



City of  
**Peterborough**

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**To:** Members of the General Committee

**From:** W. H. Jackson, Commissioner of Infrastructure and Planning Services

**Meeting Date:** May 7, 2018

**Subject:** Report IPSTR18-011  
Crawford Trail Extension and Lighting of Trails

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## **Purpose**

A report providing information on the extension of the Crawford Trail and to propose the lighting of trails.

## **Recommendations**

That Council approve the recommendations outlined in Report IPSTR18-011 dated May 7, 2018, of the Commissioner of Infrastructure and Planning Services, as follows:

- a) That sufficient funds to purchase and install lighting for the Crawford Trail extension be included in future budget submissions; and
- b) That lighting of the main trails in the City be approved as a design feature and that implementation of the lighting be included as part of future budget submissions.

## **Budget and Financial Implications**

The Crawford Trail Extension is one of two projects that the City is using the Ontario Municipal Commuter Cycling Program funding for. At its meeting of February 28, 2018, Council in considering Report USTR18-004, approved the following:

“That a capital project for the Crawford Trail Extension Project be created in the amount of \$1,000,000 and \$408,501 of the funds be transferred from the 2018 Various Multi-

Use Trail Project (Capital Budget Ref # 5-5.01) and the remaining \$591,499 be funded from the OMCC program grant.”

The design for the first stage of construction, between Romaine Street and Perry Street, has been completed and the Request for Tender has been issued. This initial stage of construction will utilize the above noted pre-approved funding, however, further funding will be required in subsequent years to complete the project.

The current tender has included underground ducts to facilitate future trail lighting. The capital cost for lighting the Crawford Trail between Perry Street and Monaghan Road, is estimated at \$220,000 based on the cost of the Rotary Trail lighting project in 2017. Funding to implement lighting for this section of the trail will be included in the 2019 budget submission. The annual operating cost, which would be included in future operating budgets, is estimated to be \$4,500 - \$6,500.

## **Background**

The existing 1.7 km Crawford Trail is on a former CP Rail spur line which starts at Crawford Drive near Costco and terminates at Monaghan Road, just south of Lansdowne Place. The Crawford Trail project was initiated and funded by Baron Cowan and Haig Kelly in 2006.

At their meeting of December 12, 2016, Council in considering Report PLPD16-089, approved the purchase of the remainder of the CR Rail Industrial Spur line, from Monaghan Road to Lake Street, creating the opportunity to extend the Crawford Trail to the north. At that meeting, Council also approved a motion requesting: “That staff provide a report on methods to maximize the safety of trail users in this new section of trail.”

The location of the Crawford Trail Extension in the context of the existing bikeway network is shown in Appendix A. There are several destinations that will be directly or indirectly served by the full Crawford Trail. At its north end, the Crawford Trail will connect directly to the Bethunescape project, the City’s first bicycle priority street, which will provide access into the downtown, and to the extensive trail network in the north end of the City. The new portion of the Crawford Trail will provide a connection from the downtown area to the Lansdowne Street corridor, Lansdowne Place, Costco, Kenner Collegiate, and ultimately, to the new casino. This will create a continuous 20 km protected walking and cycling corridor from Crawford Drive to Trent University and on to Lakefield.

## Crawford Trail Concept Elements

In 2017, staff began developing design concepts for the new trail and for the various road crossings that intersect the former rail corridor. In the following pages, the elements of the Crawford Trail extension are described from south to north to the extent that they have been developed so far.

### a) Monaghan Road to Lansdowne Street West

Crossing Monaghan Road at the point where the trail currently ends is challenging due to the sight lines and available gaps in traffic. To address this, the proposed trail will extend from the current termination point along the west side of Monaghan Road to the Lansdowne Place entrance through construction of a 2.0 - 3.0 m wide asphalt trail in the west boulevard of Monaghan Road. A new traffic signal is proposed at the mall entrance to provide a safe protected crossing point for trail users, and this will assist in accommodating mall traffic as well. The trail crossing will be on the south leg of this new signalized intersection and will feature enhanced “crossride” pavement markings that serve both pedestrians and bicycles, and accessible push buttons for the crossing, as illustrated in Figure 1.

**Figure 1 – Crawford Trail Concept – Monaghan Road to Lansdowne Street**



After crossing Monaghan Road, the trail will follow the former rail bed to Lansdowne Street. An underpass option to avoid crossing Lansdowne Street at grade was initially investigated, but issues with drainage would be expensive to resolve and there is also concern for personal safety in the tunnel. Tunnels under busy roadways have been used in various communities for pedestrian / trail crossings with mixed results. The key to designing a safe underpass tunnel is the ability to utilize an open design treatment with clear visibility of the tunnel entrance and into the tunnel from the outside, so that the tunnel does not become a dark place for people to loiter without being observed. Many municipalities have closed tunnels in similar situations due to concerns over personal safety in the tunnels. Given the grades, the layout of the adjacent buildings, and constraints with adjacent land uses in this area, clear visibility of the tunnel entrance cannot be achieved at this location, and a tunnel is therefore not recommended.

Instead, the proposed crossing at Lansdowne Street will utilize a refuge island constructed in the centre turning lane to facilitate a two stage crossing. Due to the traffic signals at the intersections of Monaghan Road and Lansdowne Street and at Park Street and Lansdowne Street, there are gaps in traffic that will allow trail users to cross the street, two lanes at a time. This type of crossing has been in use on Chemong Road at the Parkway Trail and on Reid Street / Rubidge Street at the TransCanada Trail for a number of years and both crossings continue to operate satisfactorily.

#### **b) Lansdowne Street West to Park Street South**

From the north side of Lansdowne Street, the trail follows the former rail bed and includes at-grade crossings at Romaine Street and Park Street South. As illustrated in Figure 2, the Romaine Street crossing will utilize a standard Pedestrian Crossover, which provides enhanced protection for pedestrians on low volume roads by legally requiring motorists to stop for pedestrians crossing the roadway. Cyclists riding across the street will be directed to use the crossride provided adjacent to the pedestrian crossover.



**Figure 2 – Crawford Trail Concept – Romaine Street to Park Street South**

At the crossing of Park Street at Westcott Street, an Intersection Pedestrian Signal is proposed on the north leg of the intersection. This will function like the new signal on Parkhill Road just east of Benson Avenue, creating a protected crossing for trail users. The sidewalk on the west side of Park Street between Crawford Trail and the north side of Westcott Street will be replaced with a 2 metre asphalt trail to accommodate both trail and sidewalk users. A crossride will be integrated into the crossing of Park Street so that cyclists are permitted to ride across.

### **c) Park Street South to Perry Street**

Between Park Street South and Perry Street, the trail will cross Lake Street and Perry Street. As both of these roads are also low volume roadways, a standard Pedestrian Crossover treatment is also being proposed, as illustrated in Figure 3. A separate crossride will be provided for cyclists adjacent to the pedestrian cross-over.

**Figure 3 – Crawford Trail Concept – Park Street South to Perry Street**

Genpak is located between Perry Street and Lake Street and their loading docks face west towards the trail. Today, the loading docks are parallel to the building and transport trucks using them need to cross over the former CP Rail line to access them. Staff have been working with Genpak to ensure that the new trail design is compatible with their operations, and Genpak developed a concept to alter their loading docks, placing them on an angle, so that trucks can access them without encroaching on the former CP Rail line lands. To address safety for trail users, and to ensure that trail users remain on the trail and out of the Genpak loading zone, a fence will be provided as part of the trail project along the property line between Genpak and the trail.

There is also a short extension of the Bethune Street right-of-way south of Perry Street that is used by several homes to access their driveways/laneways. Their access will be maintained via a driveway on the west side of the trail.

At this stage of the project, the trail design has been completed for the section between Romaine Street and Perry Street and it is planned to be constructed this year. A phased approach to implementation allows the City to utilize available Provincial funding to advance construction in recognition that this section of the trail is already being used in an informal manner today. Formalizing the trail will provide better crossings, a safer



trail environment, and mitigate against any conflicts between trail users and the Genpak operations.

#### d) Perry Street to Townsend Street

The ultimate concept for the trail also includes a future connection to the north of Perry Street, which requires crossing an active CP rail line just south of Townsend Street before connecting to the future trail being constructed as part of the Bethunescape project, as illustrated in Figure 4.

**Figure 4 – Crawford Trail Concept – Perry Street to Townsend Street**



A contract for design of the trail between Perry Street and Townsend Street has been awarded to AECOM. This contract includes completing the approvals process with CP Rail for the rail crossing. Due to the time the approvals process is anticipated to take, this phase of trail construction is not expected to be ready for tender until 2019.

#### Trail Lighting – Overall Approach

The City does not currently have a formal policy for trail lighting. The following portions of the off-road trail network have lighting:

- Rotary Greenway Trail - link from Hazlitt Street to London Street
- Otonabee River Trail - Simcoe Street to Del Crary Park
- TransCanada Trail - Engleburn Avenue to west side of CP Rail bridge
- Rotary Greenway Trail link - Water Street to Rotary Trail (new in fall 2017)

These short segments of trail lighting have been installed as part of specific projects and two of them provide lighting on bridges crossing the Otonabee River. There are increasing requests to light existing trails so that people can safely use the trails after dark and to reduce the potential for crime along the route. Some trails are parallel to roads and for these trails, lighting is provided because these trails are considered part of the road right-of-way in the same way that sidewalks are.

As new off-road multi-use trails are developed, they will be assessed for the need to light them. Consideration will include proximity to built up areas, anticipated level of use and the natural areas that the trail passes through. The discussion around trail lighting also needs to recognize adjacent residential property owners, as unwanted light spill into rear yards and windows can impact privacy and enjoyment of property. The use of low height light poles and shields on luminaries will mitigate the potential for light spill into rear yards.

It is proposed that trails that are in built up areas and where a moderate to high level of use is anticipated be provided with lighting. Providing lighting on existing main trails, such as the Rotary Greenway Trail, will be implemented as budget permits. The cost to provide lighting is approximately \$100,000 per 500 metres of trail. If all the priority trails are lit, it would cost a total of approximately \$2.5 million. Before any such works are undertaken Council approval of the required budget would be sought. Operating costs are very low with the new LED light fixtures.

### **Lighting of the Crawford Trail Extension**

The Crawford Trail extension is located in a highly urbanized environment and there will be a desire to use it throughout the day and evening periods, given the links to the downtown and Lansdowne Place Mall. It is anticipated that this trail will have a moderate to high level of use once it is completed and other connected links are provided. As such, it is believed that the Crawford Trail extension should be lit.

On the Crawford trail between Monaghan Road and Perry Street, there are approximately 22 residential properties which back onto the trail or are in close proximity to the trail.

The current tender for the trail construction between Romaine Street and Perry Street has included underground ducts to facilitate future trail lighting. The estimated capital cost for trail lighting for the entire section between Perry Street and Monaghan Road is \$220,000 based on the unit cost of \$200/m of trail that was spent on the most recent project for lighting a segment of the Rotary Greenway Trail Link in 2017. The annual operating cost is estimated to be \$4,500 - \$6,500, which would be included in future operating budgets. It is proposed to include these funds in the 2019 draft budget submission.



## Implementation

Table 1 indicates the anticipated phasing for construction of the various segments of the Crawford Trail project. The phasing schedule will be confirmed once cost estimates are finalized and pending future budget approvals.

**Table 1: Preliminary Phasing for Construction of the Crawford Trail**

Trail Section	Expected Year of Construction
Romaine Street to Perry Street	2018
Monaghan Road to Romaine Street	2019
Perry Street to Townsend Street	2019

## Summary

The construction of the Crawford Trail represents a significant addition to the City's multi-use trail and cycling network. The connection between Monaghan Road and Townsend Street will connect into the Bethune Street project, resulting in a continuous 20 km walking and cycling corridor from Crawford Drive to Trent University and on to Lakefield. A number of enhanced measures, including the use of new pedestrian crossovers, midblock pedestrian crossing signals, and trail lighting will provide a safe and comfortable trail environment for commuters and casual trail users of all ages and abilities.

Submitted by,

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Commission of Infrastructure and Planning Services

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Attachments:  
Appendix A – Location of Crawford Trail Extension

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