



## ADMINISTRATIVE REPORT

Report Date: July 3, 2009  
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Meeting Date: July 21, 2009

TO: Vancouver City Council

FROM: General Manager of Engineering Services

SUBJECT: Streets and Transportation Capital Budget Reallocations and Associated Tender Award (ITT PS09055) - Supply and Delivery of Column Luminaires for Granville Street

### *RECOMMENDATION*

- A. THAT Council approve the reallocation of \$1,150,000 from the 2009 Streets Basic Capital Budget (BCB) Infrastructure Program A1a4 Streets - Local Improvements and the reallocation of \$550,000 from the 2009 Streets BCB Infrastructure Program A1a6 Lanes - Local Improvements, for a total reallocation of \$1,700,000, to the 2009 Streets BCB Transit and Safety Program A4d Cycling Network.
- B. THAT Council approve budget transfers within the 2006-2008 Streets and Transportation, and Street Lighting and Communications Capital Budgets in the amount of \$3,900,000 for Granville Mall and Cambie Street, and \$1,040,000 for Blenheim Street as detailed in Appendix A, to the project budgets for the reconstruction of Granville Street, Cambie Street and Blenheim Street.
- C. THAT subject to Council approval of Recommendation B and the conditions set out in Recommendations D, E and F, the General Manager of Engineering Services be authorized to enter into a contract with EB Horseman for the supply and delivery of decorative column luminaires at an estimated value of \$1,557,119.00 plus the applicable taxes with funding provided from the 2006-2008 Streets Basic Capital Budget for Granville Street Reconstruction.
- D. THAT the Director of Legal Services be authorized to execute and deliver on behalf of the City all legal documents required to implement Recommendation C;

- E. THAT all such legal documents be on terms and conditions satisfactory to the General Manager of Engineering Services, the Manager, Supply Management and the Director of Legal Services;
- F. THAT no legal rights or obligations will be created or arise by Council's adoption of Recommendations C, D and E above unless and until such legal documents are executed and delivered by the Director of Legal Services.

### ***GENERAL MANAGER'S COMMENTS***

The General Manager of Engineering Services RECOMMENDS approval of recommendations A through F.

### ***COUNCIL POLICY***

Contracts with a value over \$300,000 are referred to Council for approval.

Council establishes annual Capital budgets based on three year Capital Plans. The annual Capital budgets are made up of a combination of budgets for specific large projects and budgets for programs of work made up of smaller projects. Adjustments or variances to a project or program budget that exceed \$50,000 and 15% are subject to Council approval.

### ***PURPOSE***

This report has three purposes:

- To report back, per Council's direction on June 10, 2009, with details on a proposed reallocation within the 2009 Streets Capital Budget from Roads program budgets to Cycling Network program budgets.
- To seek Council's approval of budget transfers which will deal with project budget variances which have emerged during construction on the Cambie Street, Granville Street and Blenheim Street reconstruction projects. These budget transfers are recommended from other projects and programs within the 2006 to 2008 Streets Capital Budgets.
- To seek authorization to award the contract for the supply and delivery of decorative column luminaires to EB Horseman. These high efficiency LED column luminaires form a key urban design feature for Vancouver's downtown Granville Street. There is currently insufficient funding within the existing Granville Street Reconstruction project budget to enable the award of this contract.

### ***DISCUSSION***

#### **A) Budget Reallocation within the 2009 Streets Capital Budget**

On June 2, 2009 Council moved to allocate an additional \$1.7 million of funding in the 2009 Streets Capital Budget to the Cycling Network, from non pedestrian or cycling related sources

within the budget. Staff have evaluated the budget the funding available within the budget in order to achieve this Council direction.

The City's process for establishing the 2009 - 2011 Capital Plan allocated funds based on the following priorities;

- a) Major Maintenance, Safety, or Mandated Changes;
- b) Remedy Deficiencies to Maintain Service Levels; and
- c) New or Expansion to Increase Service Levels.

The top priority through this process was to maintain the condition and safety of existing assets in order to protect the City's past infrastructure investments. The creation of new assets was considered a lower priority in the process. In examining the budget to achieve the re-allocation to bicycles we have looked at those lower priority parts of the Capital Budget that create new assets rather than those that maintain existing infrastructure.

There are two Streets programs that deal with the creation of new assets; A1a4, Streets - Local Improvements and A1a6, Lanes - Local Improvements. These Local Improvement programs deal with requests from residents for construction of new streets or lanes which are currently unimproved or undeveloped.

The 2009 BCB allocated \$2,000,000 in City funding for Streets local improvements program and \$900,000 for the Lanes local Improvements program. The proposed reallocation of \$1,150,000 from Streets and \$550,000 from Lanes would leave \$850,000 available for Street Improvements and \$350,000 available for Lane Improvements in the 2009 BCB. This reduced funding will limit the ability of the City to fund requested improvements to streets and lanes this year, however it is currently projected that the funding would be adequate for the Petition projects that are expected to be advanced to Council through the Court of Revision this October. If the demand for exceeds the available funding in the 2009 Budget for these programs, Council would have to delay the approval of some projects to a future Court of Revision or Council could also approve additional funding in advance of the 2010 budget.

#### **B) Budget Transfers to deal with variances on Granville Street, Cambie Street, and Blenheim Street Reconstruction Projects**

There are three large projects funded within the 2006 to 2008 Streets Basic Capital Budget which have, for a number of reasons, which are explained below, experienced cost increases beyond their original budgets. Budget variances such as these are normally reported in the Capital Budget closeout reports if they exceed the policy limits of both \$50,000 and 15%. Although two out of three of these project variances do not technically exceed the 15% threshold which requires reporting to Council, they are still quite substantial.

In the case of Granville Street, there is insufficient funding remaining in the project budget to cover the award of the lighting contract which is also recommended in this report therefore additional funding is required at this time. Staff have reviewed the status of the 2006 to 2008 Capital Budgets to identify funding sources for transfer. Rather than just dealing with the shortfall for the Granville Street lighting contract staff are recommending funding transfers for all three projects at the same time.

The following sections detail the additional funding needs for the Granville Street, Cambie Street, and Blenheim Street reconstruction projects. The recommended sources for the necessary funding transfers are detailed in Appendix A of the report.

**i) Granville Street Reconstruction**

The Granville Street Reconstruction project underwent an extensive public consultative design process that produced a design which will allow the street to enhance transit efficiency, incorporate flexibility in its functionality to best serve the public and businesses along the corridor, and incorporate features intended to allow the corridor to regain its prominence as one of Vancouver's "Great Streets". The target completion date of November 2009 was set to correspond with the original service commencement date of the Canada Line Rapid Transit System. Granville Street has been significantly disrupted by the closures for Canada Line construction and it was important to complete this work as quickly as possible once the street was available to our contractor.

To meet this deadline and to respond to the challenge of custom design elements that required further design development, the project was tendered not as a project in its entirety, but in parts. Specifically, invitations to tender were posted in advance for the major components of the design that were shelf-ready, before detailed design of custom components unique to Granville Street, such as LED lighting and street furniture had been completed. The advantage to this strategy was that it allowed construction to meet the overall timeline and be coordinated with Canada Line construction to reduce the overall disruption to the public. The risk, however, was that the estimated pricing for the supply of these unique elements was difficult to assess without the detailed design on-hand. Therefore the original budget for this project included detailed estimates for road reconstruction, and only preliminary estimates for custom lighting. The lighting tender, submitted for approval in this report, is significantly higher than those preliminary estimates.

In November 2008, the first contract for Granville Street was awarded to Jacob Bros. Construction for the reconstruction of architectural sidewalk, concrete and asphalt roadway, and underground electrical infrastructure. The total contract value came within 7% of project estimates. This contract is proceeding well and working within allocated budget and contingency.

Supply of the custom street furniture for Granville Street was assumed during the budgeting process to be provided at no cost to the project via the City's Street Furniture Contract with CBS Decaux. CBS Decaux supplies benches, bicycle racks, bus shelters, and waste receptacles throughout the City and funds these through the advertising revenues derived from the bus shelter ad panels. Negotiations to have CBS Decaux supply the custom street furniture for Granville Street were not successful because of the higher cost and small number of these elements. Therefore the project will have to fund these key elements of the overall design of Granville Street.

Other unforeseen issues at the budget preparation stage that now require additional funds include:

- 1) Replacement costs of existing poles and traffic signal hardware, subsequently deemed not suitable for reuse, were not included in original estimate.
- 2) Ongoing unexpected underground conditions have resulted in the need to remove contaminated soils and removal of underground structures including old reinforced concrete roadways and areaway structures.

In light of this funding shortfall, an exercise was undertaken to review the technical design of the roadway and sidewalk structure ("value engineering"), as well as, reviewing the design of the finishes of the street ("value designing") to identify potential savings. This exercise has resulted in offset savings of \$500,000 due to the decision to reuse existing granular road base and by simplifying architectural finishes of the roadway. These savings were accomplished by accepting both minor risks to the road structure and minimal impact of the overall design of the street.

As a result, the current net projected variance of actual costs against the original estimates is \$3.0 million.

## ii) Cambie Street Reconstruction

As with Granville, Cambie Street Restoration is also being coordinated with street repairs following the Canada Line Rapid Transit Line construction. Much of the work to restore the Cambie Street was the responsibility of the Canada Line contractor, however the City agreed with Translink to contribute funding representing the deferred maintenance from the years immediately prior to the start of Canada Line construction, as well as funding to do a more complete reconstruction of the street rather than simply repairing damage. The City budget also included funding for enhancements to the sidewalk standards, street lighting, landscaping, and street furniture in order to provide a high level of treatment to the community following the significant disruption that resulted from the Canada Line project.

The \$17.0 million budget includes the restoration of curbs, sidewalks, landscaping, roadway, and public realm improvements to Cambie Street. In addition, a number of other opportunistic improvements to Cambie Street with separate budgets either have been or are currently being implemented. These improvements include a number of pedestrian bulges, six new traffic signals, bicycle facilities (including painted bike lanes and off street bike paths), planted centre medians and new green spaces.

There are two causes of the projected variance of \$0.9 million based on actual costs against the original estimates.

Firstly, detailed estimates for the restoration work on Cambie Street assumed typical unit rates for the type of work. The typical "best practices" approach for a construction project is to have an Operations crew mobilize to occupy a site, when available, continue work until completion and proceed to the next available site.

In the case of Cambie Street, pressure to follow up as closely as possible to Canada Line construction and to reduce the level of disruption felt by adjacent residences and businesses did not allow for this best practice to be implemented. At the height of Canada Line construction and City restoration, there were twelve distinct Canada Line crews - one at each of the nine stations, and three tunnel construction sites.

Depending on Canada Line construction progress and traffic management setup, City crews would be dispatched to available sites to restore available segments of curb, sidewalk or electrical works.

The inefficiency of this methodology is particularly evident at major intersections where the restoration of the traffic signal and associated curbs, crosswalks and roadway are completed in a piecemeal fashion to both preserve safety and ensure reasonable capacity of the intersection. This approach also resulted in a significant amount of temporary work and rework to ensure safe interim operations of the intersection after each phase of construction. Efficiencies that would typically be gained by paving large areas at once were not achieved on Cambie as the extent of area to be repaved was governed by available stretches of roadway between stations and tunnel construction. These inefficiencies drove up the unit rates for the restoration work and were a major factor in depleting the available budget contingency.

The second cause of the projected variance was due to the amount of soft landscaping restoration that was required for the Cambie corridor. At the inception of the Canada Line project, the City committed to fund the replacement of all soft landscaping including trees, shrubs and grass on side boulevards, in the Cambie Heritage Boulevard (median south of King Edward Avenue) where affected by traffic redirection, and at all station sites. At the time of the budget estimate, no landscape designs were available at station sites. Upon review of the detailed planting schemes, it became evident that an additional \$300,000 would be required to complete the landscaping.

### iii) **Blenheim Street Neighbourhood Collector Reconstruction**

The Blenheim Street Neighbourhood Collector Reconstruction project underwent a thorough public consultation process to develop a plan for the rehabilitation and reclassification of this street to a Neighbourhood Collector. The budget for this project was \$2.7 million and included the installation of transportation improvements associated with the Neighbourhood Collector reclassification and a rehabilitation of the pavement for the length of the project. Due to variances in the quantity estimates, poor ground conditions, and changes to the scope of work due to site conditions, the total construct costs for the project has come in at \$3.74 million which represents a variance of \$1.04 mil on the project.

The final design for the Blenheim project was approved by Council on May 24, 2007. In order to meet the timing requirements for the 2007 construction season, the project was tendered for construction concurrently with the final design process and a contract for construction was awarded by Council on May 29, 2007. This was a unit priced contract with prices based on estimated quantities of excavation, gravel, asphalt, etc. required to complete the work. Payment is based on the actual quantities used. Unfortunately, in preparing the tender documents a significant error was made in calculating the quantities required. The error was in converting the measured volumes of materials required to the weights of those materials, (which form the basis of payment). This error resulted in a variance of approximately \$400,000 in the cost of the project. Staff have analysed the affect of the error and are satisfied that the prices bid remain competitive and that the cost of the project reflects good value to the City.

In the design process, some testing was done to determine the condition of the ground and estimate the amount of material that would have to be excavated and replaced in rebuilding the street. However during construction, the ground conditions, particularly towards the southern end of the project were found to be significantly worse than anticipated and therefore additional excavation and fill was required to provide a suitable road structure. This resulted in approximate \$400,000 in additional costs.

The remainder of the variance of approximately \$240,000 was due to scope changes to address various site conditions and public consultation during the construction of the project. This variance is a largely a result of the fact that the project was tendered while detailed design had not been completed.

### C) Award of Contract

Subject to Council approval of Recommendation B, Recommendations C through F are presented to Council for the award of contract for the LED column luminaires - a key to the "Great White Way" lighting concept for Granville Street's "Great Street" design.

Purchasing Services issued an invitation to tender for the supply and delivery of decorative column luminaires for the reconstruction of Granville Street downtown.

The invitation to Tender (ITT PS09055) was posted on BC Bid and the City's website on Friday, March 27, 2009. The tenders were opened in public on Wednesday, April 22, 2009. Tenders were received from three bidders.

Staff undertook an evaluation of all of the received bids with prices listed in Table 1, which included an extensive review of the technological compliance and maintainability of the fixtures.

Applicable taxes are in addition to all the prices shown below.

*TABLE 1: Tender Pricing*

Tenderer	TENDER PRICE
Bidder 1	\$1,557,119.00
Bidder 2*	\$1,785,714.29
Bidder 3	\$2,656,615.00

\*did not meet technical specifications

The tender packages were evaluated by Supply Management and Engineering Services measuring adherence to technical specifications and best value to the City.

The low bid from EB Horseman emerged as meeting specifications and providing the best overall value to the City. The EB Horseman bid of \$1,557,119 is recommended for tender award.

*FINANCIAL IMPLICATIONS*

The 2006-08 Capital Budgets provide a gross budget of \$20.8 million for the reconstruction of Granville Street, \$17.0 million for the reconstruction of Cambie Street, and \$2.7 million for the reconstruction of Blenheim Street.

A thorough review of all projects in this budget group has been able to identify \$4.94 million in funding which can be transferred to the Granville Street Reconstruction, Cambie Street Reconstruction and Blenheim Street Reconstruction Projects. Such funding is available due to under expenditures on completed projects or projected positive variances on projects in process. Details of the proposed transfers are listed in Appendix A.

Normally, such variances are identified and reallocated during a reporting process referred to as "closeout". If Council approves the proposed budget transfers totalling \$4.94 million, a corresponding amount will not be available for reallocation at time of closeout of projects within the 2006-2008 Street and Transportation Capital Plan.

Subject to Council approval of Recommendation A, the award of contract for the supply and delivery of LED column luminaires for Granville Street at an estimated value (not including applicable taxes) of \$1,557,119.00 would be funded from the Granville Street Reconstruction Budget.

\* \* \* \* \*



Appendix A

Reallocations from Streets and Transportation 2006 - 2008 Capital Budgets

2006 - 2008 Streets and Transportation Capital Programs and Sub-Programs	Proposed Funding Transfer Granville Mall & Cambie Street
Strategic Transportation	\$ 1,750,000
Greenways	\$ 600,000
Streets and Bridge Infrastructure	\$ 430,000
Major Projects <sup>1</sup>	\$ 390,000
Local Areas Traffic and Other Improvements	\$ 350,000
Sidewalk Reconstruction	\$ 30,000
2006 - 2008 Street Lighting & Communications Capital Programs <sup>2</sup>	\$ 350,000
	<u>\$ 3,900,000</u>
2006 - 2008 Streets & Transportation Capital Programs and Sub-Programs	Proposed Funding Transfer Blenheim Street
Neighborhood Collector Program <sup>3</sup>	\$ 600,000
Local Improvements - Residential Streets, Lanes	\$ 440,000
	<u>\$ 1,040,000</u>

\* \* \* \* \*

<sup>1</sup> Positive variances from 2 completed major projects (Hastings/Sunrise \$75k, Urban Transportation Showcase \$315k)

<sup>2</sup> Funding available from redistribution of overhead surcharge back to Street Lighting & Communications programs

<sup>3</sup> Neighbourhood Collector Program had unallocated budget of \$600k that will be used toward funding Blenheim St. project deficit