

CITIZENS FOR SAFE CYCLING POSITION STATEMENT ON SHARED-USE LANE MARKINGS (SHARROWS)

Sharrows are road paint markings, consisting of chevrons with a bike symbol. They are intended to inform road users of where cyclists should be positioned within a lane. The City of Ottawa has used sharrows in many road projects. Sharrows are relatively inexpensive to install and require no additional road space.

CITIZENS FOR SAFE CYCLING POSITION ON THE USE OF SHARROWS:

While some experienced and confident cyclists find sharrows help emphasize their right to use the road, sharrows do not generally improve the safety or comfort of the average person. They are not a suitable substitute for cycling infrastructure for people of all ages and abilities. Citizens for Safe Cycling therefore supports the use of sharrows only as a temporary measure, or for alternative purposes such as bike-route wayfinding.

RECOMMENDATIONS TO THE CITY OF OTTAWA

Citizens for Safe Cycling would like the city to take action as follows:

1. Publish guidelines on when and where sharrows should be used, with respect to speed, traffic volume, and lane configuration and width
2. For every project where sharrows are selected, document alternatives to sharrows, and publish a rationale for the choice of sharrows as the preferred option
3. Do not include roads with sharrows in statistics regarding the amount of bicycle infrastructure, unless broken out as a separate total - a lane with sharrows is functionally no different from a standard travel lane
4. Ensure that sharrows are implemented in a manner that is consistent with the Ontario Traffic Manual Book 18¹.

RATIONALE BEHIND THE CITIZENS FOR SAFE CYCLING POSITION ON SHARROWS:

1. Sharrows are too often installed improperly

The city does not use sharrows consistently in a way that improves safety or comfort for cyclists. The city has not published guidelines on when or how sharrows should be used with respect to traffic volume, speed, and lane configuration. Examples of poor deployment include:

- placement in the middle of the lane on wide roads where there is sufficient space to pass cyclists safely, or at the right edge of a narrow road where single-file traffic is safest.
- placement in lanes where parking is allowed.
- sharrows that encourage cyclists to take a lane position that conflicts with the city's published guidelines, such as in the door zone or to the right of a right-turning lane.
- sharrows used in very high traffic-stress situations where separate space for cycling would be indicated according to both the city's facility-selection nomograph and Book 18.
- sharrows on congested roads, where vehicles block the view of the sharrows.

2. Sharrows require ongoing maintenance to remain visible

Sharrows are of no value if they can't be seen. This happens as they are worn off by motor vehicle traffic, or when they are covered in snow. It's not feasible or affordable to maintain all sharrows in good state of visibility year-round.

Due to their position within the travelled portion of the roadway, sharrows need frequent repainting. CfSC believes that better value and long-term benefit would be derived from installing even a small amount of permanent infrastructure.

3. Sharrows do not meaningfully improve road user behaviour

Several road-behaviour studies have been cited by the National Association of City Transportation Officials (NACTO) in support of sharrows^{2,3,4}. These studies generally found sharrows to have a small but statistically significant effect on the average distances between cyclists and parked cars, and between overtaking cars and cyclists. It's important to keep in mind that a significant difference, while measurable, may not translate to being functionally meaningful. For example, it is of much greater concern to consider the minimum space certain motorists allow when passing a cyclist, rather than the average space. In other words, sharrows may not alter the behaviour of that segment of the population who take risks while driving or who refuse to share the road.

Furthermore, sharrows do not reliably influence cyclists' behaviour. Curb-side sharrows are in a position where cyclists would naturally be riding, while lane-centered sharrows do very little to reduce cyclists' level of traffic stress (for example, sidewalk riding was only very slightly reduced after sharrows were painted^{3,4}).

4. Sharrows are not legally represented in the HTA

There is no provision in the Ontario Highway Traffic Act that makes sharrows legally meaningful. The placement of a sharrow may imply that cyclists have right to use that space, but the HTA requires cyclists to stay to the far right where practicable. It's a consideration that a cyclist could be ticketed when using a sharrow as intended by the city, if the sharrow is poorly placed.

5. Sharrows do not improve the level of safety or comfort for many road users

Sharrows do not measurably improve cyclist injury rates in travel lanes⁵. Bike lanes, paths, or cycle tracks are the kind of all-ages-and-abilities infrastructure that is needed to welcome all of our residents to choose to ride a bike. For that reason, sharrows should be considered a temporary facility, and should not be seen as making significant improvement in cycling infrastructure. Many drivers are also more at ease when cyclists have a defined separate space.

6. Sharrows are not a replacement for bicycle infrastructure

Rightly or wrongly, sharrows send a message that the city is only making a minimal effort to support cycling. The use of sharrows alienates people who bike from feeling like valued citizens, and inspires a lot of cynicism. Bicycle paths, cycle tracks and bike lanes are the kind of good-quality infrastructure that will help people feel safe when riding. In turn, building safe infrastructure will be essential to enabling a much larger segment of our population to benefit from riding a bike for transportation.

References:

1. [Ontario Traffic Manual - Book 18](#)
2. <http://nacto.org/wp-content/uploads/2011/02/Effects-of-Shared-Lane-Markings-on-Bicyclist-and-Motorist-Behavior-along-Multi-Lane-Facilities.pdf>
3. <http://nacto.org/wp-content/uploads/2011/01/Evaluation-of-Shared-Lane-Markings.pdf>
4. <http://nacto.org/wp-content/uploads/2010/08/San-Franciscos-Shared-Lane-Pavement-Markings-Improving-Bicycle-Safety.pdf>
5. [Harris, M.A., Reynolds, C.C.O., Winters, M., Crompton, P.A., Shen, H., Chipman, M.L., Cusimano, M.D., Babul, S., Brubacher, J.R., Friedman, S.M., Hunte, G., Monro, M., Vernich, L., Teschke, K. \(2013\) Comparing the effects of infrastructure on bicycling injury at intersections and non-intersections using a case-crossover design. *Inj Prev* **19\(5\)** 303-310](#)



A: Worn sharrow on Beechwood (credit: Vanier Cycles) **B:** Snow-covered sharrow on Laurier (credit: Brian Smith) **C:** Sharrow eliminated by road patching on Beechwood (credit: Vanier Cycles) **D:** Sharrow in a legal parking space on Byron (credit: Lana Stewart) **E:** Sharrow confounding safe and/or legal cycling lane position on Meadowlands. Empty parking lane, with blacked-out sharrow in the dooring zone, re-painted but still in the dooring zone and too far right for a narrow travel lane (credit: Heather Shearer). **F:** Sharrow placed in contravention of Book 18 (speed limit) on Carling at the 417 (credit: Heather Shearer)