

Follow-up of the Mount Royal pilot project

Withdrawal of private vehicles transiting along the Camillien-Houde / Remembrance corridor

Presented by

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November 8th, 2018

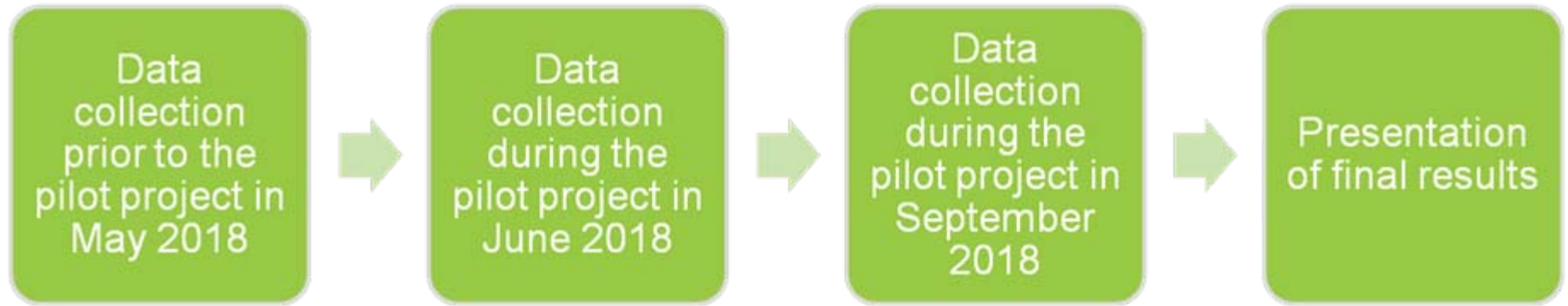


Presentation outline

- 1) Follow-up plan
- 2) Traffic counts and private vehicles transiting on Mount Royal
- 3) Alternative routes
- 4) Public transportation
- 5) Parking
- 6) Speed
- 7) Field observations



Follow-up plan



Objectives of the follow-up plan

- ✓ Document the benefits and the impact of removing transiting vehicles from the mountain;
- ✓ Improve the pilot project during its implementation;
- ✓ Highlight lessons for a possible permanent project;
- ✓ Analyse the impact on the visitor experience of the Mount Royal Park and cemeteries.



WEEKDAY: 24h vehicular counts on the CHR corridor

(car, bus and trucks)

Reduction of at least 75% of the global volume cars on Mount Royal
(-7 500 to 9 500 vehicles/day)

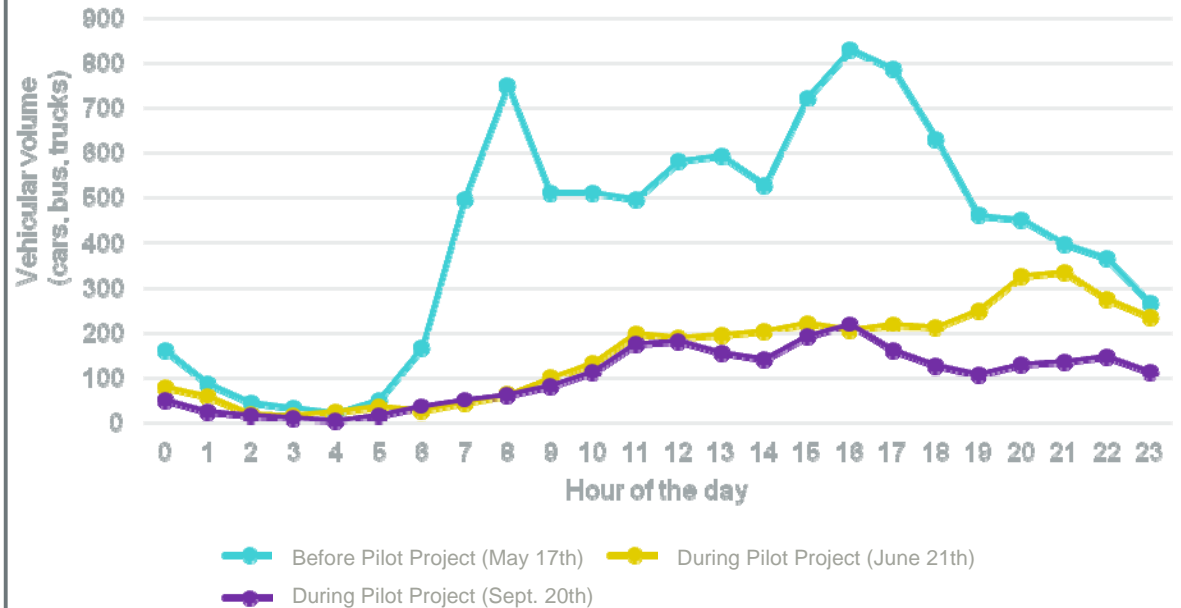


WEEKDAY: Hourly volumes on the CHR corridor (car, bus and trucks)

Elimination of
traffic peaks

Almost total
elimination of
transiting
vehicles

Weekday vehicular volume on Voie Camillien-Houde
at the Camillien-Houde lookout (total of both directions)

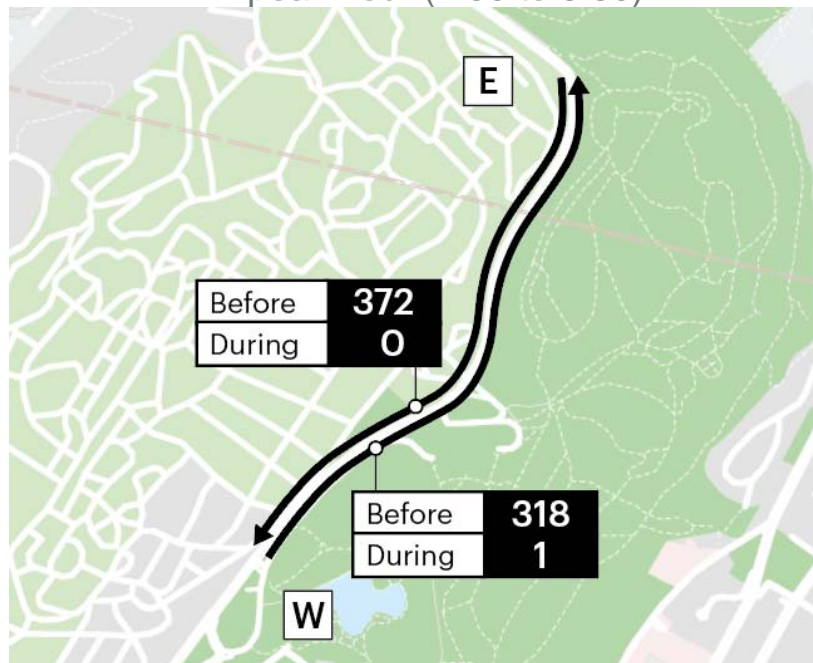


WEEKDAY: Private vehicle transit

(November 2017 versus September 2018)

The pilot project eliminated 99% of transiting vehicle trips through Mount Royal

AM peak hour (7:30 to 8:30)



PM peak hour (4:30 to 5:30)



WEEKEND: 24 hour vehicular counts on the CHR corridor

(car, bus and trucks)

Reduction of at least 25% of the global volume cars on Mount Royal
(- 2 000 to 6 400 vehicles/day)



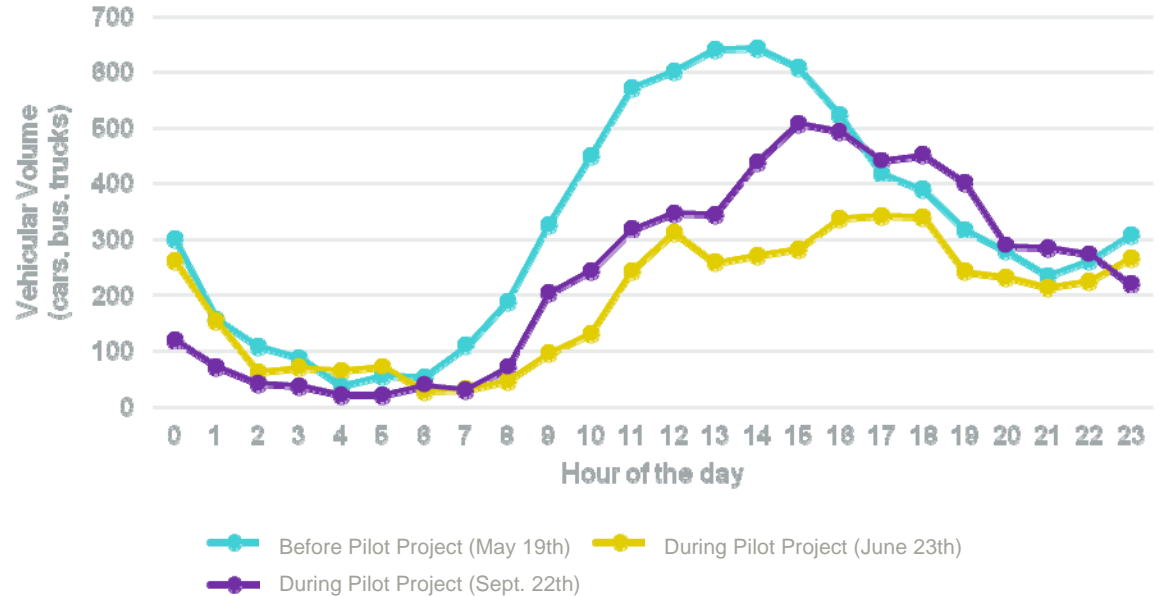
WEEKEND: Hourly volumes on the CHR corridor (car, bus and trucks)

Reduction of the traffic peak

Reduction of the global volume

Similar evening and night volumes

Weekend vehicular volume on Voie Camillien-Houde at the Camillien-Houde lookout (total of both directions)

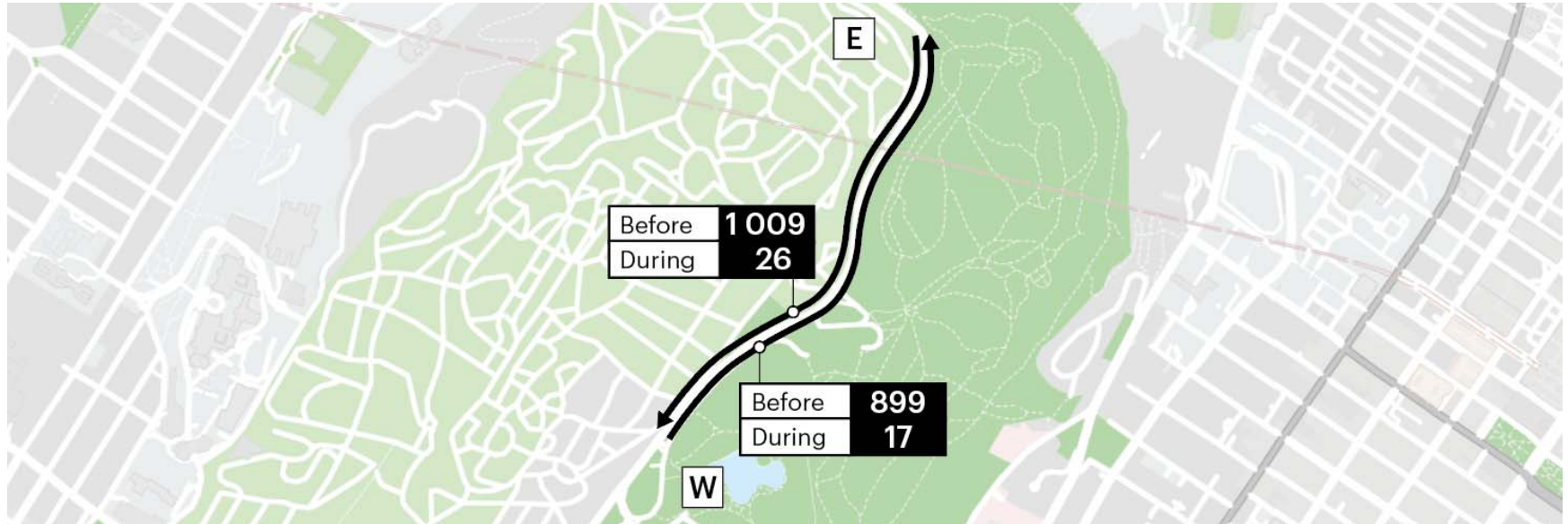


WEEKEND: Private vehicle transit

(May 2018 versus August 2018)

The pilot project eliminated 98%
of transiting vehicle trips through Mount Royal

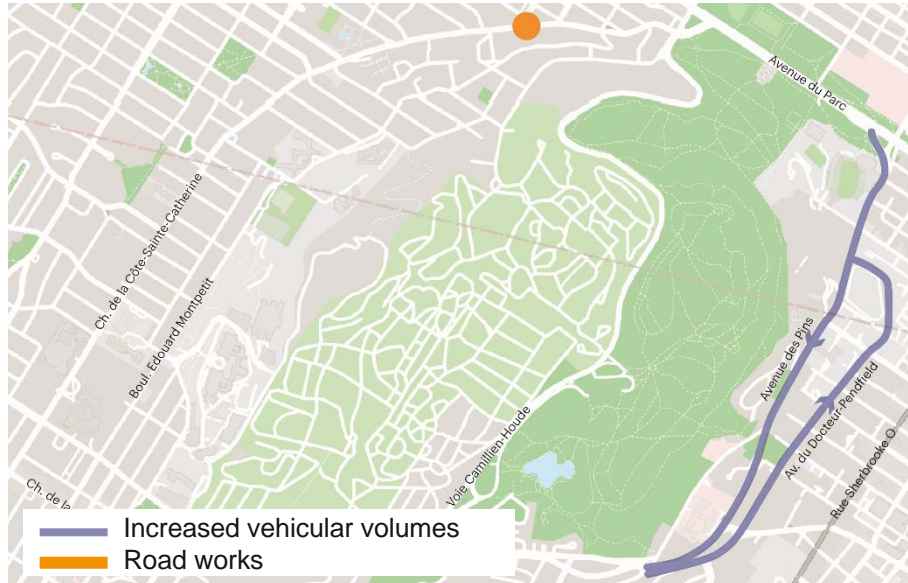
Data collection period: 9 AM to 4 PM



Alternative routes: Vehicular volumes during the week

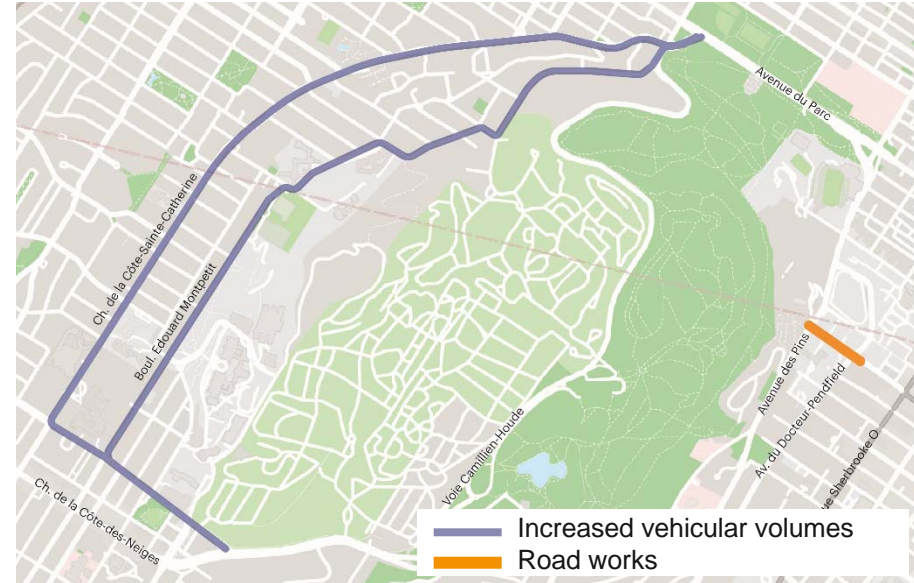
In June 2018, the main alternative chosen by drivers is to the south

Traffic Flow of May 2018 vs June 2018



In September 2018, the main alternative chosen by drivers is to the north (mainly due to construction on Peel Street and the completion of works on Côte-Sainte-Catherine / Laurier)

Traffic Flow of May 2018 vs September 2018



Alternative routes: Road network capacity

V/C Ratio

V/C : Represents the reserve capacity at an intersection controlled by traffic signals

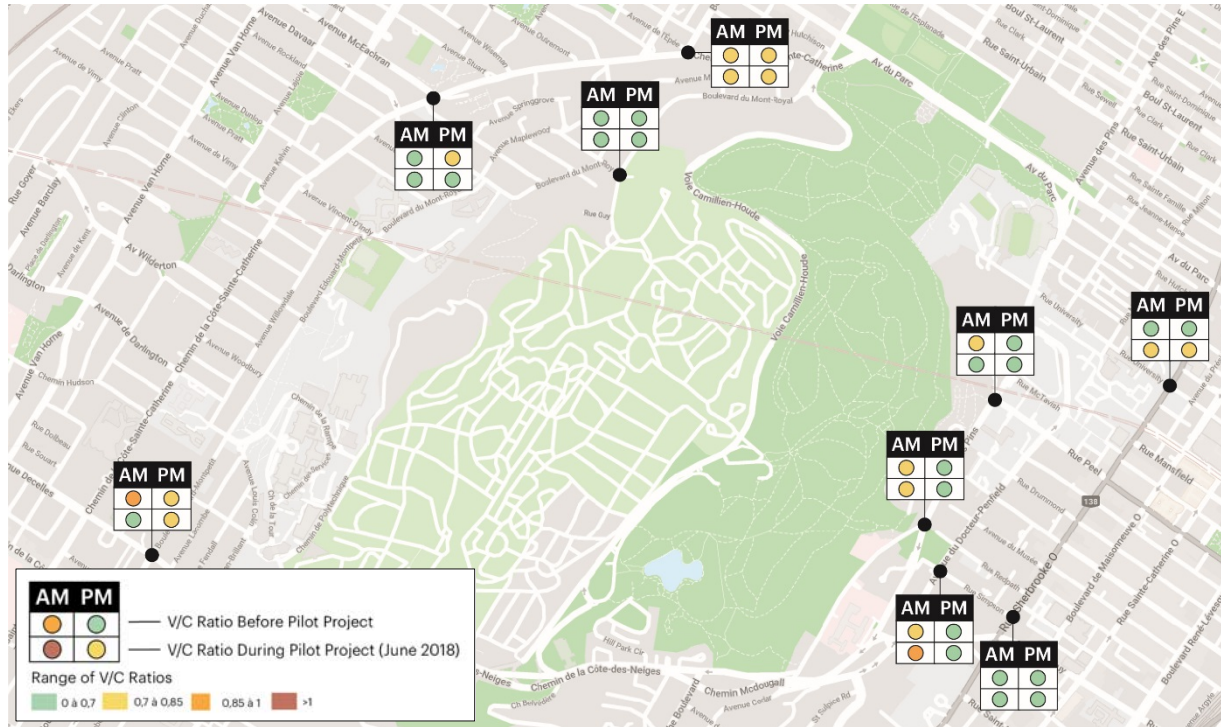
V/C < 1 : Reserve capacity available at the intersection

V/C > 1 : Supersaturation condition (congestion) leading to delays (queues) for vehicles

Sector limits

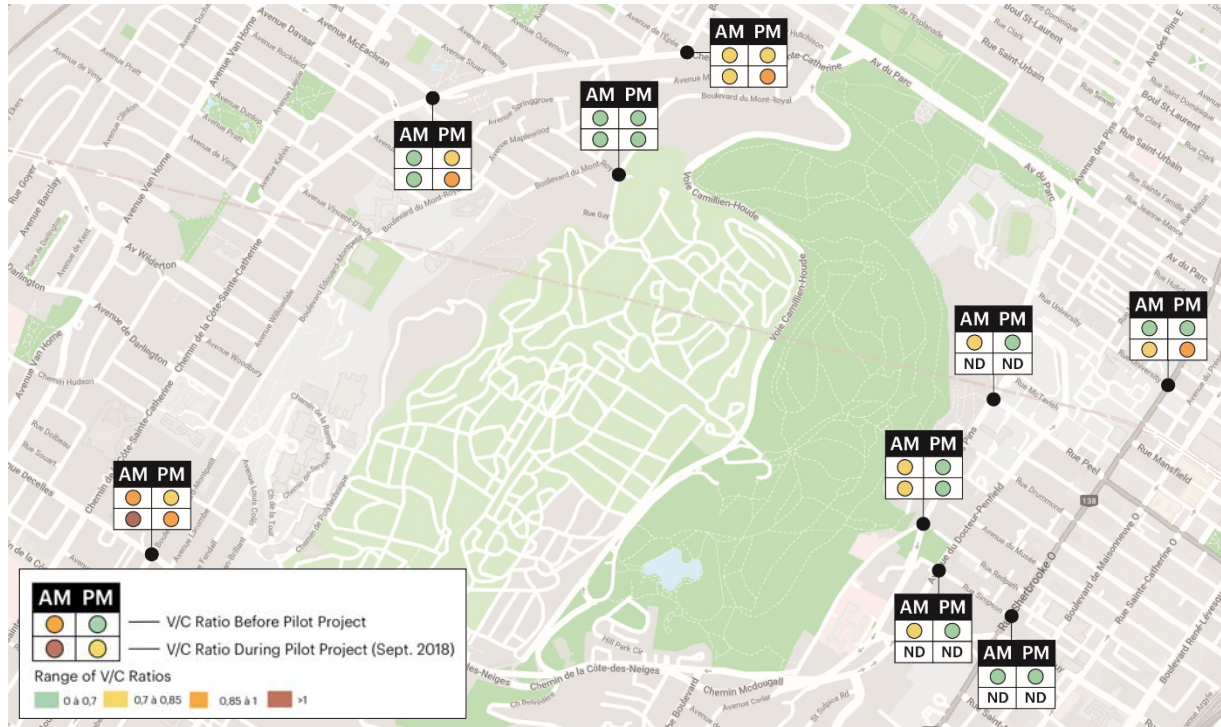
The analysis is limited to the alternative routes running East-West between Parc Avenue and Côte-des-Neiges Road

Alternative routes: V/C Ratio (Before Versus June 2018)



For a majority of the intersections where vehicular counts were conducted, the capacity was not exceeded

Alternative routes: V/C Ratio (Before Versus September 2018)



For a majority of the intersections where vehicular counts were conducted, the capacity was not exceeded



Overall improvement of public transportation service

- Improved punctuality, especially during the weekend
- Reduction in abnormally long trips the weekend
- Increased travel time of about 1 minute (due to reduced travel speeds, new bus stops, new stop signs and increased seasonal ridership)

Pilot project impact on the two cemeteries

**Reduced accessibility to the two cemeteries
(Mount-Royal and Notre-Dame-des-Neiges)**

Reduction of transiting vehicles in the Mount-Royal cemetery

Parking

Reduction in the number of overall transactions in the 4 parking lots compared to 2017

This only indicates a reduction in the number of visitors by car

Hypotheses explaining this variation:

- 2017 was the 375th anniversary of Montreal
- Weather conditions
- Improved public transportation
- Negative perception of the pilot project



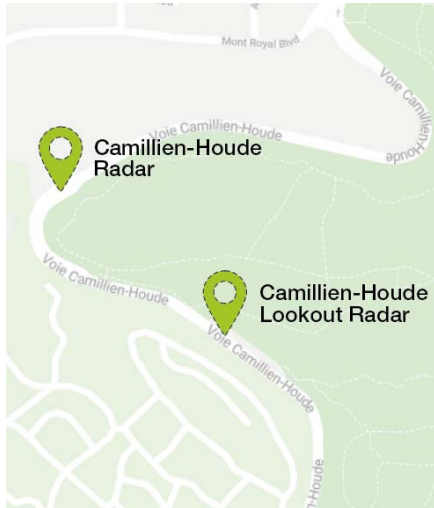
| Period | Differential in registered transactions |
|--|---|
| June 2017 (before) versus June 2018 (during) | + 1% |
| July 2017 (before) versus July 2018 (during) | - 11% |
| August 2017 (before) versus August 2018 (during) | - 5% |
| September 2017 (before) versus September 2018 (during) | - 19% |

Speed

Reduction of average speeds in front of the Camillien-Houde lookout

Going downhill, cyclists travel at a higher 85th percentile speed than the vehicles

85th percentile speeds of cars and buses do not suggest a problem as they are below the accepted limit of 50 kph (posted speed + 10 kph)



| Data | July 19 2018 from 17 h to 19 h at the Camillien-Houde lookout radar (downhill) | | | August 31 2018 from 8 h to 11 h at the Camillien-Houde radar (downhill) | | |
|-----------------------------|--|-----|------|---|-----|------|
| | Car | Bus | Bike | Car | Bus | Bike |
| 85th percentile speed (kph) | 48 | 46 | 56 | 44 | 37 | 52 |

Note: the 85th percentile speed represents the speed at which or below which 85% of drivers will travel.

Field observations - Belvédère Soleil



In its current configuration, the creation of the “Belvédère Soleil” lookout along the voie CH revealed problems with its accessibility. Dangerous and/or illegal behaviors were observed in its vicinity.

Examples

- Vehicles parked along the shoulder of the roadway
- U-turns
- Public transportation and cyclist conflicts



Field observations - Cohabitation / Safety

As expected, the pilot project did not allow for all of the cohabitation problems between vehicles, cyclists and pedestrians to be resolved. Conflicts between the different users and dangerous behaviours by both drivers and cyclists were observed.

Examples

- Pedestrian corridor not respected
- Numerous pedestrians between the two lookouts despite no formal sidewalk. A field observation counted 277 pedestrians on September 1st 2018 between 6AM and midnight
- Vehicles use the opposing lane to bypass buses
- Some drivers access the Camillien-Houde lookout from the exit



Field observations - Signage

Although the proper signage is in place, the large volume of signs causes drivers to hesitate at the approach to the limited access section

This demonstrates the limitations and the inconveniences of prohibiting transiting vehicles only with signs



Summary and Conclusion

Presented by City of Montréal