A Tale of Three Cities: Downtown Cycle Tracks
Compare and contrast:

1. Project initiation
2. Consultation and approvals
3. Impact assessment
4. Before and after conditions
5. Detail design process
6. Cycle track separators
7. Other detail design elements
8. Specific local treatments
9. Winter maintenance
10. Evaluation
11. Last word: unique perspectives

Note to presentation reviewer: Three screen will be set up so each presenter can respond to the above elements one after each other to allow for comparison and contrasting. The following presentations are draft and will be further developed and co-ordinated for this format of presentation.
Richmond, Adelaide, Simcoe Cycle Tracks

Presented by Lukasz Pawlowski, P.Eng
Presentation Outline

• Project background
• Separated bikeway projects
• What we have learned so far
Richmond Adelaide Cycle Track Planning and Design Study

Summer of 2013, Commenced a Municipal Class EA to study physically separated bikeways in the Richmond St, Adelaide St, Simcoe St and Peter St corridors.
Why Separated Bicycle Lanes

- Cycling in Toronto is growing – 2001 to 2006 Census has documented a 30% increase in Torontonians commuting to work by bike
- Downtown is Changing – study area has experienced 300% increase in population since 1996
- 36% of downtown Toronto residents (15 yrs or older) cycle for utilitarian purposes (2009 Ipsos Survey)
Why Separated Bicycle Lanes

- Cyclists increasingly want and demand greater separation from motor vehicle traffic, for safety and comfort
- Have seen examples of separated bike lanes in other jurisdictions
June 2014, Toronto City Council adopted a staff report to authorize the installation of a pilot project to test the preliminary preferred alignments coming out of the EA.
Approved Pilot Project Installations

- Richmond Street cycle track from York to Bathurst
- Adelaide Street cycle track from Bathurst to Simcoe
- Simcoe Street, cycle tracks from Queen to Front
- Peter Street, bicycle lanes from Queen to King
Approved Permanent Installations

- Richmond Street westbound contra-flow bike lane
- Phoebe Street westbound contra-flow bike lane
- Stephanie Street westbound contra-flow bike lane
- Bathurst Street Southbound bicycle lane
Simcoe Street - Before
Simcoe Street - After
Adelaide Street - Before
Adelaide Street - After
Lessons Learned
Construction
Lessons Learned

Bollards are not perfect
Lessons Learned
Simcoe Street

Cycling volumes increased after cycle track installation, and continued to grow
Lessons Learned
Simcoe Street

Cycling Intercept Survey

- Simcoe rated 8.7/10 from a safety and comfort perspective with the cycle tracks. Prior to cycle tracks rated 5.3/10
- 95% of cyclists rated northbound contra-flow cycle track as ‘same’ (27%) or ‘better’ (68%), than a typical bike lane in Toronto, from a safety and comfort perspective.
- Additional comments – desired more separation, concerns re motor vehicle encroachment
Lessons Learned
Simcoe Street

Motor Vehicle encroachments were concentrated at several hot spot locations. Commercial vehicles, taxi, truck, limo, and vans accounted for bulk of encroachments.
Lessons Learned
Adelaide Street

Cycling volumes increased after cycle track installation, and continued to grow
Lessons Learned
Adelaide Street

Cycling Intercept Survey (prior to bollard installation)

- Adelaide rated 7.9/10 from a safety and comfort perspective with a buffered bike lane. Adelaide without cycling facility was rated 4.4/10.
- From a safety and comfort perspective 75% of cyclists rated the buffered bike lane a ‘better’ (66%) or ‘much better’ (9%) than a typical bike lane in Toronto
- 25% had requested more separation.
Lessons Learned
Adelaide Street

Cycling Intercept Survey (after bollard installation)

- Adelaide rated 8.2/10 from a safety and comfort perspective with the cycle tracks. The rating of Adelaide without cycling facility dropped to 3.9/10.
- From a safety and comfort perspective 82% of cyclists rated the buffered bike lane a ‘better’ (58%) or ‘much better’ (24%) than a typical bike lane in Toronto.
- 19% had requested more separation.
Lessons Learned
Adelaide Street

Motor Vehicle encroachments on Adelaide Street were more evenly distributed than on Simcoe Street.
Lessons Learned
Adelaide Street

Private passenger cars accounted for a greater share of encroachments noted. 28% of all encroachments were right-turning vehicles at bus stop locations, mainly at Spadina (36%) and Simcoe (44%).
Observations and Evaluation
Continue

Will add additional evaluation data prior to CITE conference.
Thank You

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Cannon Cycle Track
CITE Regina  June 2015

Providing services that bring our City to life!
Yes We Cannon is a local, grassroots movement, gathering Hamiltonians to petition City Council to improve cyclist and pedestrian safety in the lower city by taking one simple step.

The mission: create a bi-directional bike lane, running the full length of Cannon Street, by 2015.

In order to achieve this vision, we need to send a loud, clear signal to Hamilton City Council. We need the support of thousands within our community when we present the petition to Council this fall!

Sign the Petition!

There has never been a better time than right now to develop an active transportation infrastructure in lower Hamilton.

Our city has done so much and come so far already, but there's still much more to do. A cycling trip is only as safe as the least safe part of the journey - and currently all trips taken across the lower city are extremely dangerous for both cyclists and the drivers who share the road with them. Adding bike lanes to Cannon Street provides us an opportunity to make our roads safer, our communities better connected, and our citizens healthier and happier!

Between Bike Share, the proposed James St North GG Station, and the 2015 Pan Am games, now is the ideal time to take a bold step towards safe downtown transportation.

Please lend your support! Sign the campaign, share, like, and tweet away, and let's get this pedal-powered movement started.

Why Bike Lanes?
- Bike lanes reduce cycling-related accidents by up to 90%.

Featured Statement

I have recently started to take up cycling again and as someone who lives in the East end but frequents James area north it is vital to me that we have safe convenient routes to get from east to west using active transportation. As a city we need to support this, we need bike lanes... Yes we Cannon!

- Matt Willard

About Yes We Cannon

Yes We Cannon is a citizen's group focused on creating a safe transportation route for cyclists along Cannon Street.

Contact us at yeswecannon.hamilton@gmail.com if you would like to volunteer or donate to support our cause! If you donate $20 or more, you will get a beautiful Yes We Cannon T-shirt!
Cycling Master Plan

Legend
- Proposed Bike Lane
- Proposed Multi-Use Path
- Proposed Signed Route (shared on-street)
- Proposed Paved Shoulder
- Existing Bike Lane
- Existing Multi-Use Path
- Existing Signed Route (shared on-street)
- Existing Paved Shoulder
- ESCARPMENT

Cannon Cycle Track
Feasibility Study

- roadway capacity
- parking/loading
- transit
- pedestrians
- design concept
  - arterial
  - planters
- safety/collisions
- emergency services
- waste collection, etc.
- maintenance

= $850,000 capital cost
+ $240,000 annual ops
Cannon Before the Cycle Track

- Victoria Ave defines a critical change in auto volumes
- Intimidating for cyclists and pedestrians
Cannon: The Cycle Track Concept

- **OPTION B**: Retrofit within existing lane
  - Three travel lanes during AM and PM peak periods
  - Parking permitted in north curb lane except during AM and PM peak periods
  - Cycle track in south curb lane
  - Separator generally 0.4 – 0.5 m wide

- **OPTION A**: Re-stripe all travel lanes
  - 24-hour parking lane along north curb (except at bus stops)
  - Two travel lanes
  - Cycle track in south curb lane
  - Separator generally 0.85 m wide

**Typical Cross-section**
- North Side
- 3.3 m Parking, Loading, Taxis, Bikes
- 3.1 m Bus/Truck/Minivan
- 3 m Travel Lane
- 3.3 m Cycle Track (including guard)
- 3.6 m Separation
- 9.0 m Roadway Width (curbs, lanes & crosswalks)

**Typical Cross-section Mid-block**
- North Side
- 2.5 m Bus Stop
- 3.05 m Bus/Truck/Minivan
- 3 m Travel Lane
- 3.0 m Cycle Track (including guard)
- 0.65 m Separation
- 11.5 m Roadway Width (curbs, lanes & crosswalks)

**Typical Cross-section at Bus Stops**
- North Side
- 3.1 m Bus Stop (including guard)
- 3 m Travel Lane
- 3.0 m Travel Lane
- 6.4 m Separation
- 3.9 m Cycle Track (including guard)
Traffic Impacts with Cannon Cycle Track

- travel times along the 3km:
  - in the AM pk hr: 4% increase (~20s) to ~8 min
  - in the PM pk hr: 9% increase (~35s) to ~7 min

- pedestrian buffer
Timeline

Summer 2013  - Yes We Cannon
Fall 2013    - Council direction to investigate
Winter 2014  - complete Feasibility Study
March 2014   - Council direction to implement
Spring 2014  - Detailed Design
              - review of recent Hamilton install (Hunter St)
              - field surveys (consultant)
              - preliminary design
              - City comments
June 2014    - preliminary signals and signage works
              - refine a few details
              - review critical elements with City Services
              - $100,000 of select asphalt/roadway repairs
August 2014  - pavement markings, planters, etc.

September 12, 2014 – official opening

- Communication strategy throughout summer/fall 2014
- Continued review of installation details
Cannon Cycle Track

Transition at West End

Transition at East End
Signage – on a Pseudo-one-way Street
Winter Maintenance
Temporary Road Closures

Sample layout for works in two-way bike lanes:
Three Year Pilot Project

Initial Challenges:
- waste collection
- cargo deliveries at private homes
- e-bikes? medical scooters? walkers?
- some people hate it…

but some people love it.

Monitoring Metrics:
cycling ridership, BikeShare data, collisions, costs, Pan Am Games experience, business & resident & school feedback, auto travel times, intersection LOS, transit schedule adherence, illegal usage: sidewalk riding, medical scooters, cycle track blockages
Thanks!

I sure feel comfortable riding here... wonder what to eat for dinner...
Centre City Cycle Tracks - Calgary

Presented by: Canace Bain, P.Eng.
Senior Leader Traffic Construction
City of Calgary
City Council approved the cycling strategy in July 2011
Key routes were selected; City Council gave final approval
Calgary downtown parking rates highest in Canada, second in North America

MARIO TONEGUZZI, CALGARY HERALD  10.01.2012.
Traffic Impacts

- Will more congestion occur?
  Is this acceptable?
Business Impacts

Potential loss of loading zones
Transit Impacts

Bus zones posed some challenging issues
Transit Impacts

This bus stop needs to be wheelchair accessible
Construction Impacts

Existing and future lane closures need to be addressed.
Construction impacts

Were we successful?

Show pic of after traffic
Construction Impacts

The temporary sidewalk here can’t be maintained.
Design Process

Design standards and philosophy
Which step are we at now?
Details

Is it a traffic control device?
Conflict zone markings

**Conflict Zone Pavement Markings:**

- **Conflict Zone = Solid Green Zebra Crossing** (High Level)

- **Conflict Zone = Stenciled Crossing** (Medium Level)

- **Conflict Zone = Guiding Crossing** (Low Level)
Key intersections

Intersection of cycling facilities

DRAFT, this is not the final design**
Design Process

Key Intersections provided the most challenges
How do we transition from a one-way road to a two-way road?
Key intersections

Show design for 12 Ave – 2 St SE

Protected only turns or exclusive bike phase

DRAFT, this is not the final design**
Design Process

Should this location be signalized on opening day?
Winter Maintenance

How should we handle the snow?
Evaluation

Data & performance measures
Unexpected Challenges

Public Art
Expected Challenges

Adding bikes to a pedestrian only facility
Legal Challenges

Since we can’t change the provincial law is this something that we can change in a bylaw?
Other Legal Issues

How do we allow for cyclists to ride in a crosswalk?

Existing crossing in Vancouver, BC.
Source: http://bikecalgary.org/node/4364
The City's first cross-ride at 9 Avenue – Macleod Trail SE

DRAFT, these designs are not the final**
Angle Parking

Laws don’t currently allow The City of Calgary to implement back-in angle parking.
Current Traffic conditions

A key commuter corridor.
Final words

How do we decide that the pilot was successful? When do we tweak the current design?