

PLANNING MEMO

JEAN-TALON & WILDERTON INTERSECTION REDESIGN



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Executive Summary

The intersection of Rue Jean-Talon and Avenue Wilderton presents significant safety challenges for pedestrians and cyclists. Sweeping corner radii encourage high-speed turning, signal timing is inadequate for safe crossings, and cyclists are forced to choose between legality and safety. These conditions create frequent conflicts and unsafe crossing environments. The intersection can be improved while maintaining most existing vehicle throughput through targeted interventions, including pedestrian and bicycle signals, reduced corner radii, pedestrian refuge islands, and a strategic cycle connection linking to the REM and surrounding network. These interventions will reduce conflicts, improve accessibility, and support safe multimodal access to the REM.

Context

The Montréal region has recently invested \$9 billion in the Réseau express métropolitain (REM). Maximizing the benefits of this investment requires ensuring safe, accessible connections to surrounding communities. The Canora REM station is located just west of the intersection of Rue Jean-Talon and Avenue Wilderton. This area sits at the interface of a residential neighbourhood and a rail corridor with adjacent light industrial uses. While Jean-Talon is a key arterial route connecting Mount Royal, Park Extension, and Outremont, it also serves as a critical pedestrian crossing point for local residents accessing the station.

However, the intersection is characterized by high vehicle volumes, limited pedestrian infrastructure, and complex movement patterns. These conditions create safety risks for vulnerable users and may discourage access to the REM. Located at a critical junction (Figure 1) between residential neighbourhoods and the REM, the intersection requires targeted interventions to address pressing safety concerns.



Figure 1. Satellite view of intersection and surrounding area

Key Issue

Pedestrian movement to/from the Canora REM station is concentrated across a high-speed arterial intersection designed for vehicle throughput, creating systematic conflict between turning vehicles and vulnerable users.

Conflict Points

1. **Conflicts between turning vehicles and pedestrians:** The size of the intersection encourages drivers to make fast, wide-sweeping turns that place undue stress on pedestrians looking to cross the street. Drivers frequently pressure pedestrians to cross more quickly and near-misses are common.
2. **Inadequate crosswalk infrastructure and signal timing:** The intersection does not provide dedicated pedestrian crossing indications, forcing pedestrians to rely on vehicle traffic signals to decide when to cross. The 20 second crossing window is not sufficiently long enough for limited mobility users to comfortably cross the 20 meter crossing.
3. **Inadequate cycling infrastructure:** The current layout requires cyclists to choose between illegally cycling on the sidewalk and entering high-speed mixed traffic.

Qualitative Site Observations

- Multiple close calls with cars speeding through the intersection late
- Bicycles forced to use the sidewalk
- Pedestrians forced to run through the intersection
- Driver confusion over turn lane rules
- 20s crossing time inadequate for slow walkers
- Turning cars cut across the mid-point of the crosswalk, rushing pedestrians
- Green light turns to advance green without warning for pedestrians crossing
- ~10 near accidents

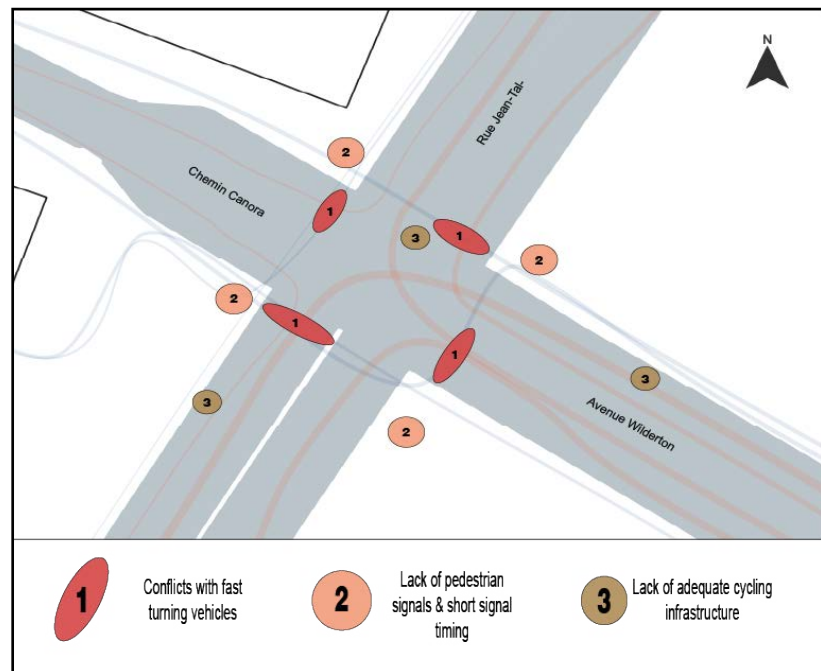


Figure 2. Diagram of conflict points within the intersection

Observed Movement Counts

Wilderton

Cars: 800/hr Trucks: 80/hr
Bikes: 20/hr Pedestrians: 240/hr

Jean-Talon

Cars: 1,560/hr Trucks: 140/hr
Bikes: 80/hr Pedestrians: 220/hr

Methods

Analysis is based on site visits, field observations, and mapping of pedestrian and vehicle desire lines. Conflict points were identified through visual assessment of movement patterns and intersection geometry. Vehicle counts were collected over three signal cycles per direction and provide an indicative but not representative snapshot of movement patterns.

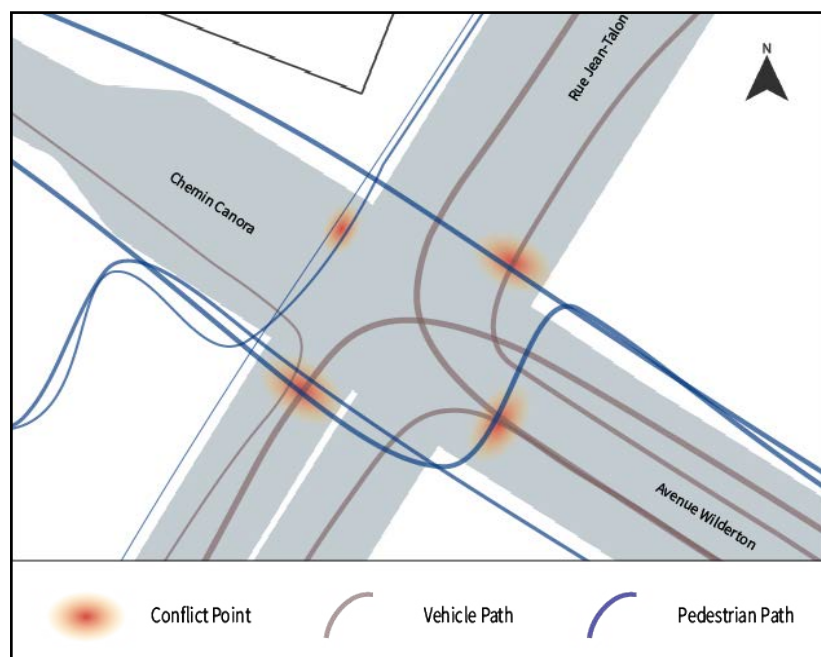


Figure 3. Diagram of observed vehicle and pedestrian paths

What We Propose:

Intervention 1: Pedestrian Crossing & Priority



1

- Raised crosswalk creates a level crossing & forces vehicles to slow
- Pedestrian refuge islands break up crossing and protect against turning vehicles

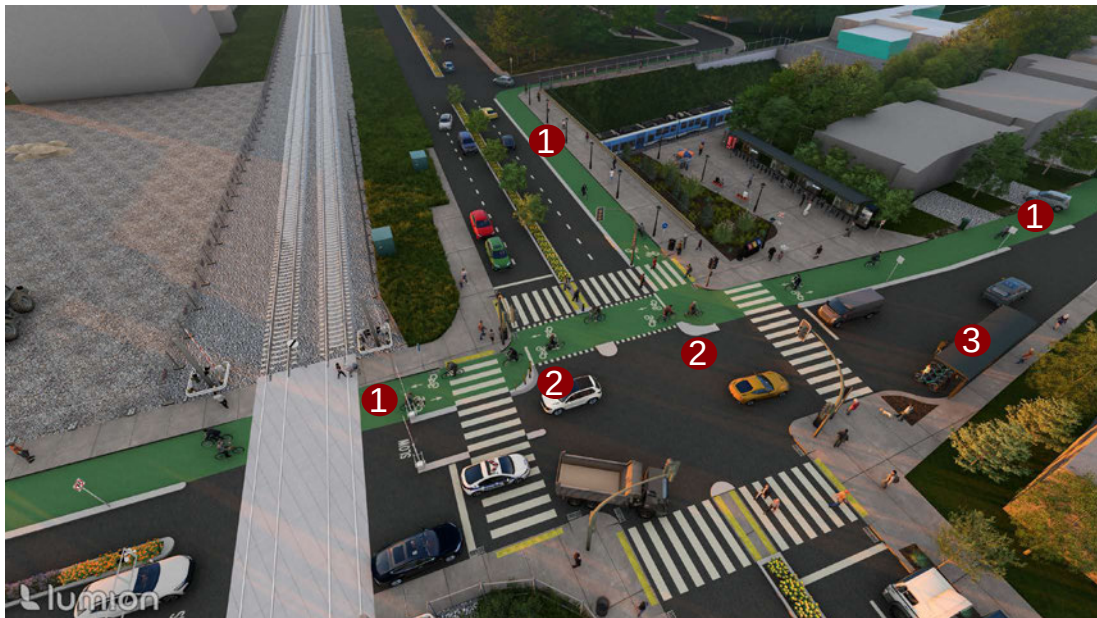
2

- Dedicated pedestrian signals give clarity to pedestrians crossing the intersection
- Leading signal intervals give space first to vulnerable users

3

- Crossing times extended to 40 seconds to accommodate those with low mobility
- Set back crossings create enhanced visibility for turning vehicles

Intervention 2: Protected Cycling Connection



1

- Protected 4m wide double cycle track to connect to REM, Danyluk Park, and cycle lanes on Rue Goyer & Av. Barclay
- Raised concrete barrier separates vehicle from bicycle traffic

2

- Dedicated traffic signals for cyclists eliminate confusion and create leading intervals
- Concrete corner islands protect cyclists waiting to enter the intersection

3

- New Bixi station encourages new and current users to conveniently cycle for local trips

Intervention 3: Intersection Geometry and Traffic Calming



1

- Reduced corner radii slow right-turning vehicles
- Refuge islands reduce left-turn radii and speeds

2

- 3 m lane widths reduce speeds while maintaining capacity for large vehicles
- Shorter crossings from refuge islands and narrower lanes

3

- Tapered island and flex posts for large vehicles turning right onto Wilderton
- Wide receiving lane (3.9m) for right turn onto Wilderton

Design Principles

- Simplify intersection geometry to reduce conflict points
- Prioritize pedestrians and cyclists through dedicated, protected space
- Improve visibility between users at crossing points
- Reduce vehicle speeds while maintaining essential access and adequate throughput
- Improve signalization and ensure all users have a dedicated signal

Implementation Considerations

- **Low-cost / short-term:** Improved signals, fresh markings, signal timing adjustments
- **Medium-cost / moderate-term:** Pedestrian refuge islands, lane narrowing, bike lane creation
- **Higher-cost / longer-term:** Concrete protection barriers, geometry changes

* Careful planning and coordination will be required to avoid congestion impacts during construction phases

Conclusion

The current design of the Jean-Talon and Wilderton intersection is chaotic, dangerous, and does not meet the needs of residents, especially considering its proximity to the REM. Despite lower volumes, cyclists and pedestrians experience disproportionate exposure to conflict due to intersection geometry and signal design. This redesign prioritizes safety through traffic calming, dedicated signalling for different modes, and intersection geometry that increases the visibility of pedestrians while making their crossings easier and safer. This is accomplished while only removing one vehicle lane in a less frequented part of the intersection. With these elements, the intersection becomes a welcoming crossing for those who use it. Montreal will be better off with a safer, more predictable intersection that reduces conflicts and improves access to the REM.

References

National Association of City Transportation Officials. 2013. *Urban Street Design Guide*. 1st ed. Washington, DC: Island Press.

National Association of City Transportation Officials. 2025. *Urban Bikeway Design Guide*. 3rd ed. Washington, DC: Island Press.