

Interpretation and Notes

- The intent of the cycling index is to monitor *relative* changes in cycling activity over time. ***The index does not provide an indication of absolute activity levels or modal share.***
- ***The cycling index is calculated using 8-hour traffic count data.*** The 8-hour counts cover the period from 7:00 a.m. to 10:00 a.m., 11:30 a.m. to 1:30 p.m., and 3:00 p.m. to 6:00 p.m. The traffic counts typically take place on weekdays during the spring and summer. Since the counts do not provide data on evening or weekend travel, ***the cycling index primarily captures utilitarian cycling trips; recreational trips may be significantly under-represented.***
- ***The cycling index is based on traffic count data, and as such, is subject to uncertainty.*** Traffic counts are influenced by a large number of factors, including economic conditions, weather, special events, traffic incidents, etc. A particular traffic count presents a snapshot of what occurred on one particular day of the year, and may therefore not be representative of overall conditions. While an attempt was made to mitigate the uncertainty inherent in traffic count data (i.e. by selecting an appropriate sample size and by calculating a condition rating to indicate the “quality” of the data with regards to weather and road closures), certain limitations remain.
- ***The cycling index for a particular two-year period should be viewed as part of a longer-term trend.*** Given the uncertainty in traffic count data, it is generally not appropriate to examine the change in cycling activity from one period to the next. Instead, the change should be considered over a longer time interval to minimize the impact of anomalies.
- ***The cycling index is based on traffic count data that is primarily collected at signalized intersections,*** reflecting data availability considerations. Given this bias, the index may not provide a good indication of shorter cycling trips within residential neighbourhoods. Cycling activity on off-road paths may also be under-represented.
- ***The cycling index does not capture activity in rural areas,*** due to a lack of traffic count data for these locations.

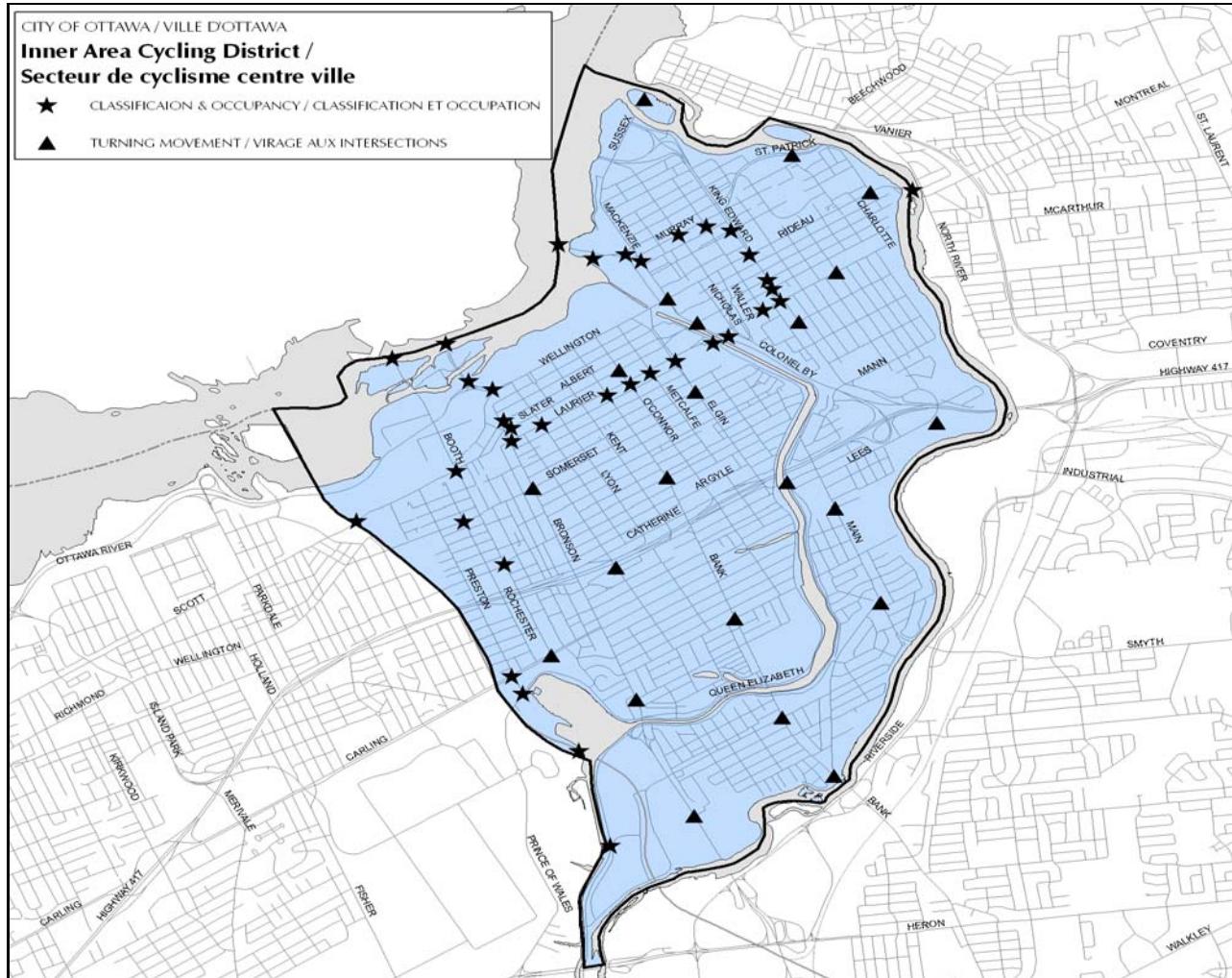
Calculation of the Cycling Index

The index calculation process essentially follows a few simple steps. For each count station included in the index:

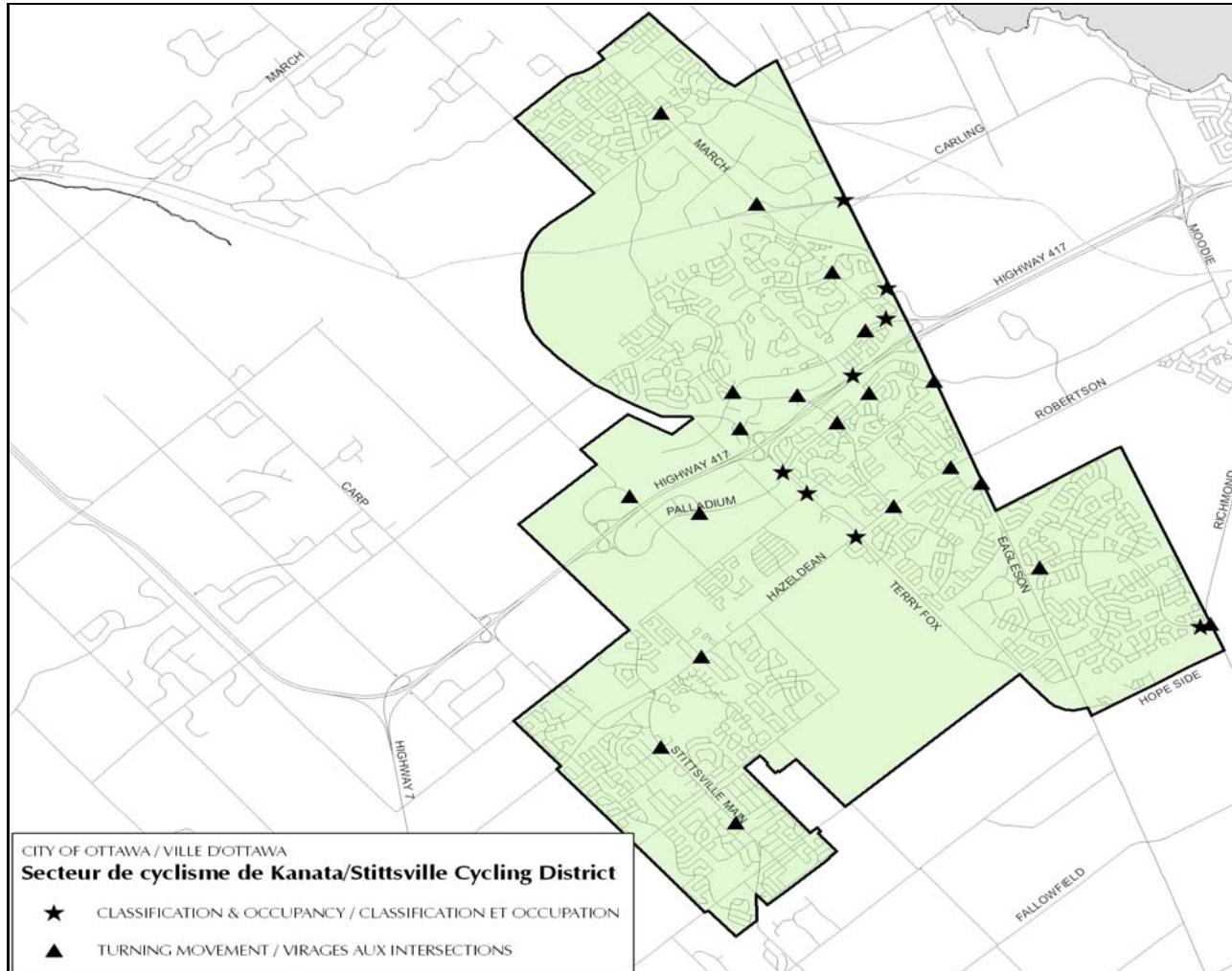
1. The traffic count data for each unique count date is summarized and assigned a ranking from one to three based on the perceived quality of the data. For example, a count conducted in a good weather with no road closures or construction would receive a ranking of three. A count conducted in rainy weather with road closures and/or construction would receive a lower ranking.
2. The intersection count with the highest ranking for a given year is carried forward for calculating the cycling index.
3. The counts are grouped into overlapping two year intervals (i.e. 1998-1999, 1999-2000).
4. A representative cyclist and vehicle volume is computed for each two year interval. If only one traffic count is available for the two year period, the count is used with no modification. If more than one count is available, the most reliable count is selected based on the percentage change in volume from one year to the next. If the percentage change is small, implying that all counts are reasonably reliable, an average volume is computed.

The representative volumes developed in Step 4 are combined with data for the remaining count locations to form the district-wide cycling index. The index is calculated according to the following relationship:

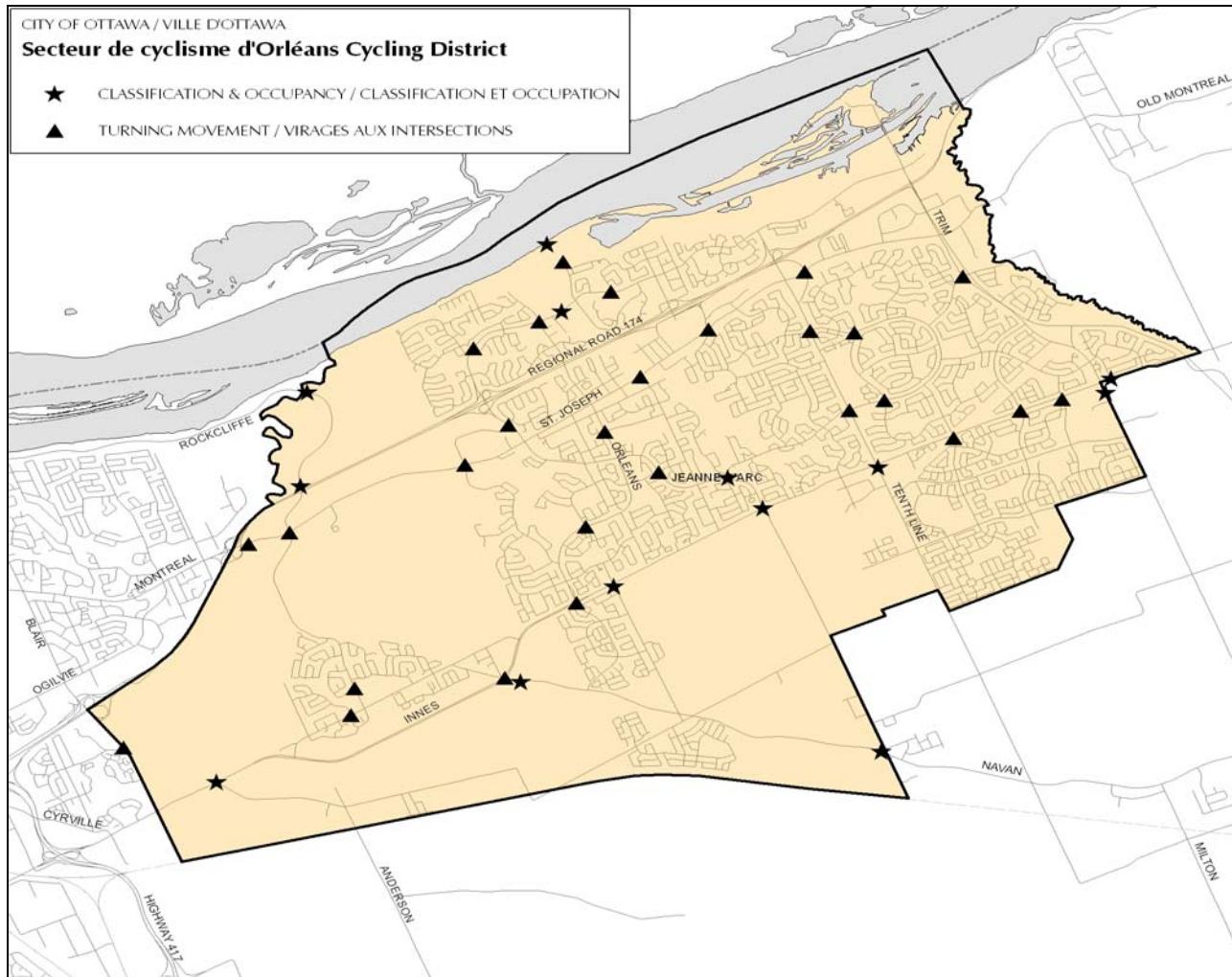
$$\text{Cycling Index} = \frac{\text{Total volume of cyclists observed at selected count stations}}{\text{Total volume of vehicles observed at selected count stations}} \times 100\%$$



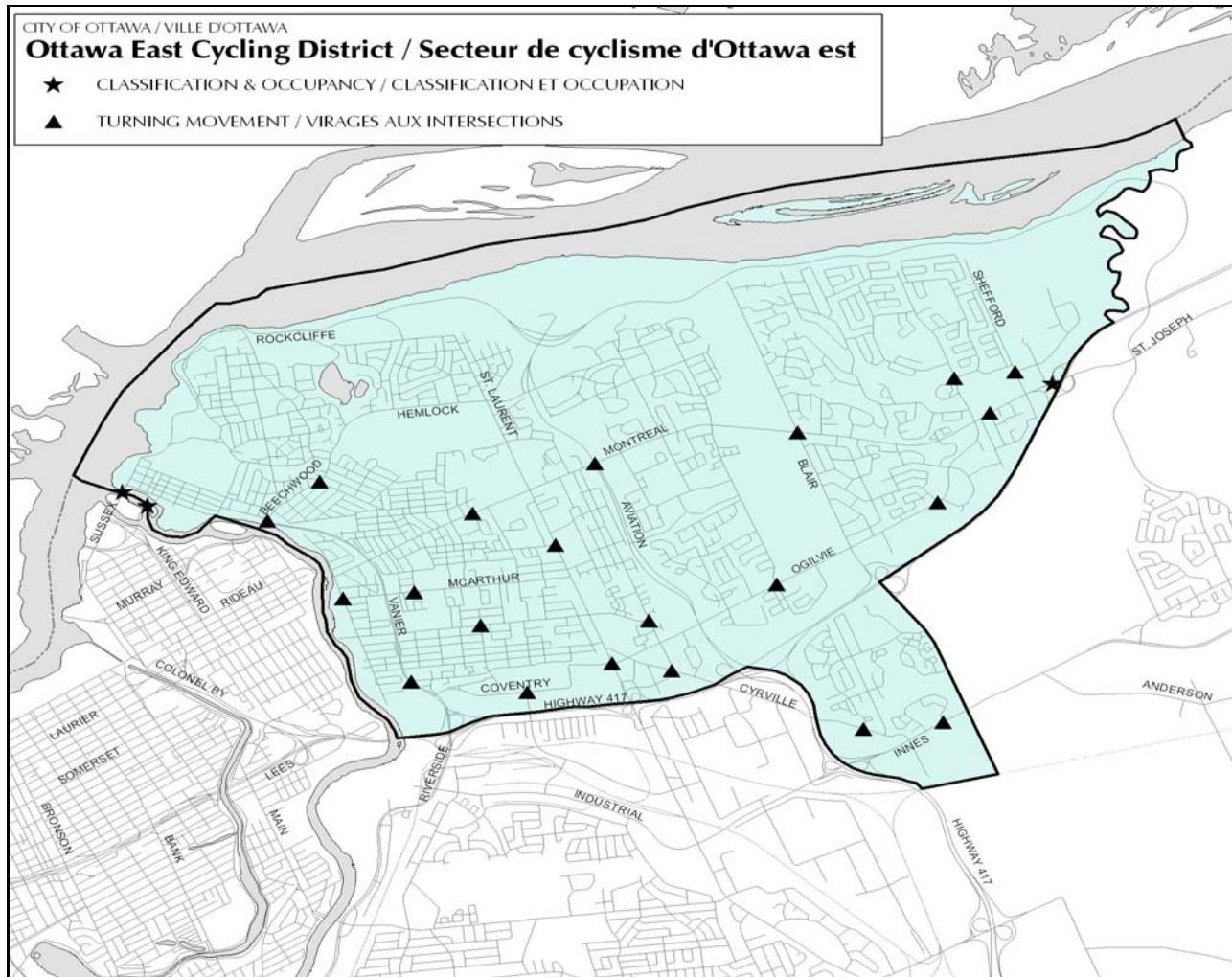
CONDITION RATING - Average of all locations (Max 3.0 No adverse factors - i.e. rain, road construction / restrictions.)



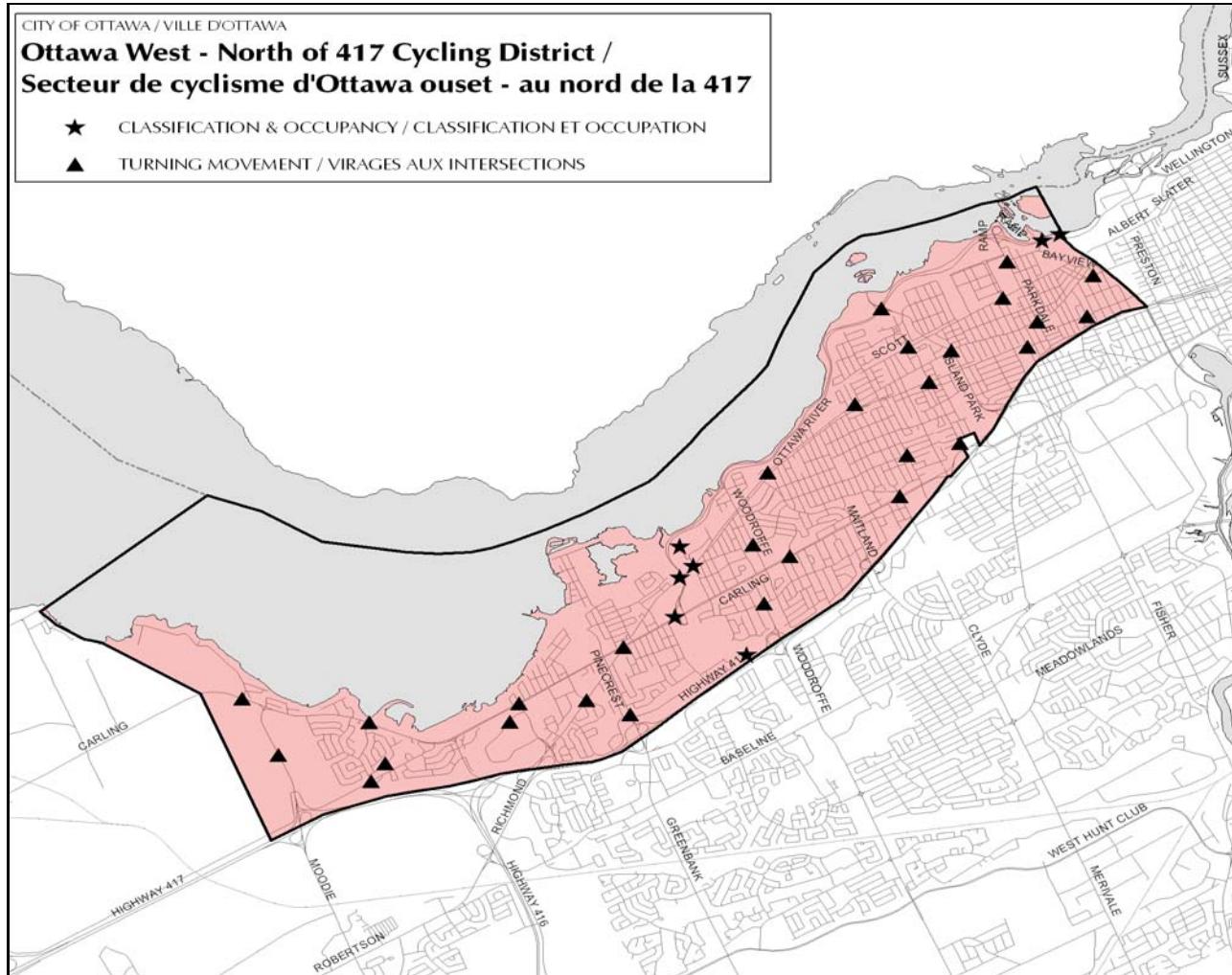
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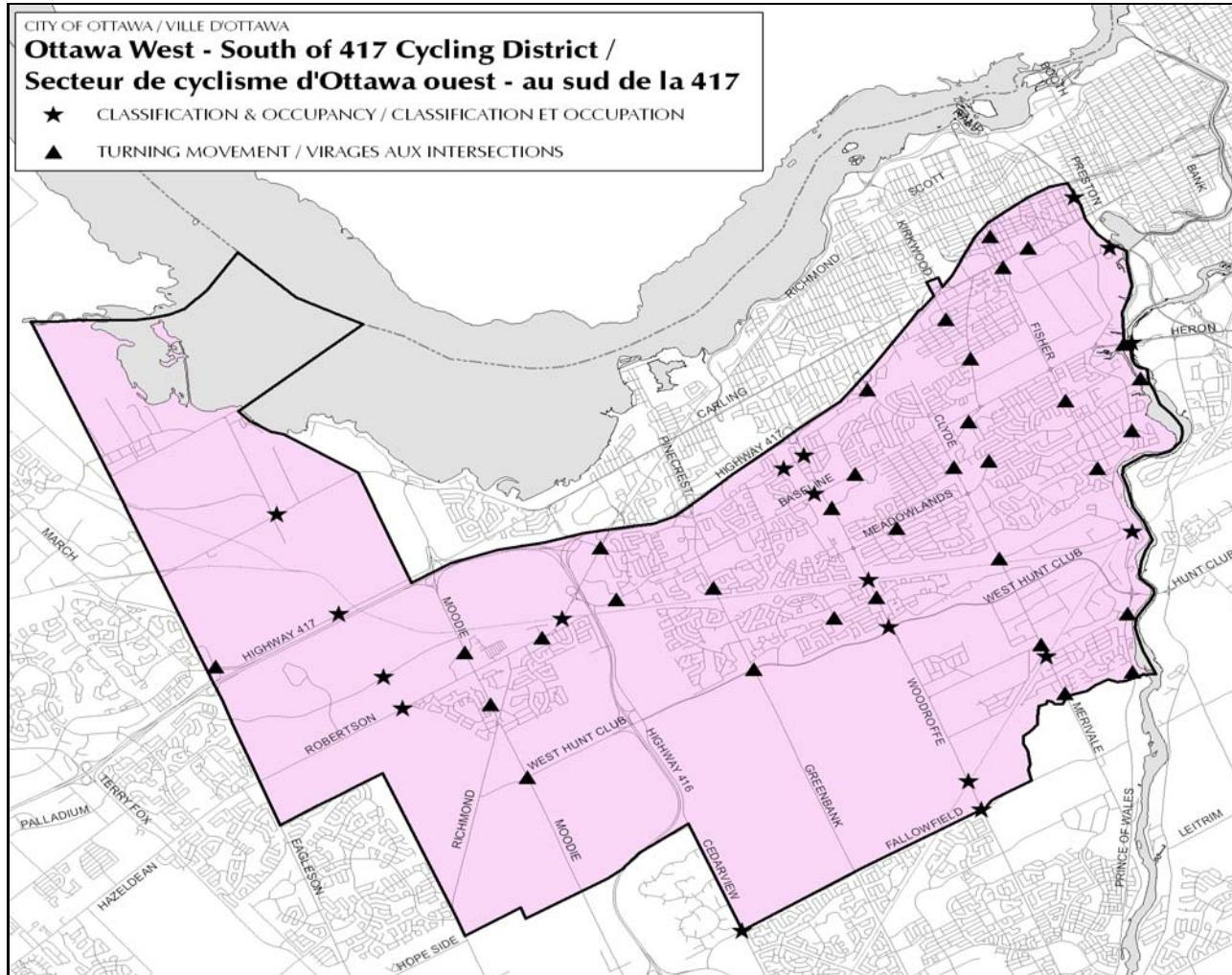
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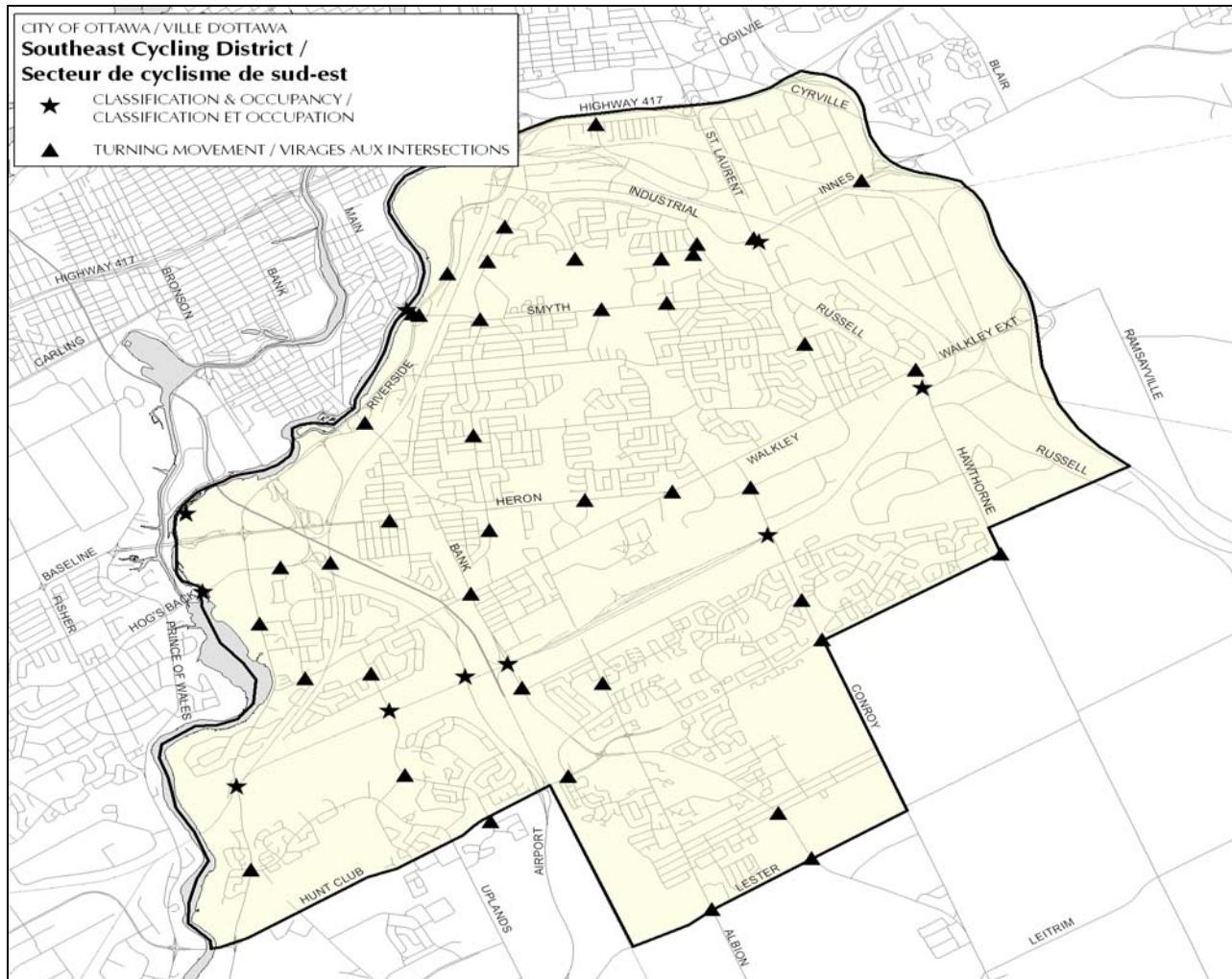
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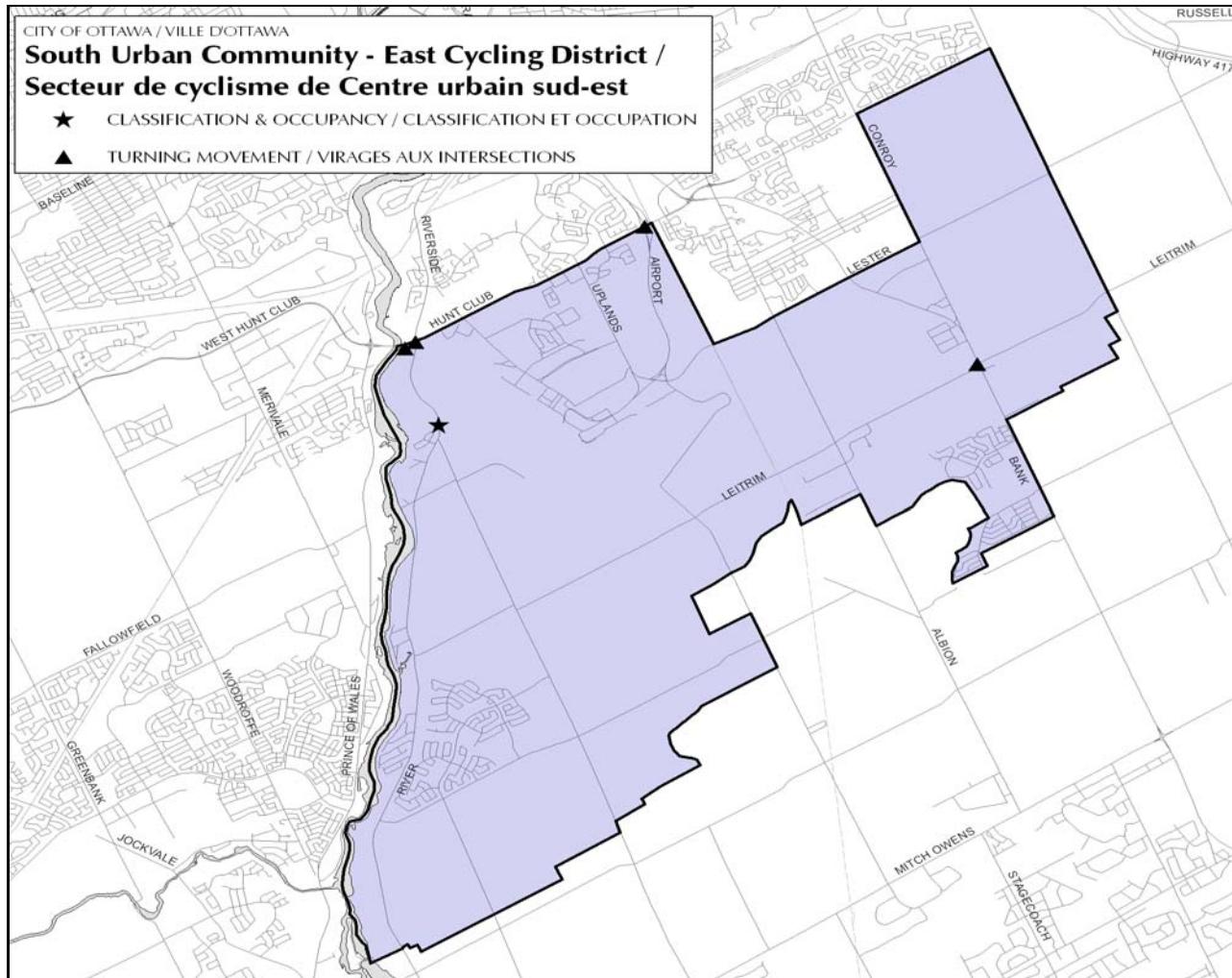
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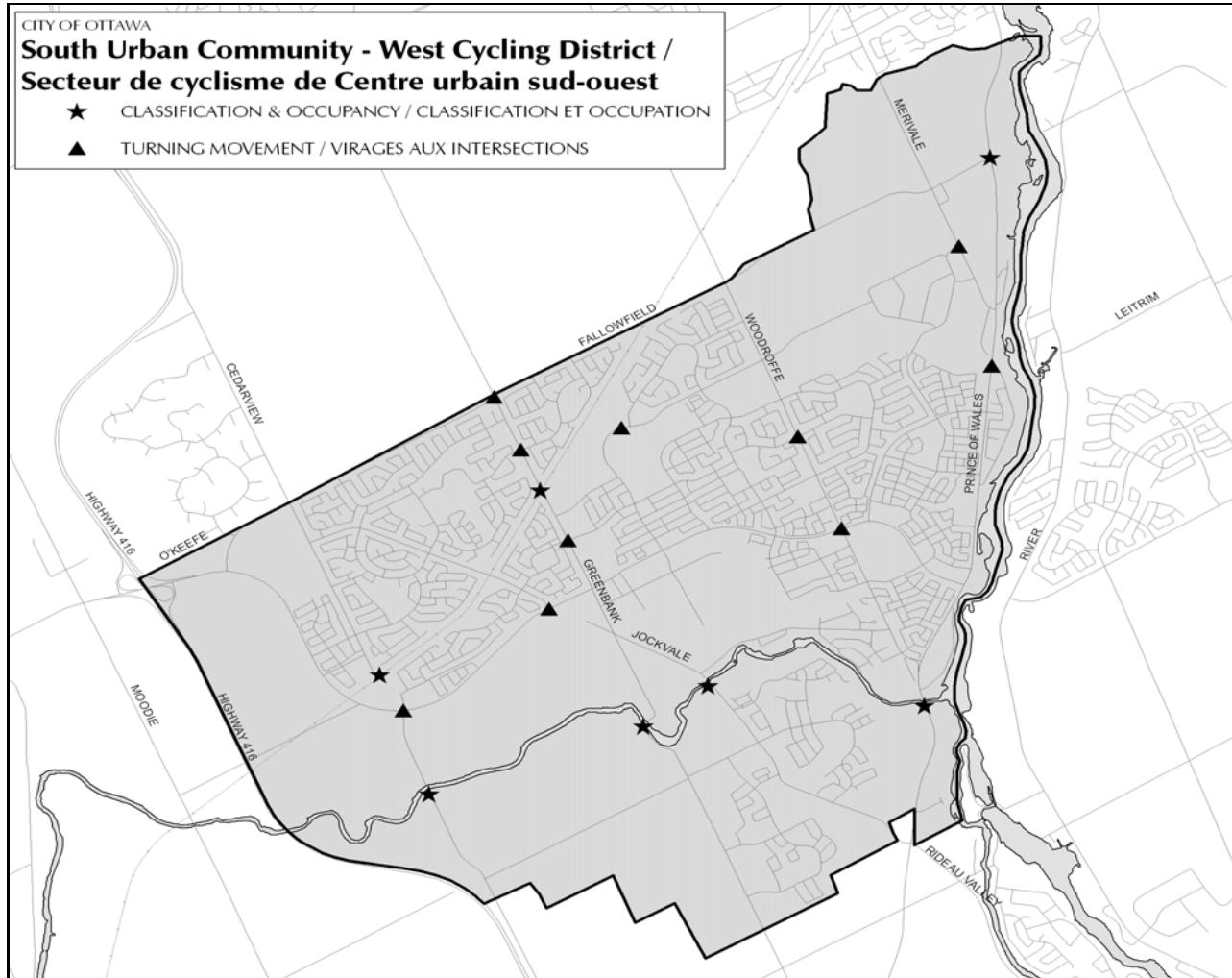
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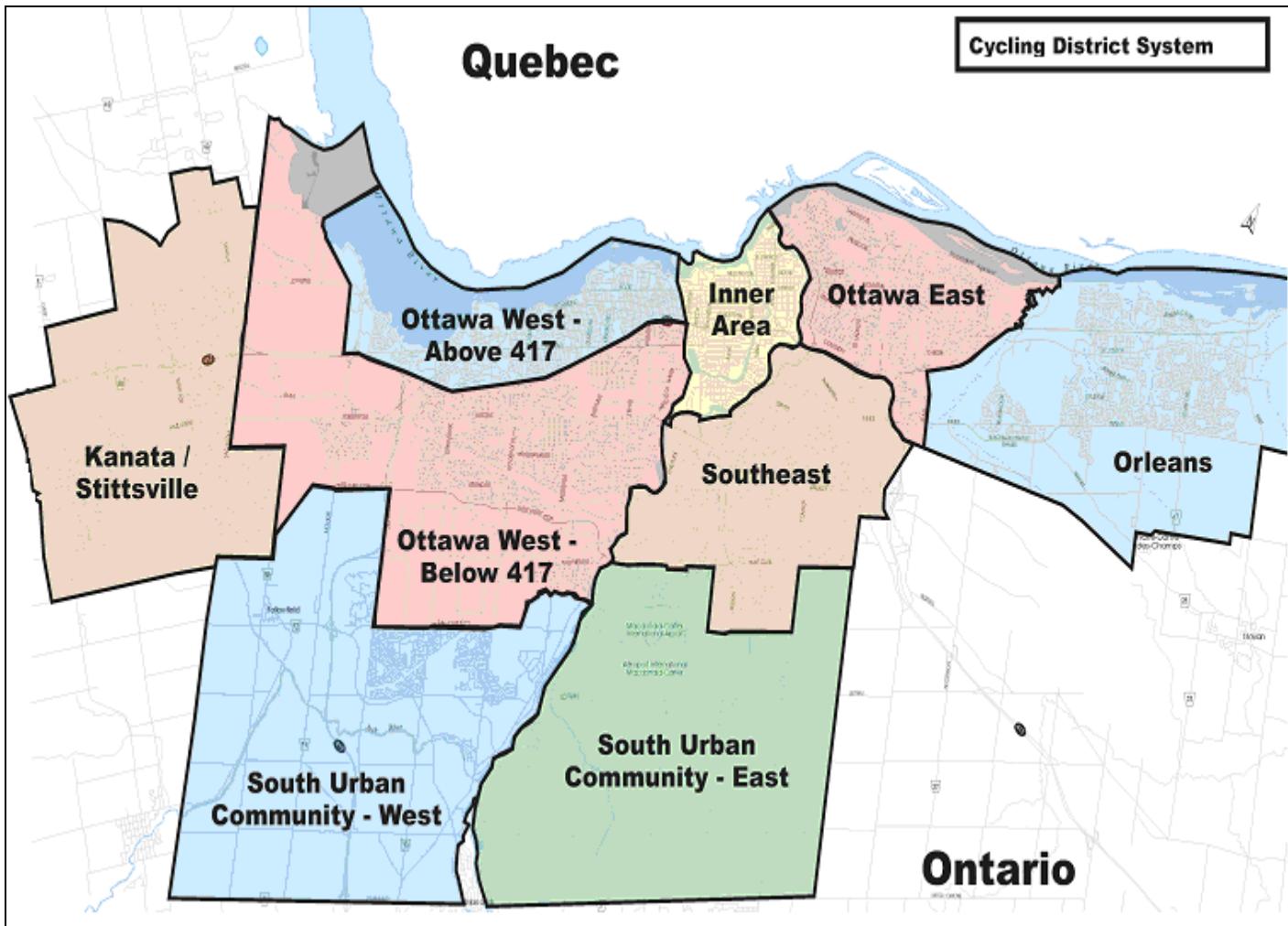
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