



## Staff Report

### Origin

At the October 28, 2013 meeting, Council approved the City's Green Fleet Action Plan. This plan established a target to reduce Greenhouse Gas Emissions (GHG) emissions by 20% by 2020. A variety of strategies will be required to meet this objective. One option to advance toward this target involves removing or deferring acquisition of vehicles from the City's fleet and instead making vehicles owned by car share companies available for use by City staff. To test the feasibility of this approach, a car sharing pilot program was implemented in August, 2016.

This report provides an overview of this pilot initiative and outlines potential future considerations for expanded car sharing.

This report supports Council's 2014-2018 Term Goal #4 Leadership in Sustainability:

*Continue advancement of the City's sustainability framework and initiatives to improve the short and long-term livability of our City, and that maintain Richmond's position as a leader in sustainable programs, practices and innovations.*

*4.1. Continued implementation of the sustainability framework.*

### Analysis

#### Background

Car sharing is a community sustainability approach to mobility. It allows individuals and businesses, through a membership, to access a network of vehicles on a short-term basis. The goal is to help reduce vehicle ownership; foster better use of land (less parking); work as an affordable complement to walking, cycling and transit; reduce greenhouse gas emissions (GHG); reduce traffic congestion and travel time. One million new residents are expected in the Metro Vancouver region by 2041 and that could increase the number of vehicles on the roads by up to 700,000 based on current ownership rates. Car sharing can help to reduce the overall number of vehicles on City roads and associated GHG emissions.

Practically, car sharing is a form of car rental. What makes it different is that it is designed for people who require a vehicle for short term use only, i.e. a few hours, and users pay only for the time the vehicle is allocated to them. Under a car sharing model, the vehicle is owned by the car sharing service provider, and all expenses such as fuel, insurance and maintenance are the car sharing company's responsibility. Users must register with the car sharing service provider and provide their driver's abstract and licensing information.

Once approved/registered, users are charged based on how long they have the vehicle, and/or the distance travelled. Registered users are provided with a fob, which allows access to the vehicle once it has been booked for a specified location and time. Under some car sharing models, vehicles are returned to the exact location of pick up. Under other models, vehicles can be left at various locations, provided they are within the car sharing company's area. Bookings are done

online or by phone. An overview of the various car sharing companies and models is provided in Attachment 1.

### Pilot Program

To test car sharing as an alternative for City vehicle use needs, a pilot initiative was introduced in August, 2016 under 5385 EOI, with Modo Co-operative. The scope included removal of two low use units from the City's fleet (Unit 1555 – 2006 Smart Car allocated to Human Resources and Unit 1296 – 2005 Honda Civic Hybrid allocated to Customer Service and Licencing). The units were located at the City Hall Annex site and were replaced with two Modo Co-operative vehicles.

Under the terms of the agreement with Modo, the City provides designated parking for the units. The City pays a premium for these vehicles to be strictly available for use by City staff during the workday from 7:00 a.m. to 5:30 p.m. Monday through Friday (excluding statutory holidays and the week between Christmas and New Year's). After hours and on weekends, they are available for use by any other registered Modo user. Personal items cannot be left in the vehicle; the inside must be left in clean condition (all waste removed); and drivers must use the fuel card located in the vehicle to fuel at designated gas stations when the fuel tank is at one quarter tank or less.

The contract with Modo has a term of six months and commenced August 1, 2016. The term can be extended for a period up two years and six months, for a total of three years. After this time, if the parties continue to deal with each other following expiry, it can be deemed to be extended on all of the same terms and conditions on a year to year basis.

All fuel, insurance, maintenance, cleaning, 24-hour road side assistance, local bridge tolls, staff training and telephone support are included in Modo pricing.

In relation to GHG reduction credits or offsets, Modo conveys all right, title and interest in and to GHG credits to the City during the course of this contract.

### *Pilot Program Results to Date*

The results of the pilot program through the end of March, 2017 are summarized below:

- 17 employees are registered as Modo users.
- The vehicles were booked 91 times.
- The vehicles were driven 1,368 km and signed out for 239.5 hours.
- The total fees paid to Modo were \$2,995.21 or \$2.19 per km driven.

These results show that the cost of the Modo program for these two units is less than half that of the departmental charges assessed for dedicated/owned City vehicles. Due to low usage on both units 1296 and 1555, the cost per km based on the two years of operating data (2014 & 2015) was \$5.82 per km driven.

In addition to the two dedicated units involved in the pilot program, Modo had previously installed two vehicles at the new City Centre Community Centre for general public use. In conjunction with the City Hall Annex pilot car sharing initiative, 13 City Centre Community Centre staff opted to participate in Modo as registered users in place of seeking an additional level funding request for a dedicated City vehicle. Over the same period of the pilot, the Modo vehicles at the City Centre Community Centre were booked by City Centre Community Centre staff 44 times for 106 hours, and travelled 358 km at a cost of \$1,122.09, or \$3.13/km. The Modo units have met community centre staff needs, therefore, a dedicated City vehicle is not required. This is a positive example of how car sharing can be used to avoid needing to acquire new vehicles to meet growing departmental needs.

The table in Attachment 2 summarizes the overall usage of the two dedicated City Hall Annex units as well as the two general community use car share vehicles located at the City Centre Community Centre.

In association with this pilot, it is also of interest to note that Modo Co-operative previously installed three general community use units located at the Brighthouse, Lansdowne and Bridgeport SkyTrain stations as part of the 'Reserved On-Street Parking Spaces for Car Share Vehicles Program' approved by Council on September 24, 2012. Modo currently has 155 general public registered users in Richmond (an increase of 12% over the prior year). The table in Attachment 3 shows the average weekday and weekend percentage utilization of all Modo units in Richmond.

### *Challenges*

From the City's side, user feedback has included the following concerns:

- *Vehicle Availability:* Staff of the two departments where the low use City vehicles were removed in place of the Modo vehicles for the pilot have commented that they no longer have a dedicated vehicle that can be taken without notice such as for emergency use (i.e. required to book the dedicated Modo vehicle);
- *Vehicle Marking:* The Modo unit does not contain official City markings to help identify staff on official City business;
- *Equipment/Supply Storage:* Equipment and materials cannot be left in the Modo vehicle;
- *Administration:* The Modo program requires staff time associated with administering the program (managing distribution of fobs, processing invoices, allocating charges, staff training, etc.);
- *Dedicated Parking:* The City is required to provide dedicated, marked parking spaces for Modo units that could otherwise be used for City vehicles. The parking must be in locations accessible by the general public (to be able to access vehicles during those hours not allocated for City use).

From the car sharing service providers' perspective, Modo has indicated that the usage rate for the two units during the day is too low (8% usage) to meet their required criteria for exclusive

daily city access during the day. To be sustainable for Modo, daily access must either be opened up to other registered Modo users or the exclusive daily fee increased from \$3/vehicle per day to \$15/vehicle per day.

### *Opportunities*

To address some of the challenges identified by staff, the following could be pursued:

- *Vehicle Availability:* There are six general City pool vehicles available at City Hall that can also be booked through Outlook by staff if the Modo units are not available. These units could be added to the Modo booking service, which would avoid the need for staff to flip between the Modo and Outlook booking systems. This is not recommended at this time, however, as there is an additional one time hardware installation cost of \$200/vehicle, plus a monthly cost of \$150 per unit. This would be equal to \$1,200 in hardware costs and \$10,800 in annual operating costs for the six vehicles. The service could be added later, should this be considered beneficial to the overall car sharing program.
- *Vehicle Marking:* The challenge of vehicles used for City business containing designated City markings could be addressed by producing magnetic signs to place over the Modo signage. This would be an inconvenience to staff who would have to bring and store the signage each time they take the vehicle, so may not be suitable for certain functions (inspections, bylaws, etc.).
- *Equipment/Supply Storage:* Staff would need to carry materials with them or use lockers that could be made available in the underground parking at City Hall.
- *Administration/Parking:* Other issues such as administration and parking requirements are components of the program that need to be managed (within Public Works Operations).

To address the challenge of under-utilization of the two existing Modo units, access to the units by the general public during the day could also be made available (similar to other City programs that Modo partners with). Further, access to the two Modo units could be increased by making the program available to other City Hall and City Hall Annex staff.

Under their program, Modo provides additional vehicles to the City when average utilization rates reach/surpass their established thresholds. Modo is also willing to provide different styles of passenger vehicle units suitable to the City's needs, i.e. vans, pickup trucks, etc. provided Modo considers there is sufficient public demand for these types of units (outside of City usage needs).

### *Summary*

Car sharing models may be appropriate for some applications within the City, for example:

- units that are generally used for staff to travel to and from meetings;

- low usage units;
- in place of fleet growth, i.e. where additional units are being sought due to added staff positions (lower resistance expected versus removing allocated vehicles due to low usage).

Car share vehicles are less appropriate for enforcement functions where official City decaling is important and enforcement requires more timely access to a vehicle for response, for functions where supplies generally need to be left in vehicles (i.e. janitorial functions), or for specialized working units (i.e. Public Works functions/operations).

### Options

There are three options to consider relative to car sharing.

1. Continue with the Modo Program, with Modifications and Graduated Expansion  
(Recommended)

Under this option, the Modo car sharing program could be continued, with the program opened up to multiple City staff users at both the City Hall Annex and City Hall sites. This would help to expand use of the two existing Modo vehicles and allow staff to become more accustomed to the car sharing concept. The existing Modo units will also be opened to general public use during the day to address the issue of under-utilization.

The Modo program would be expanded as opportunities become available, i.e. during evaluation of low usage units; as vehicles generally used to transport staff to and from meetings become eligible for replacement, when additional vehicles are requested associated with additional staff positions, etc. Each instance would have to be reviewed to determine whether Modo/car sharing is appropriate to meet departmental needs.

2. Discontinue the Modo Program (Not recommended)

Under this option, the agreement with Modo would cease and the two Modo units returned. The units that were taken from the Human Resources and Customer Service and Licencing departments would be returned (units 1555 and 1296).

This option would satisfy the user department's preference for dedicated units and allocate the reserved Modo vehicle parking for City vehicles instead.

This option is not recommended as the user departments' usage is low and does not warrant allocation of dedicated units. This approach would also not serve to showcase the City as a leadership example in promoting the car sharing concept within the community as part of sustainable approaches/transportation demand side management.

3. Expand the Program to Include Additional Vehicles and Downsize the City's Fleet (Not recommended)

Under this option, the existing two Modo units would remain and the six City Hall pool vehicles could be downsized and replaced with an appropriate number of Modo units (based on usage). The downsized units would be reallocated to other departments for dedicated use (where there is need) or removed entirely from the City's fleet.

This option is not recommended as it is likely to result in resistance from staff due to the lack of convenience. In addition, many of the City Hall pool vehicles are used after hours by staff for community events or meetings. This could prove challenging with Modo units, which may not be available due to community use.

This approach is likely better pursued in a more gradual fashion (as recommended under Option 1) as staff become more exposed to the Modo car sharing program and user acceptance expands.

### **Financial Impact**

The financial benefit of car sharing are that users pay based on use only. There are no direct costs to the user for purchasing vehicles, fuel, maintenance or insurance. For the low use vehicles used in this pilot, costs for the Modo program averaged less than half that of the departmental charge assessed for dedicated City vehicles, i.e. \$2.19/km vs. \$5.82 for City vehicles. For the vehicles used by City Centre Community Centre association staff, the cost to use the Modo units averaged \$3.13/km.

The total costs paid to Modo for the pilot program are \$2,995.21 as of March 31, 2017. These costs were funded by the Fleet Operations budget as part of the pilot. Due to this initiative being a pilot, the Modo costs represented an additional expense.

The cost of the City Centre Community Centre staff use of the Modo program at that location (\$1,122.09) is funded directly from their operating budget.

Going forward, all departments that participate in the Modo Ride Share Program will be assessed their charges based on usage.

### **Conclusion**

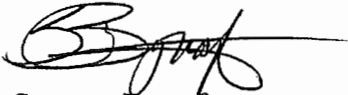
Car sharing is an important mobility strategy designed to help reduce vehicle ownership, GHG emissions, community demands for use of land (less parking), and as a complement to walking, cycling and transit. By employing car sharing as part of the City's vehicle fleet where feasible, the City is helping to lead by example as well as work toward engaging cost-effective approaches to provide vehicle resource needs to meet growing demands.

This report presents the results of a pilot program involving two car sharing units, which indicated costs of approximately half of traditional ownership models (for low usage vehicles). Car sharing is not expected to result in immediate financial benefits, but rather as a sound approach to reduce costs associated with future fleet management needs.

June 2, 2017

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It is recommended that car sharing be continued and promoted for appropriate vehicle units as a sustainable and cost effective component of the City's fleet, and as part of working toward the City's Green Fleet Action Plan targets.



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- Att. 1: Various Car Sharing Models/Programs
- 2: Modo/Car Sharing Summary Usage/Cost Information
- 3: Utilization Summary of all Modo Cars Located in Richmond



**Attachment 1**

**Various Car Sharing Models/Programs**

Car Share Provider	Pick up/Drop off Location	Weekday Charge	Evening Charge	Weekend Charge	Additional Charges	Fee Includes	User Access	Data Hosted in Canada
<b>Modo the Car Co-op</b>	Same designated spot	<ul style="list-style-type: none"> <li>\$6/hour</li> <li>Maximum charge of \$54 per 24 hours</li> <li>Daytime maximum of \$36 for non-profit organizations</li> <li>Weekdays from 6 a.m. to 6 p.m.</li> </ul>	<ul style="list-style-type: none"> <li>\$6/hour</li> <li>Maximum charge of \$54 per 24 hours</li> </ul>	<ul style="list-style-type: none"> <li>\$8/hour</li> <li>Maximum charge of \$72 per 24 hours</li> </ul>	<ul style="list-style-type: none"> <li>Each booking includes 200 km per booking</li> <li>Additional kilometres cost \$0.25 each</li> <li>Additional \$3 per day to make block bookings</li> <li>Deposit will be waived as per Modo</li> <li>One time registration fee for each driver \$20</li> </ul>	<ul style="list-style-type: none"> <li>Insurance, fuel, mileage up to 200 km per day</li> <li>Cleaning maintenance, roadside assistance, Lower Mianland toll bridges, and permit-only and resident-only parking in the City of Vancouver</li> </ul>	FOB	Yes
<b>Zipcar</b>	Same designated spot	<ul style="list-style-type: none"> <li>\$7.75/hour</li> <li>7 a.m. to 7 p.m. business day \$56</li> <li>Full day \$66</li> </ul>	<ul style="list-style-type: none"> <li>\$7/month driver fee</li> <li>\$7.75/hour</li> <li>\$73/day</li> </ul>	<ul style="list-style-type: none"> <li>\$7/month driver fee</li> <li>\$7.75/hour</li> <li>\$73/day</li> </ul>	<ul style="list-style-type: none"> <li>One time business account set up fee \$75</li> <li>Individual driver annual fee \$30</li> </ul>	<ul style="list-style-type: none"> <li>Gas, insurance and up to 200 km per day</li> </ul>	FOB	No
<b>Car2go</b>	Any site in the home area	<ul style="list-style-type: none"> <li>\$0.41/minute</li> <li>\$14.99/hour maximum</li> <li>\$84.99/day maximum</li> </ul>	<ul style="list-style-type: none"> <li>\$0.41/minute</li> <li>\$14.99/hour maximum</li> <li>\$84.99/day maximum</li> </ul>	<ul style="list-style-type: none"> <li>\$0.41/minute</li> <li>\$14.99/hour maximum</li> <li>\$84.99/day maximum</li> </ul>	<ul style="list-style-type: none"> <li>Each booking includes 200 km per booking</li> <li>Additional kilometres cost \$0.45 each</li> <li>\$35 registration fee</li> <li>\$2 annual fee</li> </ul>	<ul style="list-style-type: none"> <li>Parking, fuel, insurance, maintenance, cleaning, GPS navigation, 24/7 customer support and roadside assistance</li> </ul>	Smart Phone	No
<b>EVO (BCAA)</b>	Any site in the home area	<ul style="list-style-type: none"> <li>\$0.41/minute</li> <li>\$14.99/hour</li> <li>\$89.99/day maximum</li> </ul>	<ul style="list-style-type: none"> <li>\$0.41/minute</li> <li>\$14.99/hour</li> <li>\$89.99/day maximum</li> </ul>	<ul style="list-style-type: none"> <li>\$0.41/minute</li> <li>\$14.99/hour</li> <li>\$89.99/day maximum</li> </ul>	<ul style="list-style-type: none"> <li>Each booking includes 200 km per booking</li> <li>Additional kilometres cost \$0.45 each</li> <li>\$35 one time registration fee</li> <li>\$2 annual ICBC car share fee</li> <li>No monthly fees</li> </ul>	<ul style="list-style-type: none"> <li>Gas insurance and parking</li> </ul>	Smart Phone	Yes

**Attachment 2**

**Modo/Car Sharing Summary Usage/Cost Information**

Department	Number of Registered Users	Number of Bookings: August 2016 – March 31, 2017	Usage Cost of Modolo Pilot (August, 2016 – March 31, 2017) Including all taxes	Total Distance (km)	Total Hours	Avg. Cost/km	Average Distance/Trip (km)
<b>City Hall Annex - Two Modolo Units in Pilot Program</b> (Dedicated for City use during business day)							
Human Resources: Suspended use of unit 1555	9	89	\$2,083.53	1,347	235	\$1.55	15.13
Customer Service and Licencing: Suspended use of unit 1296	3	2	\$23.52	21	4.5	\$1.12	7
Film and Major Events	1	0	\$0.00	0	0	\$0.00	0
Engineering and Public Works – Fleet: (exclusive use charges paid by Fleet during pilot)	4	0	\$888.16	0	0	\$0.00	0
Total daily fees (\$3 x 2 units)							
<i>Total</i>	17	91	\$2,995.21	1,368	239.5	\$2.19	15.03
<b>City Centre Community Centre</b> (Two units installed by Modolo for general community use)							
City Centre Community Centre In place of additional unit request	13	44	\$1,122.09	358	106	\$3.13	8.17
<b>TOTAL: City Hall Annex and City Centre Community Centre</b>	<b>30</b>	<b>135</b>	<b>\$4,117.30</b>	<b>1,726 km</b>	<b>345</b>	<b>\$2.38</b>	<b>12.79 km</b>

**Attachment 3**

**Utilization Summary of all Modo Cars Located in Richmond**

<b>Location</b>	<b>Weekday</b>	<b>Weekend</b>	<b>Weekday Evening</b>	<b>Weekend Evening</b>	<b>Overnight (7pm-9am)</b>
Richmond City Hall <sup>1</sup> (Two units)	8%	30%	11%	17%	5%
City Centre Community Centre (Two units)	33%	31%	24%	28%	17%
Brighthouse SkyTrain station (One unit)	73%	63%	57%	61%	44%
Landsdowne SkyTrain station (One unit)	33%	41%	35%	32%	23%
Bridgeport SkyTrain station (One unit)	37%	67%	54%	53%	46%

<sup>1</sup>Weekend usage at Richmond City Hall has been comparable to the other Richmond cars, but weekday and overnight usage is far lower. The two cars averaged just 1.9 bookings per week. In an average week, each car was used for less than 5 hours and driven less than 25KM.