



City of
Peterborough

TO: Members of the Planning Committee

FROM: Ken Hetherington, Manager, Planning Division

MEETING DATE: July 16, 2012

SUBJECT: Report PLPD12-041
CPR Bridge Link, Trans-Canada Trail Grant Application and
Budget Adjustment

PURPOSE

A report to recommend a capital budget adjustment for the Trans-Canada Trail CPR Bridge Project submission of an application to the Community Infrastructure Investment Fund and entering into a contract with Sanchez Engineering Inc. for the detailed design, preparation of Request for Tenders (RFT) documents and contract administration for the trail's construction.

RECOMMENDATIONS

That Council approve the recommendations outlined in Report PLPD12-041 dated July 16, 2012, of the Manager, Planning Division, as follows:

- a) That an application be submitted to the Community Infrastructure Investment fund and the 2012 Capital Budget for the project be revised to the following if the project application is successful:

BUDGET REQUIREMENT	\$2,500,000
FUNDING SOURCE	
Community Infrastructure Investment Fund	\$832,500
Capital Levy	\$870,000
Provincial Surplus Reserve	\$380,000
Federal Gas Tax	\$417,500

And the following also occurs:

- i) That \$500,000 Capital Levy from the 2012 Storm Sewer Rehabilitation project (2012 Capital Budget reference 5-7.01) be substituted for Federal Gas Tax Funding from the Trail Development project (2012 Capital Budget Reference 7-1.02) for a combined Capital Levy in the amount of \$870,000.
 - ii) That \$380,000 Provincial Surplus Reserve funding from the Innovation Cluster project (2012 Capital Budget Reference 7-3.01) be redirected to Trans-Canada Trail CPR Bridge Project and that the \$380,000 be re-budgeted in the 2013 Draft Capital Budget.
 - iii) That the Rotary Trail Link to Lakefield portion of the Trail Development Capital Project (2012 Capital Budget Reference 7-1.02) be deferred and that \$192,500 of Federal Gas Tax funds be transferred to the Trans-Canada Trail/CPR Bridge Project, decreasing the budget from \$266,500 to \$74,000.
- b) That Sanchez Engineering Inc. be retained for the detailed design, preparation of RFT documents and construction administration for the project in the amount of \$148,890.00 plus HST of \$19,355.70 for a total cost of \$168,245.70.
 - c) That the Mayor and Clerk be authorized to execute an agreement between the Canadian Pacific Railway Company for the construction of, and the public use of, the Trans-Canada Trail link on their property.
 - d) That a by-law be passed to authorize the submission of an application to the Community Infrastructure Investment Fund in the amount of \$832,500 for the Trans-Canada Trail/CPR Bridge Project.
 - e) That a by-law be passed to confirm the Mayor and Clerk are authorized to sign a Funding Agreement between Her Majesty The Queen In Right Of Canada hereby represented by the Minister responsible for Federal Economic Development Agency for Southern Ontario and the Corporation of the City of Peterborough in order to receive \$832,500 under the Community Infrastructure Investment Fund (CIIF) Program in Ontario for repair and upgrade of community and recreational facilities.
 - f) That, to ensure the project can be completed by March 31, 2014, Section 7 (1) (iii) of the City's Purchasing By-law 10-132 be waived and the RFT documents for the Construction work be issued prior to the announcement of a successful application, if required.

BUDGET AND FINANCIAL IMPLICATIONS

The engineering consultant's fee for services and the estimate to construct the Trans-Canada Trail link is \$2,421,890.00 for a project budget of \$2,500,000. Currently, there is \$1,095,000 available in the Trail Development Project (2012 Capital Budget reference 7-1.02). To cover the difference, a minimum of \$1,405,000 is required to provide sufficient funds for the project to proceed.

Assuming CIIF Funding will be approved in the amount of \$832,500 then Chart 1 illustrates the sources of the additional funding required. It is being recommended that an amount of \$192,500 be transferred from the "Rotary Trail Link to the Lakefield Trail" project and that \$380,000 be transferred from the Innovation Cluster Project.

Chart 1
CPR Bridge Link, Trans Canada Trail
Sources of Funding

Capital Project	Existing Budget	Federal Gas Tax	Capital Levy	Provincial Surplus Reserve	CIIF Grant	Total
CPR Bridge Link - Existing	1,095,000	725,000	370,000	-	-	1,095,000
Budget Adjustments:						
Rotary Trail Link to Lakefield 7-1.02		192,500				192,500
Storm Sewer Rehab 5-7.01		(500,000)	500,000			-
Innovation Cluster 7-3.01				380,000		380,000
CIIF Grant Application					832,500	832,500
CPR Bridge Link - Revised		417,500	870,000	380,000	832,500	2,500,000
Storm Sewer Rehab	500,000	500,000	-500,000			500,000
Innovation Cluster	500,000			(380,000)		120,000
Rotary Trail Link to Lakefield	266,500	(192,500)				74,000

Note: Total Federal funding cannot exceed 50% of eligible project costs.

- Federal Gas Tax \$417,500
 - CIIF Grant \$832,500
- \$1,250,000

The total \$151,510.46 (net of the HST rebate) for the detailed design, preparation of RFT documents and construction administration for the project can be accommodated within the total budget of \$2,500,000.

BACKGROUND

In November 2011, sections of the previously existing walkway detached from the Canadian Pacific Railway (CPR) Bridge's north girder causing it to slump away. Recognizing the unsafe condition, City Public Works immediately arranged to have the walkway fenced off to prevent public access. Fearing that sections of the walkway could collapse, a special provision of the City's Purchasing By-law was utilized to hire a contractor as quickly as possible in order to have the heavy concrete slabs removed. In December 2011, a contractor was hired and the slumping walkway was removed from the bridge in January 2012. Since the closure of the walkway, the public has expressed great concern with the loss of the river crossing. As well, the CPR became very concerned with the degree of trespass on the railway track portion of the bridge.

Through Report CPFS11-051, dated November 29, 2011, provided to the Budget Committee, Council approved recommendations to increase the 2012 budget for the Trans-Canada Trail/CPR Bridge by \$500,000 from \$500,000 to \$1,000,000. The additional funding for the project was made possible by deferring a 2012 budget amount of \$180,000 related to the development of Otonabee River Trail from Del Crary Park to Little Lake, and an additional \$320,000 was made available by decreasing the 2012 budget for upgrades to City facilities from \$1,220,000 to \$900,000. Staff cautioned in Report CPFS11-051 that the cost to construct the new trail link could exceed the \$1,000,000.

Subsequently, staff issued a Request for Proposals (RFP) P-47-11 for the "Structural Engineering Assessment and Preliminary Design for a Public Walkway on the Canadian Pacific Railway Bridge". The RFP requested that every effort be made to formulate a design that would not detrimentally affect the existing bridge's superstructure, and to maximize the width of the trail, preferably to the standard trail width dimension of 3.0 metres (10 feet). The former walkway was solely attached to the bridge's north side girder, resulting in heavy corrosion to its bottom chord, particularly at the bracket locations. This is where the walkway began to detach from the girder, resulting in the removal of sections of the walkway this past winter.

Sanchez Engineering Inc. was awarded the work. The work was divided into two parts: Part A involved an investigation to determine if it is feasible to continue to attach a pedestrian walkway or trail to the bridge. If it was determined that it is feasible, with CPR engineers' concurrence, Part B of the work could proceed, which involved further refinement to the design and the production of a cost estimate.

Sanchez Engineering proposed modifying the existing bridge's piers and abutments to carry the load of a new pedestrian walkway independent of the bridge's superstructure. Preliminary design drawings and loading calculations were sent to CPR engineers for review and approval in principle was received. As a result, staff authorized the consulting engineer to proceed with Part B of the work as outlined in the RFP.

The design for the trail was refined to achieve congruency with the existing bridge design. For example, the angles of the trusses were modified to be identical to the angles of the trusses on the existing bridge. As well, the drawings were modified to include lighting for the trail link. However, rather than using traditional lighting poles, it is proposed to create boxed arches over the trail at regular intervals, on which the lights will be centred.

Since this project has been identified as a “high priority”, it has been recommended to enter into a contract with Sanchez Engineering Inc. to complete the detailed design, RFT package and contract administration for the project. Staying with this engineering firm to complete this work will result in the most expeditious route to completing the construction of the new trail on the CPR Bridge.

The breakdown of all the estimated costs to construct the trail, including Sanchez Engineering’s proposed fee for services is as follows:

Proposed Fees for Engineering Design Services:

CP Railway Bridge Repairs:	\$16,090.00
New Trail on CPR Bridge:	\$21,650.00
Geo-technical Investigation:	\$20,000.00

Construction Administration

Railway Bridge Repairs:	\$31,090.00
New Trail on CPR Bridge:	\$34,560.00
Materials Testing:	\$15,000.00
Contingency (3 weeks):	\$10,500.00

Total for Engineering Design Services and Construction Administration: **\$148,890.00**

Construction Cost Estimate (includes 25% contingency):

Railway Bridge Repairs:	\$555,000.00
New Trail on CPR Bridge:	\$1,718,000.00

Total estimated Cost of Construction: **\$2,273,000.00**

Total Cost of Project

(Engineering Design Services, Contract Administration+ Cost of Construction)

\$2,421,890 (\$2,500,000 Capital Budget Requirement)

An analysis of the numbers shows that the consulting engineer’s proposed fee for services is well within reasonable limits being under 7% of the cost of construction.

The repairs to the railway bridge are an important component of the work. With the CPR's agreement to permit the construction of the trail link on their piers and abutments, the City is obligated to make repairs caused by the former walkway's attachment to the bridge. Even if a new trail was not proposed on the CPR property, the City would be obligated to make repairs to the bridge.

Community Infrastructure Investment Fund

On July 5, 2012, the City received notice that the Community Infrastructure Investment Fund (CIIF) was launched. The Fund provides \$49.6 million over two years for the repair and upgrade of community and recreational facilities across the province.

CIIF was announced in March 2012 in the federal budget and is being administered across Canada by the federal government's regional development agencies.

This new Federal grant opportunity is available for existing community infrastructure rehabilitation or improvement. Construction of new infrastructure is ineligible. Projects must be non-commercial in nature and be open for use to the public and not limited to private membership.

Eligible projects include:

- community or cultural centres
- parks, recreational trails such as fitness trails, bike paths and other types of trails
- libraries
- recreational facilities including local arenas, gymnasias, swimming pools, sports fields, tennis, basketball, volleyball or other sport-specific courts, golf courses, ski hills or other types of recreational facilities
- tourism facilities
- docks; and
- other existing community infrastructure assets that have a local community impact, such as local roads, drinking water treatment and distribution systems, connectivity and broadband, local airports, solid waste management and wastewater infrastructure

The funding is for a maximum of \$1.0 million. The total Federal funding cannot exceed 50% of total eligible project costs. Eligible costs must be incurred between April 1, 2012 and be substantially complete by March 31, 2014. Multiple projects may be submitted.

Project applications must be authorized by a resolution of Council and the resolution must be submitted at the time of application.

Trans-Canada Trail CPR Bridge Project and CIIF Selection Criteria

Staff are recommending that an application be submitted for the TransCanada Trail CPR Bridge project for a 33.3% share in the amount of \$832,500.

The City's application for this project will meet many of the selection criteria, such as:

- Funding priority will be given to project that only require a 33.3% CIIF contribution.
- Priority will also be given to projects that can demonstrate anticipated economic benefits to their community.
- Project is construction ready and will be completed by March 31, 2014.
- Incrementality - The project would not otherwise be constructed by March 31, 2014 if it were not for funding from the CIIF.
- Ability to leverage 66.6% of project funding from other sources.
- Extent to which community-based partnerships have been formed for the use of the facility. In order for the work to proceed, the City will be entering into an agreement with CPR.

Timelines

With the Planning Committee's approval of the recommendations of this report, and the ratification by Council on July 30, 2012, the consulting engineer has advised that it should be possible to produce the detailed design and specifications, along with the RFT package by the end of August 2012. It is reasonable to expect that staff would be in a position to recommend the contractor by the October 9, 2012 Planning Committee meeting thereby allowing construction to potentially commence by the end of that month.

The timing is good from the point of view that the Trent Severn Waterway will have lowered the water levels in the river following the Thanksgiving long weekend in October. The coffer dams, to allow for the modifications to the piers and construction of the bridge abutments, would be put in place when the river's water levels are typically at their lowest. At the same time, construction is underway to modify the piers and construct the abutments, the repairs to the CPR Bridge can take place.

The Consulting Engineer

Sanchez Engineering Inc. was responsible for the preliminary design that successfully received the CPR's approval in principle to proceed to the next stage: the detailed engineering design and specifications for the new trail. As a result, it has been recommended to enter into a contract with Sanchez Engineering to do this work, attain CPR approval, prepare RFT documents, arrange for geo-technical investigations, and provide all the services associated with construction administration. Staff are relying on Section 32 (9) of the Purchasing By-law No. 10-132 to continue to retain Sanchez Engineering to provide these services. The By-law reads as follows:

“32. Non-competitive procurement is permitted in the following circumstances when approved by the Senior Director of Corporate Services in writing prior to any discussion with the supplier:

- (9) When a Consultant has been used to provide a service, and additional work is required that builds upon or is dependent upon the previous work undertaken...”

Budget Adjustment Required

Additional funds are required to provide an approved budget for the estimated cost to construct the new trail bridge. Due to the high priority of the project, it is recommended that funds be provided in 2012 to enable the project to proceed as quickly as possible.

Both the Trans-Canada Trail/CPR Bridge Project and the Rotary Trail Link to Lakefield Trail project are part of the overall Trail Development project (Project 7-1.02 in the 2012 Capital Budget. Deferring the Trail Link to Lakefield and transferring \$260,000 to the Trans-Canada Trail/CPR Bridge Project will mean that amount will need to be budgeted in a future capital budget prior to completing the work.

The remaining funds required are \$1,145,000 and it is recommended that this amount be a pre-commitment to the 2013 Capital Budget. This will allow the project to proceed at this time, however, without the benefit of reviewing any other 2013 capital budget requests, Council is making the decision that this is a high priority and that they are prepared to make that commitment.

Agreement Required

The CPR is requesting that the City enter into an agreement for the construction of the trail crossing and the public use of their right-of-way for a trail. The current agreement has been in effect since 1916. The draft agreement explicitly sets out the conditions associated with the trail's construction. As well, it similarly indemnifies and saves harmless the CPR from all claims and damages through construction and after the trail link is opened for public use. If the City is in default with the agreement, the CPR may terminate it by giving 90 days written notice, following which the CPR may require the removal of the trail. The agreement does not require any monetary consideration for the public use of CPR property.

Waiving Section 7 (1) (iii) of Purchasing By-law 10-132

Section 7 (1) (iii) of Purchasing By-law 10-132 requires that sufficient approved budget exist before a procurement process commences. To ensure the project can be completed by the March 31, 2014 deadline, staff recommend that a RFT be issued once the design is complete even if this occurs prior to hearing if the City's application is successful.

SUMMARY

The CPR have been cooperative with respect to the removal of the pre-existing walkway, and have assisted in the production of the proposed design for the new trail link. It is in the CPR's best interest to promote the creation of a new trail link across the river as they have sincere concerns with the current public trespass that is occurring on the railway track portion of the bridge.

The recommendation to construct a new structure for the trail at the CPR bridge location is based on the following:

- a) It provides an established direct route for trail users, linking the Otonabee River Trail and the future Crawford Trail extension to the Trans-Canada Trail.
- b) The CPR bridge piers exist and can be modified to support the new trail structure.
- c) Since the bridge piers exist, limited agency and environmental approvals are required, expediting the time frame for the trail connection to be opened.
- d) The trail can be a minimum width of 3.0 metres or 10 feet, meeting the standard for trail development to ensure full accessibility and safety.
- e) The new trail will no longer depend on the CPR Bridge's superstructure for support, eliminating concerns that the City's trail may compromise the structural integrity of the CPR Bridge.
- f) The trail link will be designed to withstand the loading of City Public Works snow clearing equipment.

The walkway link on the CPR Bridge has been in existence for nearly 100 years. After the walkway had to be removed from service, the public has been very concerned with the time frame necessary to have it replaced. With Council's approval of the recommendations in this report, it appears possible to begin construction to replace it with a 3.0 metre wide Trans-Canada Trail link as early as this fall.

Submitted by,

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Attachments:

Exhibit A - Site Location Map
Exhibit B - Preliminary Bridge Design
Exhibit C - Cost Estimate

EXHIBIT A
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CPR BRIDGE CONTEXT MAP







EXHIBIT "C"
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City of Peterborough

CP Rail Bridge Repairs and New Pedestrian Walkway

Summary

11 June 2012

Construction

Part A	Railway Bridge Repairs	\$555,000.00
Part B	New Walkway includes 25% contingency	\$1,718,000.00

Design

Part A	Railway Bridge Repairs	\$16,090.00
Part B	New Walkway	\$21,650.00
	Geotechnical Investigation	\$20,000.00

Construction Administration

Part A	Railway Bridge Repairs	\$31,090.00
Part B	New Walkway	\$34,560.00
	Materials Testing	\$15,000.00
	Contingency (3 weeks)	\$10,500.00

Total		\$2,421,890.00
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