HUB Cycling Richmond/YVR Committee's Recommended Intersections for "No-Right-Turn-on-Red"

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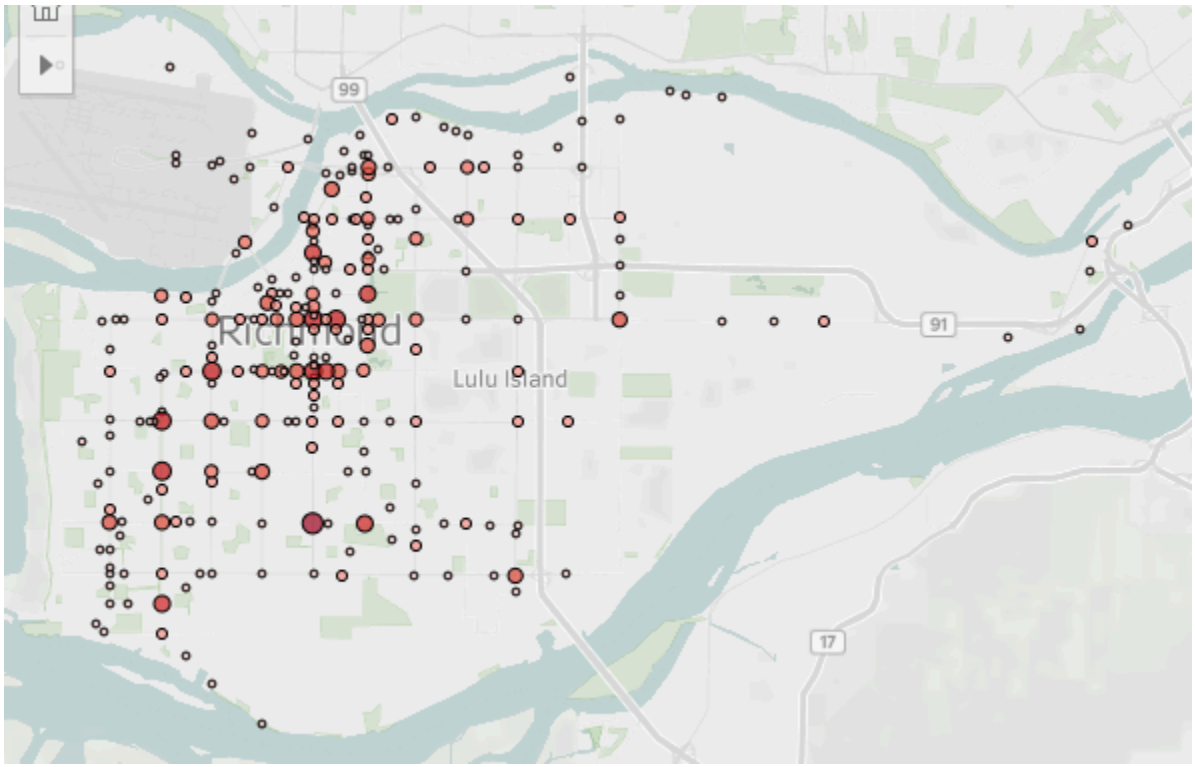
Cyclist & Pedestrian Crashes in Richmond

The Data Source: ICBC crash maps for both Cyclists and Pedestrians



All Cyclist Crashes from 2018-2022

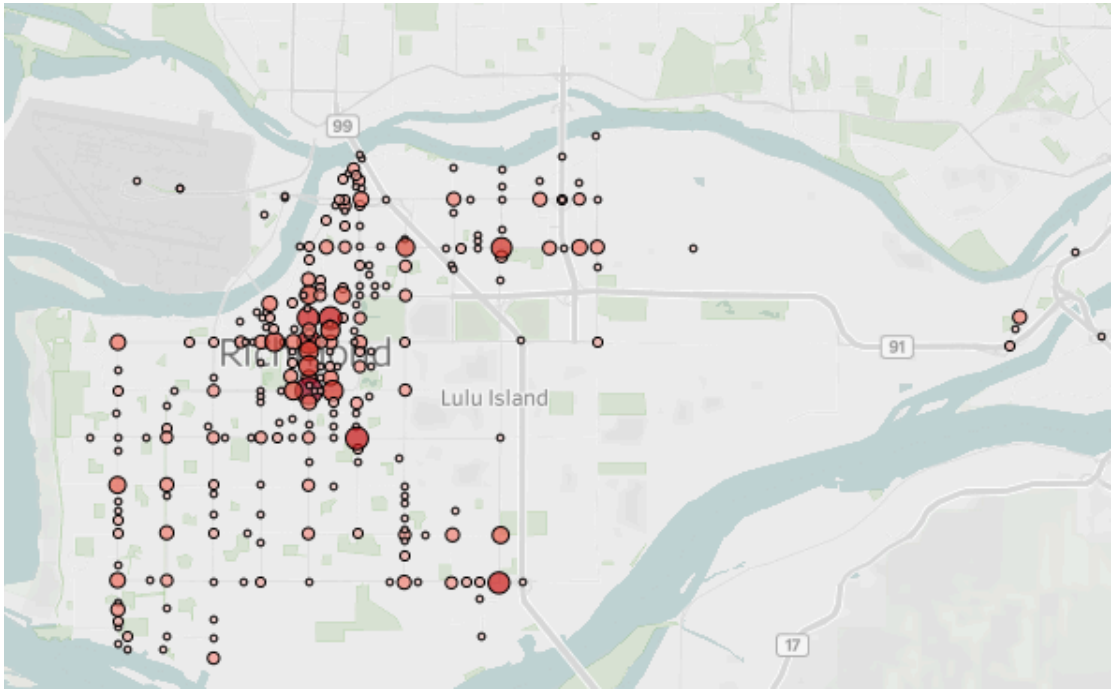
Incidents most often occur around:

- The downtown core
- The intersections of major arterial roads

In particular, the roads of most concern are:

- Between No. 2 Road and Garden City Road along Granville Ave. (West to East Road)
- Between No. 2 Road and Garden City Road along Westminster Hwy. (West to East Road)

- Between Blundell Road and River Road Along No. 3 Road (South to North Road)
- Between Granville Ave. and Bridgeport Road along Garden City Road (South to North Road)



All Pedestrian Crashes from 2018-2022

Incidents most often occur around:
- The downtown core
- The intersections near commercial amenities

In particular, the roads of most concern are:
- Between Alderbridge Way and Granville Ave. along No.3 Road (North to South Road)
- Between Garden City Road and Elmbridge Way along Westminster Highway (West to East Road)
- Between Minoru Blvd and St. Albans Road/Cooney's Road along Granville Ave. (West to East Road)

The top 13 intersections for crashes involving pedestrians and cyclists between 2018-2022

Intersections	Pedestrian Crashes	Cyclist Crashes	Total Crashes

Granville Ave & No. 3 Rd	16	6	22
Westminster Hwy & No. 3 Rd	12	6	18
Steveston Hwy & No. 5 Rd	10	4	14
Lansdowne Rd & No 3. Rd	10	3	13
Blundell Rd & Garden City Rd	11	1	12
Lansdowne Rd & Cooney Rd	11	1	12
Cambie Rd & No. 5 Rd	9	2	11
Westminster Hwy & Alderbridge Way	8	3	11
Granville Ave & Minoru Blvd	7	4	11
Williams Rd & No 3. Rd	3	8	11
Saba Rd & No 3. Rd	8	2	10
Francis Rd & Railway Ave	4	6	10
Westminster Hwy & Cooney Rd	4	6	10

Notable Characteristics of Signalized Intersection Along No.3 Rd - Between Granville Ave & Alderbridge Way

Granville Ave & No. 3 Rd (22 Crashes)

- West-East bike lane along Granville Ave
- Sizeable road width for West-East traffic: 7 lanes

- Bike lane converts to shared roadway for cyclists and left-turning vehicles for westbound traffic

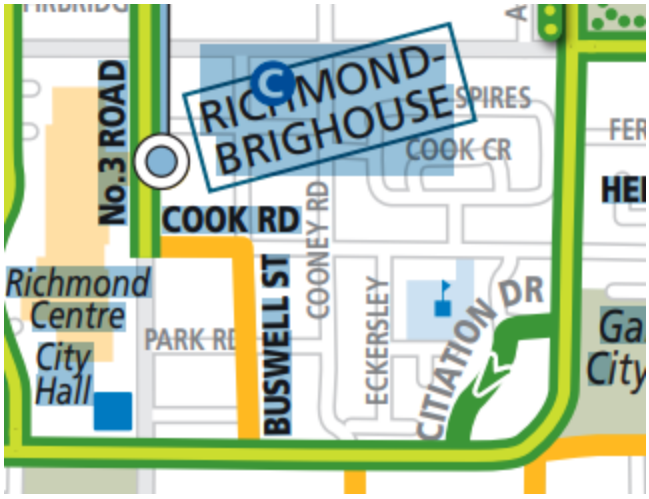
- Bike lane converts to shared roadway for cyclists and left-turning vehicles for eastbound traffic

Park Rd & No. 3 Rd (6 Crashes)

- Westbound traffic may change with the completion of CF Richmond Centre Master Plan

Cook Rd & No. 3 (9 crashes)

- North of Intersection - bike lane

- 

- Westbound traffic may change with the completion of CF Richmond Centre Master Plan
- Painted pedestrian crossings
- Westbound bike lane (off-street until intersection, then shoulders the road)
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No.3 and Saba Rd (10 crashes)

- North-South bike lane

Westminster Hwy & No. 3 Rd (18 Crashes)

- North-South bike lane

Ackroyd & No. 3 Rd (7 Crashes)

- North-South bike lane

Lansdowne Rd & No 3. Rd (13 crashes)

- North-South bike lane
- Eastbound traffic may change with the completion of Vanprop's Lansdowne Centre Master Plan

Lansdowne Mall Access & No 3. Rd (1 crash)

- North-South bike lane

- Eastbound traffic may change with the completion of Vanprop's Lansdowne Centre Master Plan

Alderbridge & No.3 (8 crashes)

- North-South bike lane

Recommendations

Of the 1,509 cyclist/pedestrian crashes in Richmond between 2018-2022, an alarming 99 of these crashes (6.6%) happened on a 1.6km stretch of No.3 Rd between Granville Ave and Alderbridge Way. Of these 99 crashes, 94 crashes occurred along the 9 signalized intersections.

A literature review from 1984 estimates that pedestrian crashes increase by 60% and cycling crashes increase by 100% due to right-turn-on-red laws in signalized intersections. More recent research in the City of Toronto corroborates these results: "Compared with the control group, the frequency of high-risk interactions at intersections with NRTOR countermeasures decreased by 83.4%." Using the numbers from the 1984 paper, introducing No-Right-Turn-on-Red to these 9 intersections will result in an estimated 11 fewer cycling crashes and 27 fewer pedestrian crashes over 5 years.

At an estimated cost of $10,000 per intersection ($90,000 total), the City of Richmond can prevent 38 crashes (1 out of 40 of all cyclist/pedestrian crashes in Richmond) over the next 5 years at the cost of ~$2,400 per crash.

Furthermore, with the future completion of the CF Richmond Centre Master Plan, the Lansdowne Centre Master Plan and other high-density developments, these 9 intersections are likely to see increased pedestrian/cyclist usage and subsequently increased crashes from right-turn-on-red laws without proper intervention.

In addition, we ask the City to evaluate the merit of altering the shared right-turn/cycling lanes to solely paint-buffered bike lanes at the Granville Ave & No. 3 Rd intersection (the worst intersection in all of Richmond for pedestrian/cyclist crashes).