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**Item No. 3**  
**Halifax Regional Council**  
**September 20, 2011**

**TO:** Mayor Kelly and Members of Halifax Regional Council

**SUBMITTED BY:** Original Signed by Director  
\_\_\_\_\_  
Ken Reashor, P.Eng., Director, Transportation & Public Works

**DATE:** August 9, 2011

**SUBJECT:** Downtown Street Network Changes  
\_\_\_\_\_

### **INFORMATION REPORT**

#### **ORIGIN**

Approved Project Budget for Downtown Street Changes.

#### **BACKGROUND**

Changes to flow patterns in Downtown Halifax were recommended in HRM by Design and funding included in the Project Budget for 2008-09.

## **DISCUSSION**

The unique characteristics of the downtown street pattern in Halifax make the conversion of two-way streets to one-way beneficial for businesses and residents, even while other North American cities do the opposite. Furthermore, the existing patchwork of flow directions needed rationalization as at least seven streets had both one-way and two-way sections.

The original plan shown in the HRM by Design Final Report was reviewed through distribution of an information sheet (attached) and an open house session targeted at downtown businesses. A number of changes were made based on feedback and a final plan was presented at a public open house session in November, 2010.

The most recent update on the project, including implementation dates for the three project stages, was distributed to downtown businesses in mid-August as is attached to this report. Those implementation dates are:

September 18, 2011	All streets except Lower Water and Hollis
October 16, 2011	Lower Water Street
March 18, 2012	Hollis Street and Signals at Duke/Upper Water Intersection

The highlight of this plan is the creation of new bike lanes on Hollis Street and Lower Water Street. While creation of these lanes causes the removal of some existing on-street parking spaces, there is expected to be an overall net increase of approximately 30 parking or loading spaces due to the flow conversions.

Advisory to the public of these changes has been done through media releases and variable message signs on the approaches to downtown.

This project involves traffic control changes which are approved by the Traffic Authority.

## **BUDGET IMPLICATIONS**

There are no budget implications to this report. All project expenses are dealt with through the normal processes for budgeting and tendering.

## **FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN**

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Project and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Project and Operating reserves, as well as any relevant legislation.

## **COMMUNITY ENGAGEMENT**

In addition to the substantial public engagement through the HRM by Design process, two information sessions were held specific to the street changes. One session in April, 2010 was targeted to businesses and a session in November, 2010 was open to the public.

**ATTACHMENTS**

Attachment One: Proposal to Change Traffic Patterns in Downtown Halifax (November, 2010)

Attachment Two: Changing Traffic Patterns in Downtown Halifax Update #2 (August, 2011)

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A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by:

Report Approved by: Original Signed  
David McCusker, P.Eng., Manager, Strategic Transportation Planning 490-6696

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# Proposal to Change Traffic Patterns in Downtown Halifax

Downtown Halifax, with narrow streets in a tight grid pattern, currently has a mix of one-way and two-way traffic flow. HRM by Design proposed changes to traffic patterns to reduce the number of vehicle travel lanes with the goal of increasing street space available for on-street parking, bike lanes, and other potential uses. The travel lanes eliminated in the plan are not heavily used and modeling

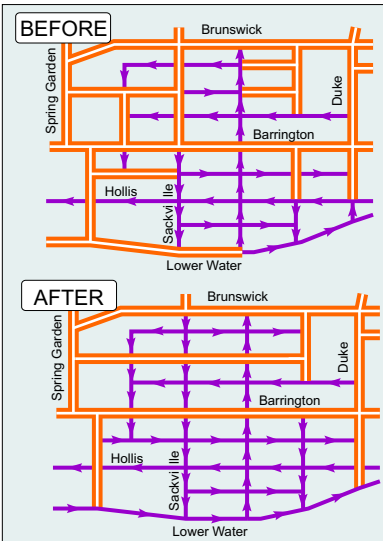
has shown that vehicle travel times will remain mostly unchanged. The plan involves a number of streets that currently have two-way flow being converted to one-ways. This helps to achieve the objective of creating new non-traffic opportunities on the street. The comparison below shows two streets with the same curb-to-curb width but much different non-traffic opportunities.



**One-way Street (Prince St)**  
*With a single traffic lane in the middle, there is sufficient room on this street for on-street parking (or other uses) on both sides.*



**Two-way Street (Sackville St)**  
*With one lane of traffic in each direction, there is insufficient room on this street for anything other than traffic lanes.*

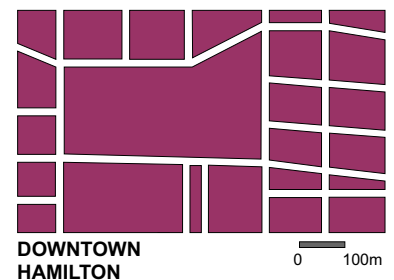
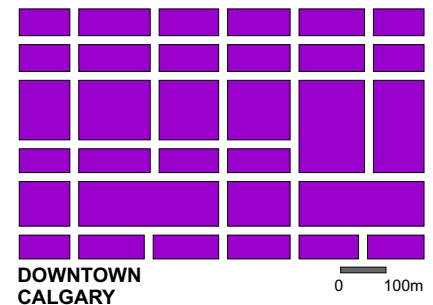


The existing pattern of street flow (top diagram) is inconsistent and patchwork. Seven streets switch from one-way to two-way flow and, in some cases, back again.

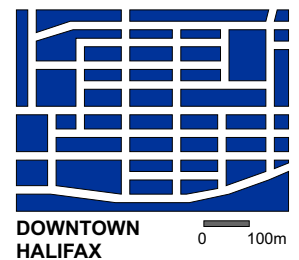
The proposed plan (bottom diagram) strives to achieve more consistency by establishing either one-way or two-way flow for the length of each street.

The key to this plan is creating two major one-way "couplets": Hollis/Lower Water Streets and Prince/Sackville Streets.

- Two-way Street
- One-way Street



Halifax has a much tighter grid network than other downtowns. This is illustrated on the right with three diagrams of downtowns shown at the same scale. Some cities are converting their one-way streets to two-way to minimize extra travel distance and "backtracking". We believe that the closeness of our downtown streets means that extra travel on one-way streets will not be significant.



◀ Some traffic lanes, like the southbound lane on Lower Water Street are underutilized.

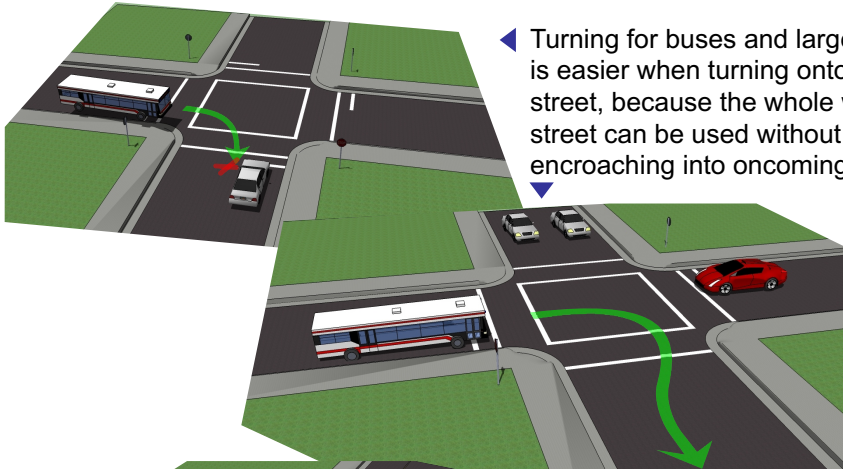
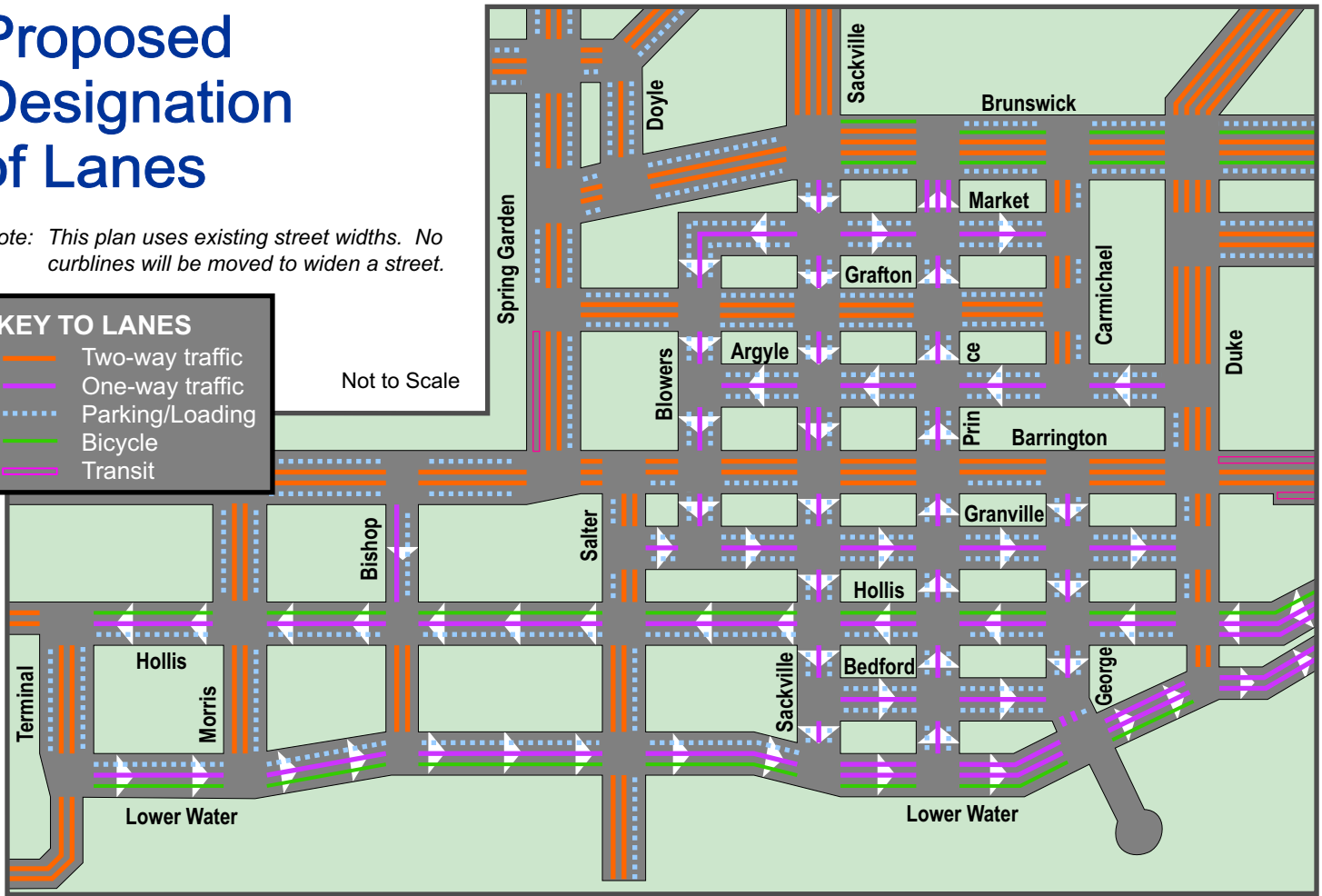
# Proposed Designation of Lanes

Note: This plan uses existing street widths. No curblines will be moved to widen a street.

**KEY TO LANES**

- Two-way traffic
- One-way traffic
- Parking/Loading
- Bicycle
- Transit

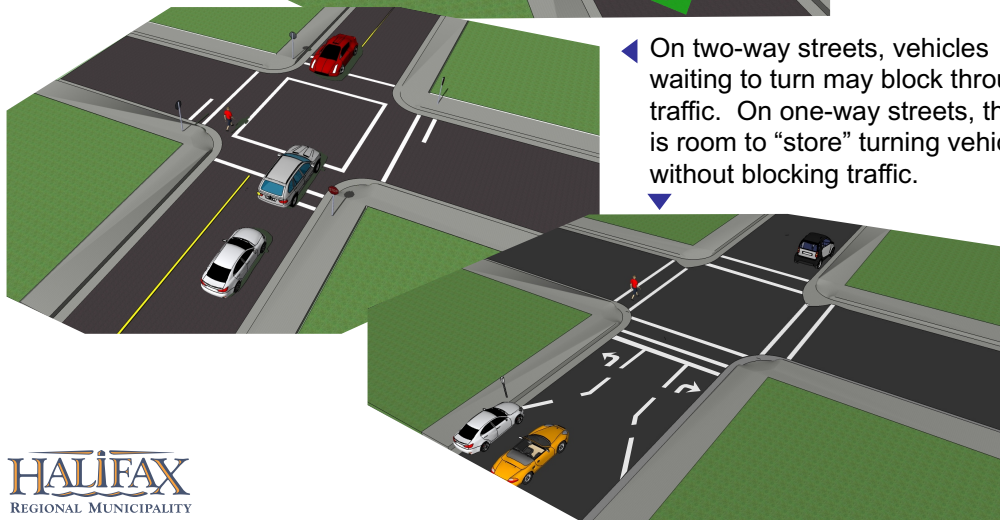
Not to Scale



Turning for buses and larger vehicles is easier when turning onto a one-way street, because the whole width of the street can be used without encroaching into oncoming traffic.



Reallocated street space can be used for on-street parking, sidewalk cafes or other uses. Overall, we expect the plan to create as many as 80 new on-street parking spaces.



On two-way streets, vehicles waiting to turn may block through traffic. On one-way streets, there is room to "store" turning vehicles without blocking traffic.





## Changing Traffic Patterns in Downtown Halifax






Downtown Halifax, with narrow streets in a tight grid pattern, currently has a mix of one-way and two-way traffic flow. HRM by Design proposed changes to traffic patterns to reduce the number of vehicle travel lanes with the goal of increasing street space available for on-street parking, bike lanes, and other potential uses.

HRM has conducted open house sessions for both the Downtown Halifax Business Association (April 2010) and the general public (November 2010). Based on the feedback received, the plan aims to balance the needs of stakeholders to create a more functional street network and vibrant downtown area.

Implementation of the changeover has been scheduled in 3 phases beginning this September. Work required for the changeover, consisting of traffic sign changes and modifications to pavement markings, will be carried out overnight to minimize disturbance and confusion. In advance of the implementation, public service announcements will be made to ensure a safe and smooth transition.

**Planned Changeover dates:**

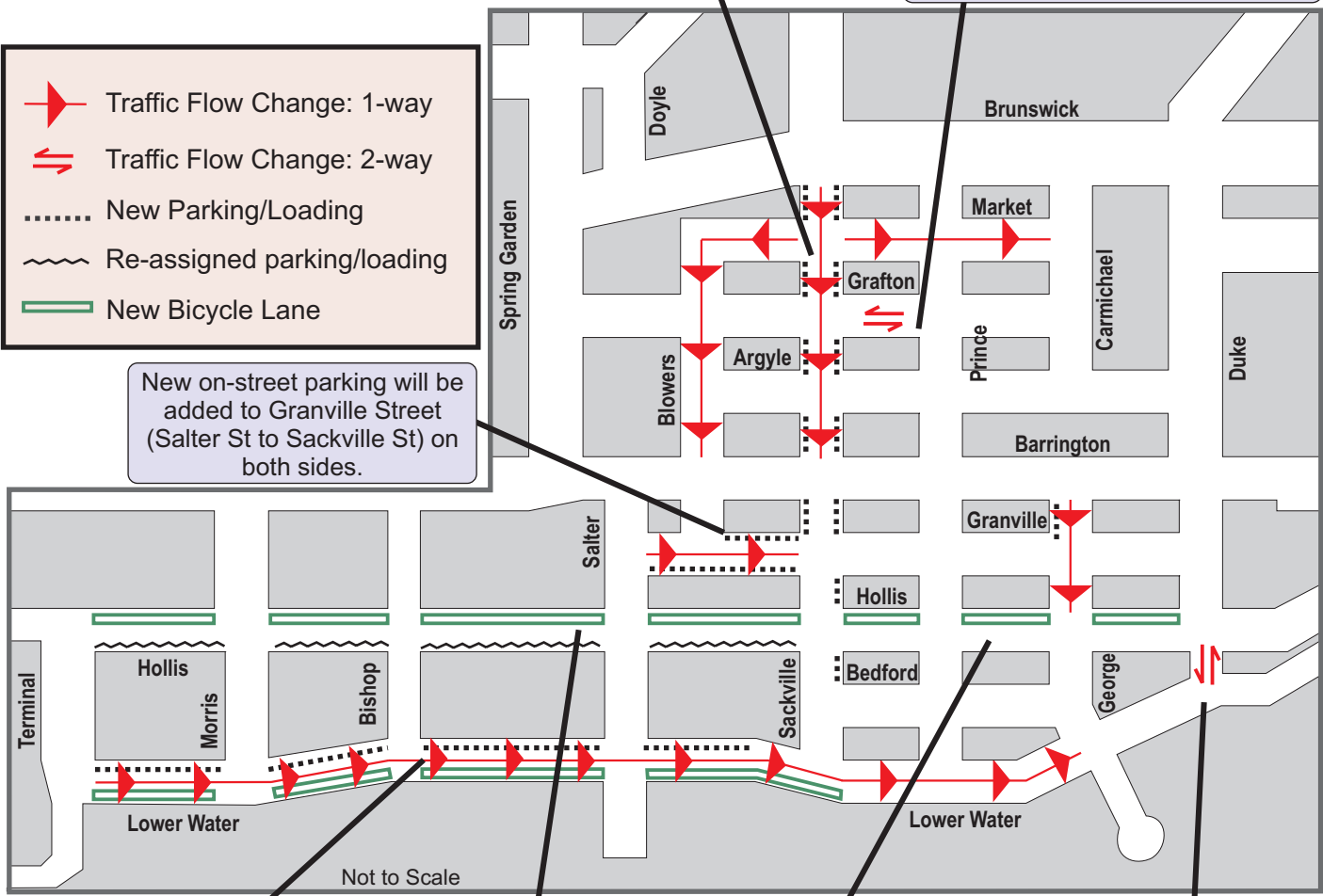
**September 18, 2011:** All streets except Lower Water & Hollis  
**October 16, 2011:** Lower Water Street  
**March 18, 2012:** Hollis Street, Signals at Duke/Lower Water

-  Traffic Flow Change: 1-way
-  Traffic Flow Change: 2-way
-  New Parking/Loading
-  Re-assigned parking/loading
-  New Bicycle Lane

Sackville Street will have new on-street parking on several blocks.

On-street parking will be removed from the west side of Grafton Street to accommodate 2 lanes of traffic (Sackville St to Prince St).

New on-street parking will be added to Granville Street (Salter St to Sackville St) on both sides.



On-street parking will be added to the West side of Lower Water Street (south of Sackville Street). North of Sackville St., On-street parking will be permitted during non-peak traffic





South of Sackville Street, parking meters will be moved from the west side of Hollis Street to the east side. Pay and display parking systems are under consideration.

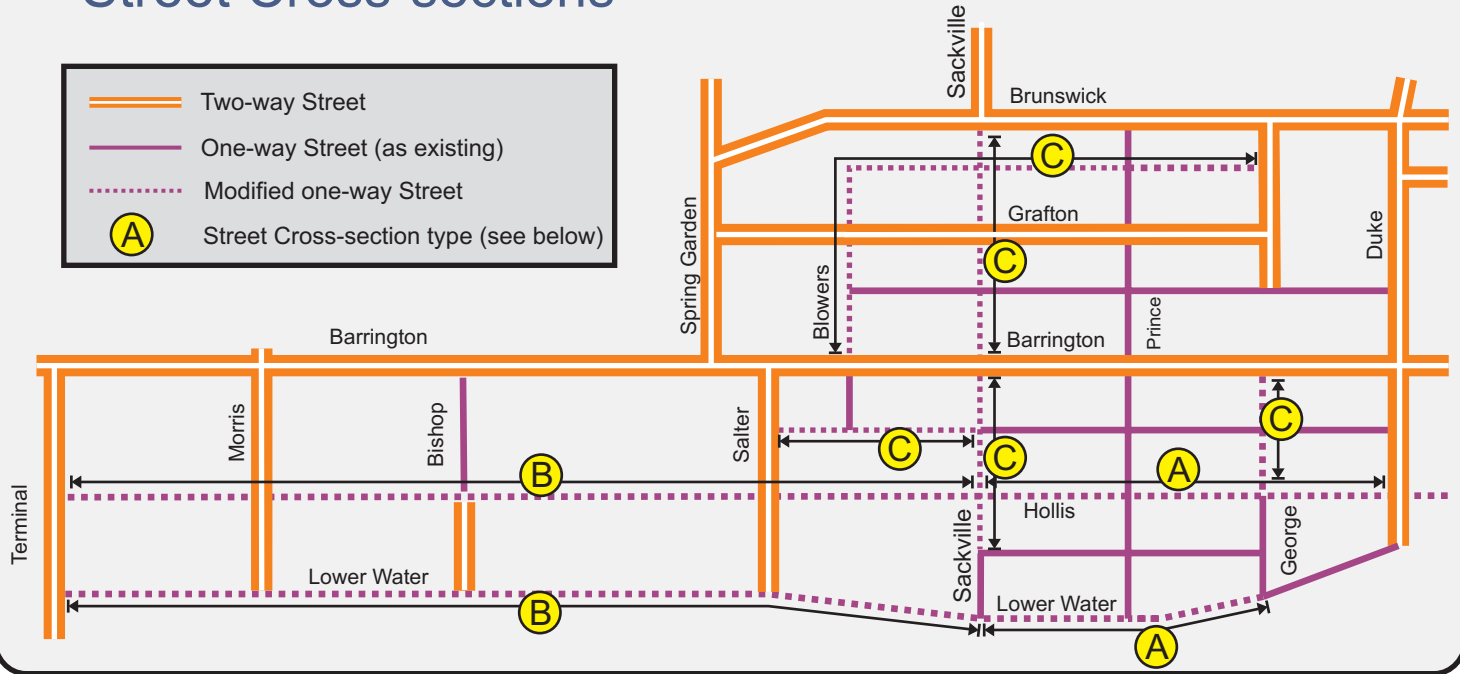
A new bike lane will result in removal of on-street parking along the west side of Hollis Street. Parking will continue to be permitted on the east side during non-peak traffic periods.

Traffic signals will be installed at Lower Water and Duke to better control pedestrian crossings.

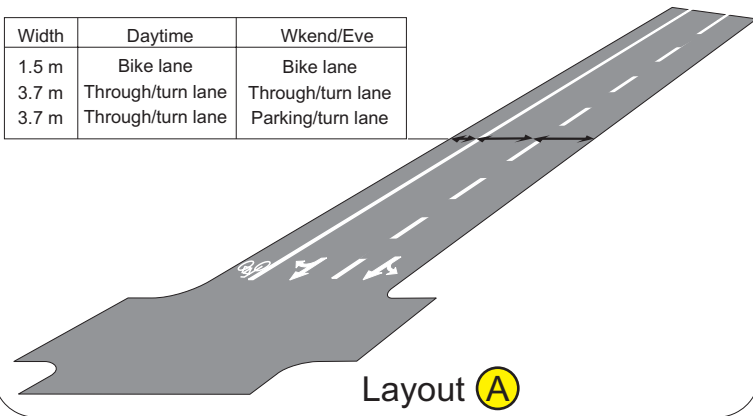
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# Street Cross-sections

-  Two-way Street
-  One-way Street (as existing)
-  Modified one-way Street
-  Street Cross-section type (see below)

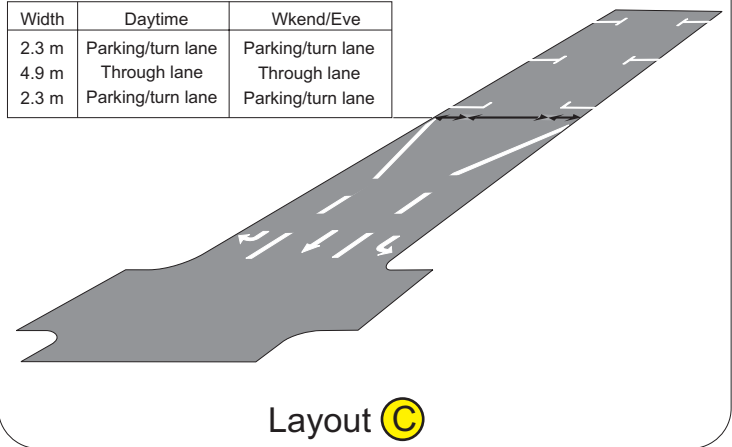


Width	Daytime	Wkend/Eve
1.5 m	Bike lane	Bike lane
3.7 m	Through/turn lane	Through/turn lane
3.7 m	Through/turn lane	Parking/turn lane

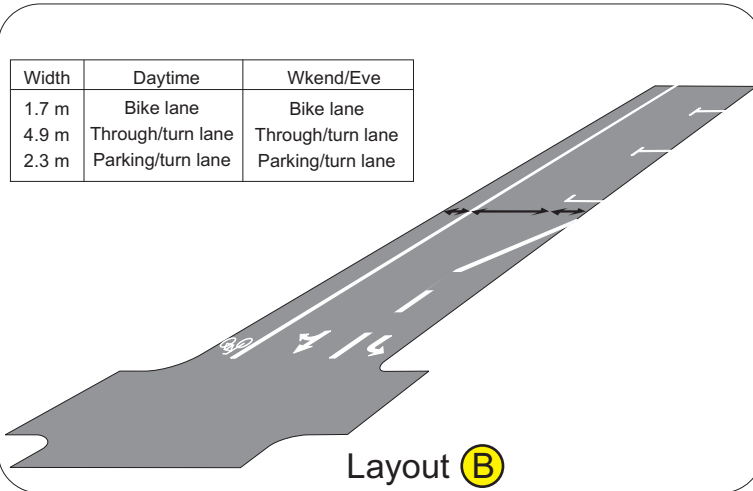


While new provincial regulations prohibit parking in bike lanes, they continue to permit stopping and loading.

Width	Daytime	Wkend/Eve
2.3 m	Parking/turn lane	Parking/turn lane
4.9 m	Through lane	Through lane
2.3 m	Parking/turn lane	Parking/turn lane



Width	Daytime	Wkend/Eve
1.7 m	Bike lane	Bike lane
4.9 m	Through/turn lane	Through/turn lane
2.3 m	Parking/turn lane	Parking/turn lane



In addition to on-street parking, new street space created will also be considered as opportunities to add loading zones and sidewalk cafes / patios.