

Mémoire sur le projet de la Politique de stationnement de Montréal Présenté à la Commission sur le transport et les travaux publics de la Ville de Montréal

par: Coalition Vélo de Montréal Bike Coalition (CVMBC)

date: 7 mars 2016

Introduction

The Coalition Vélo de Montréal Bike Coalition (CVMBC) is an OBNL (Organisme à But Non Lucratif) whose mission statement includes: [1]

- Promouvoir le vélo urbain.
- Représenter les citoyens et organisations intéressés et impliqués dans le domaine du vélo urbain dans la région de Montréal.

As such, after learning of the City's call for briefs on the topic of parking policy, we decided to submit this short document outlining our organization's primary concerns. They can be summarized as follows:

- (1) Stop inducing demand for parking (eliminate new build minimums, stop adding parking capacity).**
- (2) Price parking correctly (as a function of supply/demand).**
- (3) Reallocate public space away from cars (gradually reduce parking supply, convert to other uses ex: bicycle infrastructure).**

Each point is elaborated below.

(1) Stop inducing demand for parking (eliminate new build minimums, stop adding parking capacity).

The preliminary policy document ("Politique de stationnement, version préliminaire pour consultation, Décembre 2015") [2] acknowledges some current realities:

- Cars per household has been growing for decades, slope is *not* decreasing. (pg 13)
- Cars spend 90% of their time parked; parking is vital to car use. (pg 10)
- Parking demand is higher than supply in many places. (pg 55)
- Free (price) spaces are highly occupied. (pg 25)
- Some commercial arteries have too-high occupancy rates (> 85%), despite being priced. (pg 32)
- High occupancy rates lead to cruising.
- Private sector prices are often higher than public prices. (pg 27)

Others realities not discussed/acknowledged:

- many residential streets simultaneously have high occupancy rates of free (price) places and low occupancy of vignette places
- many commercial streets simultaneously have low occupancy rates of paid places and yet high occupancy of free (price) places on adjacent streets
- vignettes can only be purchased by car *owners*, not by *residents* (thus penalizing residents who

car-share or rent)

Putting this together, the central truth that the preliminary document misses or ignores is: People love automobiles! and given the chance will use them with abandon! *Demand for cars, and thus parking, is insatiable.*

If the City is serious about its vision of:

“Assurer une offre équilibrée en stationnement afin d’améliorer la qualité de vie des citoyens et d’assurer la vitalité économique, tout en réduisant la dépendance à l’automobile et son impact sur l’environnement” (pg 7)

then the only conclusion is that the continued growth of car ownership/use must be stopped and reversed. If not, the number of cars will continue to increase, and there is no space left to build new roads, and only vertical space left to add new parking. Such an increase will add to congestion and slow or prevent shoppers from reaching stores. It will exacerbate environmental problems like pollution, greenhouse gas emissions, traffic collisions, etc.

For decades, this growth in car use has been largely due to a phenomenon called “induced demand”. Wikipedia defines induced demand as “the phenomenon that, after supply increases, more of a good is consumed.” [3]

Although the document doesn’t refer to it by name, it appears the authors are at least implicitly aware of it:

“...les décisions en matière de stationnement ont souvent favorisé une augmentation de l’offre afin de répondre à une demande en croissance. Cela a eu comme répercussion de faciliter l’utilisation de la voiture...” (pg 18)

The City must use induced demand to encourage what is desirable, and avoid it for what is not. Two examples of each are:

Negative examples:

- a- addition of car parking capacity → induces use of cars
- b- minimum parking requirements of new builds → induces use of cars

Positive examples:

- c- addition of free bicycle parking → induces use of bicycles
- d- reserved parking for car sharing → induces use of car sharing

Each example deserves some elaboration:

Example (a) Adding parking capacity is the most obvious form of induced demand. Since cars spend about 95% of their time parked [4] [5], the availability of parking is crucial to the usefulness of a car. If there were zero parking spaces, no one would own a car. When parking is plentiful, such as in Houston Texas where 25% of land area is dedicated to parking [6], then of course car ownership/use is very high (only 14% of people get to work without using a car [7]). In Montreal, 10% of land area is already used for parking (pg 47).

The preliminary policy claims to want to:

“réduisant la dépendance à l’automobile et son impact sur l’environnement” (pg 7)

but paradoxically also talks about increasing the parking supply:

“Les technologies innovantes seront mises à profit, ce qui semble plus judicieux qu’une simple augmentation de l’offre en stationnement, bien que dans certains cas, notamment au centre-ville, la saturation observée à certaines périodes de la journée milite en faveur de nouvelles installations. Le cas échéant, ces nouvelles installations auront une signature architecturale soignée.” (pg 40)

“L’acquisition ou la construction de stationnements hors rue (étagés ou souterrains).” (pg 58)

“La signature d’ententes de partenariat avec les gestionnaires privés sera une priorité. De telles ententes permettront d’accroître légèrement l’offre dans certains secteurs névralgiques, sans pour autant augmenter l’occupation de l’espace public à des fins de stationnement.” (pg 59)

Indeed, some central areas, at some times, are saturated. However, concluding that this requires new parking supply is incorrect. We have been adding new parking supply for decades, and it’s never enough because it just induces more people to use cars. *Demand is insatiable*. Adding more supply is a short term action that will only work for a short while, but has many negative consequences. To park in any new parking places, the cars have to get there, meaning more traffic on the streets, more pollution, more crashes, more noise, etc.

Note that it doesn’t matter if additional supply is indoors or outdoors, public or private, on-street or off-street: demand is induced in all cases.

Instead, we should be doing the exact opposite: we must gradually *reduce* the parking supply, not increase it! This is an uncomfortable truth that many find difficult to accept.

Example (b) Currently, most boroughs in Montreal require a minimum number (indoors or outdoors) of parking spaces in new constructions. This is discussed only briefly in section 2.4 on page 34. We believe this issue is extremely important and deserves further attention and analysis.

We argue that minimums should be *completely abolished* and instead that maximums should be instituted.

Forcing new constructions to include car parking:

- Is a form of induced demand.
- Reduces the market price of parking spaces [8] and so is a hidden subsidy to car owners.
- Increases the construction cost, and thus housing prices. [9]
- Disadvantages the poor (as build cost made higher than without parking). [10]
- Results in more land used for cars. [8]
- Decreases density, thus contributes to sprawl. [11]
- Takes space away for other potential uses (more homes, terrasses, ground-level storefronts).

Existing minimums are often much higher than reasonable. They are generally chosen to meet *peak* demand or simply copied from other cities’ bylaws without much data to justify the requirements [12]. The preliminary policy document seems to acknowledge this:

“...les références américaines en matière d’exigences (nombre de places de stationnement requis) lors de nouvelles constructions ou de transformations ne sont pas adaptées à la réalité montréalaise.” (pg 61)

Off-street (private) parking minimum requirements *seem* useful to:

- Compensate for on-street parking not satisfying demand.
- Shift the responsibility to provide parking from the public sector to the private sector.
- Allow for other uses of public space (bicycle lanes, terrasses, etc.).

But these upsides are outweighed by the downsides. Minimums are disastrous in the long-term by invoking induced demand.

Currently in Montreal, only the Plateau Mont-Royal does not have minimum parking requirements (a

policy introduced by former borough mayor Helen Fotopulos, not Projet Montréal). This successfully policy should be copied by other jurisdictions.

It is important to emphasize that eliminating minimums *requirements* of course does not mean that builders can never *choose* to include parking in their projects. There is obviously market demand and some builders will choose to satisfy it. But *forcing* it is a distortion of the free market in favour of car ownership/use. Off-street parking can be *permitted*, but should not be *required*.

Examples (c) (d) Instead of provoking induced demand for undesirables, the city should make use of this well-studied phenomenon to provoke desired outcomes.

By providing bicycle lanes, bicycle parking, reserved bus lanes, reserved parking for car-sharing, etc. demand will be induced and some people will switch to those modes of transportation.

In conclusion, induced demand is real, widely accepted, and widely studied. We must use it to our advantage where we can and likewise avoid it where we should.

(2) price parking correctly (function of supply/demand)

Parking is a *scarce resource* where *demand is insatiable* and increasing supply is problematic for reasons already discussed.

As per basic economics, scarce resources should be priced based on the supply/demand curve. The central idea is that parking should be priced “correctly”: in low demand areas, parking can be free; in high demand areas, parking must be paid for.

Of course, the city already does this to some extent in some places sometimes [13], ex: parking is metered in central areas where demand is highest. But it is not done in an optimal way.

We believe, in line with eminent parking expert Professor Donald Shoup [14], that the “correct” price is that one that results in (at most) about 85% occupancy or about 1 or 2 free spaces per block. [15] For this to hold at all times, prices need to adjust dynamically.

We believe this can be achieved through use of modern technology, such as car-detecting sensors, networked parking meters, license plate scanners, and smartphones. We are happy to see this general idea entertained in the preliminary policy document.

In areas of high demand, yes, prices will need to increase, and this will be disliked by those that will need to pay more. Nevertheless, we believe it to be the most just system because:

- It conforms to the user pays principle.
- Saturated parking causes other motorists to circle around looking for a free place (“cruising”).
- Cruising adds to congestion, wastes fuel, pollutes air, causes accidents.
- Studies show about 30% of traffic is cars that are cruising. [16]
- Leads to frustration when a place can’t be found.
- Saturated parking is bad for businesses.
- Gives visitors/shoppers the confidence that they will have a place to park when they arrive (but they must pay fair price).
- Uncertainty of finding a spot makes travel times unpredictable.

Basically, it is *more fair* to require the few that wish to park in busy areas at busy times to pay more, than it is to make everyone else suffer from cruising, congestion, pollution, accidents, road rage, etc.

(Note that these arguments apply even if the parking supply is increased, which as discussed previously is inadvisable for many reasons.)

The City's occupancy statistics in Tables 2 to 6 (pg 22-32) are noteworthy. In many cases, occupancy on metered commercial streets is below 85% suggesting that the current price is too high. This may be deceiving however. Consider St. Denis, with occupancy of about 50% between 09:00 and 21:00. For one, the 12 hour range is very long, and much higher occupancy at certain times may be hidden by averaging over 12 hours. For another, the table does not mention the occupancy rate nor price of parking on the adjacent Rivard and Drolet streets. With the exception of resident-only spaces, parking on those adjacent streets is free, so of course shoppers will prefer to park there. We suspect occupancy rates on those streets are above 85% (why pay on St Denis when Drolet is free and a short walk). In this scenario, the solution is to increase the price on Rivard and Drolet and decrease the price on St Denis.

Also noteworthy is the fact that private parking is often more expensive than public parking:

“Les écarts entre les tarifs proposés hors rue par le secteur privé sont très importants au centre-ville, quelle que soit la base de tarification (horaire, quotidien, mensuel).” (pg 27)

This too suggests that the price of public parking is too low in these central areas. Also, it shows that (at least some) motorists are willing and able to pay fair market price for parking.

It is important to note that this system is *not* meant as a new revenue source. Parking revenue will decrease in some areas and increase in others.

Some “smart parking” schemes may have the side effect of increasing parking supply. For example, the City of Westmount is planning to use license plate scanners and thus no longer needs to delineate exact parking spaces with paint. They expect this to result in a 15% increase in parking supply [17]. As discussed in the previous and next sections, we must decrease, not increase, the amount of parking supply, thus any such expected increase in supply should be compensated for.

San Francisco has done much of all this already, and it has been largely successful: [18]

- As of 2015, all 29000 parking meters are now “smart meters” capable of demand-based price changes throughout the day.
- Parking availability improved without increasing double parking, congestion, or parking citations.
- Cruising for a spot was cut by 30%.
- Meter-related parking tickets cut by 23%.
- Double parking dropped 22%.
- Average on-street meter rates dropped by 4%.

The technology exists to implement this dynamic pricing scheme. The difficulty implementing it is political, not technological. Many will be strongly opposed, at least at first [19]. This was the case in San Francisco where a dynamic pricing system started in 2011. [18]

We believe businesses will ultimately be favourable because:

- Shoppers will always be able to find a spot (at fair market price), making trip planning easier.
- Businesses like customer turnover (remember, parking meters were invented for downtown businesses). [20] [21]
- Surveys show shoppers dislike crowded parking and arbitrary limits on parking duration [22].

Right pricing solves this.

- Shoppers often prefer convenient parking more than free parking. [22]

Convincing residents is more difficult. Many currently enjoy, and feel entitled to, free parking or nearly-free parking (vignette at 140 \$/year, or 1.6 ¢/hr). In many dense central areas, where parking occupancy is very high, this plan means adding metered parking and ending free parking (at least during busy hours). This will not be politically popular, at least at first [19]. In lower-density outlying areas, the status

quo of free on-street parking could continue.

Professor Donald Shoup argues the key to political acceptance is for neighbourhood parking revenue to be spent in that *same neighbourhood* instead of going into a general fund [15]. The parking revenue could for example be used on: street furniture, trees/flowers, beautification, sidewalk repairs, etc.

In the event of overall parking revenue increasing (not a foregone conclusion), the change could also be made revenue-neutral, where any increase in parking revenue could be offset by a decrease in property tax rates. (Analogous to proposals for carbon taxes offset by a decrease in income taxes.)

The preliminary policy document's overall vision is declared at the beginning of the document to be:

“Assurer une offre équilibrée en stationnement afin d'améliorer la qualité de vie des citoyens et d'assurer la vitalité économique, tout en réduisant la dépendance à l'automobile et son impact sur l'environnement.” (pg 7)

Dynamic pricing is a simple solution using the power of the free-market. It is more equitable than the status quo. It helps businesses by assuring that shoppers will have a space to park upon arrival (at a fair market price). It eliminates subsidies and market distortions of the current system and makes the cost higher in some instances, thus inciting some to not travel by car and use more environmentally friendly alternatives instead. It fits the vision statement perfectly.

(3) reallocate public space away from cars (gradually reduce parking supply, convert to other uses ex: bicycle infrastructure).

As discussed previously, parking capacity should not be increased, neither on-street nor off-street, because it will induce demand and exacerbate all the known problems of our ever-increasing dependence on the automobile.

Instead, *parking supply should be decreased*. When doing so, an historic opportunity is presented to *reallocate* this public space towards more beneficial uses. The preliminary policy document enumerates some possibilities:

“L'intégration des modes de transport alternatifs à l'automobile suppose la remise en question de la place réservée au stationnement sur le domaine public. L'espace consacré au stationnement sera réévalué afin de prioriser des modes de transport plus durables, notamment le transport en commun, mais aussi les nouvelles façons d'utiliser la voiture (autopartage et véhicule en libre-service) ainsi que le vélo et la marche.” (pg 46)

We are strongly in favour of this kind of reallocation.

There are countless possibilities, for example:

- Replace illegal car parking at intersections with bicycle and/or Bixi parking.
- Replace all parking on one side of a residential or commercial street with a bicycle or bus lane.
- Replace some fraction of car parking places on residential streets with bicycle parking. The space used by one parked car can accommodate about 10 bicycles.
- Replace some car parking on commercial streets with terrasses.
- Remove a lane of car parking to widen sidewalks and narrow traffic lane widths.

Notice that all of these examples simultaneously make travel by car less convenient and deliberately invoke the “induced demand” phenomenon to encourage other forms of transportation. A ‘carrot and stick’ approach.

These kinds of conversions are often derided at first, but then sought after. For example, in Portland Oregon USA, conversion of car parking space to bicycle parking was initially fought against by merchants, but now there is a waiting list for bicycle parking conversions! [23]

Conclusion

Public space is very limited. Moving buildings is impossibly costly, and we therefore have a fixed distance between them that must be apportioned for pedestrians, bicyclists, motorists, public transport, and indeed everyone. For decades this space has been nearly monopolized by parked cars or cars in motion. The current allocation of space heavily favours cars and as a consequence they are heavily used.

The resulting public health and environmental problems are well-studied, well-understood, and acknowledged by the City’s preliminary policy document.

To reverse this, as the City claims to want to do, we must reduce the allocation of public space that is currently reserved for cars and reallocate the space to various other uses more beneficial to society, such as bicycle infrastructure, public transit, green space, etc. Parking policy is a vitally important tool in this regard, but is often neglected, overlooked, or misused. In recent decades, it has been used as a tool to encourage and subsidize car use. Parking capacity has been ceaselessly increased, not only because of natural market demands, but also because of ill-advised minimum requirements, which must be abolished. The demand for automobiles is insatiable; trying to provide “sufficient” supply is folly and has yet to be achieved after nearly a century of trying. Instead, supply should be reduced while simultaneously reallocating the recovered space to facilitate alternate forms of transportation by putting the ‘induced demand’ phenomenon to work, instead of using it against ourselves. Obviously, automobile transportation can, should, and will still exist, and the most efficient and equitable way to manage the remaining parking supply is to price parking correctly, namely by dynamically adjusting the price of parking according to supply and demand.

Footnotes

[1] <http://cvmbc.org/la-coalition/mandat/>

[2] http://ville.montreal.qc.ca/pls/portal/docs/PAGE/COMMISSIONS_PERM_V2_FR/MEDIA/DOCUMENTS/DOCCONSULT_POLITIQUE_2015-12.PDF

[3] https://en.wikipedia.org/wiki/Induced_demand

[4] <http://www.reinventingparking.org/2013/02/cars-are-parked-95-of-time-lets-check.html>

[5] The High Cost of Free Parking, Donald Shoup, page 624.

[6] Bikeonomics: How Bicycling Can Save The Economy, Elly Blue, page 89.

[7] http://downtownhouston.org/site_media/uploads/attachments/2014-04-08/2013_Commute_Survey_Report.pdf (page 41)

[8] http://www.nytimes.com/2010/08/15/business/economy/15view.html?src=busln&_r=1

[9] The High Cost of Free Parking, Donald Shoup, page 141.

[10] The High Cost of Free Parking, Donald Shoup, page 165.

[11] The High Cost of Free Parking, Donald Shoup, page 129.

[12] The High Cost of Free Parking, Donald Shoup, page 593.

[13] <http://statdemtl.qc.ca/parking/maps-and-rates/?lang=en>

[14] https://en.wikipedia.org/wiki/Donald_Shoup#Parking

[15] The High Cost of Free Parking, Donald Shoup, page 398.

[16] The High Cost of Free Parking, Donald Shoup, page 290.

- [17] <http://montrealgazette.com/news/local-news/city-of-westmount-ditches-parking-meters>
- [18] <http://sf.streetsblog.org/2015/04/17/all-meters-now-sfpark-ready-more-demand-based-parking-pricing-to-come/>
- [19] The High Cost of Free Parking, Donald Shoup, page 391.
- [20] <http://www.history.com/this-day-in-history/worlds-first-parking-meter-installed>
- [21] The High Cost of Free Parking, Donald Shoup, page 380.
- [22] The High Cost of Free Parking, Donald Shoup, page 399.
- [23] Bikeonomics: How Bicycling Can Save The Economy, Elly Blue, page 89.