Urban Transportation Showcase Program

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# Reducing or eliminating parking in support of TDM initiatives

## Overview

Amending parking policies can be a tricky business for municipalities. At first blush, developers, residents and business owners may view the reduction or removal of parking spaces as detrimental to their business opportunities and quality of life.

However, municipalities that have implemented sound parking policies that reduce or remove parking in favour of active or sustainable transportation modes can have the exact opposite effect. In many cases, managing parking effectively can increase property values, enhance business opportunities, mitigate developer impacts, provide opportunities for active and sustainable transportation and improve traffic circulation.

To have a successful parking reduction strategy, municipalities must provide practical solutions and incentives, and implement a consultation process that respects the needs of all stakeholders.

This issue paper looks at how some municipalities have successfully reduced their parking needs to implement TDM, all while meeting local goals and benefiting business, residents and developers.

### Selected Resources

Metropolitan Transit Commission. *Developing Parking Policies to Support Smart Growth in Local Jurisdictions: Best Practices*.

Transport Canada's Urban Transportation Showcase Program. *Parking Management in Canada.*

Victoria Transport Policy Institute. *Parking Management. Strategies, Evaluation and Planning*.

Full references and resources can be found at the end of this issue paper.

## Context

Conventional parking policies that encourage ample free parking, or municipal requirements that allow minimum parking requirements can lead to a "self-perpetuating cycle in which increasingly the supply of parking leads to increased demand; plentiful parking encourages people to buy more cars and more cars leads cities to require even more parking spaces" (Shoup et al.).

Building and maintaining parking is an expensive proposition. On average, constructing and maintaining one parking space over its lifetime costs about $25,000, but costs can fluctuate depending on the jurisdiction. Municipalities that are proactive in reducing the number of parking spaces in favour of transportation demand management (TDM) measures, therefore, can reduce these costs as well as gain a number of other benefits.

For example, some communities are replacing their existing parking spaces with bicycle racks, providing greater choice for commuter and recreational cyclists and potentially reducing the number of cars on the road. Or take the case of Calgary (described in more detail later in this paper). The city's downtown plan, implemented many decades ago, favoured a transit corridor, which eliminated much of the need for parking in the downtown area.

## Benefits

There are many other benefits to reducing or eliminating parking spaces in favour of active transportation and transportation demand management.

- Municipalities can make better use of land, especially in downtown areas or town centres where space is at a premium.
- By supporting higher-density, transit-oriented developments that require fewer parking spaces, municipalities may also enjoy higher tax revenues.
- Developers benefit by freeing up would-be parking space for other building uses, and can lower their construction and maintenance costs.
- Increased pedestrian and cyclist activity can enhance economic opportunities for businesses.
- Reducing the amount of paved area can have environmental benefits, such as less stormwater runoff and reducing the urban heat island effect.
- Reducing the number of parking spaces can encourage more active transportation, such as walking and cycling. This in turn can make roads safer, reduce greenhouse gas emissions and ease traffic congestion.

### Misconception: Bad for Business

There are two common misconceptions associated with the reduction or removal of parking spaces. The first is

that there will be fewer people supporting local businesses; the second is that businesses will not support such a move to removing parking spaces.

Two recent studies suggest otherwise. The first, a survey conducted by the Clean Air Partnership of 500+ people along Bloor Street in Toronto's Annex neighbourhood, found that pedestrians and cyclists actually spend more time in the neighbourhood and spend more money than drivers.


*Bloor Street facing east at Bathurst. Photo courtesy of the Clean Air Partnership.*

In addition, when merchants along Bloor Street were asked whether they thought that their businesses would be affected if the city removed one lane of parking in favour of a bicycle lane, 75% believed that their business would either improve or stay the same.

The second study, conducted in 2006 by a U.S. consultancy firm, came to similar conclusions. In that study, 1,000+ pedestrians were surveyed about their travel, shopping and spending habits on Prince Street, a commercial street in the SoHo district of Manhattan.

A majority of those surveyed said that the area was very crowded, so expanding the amount of pedestrian space was seen as highly attractive. More than 45% of those surveyed said that they would come to the area more often if there was more pedestrian space and fewer parking spaces.

## Parking Solutions

### City of Seattle

Rather than imposing a one-size-fits-all parking standard, the City of Seattle's *Community Parking Program* (CPC) engages communities to improve on-street parking management in business districts and adjacent residential areas. Through community consultation, the CPC makes parking management improvements that balance competing parking needs and supports transit, biking, walking and other transportation alternatives.

The CPC helps communities identify specific parking issues on a neighbourhood basis. The city first prepares parking inventories and conducts on-street parking studies and, based on the input gathered from all of these sources and from meetings with community organizations and individual property owners, the city then designs parking solutions that fit with neighbourhood concerns and pinpoints areas for pedestrian, cyclist or transit improvements.


*Seattle runs "walking tours" with community residents to gather information about the parking situation in particular neighbourhoods. Photo courtesy of West Seattle Blog.*

As part of the program, Seattle installed on-street bicycle parking in three neighbourhoods in 2008. Two car parking spaces were removed and replaced with bicycle racks and surrounded by a raised curb. Each former parking space can accommodate up to eight bikes.

The city's goal is to install one to two bicycle parking areas in each of the city's neighbourhoods.

In addition, in the Fremont area, several parking initiatives, such as installing new parking pay stations and setting two-hour limits, complemented new transportation projects. Additional transit service was added between Fremont and the downtown core, new bicycle racks were installed and the city is now working to complete a bridge replacement that will enhance pedestrian and cyclist access across a canal.

The city also provides several online tools that communities can use to assess their parking conditions. Its *Parking Planning Tool*, for example, was designed to help neighbourhood planners understand their options for addressing parking problems. The document provides information on city programs and regulations and gives communities ownership over their own parking solutions. The tool is part of the city's neighbourhood planning process and community organizers that include parking as part of their neighbourhood plan ultimately make recommendations to the city.

### City of Saint John

A few years ago, parking planners in Saint John were faced with a challenge: Could the city provide enough parking to support several proposed new developments in its downtown area?

To support the city's future development plans, the consultancy team that studied the issue concluded that the city would need to build approximately 1,850 new parking stalls.

"We took that estimate and linked it to transportation demand management," recalls Ralph Bond, Senior VP with BA Group, the team that led the parking study. The team pointed out to city officials that constructing all of the necessary parking would cost $46 million. If, however, 10%-20% of car drivers could be encouraged to use more sustainable modes, the city could reduce the number of parking spaces needed to between 1,420 and 1,640, saving about $10 million in capital costs and freeing up more land for development.

"When we made the link about how important TDM was in terms of a parking strategy, the city revived an earlier project to implement a Commuter Express (ComeX) transit service," says Mr. Bond. The Comex service links residents in the outlying suburban areas of Saint John to the downtown. After just one year in service, ComeX has removed 280 vehicles from coming into, and parking in, the downtown area.

In January 2009, three new communities started using the ComeX service. These communities will cover all operational costs associated with the transit service that are not covered by fares. The city of Saint John also announced that it would extend its contract for the service to 2012.

"At the same time as ComeX was implemented, we worked with the city to increase its monthly and hourly parking rates," says Mr. Bond. "It's important to send the message to people by ensuring that monthly parking prices—especially in the most popular locations—was approaching or at the same level as a monthly bus pass."

Funds from the increased parking rates will be used to purchase a downtown property for a future development and to make parking facilities safer and more attractive.

**City of Calgary**

Calgary's parking plan was initially implemented in the 1960s when the city was devising a master plan for its downtown. This vision has allowed the city to keep control of downtown parking, while increasing its modal share for transit.

Chris Blaschuk, a parking strategist with the city, explains that, in the 1960s, the city identified two corridors that it wanted to develop for transit and pedestrian use. These corridors eventually became the city's light rail transit (LRT) corridor and the Stephen Avenue, also known as the 8th Avenue, became a pedestrian mall.

"The city knew that if they wanted to encourage transit use, they had to something about parking," says Mr. Blaschuk.

By 1972, the city had developed a bylaw requiring developers to supply up to 20% of parking on the site of new office developments. The cost of the remaining 80% of parking (costs that developers would have had to pay to construct such spaces) was put into a cash-in-lieu fund. At the time, developers offered little opposition because parking was expensive to construct, offered little in the way of revenue benefits, and freed up space within new developments for other uses.

Using the cash-in-lieu fund, Calgary then constructed parking lots in "interceptor" locations. These lots allow people driving in from the suburbs to park their cars and then take transit or walk the remaining distance into downtown; they also provide an incentive for visitors to come to downtown.

"It's easier to park and then walk or take the LRT than circle the block," says Mr. Blaschuk. The construction of the LRT in the mid-1980s further reduced the need for people to drive into the downtown core.

Since Calgary's parking policy only provides space for about half of downtown workers, most of the rest need to travel by transit. By putting such restraints on the number of parking spaces in the downtown and encouraging alternatives such as transit and walking, Calgary has been able to encourage greater transit use. Today, the city's modal split for transit into the downtown core is 46%, a percentage the city hopes to increase to 60% by 2030.

*The city's C-Train light rail system. Calgary City Hall is seen in the background. Photo courtesy of the City of Calgary.*

In March 2009, Calgary Transit began charging a $3 daily fee for parking at three of its park-and-ride lots; by the end of May, all Calgary Transit lots located at C-Train stations will charge the new parking fee. This revenue will be used to increase the current level of cleaning, maintenance and security in these lots and on the entire transit system.

In addition, the Calgary Parking Authority (CPA) contributes 30% of its net revenues to the city. Since 1985, more than $96 million has been collected and transferred

to the city's general revenues, some of which is used to fund sustainable transportation services. The CPA also provides bicycle parking areas at some parking lots and is looking to expand such facilities. Two such areas that have already been built include a locked room with a separate entrance for cyclists that are accessible by a security card.

*Business Revitalization Zones*

Calgary supports "business revitalization zones" (BRZ), transit-oriented areas where businesses work together (with the support of the city) to enhance the economic development of an area. BRZs collaborate with the city on many community issues, including parks, land use and creating more attractive pedestrian environments. Many of Calgary's BRZs allow parking only on the edges of these zones.

For example, drivers coming into the Downtown Calgary BRZ area park in designated zones outside of the BRZ, then walk or take transit to their destination. Calgary supports such efforts by offering a "free fare zone" on the downtown portion of its LRT.

**City of Vancouver**

Vancouver's *Downtown Transportation Plan* (DTP) was developed based on a study of pedestrian habits along downtown commercial streets. The DTP covers seven principal components, including a section on parking. The policies that have since evolved allow the city to minimize parking spaces and accommodate more people traveling to the downtown without increasing road capacity on existing bridges and roads.

Following extensive technical analysis and public consultation with both residential and business communities in the downtown, Vancouver city council approved the DTP in July 2002.

In April 2005, Council approved an amendment to its parking by-law to reduce parking requirements for multiple dwellings by three spaces in exchange for providing a reserved parking space for one carshare vehicle.

City parking engineer, Bob MacDonald, explains that the city's goal is to keep its parking supply where it is today in 25 years' time.

"The road capacity serving downtown is at its limit," explains Mr. MacDonald. "The roads are already stressed and we don't want to see more cars so we're putting a cap on commuter parking."

Some of the initiatives that the city has taken to deal with its parking issues include:

- Capping new commercial development to allow for one parking space for every four employees. Vancouver is considering increasing the standard to one space for every five employees.
- Establishing parking standards for multiple dwellings. From a review that included public consultation, the city allows for on-site parking for residents only.
- Reducing the maximum permissible number of parking stalls from 1.7 per unit to 0.7 in apartment buildings and condominiums.

Vancouver's multi-unit residential parking standards are among some of the most stringent in the country, as readers will see from the table below that lists the parking standards for several large Canadian cities.

| Municipality | Multi-family[1] |
|---|---|
| Edmonton | 1 to 1.75 spaces based on number of bedrooms (outside of downtown) |
| Calgary | 0.9 to 1.25 spaces based on location within the city |
| Winnipeg | 1.5 spaces (10% of that for visitor parking) |
| Toronto | 0.2 to 1.65 spaces based on number of bedrooms, location within the city and tenure. |
| Ottawa | 0 to 1 space depending on location within the city and if it is within 600 metres of a rapid transit station |
| Hamilton | 1 space, 0.3 spaces when the dwelling is less than 50m. |

*Source: City of Edmonton's Planning and Development Department.*

In a report on Vancouver's rental housing market, the city's planning commission estimates that the cost of building a single parking stall in a downtown apartment building is about $40,000. The city's move to reduce the number of parking spaces, therefore, cuts the unit cost of an apartment by about $60,000, when all costs are considered (construction, maintenance, etc.).

**"Pedestrianizing" town centres**

Many North American transportation activists envy the car-free town squares of major European cities. Some, however, weren't always the pedestrian havens they are today.

Two examples—Copenhagen, Denmark, and Ghent, Belgium—offer lessons in removing and reducing parking in favour of active and sustainable modes of transportation.

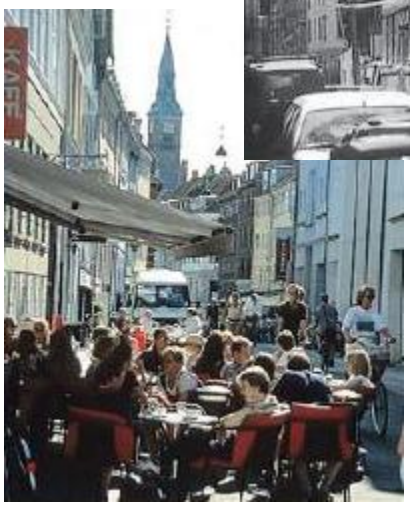
Until the early 1960s, Copenhagen's downtown streets were often clogged with cars and town squares were used as car parks. By removing parking entirely, Copenhagen has created several pedestrian-only areas. First, the city limited the number of parking spaces and restricted through traffic, and then began charging high fees for on-street parking. It also put many of the major routes into the city on "road diets" to reduce the number of car lanes in favour of bus or bicycle lanes.

[1] Includes townhouses, row houses, stacked row houses, condominiums and rental apartment buildings.

Even though pedestrian traffic levels have remained largely unchanged since the 1960s, by the late 1990s activities connected with shopping and staying in the downtown area had increased four-fold.

City planners say that the key to Copenhagen's success was the gradual way these changes were made, allowing residents and businesses time to adapt.

*Straedt, now a major pedestrian street, in the early 1960s (right) and today (below). Photo courtesy of the European Commission's Directorate-General for the Environment.*



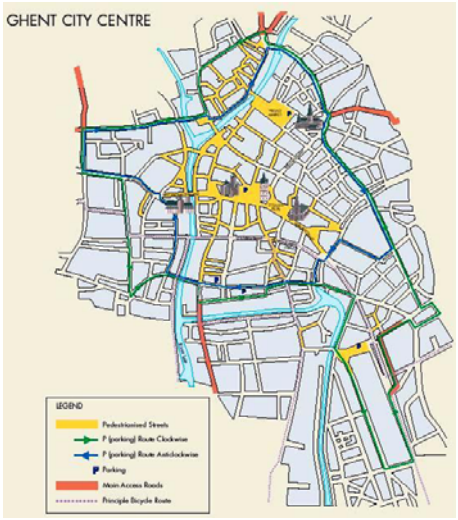
In 1997, the city of Ghent introduced a plan to address the excessive car traffic that dominated many of its town squares and streets.

In the previous year, more than 300 public hearings were held as part of an extensive consultation process with all stakeholders. Part of the plan was, like Copenhagen, to make some streets completely car-free, an idea that initially met with considerable opposition. Retailers in particular were worried that traffic chaos would ensue and their businesses would falter if cars were not allowed into the downtown areas.

A majority of city councillors, however, strongly supported the plan and the plan went forward, despite those objections. Parking-specific elements of the plan included:

- Removing all private car through-traffic and creating a 35-hectare pedestrian zone.
- Establishing a P-route (parking route) around the city centre, which provides ample underground parking garages.
- Dedicating two permanent full-time uniformed police to patrol the area on bicycles and enforce traffic regulations. Illegally parked cars are immediately towed away.

One of the more innovative systems that the city uses is its parking guidance system. Each of the 10 city-owned parking facilities has a reporting terminal that provides drivers with up-to-the-minute information on available parking spots. If a car park is full, drivers are offered an alternative route to another parking facility.




*Yellow areas show Ghent's pedestrianized streets. The green and blue lines indicate the city's parking routes, which surround the pedestrian areas. Photo courtesy of the European Commission's Directorate-General for the Environment.*

As a result of the city's mobility plan, the parking garage at the city's main administrative centre was transformed into an electronically secure bicycle parking facility with a separate entrance and changing rooms and showers. Employees can also use the administrative department's fleet of bicycles and it is estimated that about 700 city employees use the bicycles on a regular basis.

To deal with the objections by local businesses, the city requires a minimum number of parking spaces for employees in all new developments. This helps avoid the increase of parking pressure in the surrounding neighbourhood.

"The traffic congestion that was predicted did not occur," said Peter Vansevenant, the city's director of mobility services, adding that two years after the plan was put into action, transit use increased by 5% and bicycle accident levels decreased by 30%. And, despite the early criticism, Mr. Vansevenant says that the resulting atmosphere has been a hit with residents and visitors.

**Other programs**

Providing a comprehensive transportation demand management program can, in many instances, reduce or eliminate the need for parking altogether by supplying people with alternatives to driving.

Despite major building expansions and a growth in enrolment, the University of Ottawa's TDM program, for example, helped the university avoid building new parking

spaces, a cost savings of approximately $1 million. Working with its parking management and protection services offices, the university's TDM program includes discounted transit passes for employees and students, free shuttle service between campuses, preferential parking spaces for carpoolers, a carshare program and a rideshare program.

Similarly, the University of Washington discovered that the use of subsidized student and employee transit passes greatly reduced its parking requirements. Despite the addition of 8,000 more people to the campus, the university estimates that it has avoided building 3,600 new parking spaces, a savings of approximately $100 million in parking construction costs.

In Los Angeles, a parking cash out program was studied at seven different locations around the city. When the city offered employees the cash value of a parking subsidy, parking demand decreased by 30%.

## Considerations / Lessons Learned

**Have a vision**

Calgary's Chris Blaschuk says that the city "drifted off track in the 1980s" and allowed developers to supply up to 50% of parking needs on site. "It wasn't the best thing that we did," he admits. Even so, the city remains on track with its transit goals, and Mr. Blaschuk attributes that to the fact that Calgary tied its parking needs to downtown employment and stuck to its long-term vision.

**Work with developers**

Todd Littman, of the Victoria Transport Policy Institute, says that working with developers on parking solutions is one of the best ways to reduce or eliminate parking infrastructure. Using the City of Victoria, BC, as an example, Mr. Littman says that when the city eliminated minimum parking standards, many condominium developers embraced the concept of "unbundled" parking. These are spaces that are either rented or sold separately instead of including them in the cost of building space.

"You need to convince public officials that eliminating parking requirements works as long as there is good on-street enforcement," says Mr. Littman. "Then, you need to bring in developers that have experience with this and work with them to educate other developers in the community."

Mr. Littman says that unbundled parking also satisfies a significant portion of the population, particularly the elderly, young people, and the disabled. "They can save quite a bit on rent or condo fees by unbundling," he says.

**Respond to community needs**

Conducting regular studies, traffic counts and parking inventories lets municipalities determine what the parking issues are and can help pinpoint solutions. By working directly with community stakeholders, Seattle's Community Parking Program studies the parking situation and develops a plan that fits in with the character and needs of specific neighbourhoods.

**Make a strong business case**

City officials are often under pressure from several competing interests and need convincing information in order to support policies that will reduce or remove parking spaces. In Saint John, parking planners presented city council with a plan that tied future parking demand to a TDM program and showed them how it would save the city money and free up prime downtown real estate.

**Provide several options**

Mr. Littman advises that any municipality attempting to reduce or remove parking spaces, or implement a new parking program should be willing to offer stakeholders a variety of options.

"Provide a menu of strategies and tell people, for example, that in the short-term, we'll do five or six items," he says. "You can then spell out the medium- and long-term actions that will be taken, such as regular parking price hikes, introducing new transit services, etc."

Ralph Bond agrees. "The key to success is to start treating parking as a scarce resource and tighten up the supply," he says, "while encouraging shared parking between different sites and properties, charging more for parking and using a portion of those funds to support TDM projects."

**Give back**

Mr. Vansevenant says that one the keys to Ghent's success was that the city provided additional amenities to citizens. "When we removed private space for cars, we immediately gave something back in return…nicer squares and streets, better facilities for cyclists and more reliable public transport services."

## Conclusion

To paraphrase the late Douglas Adams, "It is no coincidence that in no known language of the galaxy does there exist the expression 'as beautiful as a parking lot'."

Many municipalities are discovering the truth in that quip. Parking lots and parking spaces often do little to enhance economic activity, encourage active and sustainable transportation, or provide additional tax revenues to local governments. Rather, as the Bloor and SoHo studies concluded, businesses can benefit by supporting better infrastructure for pedestrians, cyclists and transit users.

It's all in the way that the issue is framed for stakeholders. By understanding the unique parking issues in each area of a city and developing specific solutions that showcase the benefits, municipalities are more likely to find active partners who will support sustainable transportation measures.

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