**Bike Map Git Project**

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**Product:** A map of the City of Hamilton showing bike lanes across each of the city's 15 wards. Below the map will be various statistics for each ward in chart format

**Intent:** To observe access to bikelanes across each ward, with a specific focus on neighbourhoods with higher poverty rates.

**Languages Used:** React, HTML, CSS, JS

**Frameworks Used:** MapLibre

**Sources:** OpenFreeMap, Open Hamilton 'Bikeways', Open Hamilton 'Ward Boundaries', Open Hamilton 'Hamilton Bike Share Incorporated Hub',

| Input | Process | Output |
|---|---|---|
| • OpenFreeMap/ MapLibre | • Use to have map focused on City of Hamilton | • Display base centered on City of Hamilton |
| • 'Ward Boundaries' GEOJSON | • Parse data<br>• Overlay ward boundaries onto OpenStreetMap | • Display ward boundaries by colour on the OpenFreeMap |
| • 'Bikeways' GEOJSON | • Parse data<br>• Overlay bike lanes onto City of Hamilton map | • Bike lanes overlayed on the City of Hamilton Map, with colour code |
| • 'Bikeways' CSV | • Take Data from CSV file and perform data analysis<br>• Place data in Chart on website | • Chart displaying bike lane data according to each ward |
| • 'Hamilton Bike Share Incorporated Hubs' GEOJSON | • Overlay locations of bike share hubs on map | • Display dots representing bike share hubs on the map |

**Potential Additions:** Identify key neighbourhoods of interest. Add a legend. Add selection options for tiers and wards. Add pop up box when click wards

**Disclaimers:** Bike lanes are only up to date as of 2023. This is the most recent data set from the City of Hamilton's website.

**Bike Lane Ranking Methodology:** Bike Lanes were ranked according to six tiers from safest to least safe. See next page for rankings:

| Tier Number | Colour | Categories |
|:---:|:---:|:---|
| Tier 1 | Dark Blue | • Bicycle Lane with Poured concrete barrier<br>• Bicycle Lane with Pre-cast concrete barrier<br>• Signed Bike Route with Pre-cast concrete barrier<br>• Bicycle Lane with Mini-jersey barrier<br>• Bicycle Lane with Bollard buffer |
| Tier 2 | Light  Blue | • Bicycle Lane with Parking buffer<br>• Paved Multi-Use Recreational Trail<br>• Multi-Use Path |
| Tier 3 | Cyan | • Low Auto Volume Suggested Route<br>• Bicycle Path |
| Tier 4 | Brown | • Bicycle Lane with Paint buffer |
| Tier 5 | Orange | • Bicycle Lane<br>• Medium Auto Volume Suggested Route |
| Tier 6 | Red | • High Auto Volume Signed Bike Route<br>• High Auto Volume Suggested Route<br>• Paved Shoulder |