

**Janzen, Heather**

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**From:** City Council  
**Subject:** FW: Email - Communication - Daniel Fuller - Road Safety Audit – College Drive and Wiggins Avenue - CK 6330-1 x 6000-5  
**Attachments:** Geometric Design Guide for Canadian Roads.pdf

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**From:** Web NoReply <web-noreply@Saskatoon.ca>  
**Sent:** Monday, April 22, 2024 5:00 PM  
**To:** City Council <City.Council@Saskatoon.ca>  
**Subject:** Email - Communication - Daniel Fuller - Road Safety Audit – College Drive and Wiggins Avenue - CK 6330-1 x 6000-5

--- Replies to this email will go to [REDACTED] ---

Submitted on Monday, April 22, 2024 - 16:59

Submitted by user: [REDACTED]

Submitted values are:

**I have read and understand the above statements.:** Yes

**I do not want my comments placed on a public agenda. They will be shared with members of Council through their online repository.:** No

**I only want my comments shared with the Mayor or my Ward Councillor.:** No

**Date:** Monday, April 22, 2024

**To:** His Worship the Mayor and Members of City Council

**Pronouns:** He/him/his

**First Name:** Danioel

**Last Name:** Fuller

**Phone Number :** [REDACTED]

**Email:** [REDACTED]

**I live outside of Saskatoon:** No

**Saskatoon Address and Ward:**

**Address:** [REDACTED] Ave E S

**Ward:** Ward 2

**What do you wish to do ?:** Submit Comments

**What meeting do you wish to speak/submit comments ? (if known)::** Regular Business Meeting

**What agenda item do you wish to comment on ?:** Agend Item 9.2.1

**Comments:**

I am submitting the Transportation Association of Canada Guidelines on Bike Box installations. These are submitted under fair use.

**Attachments:**

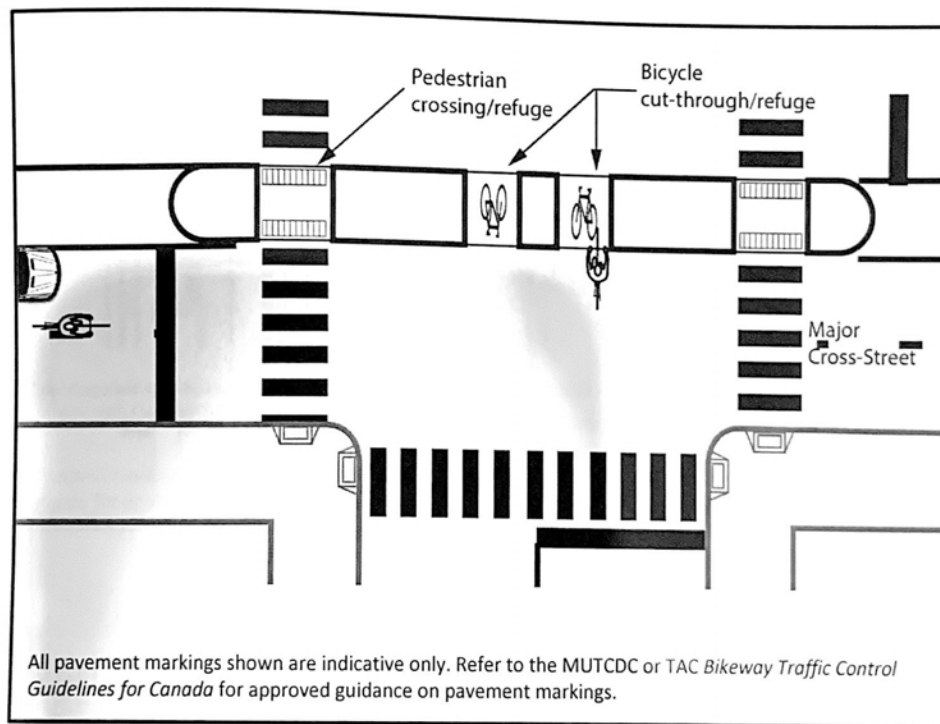
- [Geometric Design Guide for Canadian Roads.pdf](#) 2.03 MB

**Will you be submitting a video to be vetted prior to council meeting?:** No

#### 5.6.4 BICYCLE BOULEVARDS AT ROADWAY INTERSECTIONS

One of the defining features of bicycle boulevards is they incorporate measures to facilitate through-access by bicycles while inhibiting through access by motor vehicles. The quality of low-stress design treatment where a bicycle boulevard, typically on local or minor collector roads, intersects with a more-major roadway can significantly affect the functionality of the bicycle boulevard.

To restrict motor vehicle through movements on a bike boulevard at a major cross street, a median diverter may be placed in the centre of the major street to enforce right-in, right-out maneuvers as illustrated in **Figure 5.6.13**. Median diverters can serve as refuge for cyclists and pedestrians crossing the major street. Median diverters are compatible with bicycle-supportive signal actuation features, but may also be implemented at unsignalized intersections. The median diverter may extend beyond the crosswalk as long as a pedestrian cut-through is provided.



**Figure 5.6.13: Median Diverter**

#### 5.6.5 BIKE BOXES

A bike box, as illustrated in **Figure 5.6.14**, is a designated area at the head of a through/turn option lane at a signalized intersection that provides cyclists with a defined and visible space to use while waiting for a green signal indication. Bike boxes can assist cyclists in making a left turn if they arrive at the intersection during a red phase, as motor vehicles must queue behind the stop line upstream of the bike box.

Bike boxes are most suitable in locations that have a large volume of cyclists, typically in built-up areas where traffic usually moves more slowly. Bike boxes should be placed only at signalized intersections and right turns on red must be prohibited for motor vehicles. Bicycle signal detection, typically loop or



video detectors, must be installed within the bike box to detect the presence of cyclists and trigger the traffic signal.

Once the signal turns green, bike boxes no longer function as a separated bikeway element. Thus, as per Section 5.4.1, they are suitable for the design user group only with low traffic volumes and speeds (i.e., up to 30 km/h if traffic volume less than 2,500 veh/day, or up to 40 km/h if traffic volume less than 1,000 veh/day).

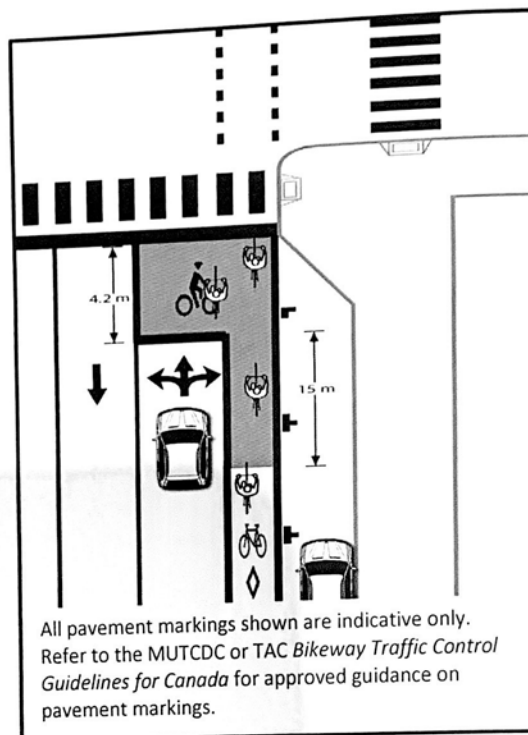


Figure 5.6.14: Bike Box

### 5.6.6 TWO-STAGE LEFT-TURN QUEUE BOX

For a cyclist to make a normal left turn on multilane roadways, a maneuver is required across one or more lanes of through traffic. In situations where traffic speeds may reach or exceed 50 km/h, or where there are few gaps in traffic, such a maneuver can be difficult to execute. In such situations two-stage turn boxes should be provided to offer the design user group a safe way to make left turns by crossing the intersection in two stages.

A two-stage turn box is a marked space for cyclists to wait outside of the traveled portion of the roadway. The preferred dimensions of a two-stage turn box are 2.0 m by 2.0 m, although widths as low as 1.0 m may be considered where physical constraints exist. Common configurations place the two-stage turn box in line with the adjacent on-street parking lane or between the bike lane and the pedestrian crossing as illustrated in Figure 5.6.15 and Figure 5.6.16.

While two-stage turns may increase cyclist comfort in many locations, this configuration will typically result in higher average signal delay for cyclists due to the need to receive two separate green signal indications before proceeding (one for the through street, followed by one for the cross street). Right-

turn-on-red is also necessary for the cross-street vehicles that may have a bicycle waiting during their red signal period. Where signal phasing requires vehicle actuation, bicycle signal detection, typically loop or video detectors, must be installed for the two-stage turn box to detect the presence of cyclists and trigger the traffic signal.

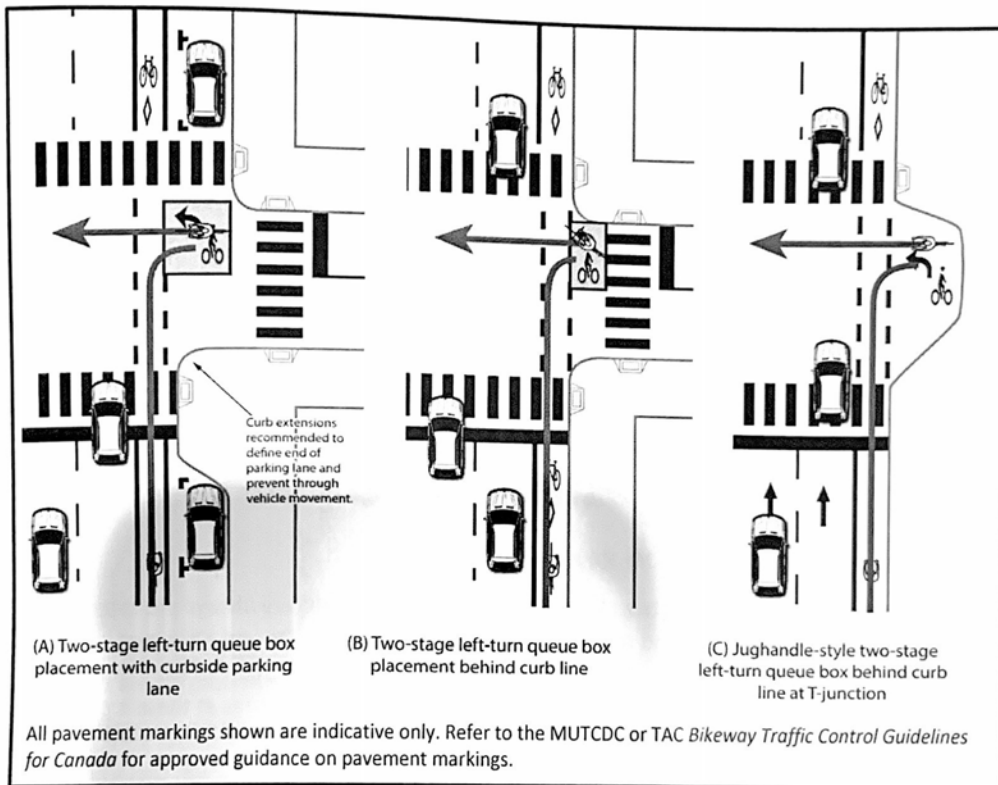


Figure 5.6.15: Two-Stage Left-Turn Queue Boxes