structure an approach to improve the delivery of bike parking services. It also presents an opportunity to better respond to increases in cycling and more effectively support the substantial cycling infrastructure investments that have been made in recent years.

As part of the Municipal Parking Management Strategy, one of the objectives states that the Municipal Parking Management Program should, "Promote sustainable modes of transportation by supporting and maintaining programs and facilities that encourage sustainable mobility choices (public transit, cycling, walking) and alternative modes, including electric vehicles, car sharing, and new technologies as they emerge". Supporting bike parking has been a focus of the Municipal Parking Management Program since 2010 when the city converted 1,150 out-going single-space parking

meters into ring-and-post bike parking. Since then, Parking Services has continued to add ring-and-post racks with a current inventory of 1,514 (3,028 spaces). Additional racks have been installed based on requests, the results of Local Area Parking Studies and an initiative to add bike racks to OC Transpo bus stops in 2018 and 2019. In addition, Parking Services manages three multi-space bike corrals which take up an on-street vehicle parking space and are deployed seasonally (installed in the Spring and removed in the Fall).

The updated Funding Model within the Municipal Parking Management Strategy allows for parking fee revenues to be spent on the city-wide installation and maintenance of bike parking facilities. This presents opportunities for the development of a Public Bike Parking Program which would operate in alignment with both the Public Bike Parking Strategy and the Municipal Parking Management Strategy.

City-wide, Parking Services is currently responsible for a smaller proportion of the total amount of public bike parking. Depending on the location and type of bike parking, roles and responsibilities vary and are shared by seven service areas across four departments. Sorted by function, the following captures how things are currently aligned.

Installation and Maintenance

- Within the public right-of-way, Parking Services installs and maintains a specific style of ring-and-post racks while the Urban Roads maintains all other bike parking (Public Works and Environmental Services).
- Installation of bike parking in the public realm through streetscape renewals is coordinated by the Public Realm and Urban Design Branch (Planning, Infrastructure and Economic Development)
- Installation and maintenance of bike racks at City facilities and parks is managed by the Facility Services Branch (Recreation, Cultural and Facility Services)
- Installation and maintenance of bike racks at OC Transpo stations and stops is managed by Transit Customer Systems and Planning Service Branch (Transportation Services)

Data Collection and Management

- An inventory of all right-of-way facilities in the core of the city is being compiled by Parking Services (Public Works and Environmental Services)
- An inventory of all bike parking at City facilities is maintained by Facility Services Branch (Recreation, Cultural and Facility Services)

- An inventory of all bike parking on OC Transpo property is maintained by the Transportation Services Transit Customer Systems and Planning Service Branch (Transportation Services)

Stakeholder Management

- The majority of requests for new bike racks in the public right-of-way are received and managed by Parking Services (Public Works and Environmental Services)
- Requests for bike racks at City facilities and parks are received and managed by the Facility Services Branch (Recreation Cultural and Facility Services)
- Requests regarding TravelWise – a program for workplaces to improve their employee commuting is managed by the Transportation Planning Branch (Transportation Services)
- Requests for bike racks at OC Transpo stations and stops are received and managed by the Transit Customer Systems and Planning Service Branch (Transportation Services)

Project Management and Administration

- Each branch/unit is responsible for the project management and administrative duties relating to the bike racks they manage, such as procurement requirements and contract management. Of note, the contract relating to the Velocity advertising bike racks is managed by the Business and Technical Support Services of Public Works and Environmental Services.

The development of a Public Bike Parking Strategy presents a number of opportunities. At a high level, these include:

- Clarity and alignment of roles related to bike parking
- Coordinated and focused approach to supporting cycling
- Improve the process for the public to request bike parking and report issues
- Link decisions related to bike parking with better metrics
- Better management of space within the public realm

A Public Bike Parking Strategy also enables the City to consider the relationship between bike parking and both existing and emerging micromobility options. This includes things like the current e-scooter pilot as well as bike share.

On June 10, 2020, Council approved the Bike Sharing and Electric Kick Scooter Sharing Agreements with Service Providers ([ACS2020-PIE-RHU-0007](#)) report.

Subsequently, the e-scooter pilot was extended for 2021 by way of the 2020 Electric Kick Scooter Strategy and Pilot Report ([ACS2021-TSD-PLN-0002](#)) which was approved by Council on February 10, 2021.

On June 3, 2020, as part of the first report mentioned above, there was a motion tabled by Councillor Menard at Transportation Committee ([TRC 2020-9/2](#)) which directed staff to, "investigate an in-house bike share program and report back to the Transportation Committee with its findings as part of the Bike Parking Strategy in early 2021". A review of options has been undertaken concurrent to the development of the Public Bike Parking Strategy.

The following discusses the development and contents of the Public Bike Parking Strategy, which is attached as Document 1 and also summarizes the outcomes of the investigation into bike share options.

DISCUSSION

Scope

When developing the scope, goals and general approach for the Public Bike Parking Strategy (the Strategy), staff conducted initial consultations, including with the Parking Stakeholder Consultation Group (PSCG). The PSCG is comprised of 13 members representing a range of perspectives related to parking and was an important engagement point throughout the entire process. The following are the representatives:

- Four BIA (Business Improvement Area) representatives
- Three Community Association representatives (including one from the Federation of Citizens' Associations)
- One Accessibility representative
- One Transportation Demand Management / Cycling / Pedestrian representative
- One Ottawa Tourism and Convention Authority representative
- One Development Industry / Building Owner / Building Manager representative
- One Place of Worship representative
- One Older Adult representative

From a scope perspective, the Public Bike Parking Strategy keyed on bike parking on public land within the public right-of-way (e.g. sidewalks), at off-street parking lots managed by the City and at City facilities (e.g. parks, recreation centres, etc.).

At the outset, the intent of the Public Bike Parking Strategy was to clarify operational requirements and roles and establish criteria to guide decisions related to the type and location of bike parking. Some of the recommendations of the strategy that address these needs include the following:

- Clarify responsibilities and structure for administration of the Public Bike Parking Strategy
- Development and implementation of a Public Bike Parking Program
- Implement a single intake system through Parking Services for new bike parking requests, maintenance requests as well as the reporting of abandoned bikes
- Capture and maintain a single consolidated inventory of public bike parking in the City
- Centralize the data management for all bike parking, including requests and usage
- Implement a public bike parking digital access portal that provides users with information on availability, condition and type of bike parking with the option of reporting issues
- Develop a Bike Parking Index Tool
- Implement supporting measures (secured bike parking, business collaboration, wayfinding, event bike parking, etc.)

More details on these outcomes are detailed throughout this report in regards to the process of how they were identified, confirmed and will be implemented. The first step staff took once the scope and purpose were set, was forming the Terms of Reference and engaging with Stantec Inc. (Stantec), a consultant hired to assist with the formation of the Strategy.

Stantec is a Canadian consulting firm that has over 350 offices worldwide, one of which is located in Ottawa. Stantec has been contracted out by the City of Ottawa for engineering consulting services, and the designing of the Mackenzie Avenue Bike Lanes. Stantec has also worked on curbside management and cycling infrastructure design in multiple cities including a “Sidewalk Toronto, Master Innovation and Development Plan” for the City of Toronto, “Saskatoon City Centre Plan” for the City of Saskatoon, and “Bicycle and Pedestrian Priority Area Improvements” for Montgomery County in Maryland State.

Process

The development of the Public Bike Parking Strategy was a multi-step process that included a significant level of consultation with various stakeholders. At a high level, the steps were as follows:

1. As-is analysis
2. Data collection/research
3. Draft recommendations
4. Finalize and report

Through the as-is analysis, existing plans and policies were considered and reviewed. This includes the [Official Plan](#) and the [Transportation Master Plan](#), both of which have associated action items related to the transportation system, cycling, and/or bicycle parking. The Official Plan and the TMP are currently being updated but the Strategy anticipates the ability to support a seamless policy environment. The TMP supports a shift in active transportation mode share and outlines a variety of actions that relate to the active transportation network and bike parking.

Additionally, existing initiatives, programs, roles and responsibilities related to bike parking within the City of Ottawa were fully captured through interviews and meetings with internal stakeholders.

In gathering information and conducting research towards the development of the Strategy, consultation continued to be a critical component and a lot of effort was spent engaging with community stakeholders to gather input on perspectives related to bike parking as well as issues and opportunities. Through research, a number of Canadian and international jurisdictions were assessed to identify ideas and best practices.

All consultations and engagements from March 2020 onwards were held virtually in light of restrictions related to the pandemic.

Internally, there was a working group that consisted of staff from the various City of Ottawa departments that are responsible for bike parking; Public Works and Environmental Services, Recreation Cultural and Facility Services, Transportation Services and Planning Infrastructure and Economic Development. The internal working group met four times during the development of the Strategy.

In total, staff met with the PSCG six times throughout all phases of the Strategy development. At key points, staff also consulted directly with a number of stakeholders

including Councillors, cycling groups and Business Improvement Areas when collecting initial information and developing the recommendations.

Opportunities for public participation were provided by way of a survey and a series of workshops. These were promoted via the project's Engage Ottawa page, the City's social media and Councillors were also asked to share the information with their residents.

A survey was posted on the project's [Engage Ottawa](#) site on ottawa.ca from July 24th to September 7th, 2020 and there were a total of 431 responses.

The survey gathered information related to cycling trip purposes, bike parking availability at destinations and methods of finding bike parking. It also allowed respondents to identify common destination points and provided the opportunity to share comments and ideas related to bike parking and the development of the Strategy.

In terms of cycling purposes, 51 per cent of respondents use cycling as a method of leisure, enjoyment, or exercise, 34 per cent for appointments or errands and 15 per cent use it for commuting or transit connection. While trip purposes may have varied slightly in 2020 relative to a more typical year, these results highlight focus areas to account for where cyclists travel and also highlight where there may be opportunities to increase the relative share of cyclists (e.g. if something can be done from a bicycle parking perspective to increase the share of cyclists who bike for commuting or transit connections).

For bike parking availability, the highest individual response (34 per cent) stated that bike parking at their destination is close by and available. This is relatively positive but needs to be measured against the fact that 64 per cent of respondents stated that bike parking is either full, difficult to find or far from the destination.

The vast majority of respondents (86 per cent) indicated that they do not plan in advance and find bike parking once they arrive at their destination. This result identifies a requirement for conspicuous and available parking at key destinations but also highlights there may be missing components when cyclists are planning their trips.

Additionally, to further encourage and obtain public feedback there were three workshops, held on:

- Tuesday, October 20, 2020 (morning)
- Thursday, October 22, 2020 (evening)
- Thursday, February 18, 2021 (evening)

The first two were focused on information gathering feedback existing conditions, as well as specific technology and program components. The third workshop provided the opportunity for attendees to review the draft Strategy outcomes with emphasis on recommendations and the path forward.

The overall themes, needs and opportunities from the earlier phases of the stakeholder engagement, including the survey and October's public consultations were summarized in an "As We Heard It" document which is posted on the project's [Engage Ottawa](#) site on ottawa.ca. The key areas to focus on included accessibility, security, parking availability, wayfinding and data collection. These themes and the specific feedback were essential in developing the Public Bike Parking Strategy, including the policy statements and supporting measures.

Policy Statements

As bike parking is identified as a component of the Municipal Parking Management Strategy, it was important to ensure alignment between the Public Bike Parking Strategy and the Municipal Parking Management Strategy. The Municipal Parking Management Strategy has been effective in providing direction relative to the operation and management of the Municipal Parking Management Program. This is in part due to the inclusion of a clear mandate.

The Key Principle of the Municipal Parking Management Strategy states that, "The Municipal Parking Management Program is committed to providing efficient, transparent, and sustainable parking services in collaboration with stakeholders who will be regularly consulted in a timely manner". Further to that, as has been noted, there is a direct connection to bike parking within one of the Municipal Parking Management Strategy objectives which is to, "Promote sustainable modes of transportation by supporting and maintaining programs and facilities that encourage sustainable mobility choices (public transit, cycling, walking) and alternative modes, including electric vehicles, car sharing, and new technologies as they emerge."

The development of policy statements is essential in the success of this Strategy both prior to the development of the Strategy and going forward as they serve as a reference when making decisions regarding public bike parking in the City of Ottawa. The following policy statements were drafted and consulted on through stakeholder engagement. These are included in the Public Bike Parking Strategy.

KEY PRINCIPLE:

In alignment with the Municipal Parking Management Strategy, the Public Bike Parking Program is committed to providing progressive bike parking solutions that meet the needs of the cycling community in an efficient, balanced and integrated manner towards supporting the growth of cycling and achieving the City of Ottawa's broader transportation goals.

OBJECTIVES:

1. Provide an appropriate and optimized supply of public bike parking that is accessible and convenient while balancing all needs associated with the public space;
2. Balance the bike parking requirements of various cycling trip generators to accommodate to all types of cyclists; and,
3. Adhere to data-based processes in the planning, implementation and maintenance of all types of bike parking.

Strategy Components

The Public Bike Parking Strategy comprehensively addresses all relevant aspects of bike parking. It clarifies options, provides approaches and tools and outlines initiatives and measures which all serve to establish and grow an effective Public Bike Parking Program.

The Strategy is attached as Document 1 and is made up of the following four components:

1. Bike Parking Types & Placement
2. Implementation Process
3. Supporting Measures
4. Management Approach

This section of the report provides an overview of both the key components and the recommendations of the Strategy.

BIKE PARKING TYPES AND PLACEMENT

There are many options for both types of bike parking and the placement of facilities. With the scope defined, the Strategy identified options for the City of Ottawa to consider and outlined both the benefits and drawbacks of each.

Types of Bike Parking

The Public Bike Parking Strategy divides the types of bike parking into two categories, unsecured bike parking and secured bike parking. Both options consist of solutions that are lower and higher capacity and take up different amounts of space. The titles of these categories primarily reflect the level of exposure of the bike to other public users. Those in the unsecured bike parking category leave the bike accessible to the public and those in the secured category have more controlled access.

Some examples of unsecured bike parking include:

- Low Capacity/Footprint Solutions - ring-and-post rack, etc.
- Higher Capacity/Footprint Solutions - multi-ring rack, covered/uncovered bike corrals, etc.

Unsecured bike parking is ideal for providing additional parking at shorter-stop destinations such as when shopping, going to restaurants, visiting city facilities, etc. Some benefits of unsecured bike parking include reduced maintenance and space requirements as well as lower purchase/installation cost. However, since they tend to be publicly accessible, they can be more likely to be damaged or stolen depending on where they are located. There can be additional operational and storage requirements for seasonal racks as well (e.g. on-street bike corrals).

Some examples of secured bike parking include:

- Low Capacity/Footprint Solutions - individual bike lockers
- Higher Capacity/Footprint Solutions - bike cage, indoor bike parking, underground automated bike storage, etc.

This type of bike parking is ideal for high-demand public spaces where there is a consistent requirement for longer-term parking such as residential areas, park-and-rides and employment areas. Some benefits of secured bike parking include weather protection and mitigation against theft or damage. Secured bike parking can be very costly to implement and administer. Charging for bike parking is an option as a means to ensure accountability of the users and partially recover costs while still taking into account other factors, such as affordability for users.

The tables below provide high-level information on some of the different types of bike parking and factors to be considered. Additional details can be found in the Public Bike Parking Strategy.

Unsecured Bike Parking

	Ring-and-Post Rack	Multi-ring Rack	Bike Corral
Capacity	2	4-10	10-12
Footprint	Low	Low-Medium	Medium
Capital Cost	Low	Low-Medium	Low-Medium
Operational Cost	Low	Low-Medium	Low-Medium

Secured Bike Parking

	Bike Lockers	Bike Cage	Automated Bike Storage
Capacity	1-2	6+	10+
Footprint	Low	Medium	High
Capital Cost	Medium-High	Medium-High	High
Operational Cost	High	High	High

As detailed in the background section of this report, the City of Ottawa currently has seasonal racks and year-round ring-and-post racks which are managed by various departments. This can cause some gaps in determining requirements related to installation and maintenance. Having an inventory that is tracked from a central source will enable monitoring and the identification of replacements when required.

Placement Considerations

Proper consideration of the different options for the placement of bike parking is essential to ensure the appropriate solution is chosen and placement is both useful for cyclists and accommodates all users of the public space. The Public Bike Parking Strategy highlights three key considerations to take into account when making these decisions:

- Security
- Convenience
- Impacts of Winter Maintenance

Security

The security of a user's bike is primarily the responsibility of the user to ensure their bike is attached to or securely within a bike parking facility. Although, placement of these bike parking facilities can assist with the level of security.

In order to assist with theft prevention, the bike parking facility should ideally be placed in a well-lit, high-traffic area. Additionally, the facility should be appropriately secured to the ground so that it cannot be moved or easily broken. In specific circumstances, video cameras are also an option to deter theft and they typically result in a higher degree of user comfort.

Data collection related to reported stolen bikes is also beneficial to identify trends and evaluate whether the placement or type of bike parking could be improved or if any other mitigating measures are required.

Convenience

Convenience is a key consideration when placing bike parking facilities as users will choose the closest option to their destination that is available. The Public Bike Parking Strategy identifies that users generally look for bike parking within 20 meters of their destination. This is supported by the survey results which indicate a large proportion of people look for parking once at their destination.

Placement within the sightline of a major destination's entrance or placed in an area with multiple general destinations such as businesses or workplaces, would be most convenient for users. Additionally, the placement of bike parking near existing cycling infrastructure could provide additional convenience.

The Strategy does recognize that a 20-meter bike parking facility may not always be an option, particularly when providing higher capacity facilities and given both the constrained amount of available space and competing uses for public space. In those instances, it is recommended to provide signage for ease of finding facilities located farther away from destinations and an incentive for using them, such as additional security-related measures, weather protection or lighting.

Impacts of Winter Maintenance

The placement of permanent bike parking facilities must consider winter maintenance in order to mitigate damages to both the facilities and the snow clearing equipment, a frequent source of damage to existing infrastructure. This can be done by ensuring

there is enough space on both sides of the bike parking facility to allow for snow clearing equipment to pass by. The lower profile bike parking facilities should also have vertical identification on their edges so that they are identifiable following large snowfalls. Accounting for the impacts of winter maintenance helps to minimize damage and costs related to repair/replacement.

Additional details regarding the placement of bike parking are clarified in the Public Bike Parking Strategy and the information contained therein will serve as an important reference point. One of the things that is touched on in the Strategy is the value of aligning bike parking types and placement with the local context where practical.

Recommendations - Bike Parking Options and Placement

The Public Bike Parking Strategy contains a number of recommendations relating to different aspects of bicycle parking. Staff have developed an Implementation Plan (Document 2) to ensure that there are actions tied to each recommendation and follow-on requirement from the Strategy. Regarding bike parking options and placement, the Strategy provides direction but also identifies the following recommendations which are summarized here and captured in full in both the Public Bike Parking Strategy (Document 1) and the Implementation Plan.

- Develop and maintain a living inventory of bike parking options
- Identify preferred options and preferred vendors for the various types of bike parking to help facilitate procurement

The Strategy and these recommendations address the goal to ensure and clarify consistency in determining what types of facilities are to be considered and will be essential in guiding the implementation process for bike parking.

IMPLEMENTATION PROCESS

An Implementation Process is clarified and is laid out in the Strategy. It accounts for both proactive and reactive approaches to addressing needs for bicycle parking. To this point, due to how bike parking is organized, the approach has largely been reactive. The proactive approach provides guidance on bike parking support when considering things from a planning perspective or through capital investments (e.g. a road reconstruction or a new City facility). The reactive approach accounts for the fact that there will continue to be a requirement to address issues and pressures that emerge over time.

The Strategy outlines three general stages in the Implementation Process:

1. Context
2. Data
3. Solution

Context

When there is a requirement identified or an opportunity arises, it is important to first identify different options for solutions (e.g. lower and higher-capacity bike parking). This involves starting from a specific address/location, reviewing different placements and considering constraints of the built environment which may limit space and/or accessibility. Options that are deemed feasible are then assessed and/or prioritized as part of the next steps.

Data

There are various inputs that can be leveraged to gain a full picture of bike parking demand and any gap that may exist between that demand (current and/or future), and the existing supply. As a starting point, the Public Bike Parking Strategy identifies the following as inputs:

- Land Use Mix
- Employment Density
- Population Density
- Transit Station Proximity
- Existing Bike and Transit Demand
- Existing Bike Network
- Bike Facility Location

Each of these inputs individually highlights different areas for consideration but can also link to each other in various important ways. For example, land use mix refers to the degree to which land is used by residences, shops, offices, schools, etc. and therefore can directly correlate to employment and population density. Population density is also linked with transit station proximity as the density is intended to be higher in areas near transit stations.

In order to leverage all of these data inputs, the Public Bike Parking Strategy identifies and outlines a Bike Parking Index Tool. This is used to prioritize the various bike parking solutions by creating a combination of the inputs to create a geographically-based 'grid score' which will account for specific local characteristics and requirements.

By applying weightings to the various inputs, a customized approach is possible to determine the relative potential for bike parking demand. When used either on its own or in tandem with data on existing public bike parking spaces, this can be very effective in that it allows for decisions to be made based on much richer data than just the number of observed bikes.

Both the resulting Bike Parking Demand Map and the Bike Parking Delta Map will serve as progressive tools moving forward to assist in the identification, prioritization and implementation of bike parking.

A fulsome overview of the Bike Parking Index Tool can be found in the Public Bike Parking Strategy.

Solution

This is the final step of the Implementation Process. It involves considering the options relative to the data to ensure the most appropriate bike parking solution is chosen. In the event of a low score, the outcome is likely to be prioritized as such and it is likely to be a low capacity/low cost solution. If the score is high, higher capacity/cost options should be considered.

Recommendations - Implementation Process

There are a number of things that will need to be aligned and carried out to enable the Implementation Process from an operational perspective. The Public Bike Parking Strategy contains related recommendations that are summarized here:

- Develop index weighing options
- Establish and maintain a living priority list of bike parking requests and requirements

SUPPORTING MEASURES

Aside from the on-going considerations of where bike parking is required, how it should be deployed and what types are to be considered, additional opportunities have been identified which will help to more completely fulfill the objectives of the Public Bike Parking Strategy and establish a more complete program.

In developing the Public Bike Parking Strategy, Stantec completed a scan of other cities in various places around the world to identify measures. Cycling has become a focus in Ottawa along with many other jurisdictions which provides for opportunities to evaluate

and assess different approaches and determine which would be most beneficial for the City of Ottawa.

The resulting measures are listed below and then summarized. Additional information and context for each can be found in the Public Bike Parking Strategy. Over time, the full implementation of these will help to fulfill the objectives, but it will be the responsibility of the Public Bike Parking Program to continue to identify and implement any additional measures that fit towards more effectively providing and administering public bike parking in alignment with the Strategy.

- Data Collection
- Digital Access
- Abandoned Bikes
- Secured Bike Parking
- Business Collaboration
- Wayfinding
- Curbside Management
- Event Bike Parking

Data Collection

The use of data has been referenced multiple times throughout this report in regards to inventory as a key step in applying the Bike Parking Index Tool and in facilitating effective proactive maintenance. Data collection is also important in the context of monitoring utilization rates and the sharing of all available data with the public.

The City currently tracks the inventory of public bike parking from within various departments. Maintaining a consolidated public inventory is a recommendation also listed in the Bike Parking Type and Placement sections of the report, but it would be beneficial to also develop a reference point with respect to private bike parking. This could be done through collaboration with the City's development approvals process to identify private bike parking supply through development applications.

Monitoring the utilization of bike parking is essential as it assists with understanding current and future demand. Parking Services has been doing this on an increasing basis as part of Local Area Parking Studies and other corresponding data collection related to on-street vehicle parking, but there is the opportunity to expand and monitor usage in more areas and more frequently. This would require the allocation of more resources and time but would be beneficial in supporting the Implementation Process and in making more informed decisions.

Public reporting in the form of a report or map is also possible. This would convey the data collected on both inventory and utilization. This would help to ensure transparency and can assist the public in planning their cycling trips.

Digital Access

Other municipalities provide inventory and availability data either on a webpage or by way of a web portal. This allows for continuous communication between the public and the city. For example, an app used in Toronto called BikeSpace provides information on the location of bike parking and capacity but also allows users to report issues such as broken bike racks and abandoned bikes, or to register requests for new bike racks.

This is beneficial to residents as a clear one-stop shop which results in less confusion on who to contact. This is also a benefit to the City from the perspective that it serves as a central intake point.

Abandoned Bikes

Experience from other jurisdictions indicates that abandoned bikes can significantly reduce the amount of available bicycle parking. For example, the Netherlands' Ministry of Transport, Public Works and Water Management, reported that abandoned bikes can account for up to 20 per cent of used parking capacity in Dutch cities.

The current process for the City of Ottawa to address abandoned bikes is for residents to report them to 3-1-1 for staff to investigate. There is no process or program in place for staff to proactively address these issues or to clarify the mechanisms to provide notification and remove/address abandoned bikes. The Strategy identifies that there is the opportunity to develop a formal abandoned bike policy and framework for monitoring and impounding abandoned bikes with associated departmental roles and responsibilities.

The Strategy also identifies the option of using video cameras to monitor bike parking. In addition to providing an enhanced level of security, these could be used to track abandoned bikes and collect data on bike utilization.

Secured Bike Parking

Options related to providing secure bike parking have been outlined. To this point, the City has provided limited secure bike parking options. With increasing costs of bikes and interest in cycling by commuters, this is something that represents a gap and also

an opportunity to take a focused approach to secure bike parking as part of a Public Bike Parking Program.

In 2019 alone, over 1,360 bikes were reported stolen in Ottawa, but there is research to suggest that only one in five stolen bikes is reported to the police. Providing more secure options can help to make cycling more viable for those who require longer-term parking and view the security of their bike as a barrier to regular cycling.

As discussed, secured bike parking facilities can be costly to install, operate and maintain. There is the option to charge users to access secured bike parking to partially off-set costs. The approach with respect to rates would need to be developed, balancing things like cost recovery and affordability.

OC Transpo recently launched a new secured bike parking program (Bikeseure) at four LRT stations: Greenboro, Strandherd, St-Laurent and Fallowfield. The secured shelters are accessed with a fob. This program will be monitored to help clarify and inform options and an approach.

Parking Services has already taken an active role in supporting the installation of a second bike cage at City Hall which represents another point of reference going forward.

Business Collaboration

Currently, there are limitations when implementing bike parking in the public right-of-way due to lack of space (existing infrastructure, street furniture, etc.) and accessibility requirements. Collaborating with property owners could result in additional publicly accessible bike parking but on private property. This collaboration could present benefits for property owners as the City of Ottawa can purchase facilities at a cheaper price, saving the businesses some of the costs.

It will require the development of a program and can borrow from recent experiences elsewhere, including Sudbury where “Bike Racks for Businesses” was launched in 2020.

Wayfinding

Wayfinding is beneficial when cyclists bike to a location and then need to find bike parking that may not be readily apparent. As previously noted, 86 per cent of survey respondents indicated that they arrive at their destination and then search for bike parking. A convenient bike parking facility within 20 meters may not always be an option

for all destinations, especially with limited sidewalk space. In these instances, it may be necessary to provide higher capacity or secured facilities a little further away. For cyclists to locate these bike parking facilities there is a requirement for signage and wayfinding in these areas. As secured bike parking and higher capacity unsecured bike parking is implemented, wayfinding will be important to ensure its effectiveness.

Curbside Management

The City of Ottawa currently leverages some on-street curb space through a limited bike corral program. Roads and Parking Services installs three bike parking corrals seasonally. Going forward, staff will intend to identify additional opportunities and expand this initiative. The Implementation Process will assist in this and it will also be necessary to properly consult with local stakeholders and develop an approach that balances all uses of the curbside space.

While there are opportunities in the shorter-term, over time and in the broader sense, it will be necessary to develop a comprehensive Curbside Management Strategy to assist in balancing all related existing and emerging requirements and ensure that bike parking is part of that discussion.

Event Bike Parking

During a typical year, Ottawa has multiple festivals, sporting events and other special events that could benefit from bike parking facilities. In a number of cases, bike parking is effectively and appropriately provided. There are however opportunities for this to occur in a much more consistent fashion. The Public Bike Parking Strategy identifies temporary bike corrals or bike valets as potential options for event bike parking. Since many events currently have to obtain a permit from the city with associated mobility and security requirements, there is the opportunity to include bike parking requirements as well. These opportunities will be pursued with the appropriate departments as part of the implementation of the Public Bike Parking Strategy.

Other Considerations

In addition to the above listed supporting measures, there are additional items that require monitoring and integration in order to ensure alignment with the Public Bike Parking Strategy objectives. These have been identified and included in the Strategy.

- **Accessibility:** This is a lens that will be continuously used and developed by identifying and responding to the requirements of cyclists, but also people travelling in the proximity of bike parking. This is a key consideration of the first

objective that will guide the Public Bike Parking Program which speaks to balancing all needs associated with the public space.

- Accounting for Equity: This is a lens continuously considered while implementing and administering the Public Bike Parking Strategy. This includes: gender, age, citizenship, economic status, racialized people, or LGBTQ2+ identity. This is a key consideration of the second objective of the Public Bike Program, which speaks to, accommodating all types of cyclists.
- Advertising/Sponsorship: Providing advertising in tandem with bicycle parking facilities provides opportunities to maximize the City's investment and the extent of the overall network, but the approach taken needs to account for local considerations. An advertising-based bicycle parking program is referenced in the Ottawa Cycling Plan as one method of helping to encourage cycling.
- Bike Repair Stations: These provide access to tools for cyclists to undertake emergency repairs and standard maintenance of their bikes. They are currently managed as part of the Safer Roads Ottawa Program but there are opportunities to better align them with bike parking.
- Artistic Bike Racks: These represent a way in which to improve the aesthetic and add some creativity to bike parking while potentially engaging with the local artist community.
- Emerging Bike Parking Requirements: Known trends towards oversized bikes and cargo bikes need to be accounted for as use builds. Increases in the number of e-bikes also needs to be accounted for to ensure the proper infrastructure is in place.
- Micromobility: Increasing popularity in short-trip solutions introduces additional parking pressures within the public space. Opportunities to account for and possibly integrate micromobility parking will need to be considered in order to best manage the public right-of-way and public space.

Recommendations - Supporting Measures

The Strategy's recommendations on supporting measures are fully detailed in both the Strategy and the Implementation Plan and are summarized below:

- Develop a framework for maintaining a unified inventory of public bike parking
- Initiate a database to gather information on bike parking as part of private developments
- Develop a framework for collecting and monitoring bike parking utilization

- Implement a public bike parking digital access portal that provides users with information on availability, condition, and type of bike parking with the option of reporting issues
- Develop a formal abandoned bike policy
- Evaluate potential secured public bike parking payment models to assist in funding the implementation, operation and maintenance of secured bike parking facilities
- Explore the feasibility of implementing a program to make bike racks available to businesses
- Develop criteria and a process to enable the expansion of on-street bike corrals
- Over the longer-term, develop a Curbside Management Strategy
- Collaborate with other City departments to explore developing a signage & wayfinding strategy for public bike parking with considerations for how it integrates with multi-modal wayfinding signage
- Explore opportunities to leverage temporary public bike parking and bike valet services to encourage cycling to events

The items identified as “other considerations” will be accounted for through the development of the Public Bike Parking Program and in the fulfillment of the Public Bike Parking Strategy objectives.

MANAGEMENT APPROACH

As identified in the background section of this report, public bike parking in Ottawa is managed and maintained by various departments across all functions. Functions related to bike parking have been summarized as follows:

- Installation and Maintenance
- Data Collection and Data Management
- Stakeholder Management
- Project Management and Administration

As part of the Public Bike Parking Strategy, the need for a more centralized and coordinated approach along with other corresponding outcomes is addressed. In doing so, the Strategy contains recommendations that are summarized here:

- Clarify responsibilities and structure for implementation and administration of the Public Bike Parking Strategy

- Provide additional resourcing and support to provide the Public Bike Parking Strategy with the greatest chance of success
- Implement a single intake system for new bike parking requests, maintenance requests as well as the reporting of abandoned bikes
- Capture a full inventory of public bike parking in the City
- Centralize the data management for all bike parking, including requests and usage

In order to effectively implement the Public Bike Parking Strategy, it is necessary to establish a Public Bike Parking Program with clarity of roles and consolidation of a number of the responsibilities.

A Public Bike Parking Program would be aligned closely with the existing Municipal Parking Management Strategy, due to one of the objectives of the Municipal Parking Management Strategy being to, “Promote sustainable modes of transportation by supporting and maintaining programs and facilities that encourage sustainable mobility choices (public transit, cycling, walking) and alternative modes, including electric vehicles, car sharing, and new technologies as they emerge.” Further to that, the Municipal Parking Management Strategy Funding Model identifies the installation and maintenance of bicycle parking facilities as an appropriate expenditure from parking fee revenues.

Public Bike Parking Program

Through internal consultations and in alignment with the recommendations of the Strategy, staff have started to clarify the framework for the Public Bike Parking Program.

ROLES AND RESPONSIBILITIES

The Public Bike Parking Program would be managed by one group. The key intent of taking a centralized approach is to simplify roles. Residents, Councillors and stakeholders will have a clearer process for inquiries and when submitting requests, and there will be efficiencies when managing these things internally.

Parking Services is best suited to manage the centralized framework due to the natural alignment with the Municipal Parking Management Strategy, available funding and previously identified resources. There is also the fact that there is an existing operational component to what Parking Services does on a day-to-day basis.

Some roles related to bike parking will remain in other groups, but it will be important to ensure an organized, collaborative approach going forward. The proposed alignment by function is outlined below.

Installation and Maintenance

The installation and maintenance of all bike parking in the right-of-way would be managed by Parking Services. This would include the roles mentioned above in addition to managing abandoned bikes through a defined approach.

The installation and maintenance of bike parking at parks and facilities would still fall under Recreation Cultural and Facility Services, and the installation and maintenance of bike parking at OC Transpo stations and stops will still fall under Transportation Services. However, there are opportunities to consolidate expertise and coordinate on various points between groups.

Data Collection and Management

Even though some of the installation and maintenance would fall to other departments, the maintenance of a consolidated inventory and the collection and management of utilization data would be the responsibility of Parking Services. This way, Parking Services could manage the city-wide information and better coordinate how the information is ultimately provided to the public.

Parking Services would also be responsible for the development of the Implementation Process which involves consolidating all associated inputs and maintaining the corresponding Bike Parking Index Tool.

Stakeholder Management

With one single online intake model, Parking Services would review all related requests for new racks, maintenance requests, abandoned bikes, bike repair stations, etc. As required, these would be shared and directed internally to ensure proper resolution in all cases.

Parking Services would also manage additional collaborations and programs with stakeholders such as businesses, events and other organizations. Parking Services would leverage the existing Parking Stakeholder Consultation Group to provide updates and share information related to the Public Bike Parking Program.

Project Management and Administration

Parking Services would take a primary role, where required, in the procurement and inventory management of bike parking facilities city-wide. Additionally, a significant part of this will involve Parking Services taking the lead on the various initiatives that are required to execute many of the recommendations that are identified in the Strategy.

This may also involve things such as contract management when there are service-related arrangements in place such as advertising and sponsorship and the administrative roles related to things such as the management of secure bike parking. Responsibilities for those aspects are likely to fall to the group who is impacted by the advertising/sponsorship, or whose secure bike parking facility it is.

A critical part of the execution of this framework will be to focus on roles, but also to ensure collaboration and properly leverage the expertise and perspectives that sit with the different groups.

IMPLEMENTATION

The Implementation Plan is presented in detail in Document 2. It outlines the three phases that will be required to establish a Public Bike Parking Program and action the various initiatives and recommendations that are outlined in the Strategy. The Implementation Plan prioritizes specific things and work will begin immediately to also leverage opportunities and address known gaps with respect to bike parking facilities. However, based on available and planned resources, it is anticipated that it will take three years for full implementation. Below is a summary of how implementation of the Public Bike Parking Strategy is expected to proceed:

Phase 1 (2021)

- Establish the Public Bike Parking Program with defined roles and a clear structure
- Begin development of priority measures and initiatives (e.g. creation of a single intake point for public requests, clarification of inventory/procurement options, development of implementation tools and establishment of a consolidated city-wide inventory)
- Address requests and known gaps where there is missing or damaged bike parking
- Complete construction of secure bike parking cage at City Hall
- Identify pilot locations for secure public bike parking facilities

Phase 2 (2022)

- Fully execute the Implementation Process with all data and weightings accounted for
- Install pilot locations for secure bike parking
- Implement approaches relating to abandoned bikes and on-street bike corrals

Phase 3 (2023)

- Implement improvements related to digital access and wayfinding signage
- Launch programs relating to business collaboration and event bike parking
- Expansion of secured bike parking and on-street bike corrals as applicable

When the Municipal Parking Management Strategy update was completed in 2019, there were three FTEs that were identified and approved by Council. Those resources will be allocated to the Public Bike Parking Program and will provide a starting point. In order to effectively move things forward, build momentum and fulfill anticipated inspection, installation and maintenance requirements, staff require two additional FTEs. These staff positions would be at a cost of approximately \$200,000 per year and funded from the paid parking program (parking fee revenues). They will be added as temporary positions and through the implementation of the Public Bike Parking Strategy, it will be determined at a later time if they need to be converted to permanent FTEs.

Accountabilities and Budget

Through the Municipal Parking Management Strategy, an emphasis on transparency and engagement ensures that there are different ways in which Parking Services connects to and communicates with stakeholders, but also Council and the public at large.

In addition to the Parking Stakeholder Consultation Group, Parking Services submits an Annual Report to Council each year. Going forward, this will provide an opportunity for staff to provide updates on the implementation of the Public Bike Parking Strategy as well as capital spending plans which will be included in Parking Services' Capital Program Plan. The 2021 Parking Services Annual Report will be the first opportunity to provide this update to Council on the implementation of Strategy and is expected in Q2 2022.

The Parking Stakeholder Consultation Group will continue to be a sounding board for all initiatives related to the Municipal Parking Management Program as well as the Public Bike Parking Program going forward.

Investigation into Bike Share

As noted earlier, considerations related to micromobility are important in the context of bike parking. There is a natural alignment in that supporting micromobility and cycling strive towards similar purposes and there is also the fact that there are potential opportunities to have bike parking relate to programs and options such as e-scooters and bike share.

On June 10th, 2020 Council approved the Bike Sharing and Electric Kick Scooter Sharing Agreements with Service Providers ([ACS2020-PIE-RHU-0007](#)) report which included a recommendation that was from a Councillor Menard motion at Transportation Committee on June 3, 2020 ([TRC 2020-9/2](#)). This directed staff to investigate an in-house bike share program and report back to the Transportation Committee with its findings as part of the Bike Parking Strategy in early 2021. Concurrent with the development of the Public Bike Parking Strategy, staff worked with Stantec to review the history of bike parking in Ottawa, assess trends in other municipalities, provide a recommendation related to the preferred implementation model and contextualize the cost of implementing a bike share program.

Bike share first became a part of the City of Ottawa when the [Ottawa Cycling Plan](#) was approved at Council on July 9, 2008. Included with that report was a recommendation for staff to investigate the implementation of a “smart bike” program with the private sector. That led to the implementation of the first bike share service in Ottawa, Capital Bixi Bike Share. The following provides a brief summary of what has happened with bike share in Ottawa in that instance and since.

- Capital Bixi Bike Share: A docked system that was in place from 2009 to 2013 and led by the National Capital Commission. This started at 100 bikes across 10 stations in Ottawa and Gatineau before the National Capital Commission expanded the program to include 250 bikes over 25 stations before the parent company to Bixi filed for bankruptcy.
- Right Bike: A not-for-profit bike share service that started in 2012 and was organized by Causeway Work Centre. This bike share service used donated bikes, was dockless and intended to be more affordable for users. The bike share service ended in 2017.

- VeloGO: The Capital Bixi Bike Share system was purchased by CycleHop (a privatized, for-profit bike share company), and rebranded in 2015 in Ottawa as VeloGO. There were approximately 300 bikes in Ottawa which were operated within a station-based system until 2018 when it transitioned to dockless on a pilot basis. In 2019, VeloGO chose not to return to provide bike share in Ottawa.
- Council extended the bike sharing pilot through 2020 via the Bike Sharing and Electric Kick Scooter Sharing Agreements with Service Providers ([ACS2020-PIE-RHU-0007](#)) report but there were no interested companies.

Looking at the Capital Bixi Bike Share and VeloGO programs, there are a number of similarities. Both were concentrated in the downtown core of the City and were small in both footprint and scale. Without significant investment, the limitations of any system will naturally inhibit the likelihood for sustained viability or success.

Currently, there remains the opportunity for any vendor to operate a bike share in Ottawa under the same terms as VeloGO, but there has been limited interest from the industry since 2018.

This outcome is reflective of broader recent industry trends. Since 2018, the growth of bike share in North America has stalled which has coincided with the introduction of e-scooters. Fully privatized bike share operators also operate e-bikes and e-scooters and emphasize deployment of the latter as it tends to provide higher revenue.

While e-scooters and bike share may have the potential to serve different purposes within a community, there is also a considerable degree of overlap which needs to be taken into account when considering the simultaneous implementation of two different shared micromobility options.

In assessing the bike share experience within other jurisdictions and evaluating best practices, there are a couple of key considerations to better ensure a lasting and effective bike share system. Bike share systems must be of a minimum size and should be oriented towards residents to ensure sustainable success. The audience must be such that it captures frequent and reliable riders, which are most typically commuters making connections to transit and residents making short personal or work-related trips. These considerations were not well accounted for with earlier Ottawa bike share providers.

In determining the preferred model for the City of Ottawa, Stantec considered four different models:

1. **City-owned and managed** (entirely in-house) - The City owns and operates the bike share program, taking on the financial risk of purchasing, owning, and operating the program.
 - Key benefits – The City retains full control over operating standards/locations, and the public interest is served as opposed to strict revenue interests.
 - Key shortcomings - Requires substantial capacity and there is an on-going financial responsibility for the City.
2. **City-owned, contractor managed** - The City takes on the financial risk of purchasing and owning the bike share program while a private company is in charge of operating the technology and infrastructure.
 - Key benefits – City retains control over deployment and can leverage private expertise while the contractor bears a certain degree of liability.
 - Key shortcomings - The City is directly involved in a contract management function and adopts a high degree of financial risk.
3. **Non-profit business** - A non-profit business takes on the financial risk of purchasing, owning, and operating the bike share program but may receive government funding.
 - Key benefits – Limited financial responsibility on the part of the City (unless subsidized).
 - Key shortcomings - Deployment and expansion can be slower and there can be a lack of necessary expertise/resources for start-up and operation.
4. **Profit business** - A private company takes on the financial risk of purchasing, owning, and operating the bike share program.
 - Key benefits – Implementation and expansion can be quicker, and the City's financial responsibility is limited.
 - Key shortcomings – Availability of vendors if not profitable, and any initial deployment and future expansion are likely to be limited to profitable areas which may make it difficult to establish long-term buy-in among a critical mass of residents.

The City-Owned, Contractor Managed model was identified as the best option for the City in order to ensure a sustainable system that focused on transit connectivity (first and last mile). This option would allow the City to control the goals and direction of the program while potentially mitigating some operational costs.

There are a number of considerations to account for prior to moving forward in any sense on bike share. First and foremost are cost considerations. Compared to the previous for-profit models that the City has enabled, there would be a significant level of investment required on the part of the City in a City-Owned, Contractor Managed model. In addition to that, there are factors related to fleet size and type, geographic focus and the requirement to find and allocate space.

From a cost perspective, information from Washington D.C. (Capital Bikeshare - CaBi) and Philadelphia (IndeGo Bikeshare) was reviewed to get a sense of what the upfront investment and on-going operating requirements would be. In both cases, the bike share systems align with the City-Owned, Contractor Managed model and there was a recent financial evaluation completed which ensures relevant data. Washington and Philadelphia employ 'docked' systems. While there are options related to the type of system, this is a suitable reference point based on advantages related to managing where bikes are located/left. Based on these examples the following captures expected per unit costs related to bike share:

- Capital (purchase / set-up) costs: \$1,250–\$1,500 (\$USD) per bicycle and \$3,000 (\$USD) per dock per station
- Operating costs: \$100–\$150 (\$USD) per dock per month (depending on the scope of services and operating model)

As noted, in order to ensure a viable system, it is necessary to establish a minimum fleet size of bikes. Through their analysis, Stantec indicated that 700 bikes could be an initial minimum size for Ottawa. Assuming a station-based system, this would infer a requirement of approximately 90 stations. With a 300-meter spaces between stations, the operating area would be approximately six square kilometers.

Based on the costing information above, the purchase cost of the bikes and infrastructure in the minimum scenario would be approximately \$4 million (\$CAD) while the annual operating costs paid to a contractor would be approximately \$3 million (\$CAD). This does not account for additional costs that would relate to managing the contract and regular replacement/repair of the bike share infrastructure.

Allowing for the fact that the system would generate revenue, there would be off-sets to these costs. However, it is assumed that revenues generated by the bike share system would not be sufficient to fully cover the operating costs. This is almost exclusively the case across different municipalities that operate bike share under this type of model. In Washington, their fleet size is larger, having grown from 114 stations in 2010 to 553 stations as of 2019. Their total operational costs related to bike share in 2021 (not including administrative costs) were projected to be \$10.8 million (\$USD) and they have an annual cost recovery ratio of between 77 per cent and 84 per cent. The remaining costs are subsidized by public funds from the municipality.

Relative to Washington, Philadelphia has a smaller fleet size of 157 stations with 1,000 bikes. Their total operating budget in 2017 was \$4 million (\$USD).

As an alternative to drawing from public funds to support bike share deployments, some cities have secured sponsorships to help off-set costs. An example would be Toronto where, over the years, there have been sponsorship deals with Bell Astral Media and TD Canada Trust, and partnership funding from Metrolinx, a crown agency of the Government of Ontario that manages public transportation in the Greater Toronto and Hamilton Area. As part of their Toronto Bike Share program, Toronto recently expanded to have 6,850 bikes across 625 stations.

At this time, in light of the continuance of the e-scooter pilot and the magnitude of costs involved, combined with financial pressures caused by the COVID-19 pandemic, staff do not recommend proceeding further in assessing bike share. The research and analysis that has been completed as part of this exercise would be a valuable reference point if conditions were to better support taking another step towards considering bike share as a transportation solution within Ottawa.

RURAL IMPLICATIONS

There are no rural implications with this report.

CONSULTATION

Consultation was a critical component of developing the Public Bike Parking Strategy. Parking Services met multiple times with both internal and external stakeholders. All consultations and engagements from March 2020 onwards were held virtually in light of restrictions related to the pandemic.

Internally – an internal working group that consists of staff from Public Works and Environmental Services, Recreation Cultural and Facility Services, Transportation

Services and Planning Infrastructure and Economic Development met four times during the development of the Strategy.

Externally – staff leveraged the Parking Stakeholder Consultation Group (PSCG) by meeting with them six times throughout the entire process of the development of the Strategy. [Meeting minutes](#) (as approved) from PSCG meetings as of January 2020 can be found on ottawa.ca.

Staff also met with Councillors, BIAs and cycling groups when collecting information and developing draft recommendations.

Outside of community representatives and groups, public consultation was also completed through two rounds of virtual open houses and the opportunity for residents to complete a survey. These were promoted via the project's Engage Ottawa page, the City's social media and Councillors were also asked to share the information with their residents.

There were three workshops, held on the days:

- Tuesday, October 20, 2020 (morning) – Round 1, information gathering
- Thursday, October 22, 2020 (evening) – Round 1, information gathering
- Thursday, February 18, 2021 (evening) – Round 2, draft recommendations

The survey was posted on the project's Engage Ottawa site on ottawa.ca from July 24th to September 7th, 2020 and there were a total of 431 responses. The overall themes, needs and opportunities from the stakeholder engagement, including the survey and October's public consultations were summarized into an "As We Heard It" document which is posted on the project's [Engage Ottawa](#) site on ottawa.ca.

In engaging with Councillors, staff met with members of Transportation Committee and provided the remaining Councillors with the opportunity to meet twice throughout the development of the Strategy. The initial meetings taking place in July – September 2020 and then the second round of meetings taking place in February – March 2021.

Through the course of consulting on the development of the Public Bike Parking Strategy, staff also received some general feedback related to the investigation into bike share options. The simultaneous consideration of the e-scooter pilot served as an additional reference point for this process.

LEGAL IMPLICATIONS

There are no legal impediments to Committee and Council's approval of the recommendation of this report.

RISK MANAGEMENT IMPLICATIONS

The risks have been identified and explained in the report and are being managed by the appropriate staff.

FINANCIAL IMPLICATIONS

Once approved by Council, an additional \$200,000 in compensation budget, transferred from the Parking Reserve Fund, is required for 2 additional temporary resources in order to start implementing the Public Bike Parking Strategy.

ACCESSIBILITY IMPACTS

Staff will ensure that any applicable accessibility standards are adhered to during the execution of the projects and initiatives identified in this report. This will involve consulting with the appropriate staff within the City. A representative from the Accessibility Advisory Committee is a member of the Parking Stakeholder Consultation Group.

ENVIRONMENTAL IMPLICATIONS

Providing adequate bike parking is a key element of encouraging cycling as a viable mode of transportation. By encouraging more people to bike rather than drive the Public Bike Parking Strategy will help to reduce greenhouse gas emissions.

TERM OF COUNCIL PRIORITIES

Service Excellence through Innovation: Deliver quality services that are innovative and continuously improve to meet the needs of individuals and communities

Sustainable Infrastructure: Ensure sustainable infrastructure investment to meet the future growth and service needs of the city.

Integrated Transportation: Enable effective mobility through a sustainable, accessible and connected city transportation system.

Environmental Stewardship: Grow and protect a healthy, beautiful, and vibrant city that can adapt to change.

Thriving Communities: Promote safety, culture, social and physical well-being for our residents.

SUPPORTING DOCUMENTATION

Document 1 – Public Bike Parking Strategy

Document 2 – Implementation Plan

DISPOSITION

Upon Council's approval of this report, the Public Works and Environmental Services Department, Parking Services will carry out the approved implementation plan. Finance Services will process a budget adjustment to increase the Parking Services compensation budget from the Parking Reserve Fund.