

## CYCLE TRACK MAINTENANCE

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### EXECUTIVE SUMMARY

This report sets out a plan to refine winter maintenance practices on Calgary cycle tracks. The plan will result in recommendations on The City's role in cycle track maintenance for the 2015 – 2016 snow and ice season, which coincides with opening of the downtown pilot network.

### ADMINISTRATION RECOMMENDATION(S)

That the SPC on Transportation and Transit recommend that Council receive for information that Administration will:

1. Use City crews for winter maintenance of the 7 Street SW cycle track in the 2014 – 2015 snow and ice season (SNIC);
2. Document level of effort, costs and quality to refine and determine best practices in cycle track maintenance in Calgary; and
3. Work with Supply Management to outsource cycle track SNIC in the 2015 – 2016 season, should there be cost savings in using that approach.

### PREVIOUS COUNCIL DIRECTION / POLICY

On 2014 April 16 at the SPC on Transportation and Transit, a motion arising was made directing Administration to “investigate ways including but not limited to, the use of small scale private contractors to reduce the cost of maintenance of the cycle track”.

### BACKGROUND

Calgary opened its first cycle track in 2013 on 7 Street SW. This 0.7 kilometre (km) segment is designed to connect cyclists between Calgary's river pathway network and destinations in the downtown core. Additional cycle track links will be added in 2015.

Implementation of the 7 Street SW cycle track required City staff to adopt best practices in traffic engineering from across Canada. Maintenance standards were implemented to encourage year-round cycling.

Contractors were retained in 2013 to assist with winter snow and ice control (SNIC), and starting in the fall of 2014, City crews have taken on SNIC responsibility of the cycle tracks as part of regular downtown maintenance operations. To attract year-round cyclists, Roads Maintenance will be maintaining cycle tracks as a Priority 1 (P1). This is the same level of service as the adjacent roadway. Calgary's Snow and Ice Control Policy TP004 specifies that marked on-street bike lanes are to be maintained as a Priority 2 (P2).

### INVESTIGATION: ALTERNATIVES AND ANALYSIS

Cycle track maintenance during spring and summer months involves surface sweeping, pothole repairs, crack sealing, debris removal, signage, curb and gutter repair, and drainage. In winter months maintenance primarily includes snow and ice clearing or removal, which is the focus of this report. Approaches and equipment used to-date are described in the Attachment - Cycle Track Maintenance in 2014 – 2015.

The 2013 - 2014 SNIC season included a significant number of snow events, many having considerable amounts of snow fall. This number of snow events allowed Administration to

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identify efficiencies and practices that would contribute to a high level of service, environmental stewardship, and safety for all roadway users.

Based on the 2013 - 2014 winter experience, the following was observed of the retained Contractor:

- The Contractor delivered a high quality service within a P1 response time and removed all the snow.
- Few citizen complaints concerning cycle track conditions were received by Administration.
- Cost of SNIC of the 7<sup>th</sup> Avenue cycle track during the winter of 2013-14 was \$119,160.00 or a cost of \$726.14 per centimetre of snowfall (164.1 centimetres of snow fell in the 2013/2014 season).
- There were events when the use of materials, such as salt, were excessive, which may have environmental and safety implications.
- Contractors do not have an extensive fleet (i.e. with flashing beacons) that contribute to user conspicuity in a busy downtown environment.

Given the high cost of cycle track winter maintenance this first year, City crews have taken responsibility for cycle track SNIC as part of regular operations in 2014 - 2015. The City has access to an extensive fleet, both in number and specialization. The advantages are:

- Efficiencies related to completing cycle track SNIC operations in conjunction with the adjacent vehicle lanes. The current practice involves blowing snow from cycle tracks into adjacent lanes and clearing or removing the combined snow in a single pass.
- Operational practices for the type of, amount and placement of materials according to current and trending road temperatures, wind speed, wind direction and precipitation type (snow, sleet, freezing rain, black ice, etc.) are factors considered to reduce the environmental impact of SNIC materials while meeting service level expectations.
- To-date, no customer complaints have been received.

The November snow events in Calgary have provided early comparable cost data. Each event has required maintenance staff to respond with different equipment and materials. The overall costs to-date are:

- The November 26 to 29 snow storm dropped 14.4 centimetres of snowfall and the cycle track was cleared for a cost of \$992.39 or \$68.92 per centimetre of snowfall.
- The total snowfall in November was 43.2 centimetres and the City of Calgary was able to provide the same high level of service across the entire month at a cost of \$72.65 per centimetre of snowfall.

The current network of cycle tracks in Calgary represents 0.7 km of 3300 km of P1 routes though the network will grow in 2015 and future horizons. The utilization of City crews is expected to significantly reduce SNIC operating costs when compared to using Contractors due to efficiencies associated with having full responsibility of all public roadways. Further, City

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crews have access to a range of equipment and can maintain the cycle tracks according to the kind and amount of snowfall. It is anticipated that costs will be reduced as the cycle track network grows as this specialized equipment will travel shorter distances coming in and out of service.

Documenting the level of effort and approach according to different snow conditions through the 2014 – 2015 season will allow Roads to determine best practices in cycle track maintenance. These best practices can be assembled as a Request for Proposals for the 2015 – 2016 SNIC season, and a contractor can be appointed in time for the opening of the downtown pilot network should that route be more cost effective. A clear Request for Proposals, including detail on the kinds of equipment required will make it easier for small-scale contractors to apply.

### **Stakeholder Engagement, Research and Communication**

Research was conducted internally and externally by the Roads Maintenance team. City maintenance costs were reviewed by the District Managers to ensure costs are appropriately defined and accurate. External costs were referenced from contractor invoices resulting from the 2013-14 SNIC season and an extrapolation from 2014-15 contractor rates. Performance and response time satisfaction was evaluated by reviewing citizen 311 service requests. Initial conversations with internal Supply Management staff were held to determine if there are processes that make it difficult for small-scale contractors to win work with Roads.

### **Strategic Alignment**

Promoting year-round cycling helps meet the goals of the Cycling Strategy, the Calgary Transportation Plan and the Municipal Development Plan.

### **Social, Environmental, Economic (External)**

Year round maintenance of cycle tracks is important for providing a safe and efficient transportation network. Safe cycling infrastructure will attract users and will provide more options for Calgarians to travel around the centre city. Cycling supports a more compact downtown as bikes consume a fraction of the parking space required by vehicles.

SNIC efficiencies identified such as conducting cycle track snow clearing and adjacent roadway SNIC in a single pass will reduce fleet greenhouse gas emissions. Using best management practices for SNIC material will reduce the environmental impact of these materials and better ensure cyclist safety.

### **Financial Capacity**

#### **Current and Future Operating Budget:**

Refinements to cycle track winter maintenance is expected to reduce the Roads operating budget going forward.

#### **Current and Future Capital Budget:**

No impacts. Roads updated its fleet to more specialized equipment through regular lifecycle replacement.

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### **Risk Assessment**

Quality winter maintenance practices will mean improved safety for all road users.

### **REASON(S) FOR RECOMMENDATION(S):**

Cycle track maintenance by City crews is expected to continue to result in operational savings to The City and continue to support cycling in the downtown core.

### **ATTACHMENT**

Cycle Track Maintenance in 2014 - 2015