



## ADMINISTRATIVE REPORT

Report Date: January 13, 2010  
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Meeting Date: February 2, 2010

TO: Vancouver City Council  
FROM: General Manager of Engineering Services  
SUBJECT: Award of Contract - RFP PS09200 - Replacement/ Rehabilitation Design of the Granville Bridge Bearings

### *RECOMMENDATION*

- A. THAT Council approve funds for professional services and related expenses for the Replacement/Rehabilitation Design of the Granville Bridge Bearings at an estimated cost of \$ 700,000, source of funding to be:
  - 2009 Streets Basic Capital - Special Projects - PCB Removal Bridges (A2c2) - \$450,000; and
  - \$250,000 to be provided from the 2009 Translink Major Road Network - Minor Capital Program.
- B. THAT, subject to the conditions set out in Recommendations C, D and E, the General Manager of Engineering Services be authorized to award a Professional Services Agreement to Associated Engineering (B.C.) Ltd. for engineering professional services at an estimated total cost of \$570,254 (including disbursements) plus applicable taxes, with the source of funding as indicated in Recommendation A above.
- C. THAT the Director of Legal Services be authorized to execute and deliver on behalf of the City all legal documents required to implement Recommendation B.
- D. THAT all such legal documents be on terms and conditions satisfactory to the General Manager of Engineering Services and the Director of Legal Services.
- E. THAT no legal rights or obligations will be created or arise by Council's adoption of Recommendation B, C and D 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 the approval of Recommendations A through E.

### ***CITY MANAGER'S COMMENTS***

The City Manager recommends the approval of Recommendations A through E.

### ***COUNCIL POLICY***

Council is required to approve professional services contracts that exceed \$300,000. Issuance of a Request for Proposals (RFP) is required for contracts in excess of \$100,000. Contracts are to be awarded on the basis of best overall value to the City.

### ***PURPOSE***

The purpose of this report is to seek Council approval to award a Professional Services Agreement to Associated Engineering (B.C.) Ltd. to complete the replacement/rehabilitation design of the Granville bridge bearings and to approve the Capital funds in support of the aforementioned Professional Services Agreement. This work is required to meet the City's commitment for compliance with federal Poly-Chlorinated Biphenyls (PCB) regulations enacted under the *Canadian Environmental Protection Act, 1999* ("CEPA").

### ***BACKGROUND***

#### **PCBs and the Granville Bridge**

The Granville bridge is a major part of Vancouver's road system and comprises part of the regional Major Road Network (MRN). The Granville bridge was constructed in 1954 and carries 8 lanes of vehicular traffic over False Creek and Granville Island to and from the downtown area.

The marine portion of the bridge consists of a steel truss with a reinforced concrete deck supported on large expansion bearings (14 in total).

The expansion bearings were originally designed to be kept in an oil bath within a steel bearing box. The oil bath served to both lubricate the steel components as well as protect the components from corrosion and contaminants. Originally the oil bath was of relatively low density and allowed water to infiltrate and sink to the bottom of the bearing box promoting corrosion of the steel components. In the early 1960s, the lubricating oil was replaced with Aroclor 1248, a synthetic oil product comprised of PCBs. Aroclor 1248 was selected on the basis of its unique quality of being denser than water.

In the 1970's, PCBs became a substance considered to be a health and environmental hazard and the use of PCBs became severely restricted by federal environmental legislation.

Since then, federal regulations regarding PCBs have been amended several times and new regulations were recently brought into force.

In anticipation and in response to further changes through the enactment of the new PCB Regulations SOR/2008 - 273 (the "PCB Regulations"), made pursuant to CEPA, the City initiated mitigative projects with the intent to meet the December 31<sup>st</sup>, 2009 compliance deadline for equipment containing PCBs at concentrations in excess of 500µg/g.

In 2006, the City undertook the first trial bearing box decontamination project in an attempt to establish a methodology for removing residual PCB concentrations in the bearing box to such a degree that delisting the bearing boxes would be possible by demonstrating a residual concentration level of < 2µg/g. The trial project drained the free liquid from one of the bearing boxes and a decontamination program was implemented using solvent rinses. The results after 4 successive solvent rinses yielded PCB concentrations in the last solvent rinse at 2800 µg/g and surficial contamination levels on the interior of the bearing box at 200ug/100cm<sup>2</sup>. The trial project was unsuccessful.

Over the past 4 years the City has been in direct contact with Environment Canada (EC) through the trial decontamination project, through consultation on proposed changes to the PCB Regulations, attendance at compliance promotion workshops, and most recently through an Application for Extension on the 2009 PCB end-of-use date.

The City was granted an extension on the PCB end of use date for equipment containing PCB. The end of use date has been extended from Dec 31<sup>st</sup>, 2009 to Dec 31<sup>st</sup>, 2014. In the interim, and in order to comply with the PCB Regulations, the City must complete a number of tasks that include but are not limited to:

- Completion of annual reporting;
- Proper tracking of disposal/destruction of removed PCB material;
- Monthly inspections of bearings to track and monitor level of standing water/infiltration;
- Proper labelling of all PCB equipment;
- Cleaning of the bridge piers and draining of any standing water; and
- The completion of the bridge bearing replacement designs.

## *DISCUSSION*

### RFP - Scope of Work (Professional Services)

The scope of work for the professional services to be performed by the successful proponent includes: the visual inspection and detailed structural analysis of the steel portion of the Granville bridge, the detailed design for the decommissioning of 14 contaminated bridge bearings including preparation of cost estimates for the work, environmental permitting, preparation of specifications and drawings ready for tender, and allowances for material and geotechnical testing as they relate to the Granville bridge bearing replacement/rehabilitation.

### RFP Process

In November 2009, the General Manager of Engineering Services and the Manager of Supply Management in consultation with Legal Services sought proposals through a Request for Proposals ("RFP") process for professional services for the Granville bridge bearing replacement/rehabilitation design. RFP PS09200 was issued on November 20<sup>th</sup>, 2009 and in addition to notifying known vendors, the RFP was publicly posted on the City's Supply Management website and on BC Bid's website. The RFP closed on December 16<sup>th</sup>, 2009 and 3 proposals were received.

An evaluation committee (the "Committee") was established to review the proposals and to make a recommendation to the General Manager of Engineering Services. The Committee was made up of 4 staff representing Engineering and Financial Services - Supply Management Group. Proposals were evaluated by the Committee using evaluation criteria including, but not limited to, the proponent's qualifications and experience including key team members, project appreciation, work plan and methodology, value added services and financial considerations.

Based on the review of the proposals, interviews and reference checks, the proposal submitted by Associated Engineering (B.C.) Ltd. emerged as the strongest proposal providing best overall value to the City. Staff recommend that Associated Engineering (B.C.) Ltd. be awarded the Professional Services Agreement for engineering professional services for the Granville bridge bearing replacement/rehabilitation design up to and including the preparation of specifications and drawings to tender ready state. Staff will report back to Council to extend the contract to include services during construction at the time of the construction tender award (construction phase to occur as part of 2012-2014 Capital Plan).

Associated Engineering (B.C.) Ltd. has assembled a team of professionals with knowledge and experience in all areas required for this project.

### ***FINANCIAL IMPLICATIONS***

A total of \$700,000 is required to fund the activities in support of the engineering professional services for the Rehabilitation/Replacement design for the Granville bridge bearings. This includes the estimated fees and disbursements for Associated Engineering (B.C.) Ltd. Pursuant to the Professional Services Agreement (up to and including construction tendering services) in the amount of \$570,254, plus applicable taxes, a provision for equipment rentals, City crew time, an allowance of \$50,000 for geotechnical exploration and other project related costs.

The proposed funding sources for the Rehabilitation/Replacement design for the Granville bridge bearings are:

- \$450,000 from the 2009 - Streets Basic Capital - Special Projects - PCB Removal Bridges (A2c2); and
- \$250,000 from the 2008 - Translink - Major Road Network - Minor Capital program.

*ENVIRONMENTAL IMPLICATIONS*

Completion of the rehabilitation/replacement design of the Granville bridge bearings will satisfy section 17(3)g of the federal PCB Regulations and ensure that the City is well positioned to comply with the extended end-of-use date of December 31<sup>st</sup>, 2014 for PCB equipment.

*IMPLEMENTATION PLAN*

As per the RFP, the design is to be completed by the end of year 2010, after which 2 significant steps remain: Construction budget approval in 2012-2014 Capital Plan; and completion of construction by end of year 2014.

*CONCLUSION*

Staff recommend that the Professional Services Agreement for the Granville bridge bearing rehabilitation/replacement design be awarded to Associated Engineering (B.C.) Ltd., and that \$700,000 be allocated to fund the activities in support of the professional services.

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