



Corporate Report

NO: R264

COUNCIL DATE: DECEMBER 17, 2007

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **December 12, 2007**

FROM: **General Manager, Engineering**

FILE: **5480-01**

SUBJECT: **Car-Sharing Opportunities**

RECOMMENDATION

The Engineering Department recommends that Council approve, in principle, a pilot project, as documented in this report, which would allow in multi-residential development a reduction of 3 parking spaces for each full increment of 90 dwelling units provided that for each 90 dwelling units, a car-share space and vehicle is provided.

INTENT

To receive Council approval to initiate a Transportation Demand Management (TDM) program which would encourage modal and travel behavior changes that will help to slow increasing vehicular congestion on our road network and the associated environmental impact. The first step is initiating a car-sharing pilot program, and the associated reduction in the number of required parking spaces, through current development applications in Surrey City Centre and Guildford Town Centre.

BACKGROUND

Car-sharing is a viable technique that can be employed as a part of a range of sustainable management tools to help reduce the number of automobiles on our roads and the demand for parking spaces. Since most vehicles are usually parked the majority of the time, the concept of sharing vehicles within densely populated areas has arisen. This concept is successful where alternatives such as walking, transit and cycling are viable.

Although there are earlier examples of car-sharing on a formal basis, most early programs in North America started in the mid to late nineties. During the current decade, there has been considerable growth in the size of the car-sharing population and in the number of cities with active programs. As of December 2004, there were 11,000 participants using 528 vehicles in Canada.

In the June 29 edition of the Vancouver Sun, David Suzuki, as one of his “Small Steps” environmental suggestions, described car-sharing and identified the local operators. Surrey staff have reviewed car-sharing operations and other municipalities with programs in place, such as the City of Vancouver.

DISCUSSION

Car-Sharing Operations – Additional detail provided in Appendix I

Experience has shown that for every car-share vehicle, some vehicles are removed from the road. A local example of the application of vehicle reduction is found in the City of Vancouver development conditions, which permits a parking reduction of 3 spaces for every car-share space for each 60 residential units.

The decision where to locate the vehicle, so it is accessible and secure for patrons and the vehicle, is an important consideration. Experience indicates that, in a multiple unit building setting, it is preferred to locate the space outside the secured strata area so it is accessible by the broader community and that the access be secured by a binding agreement on the title.

Operators of existing car sharing systems have a variety of economic models that vary from one to another. Some are member based and others are based on a cooperative model where members are share holders. The cooperative models are usually more expensive on entry and may require a greater commitment as entry funding is retained for up to 6 months. One significant economic factor is the sharing of liability.

Since users only require the vehicles occasionally, there must be a large enough user group to support each car-share vehicle. Dense urban development and a corresponding well developed and frequent transit system, cycle network and pedestrian environment contribute to a positive car-share environment. As Surrey continues to densify, the conditions to support car-sharing will continue to improve.

Identified Benefits

Car-sharing is beneficial to society as it reduces the number of people owning and thus driving cars. As noted previously, for every car-share vehicle some vehicles are removed from the road and the need for parking is reduced. Studies of existing operating car-share programs have reported that, from 5 to 7 vehicles are removed from the road for each shared vehicle. The availability of transportation alternatives, especially transit, can influence the attractiveness and success of car-share programs. Reduced auto use equates to reductions in energy consumption and emissions, which provides an environmental benefit. This may appeal to individual users but also benefits society at large.

Individual users benefit financially by minimizing their use of the shared-car and thus will choose alternate modes more often than car owners.

This model also provides an option for lower income individuals who may not otherwise have access to a car when needed. It can also benefit home based workers who may only

require a vehicle occasionally. Couples who consider acquiring a second vehicle may be able to eliminate the requirement by relying on car-sharing.

Recommended Pilot Project for Surrey

In developing opportunities for Surrey, it is important to consider models that have a higher probability of success. Although not mentioned in the previous sections, there are locations where car-sharing has not been successful.

Through co-operation with specific developers, staff recommend a pilot project to create car-sharing programs in some new medium to high density multi-family sites within higher density areas with good transit service. This would entail:

- For every 90 residential units, permit a reduction of 3 resident parking spaces where 1 car-share space and vehicle is provided on site (i.e., a net overall reduction of 2 parking spaces).
- The car-share program is to be established by the developer through an approved operator program with a contract guaranteeing the cars remain available at this location for a minimum of 5 years.
- The car-share vehicles may be used by residents of the development and other members of the car-share program.
- A requirement for the provision of ongoing and continuous access to a dedicated car-share space.
- The operation and maintenance charge would be recovered from user fees.
- By having the developer provide a vehicle, participants of the program from within the development could get reduce rates or waiver of deposit, depending upon the program chosen by the developer.

The ongoing availability of the car-share vehicle at this location, beyond the 5-year guaranteed period, will be based on the level of usage and success of the program as funding for future vehicles is recovered through the user fees. This approach is consistent with other jurisdictions. It is anticipated that as the City Centre and Guildford Town Centre densify and grow, and as more transit choices become available, the demand for car-sharing will increase and programs that started at the initial phase will continue into the future.

On any development applications for car-sharing, Surrey staff will assess if the specific site, on its own or in combination with other nearby long-term developments, has a sufficient market population to support car-sharing. Not all applications will necessarily be supported, as we want to ensure that the program has a high chance of success. Typically, the Zoning By-law requires one parking space per unit. Where the car-share option is proposed, the overall reduction in parking spaces would have to be dealt with in the CD Zone or through a DVP.

CONCLUSION

The initiation by the City of Transportation Demand Management (TDM) programs will help slow increasing congestion and the associated environmental impact due to automobile use. A first step would be a pilot project that would, where car-shared facilities are provided, permit a reduction of 3 resident parking spaces for each car-sharing space and car-shared vehicle is provided (for every 90 residential units).

In the future it may be possible to expand the car-sharing opportunities by dedicating on-street parking spaces for car-share use.

Paul Ham, P.Eng.
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PH/JB/DH/rdd/brb

Appendix 1 – Program Details

c.c. - General Manager, Planning & Development

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Program Details

Types of Car-Sharing Programs

Membership types

There are two types of programs operating in the Greater Vancouver Area, which have different entry conditions and business models. The calculation of the cost for a specific user is based on their travel patterns. Some programs include options such as the ability to purchase a discounted transit pass.

- Cooperative Auto Network (CAN) typical model requires an initial \$500 refundable deposit for a minimum of 6 months and usage fees based on a monthly fee and distance. This business model is a cooperative with all participant classed as members. Alternative programs with a lower initial fee have been used for large complexes.
- Zip requires an initial \$25 membership fee and usage is based on hourly or daily charges that are reduced as usage increases from a minimum of \$50 usage per month. This business model is a market place for profit firm.

An example of the cost for a trip for a 3 hours and driving 60 km would be about \$23 to \$26 plus applicable monthly fees, taxes etc.

An alternate business model has been used or considered in selected locations where by a fleet of vehicles (such as a municipal fleet) is utilized during non-peak or off-work times in car-sharing role.

Operating Conditions

- In general vehicles are obtained by a secure membership vehicle entry and operation system
- A reservation system is used to book trips
- Vehicles usually are returned to the pick up location which can be on or off street
- Rules for vehicle use pertain to fuelling and cleaning etc.

Locations with Car-Sharing

Lower Mainland

Presently there are vehicles available within the CAN system in UBC, Vancouver, Burnaby, New Westminster, and North Vancouver and Tsawwassen and there are plans to expand to West Vancouver, the District of North Vancouver and Surrey. ZIP has vehicles available in Vancouver.

Vancouver Island

There are CAN vehicles in Nanaimo and Tofino.

Canada

Vehicles are available with various companies in Edmonton, Calgary, Ottawa, Kingston, Toronto, Kitchener, Quebec City, Sherbrooke, and Montreal.