

**MEETING DATE:** October 20, 2004

**SUBJECT:** Mount Dennis Bus Garage Conceptual Layout Approval

### **RECOMMENDATION**

It is recommended that the Commission approve the conceptual layout for the Mount Dennis Bus Garage and forwarding this report to the Etobicoke York Community Council for its information.

### **FUNDING**

Funds are included under the New Bus Facility Project, Section 3.9 – Buildings & Structures (as set out on pages 711-714, Capacity Enhancement), in the 2004-2008 Capital Program, which was approved by City Council on April 21, 2004. The current budget does not contain sufficient funds for the proposed conceptual design that has been submitted for approval. Additional funds in the amount of \$24.8M will be included in the 2005-2009 Capital Program request.

### **BACKGROUND**

The currently approved 2004-2008 Capital Program and 10 year forecast outlined the requirement to construct a new bus garage. Based on the current Ten Year Fleet Plan, the bus fleet will exceed the existing bus garage capacity by 70 vehicles by late 2006, and if the Ridership Growth Strategy buses are approved as part of the 2005 Budget submission, by a further 100 buses.

### **DISCUSSION**

On August 19, 2004, the City of Toronto took possession of 121 Industry Street for the construction of the Mount Dennis Bus Garage. Compensation for the property has yet to be finalized and will be determined in accordance with the Expropriations Act. The 2004-2008 budget included \$8.5M for the acquisition of property, and the required demolition/property remediation work. This is now estimated at \$11.8M, which will result in a \$3.3M increase in the 2005-2009 budget submission.

Design was recently completed for the demolition/property remediation contract and at the time of writing, it was in the process of being issued for tender. In addition, conceptual designs have also been developed for the facility. Following are issues related to design of the facility.

#### **Indoor vs. Outdoor Storage**

Eglinton Bus Garage opened in March 2002. Since that time, staff have gained operating experience with the outdoor storage concept and the use of an overhead distribution heating system. Experience has not been as expected and following are examples of the operational issues with outdoor storage:

- Vehicles freeze-up after washing, or during snow and slush conditions. This results in additional labour, as well as in service change offs.
- During very cold temperatures, vehicles have to be idled to ensure they will start. The idling of buses

leads to extra fuel costs, increased maintenance, as well as emission concerns.

Based on the experience at Eglinton, a new outdoor design was developed that would address some of these issues. However, in light of the less than favourable experience, staff undertook a review of indoor vs. outdoor bus storage, which included a Present Value (PV) analysis. The analysis considered quantitative issues such as capital construction costs, life cycle state of good repair costs, and operating costs based on experience with Eglinton Bus Garage. The analysis specifically focussed on the indoor storage areas vs. outdoor storage areas (i.e. it did not include common areas such as bus maintenance or traffic offices). The analysis compared the current construction cost of indoor vs. outdoor, to costs over a 40-year period, after factoring in life cycle maintenance and operating costs. The PV analysis provided the following results, in 2004 funds.

	<b>Current Construction Cost (2004 \$)</b>	<b>Net Present Value Over 40 Years (2004 \$)</b>
Indoor Garage	\$27.5	\$45.43
Outdoor Garage	\$14.8	\$45.02
<b>Difference</b>	<b>\$12.7M</b>	<b>\$ 0.41M</b>

The results of the PV analysis indicate costs will be approximately the same, when analysed over a 40-year period. Taking this into consideration with the operating difficulties being experienced at Eglinton Garage, staff recommend proceeding with an indoor storage facility.

It is noted that in meeting local Councillors Frances Nunziata and Frank Di Giorgio to review the conceptual layouts, both indicated their support for an indoor facility.

The change to indoor storage represents a scope change of \$14.6M from the 2004-2008 budget.

### **Articulated Buses**

Staff performed a cost benefit analysis to consider the conversion of 40-foot bus operation to articulated (60-foot) buses. Various scenarios were evaluated and it was determined that the following distribution of articulated vehicles would result in an annual operating savings of approximately \$4M.

Mount Dennis	75	articulated buses
Wilson	37	articulated buses
Malvern	38	articulated buses
Total	<u>150</u>	articulated buses

Factoring in the additional capital costs to procure the articulated buses, as well as the capital cost to upgrade Wilson/Malvern and to include articulated buses at the new Mount Dennis Garage, the analysis concluded the capital costs would be recovered in approximately 10 years, once all articulated buses are operational. Based on these results, staff recommends proceeding with the conceptual layouts for Mount Dennis, which has been developed to accommodate articulated vehicles. It is expected that articulated buses will arrive during the period of 2007-2009.

This represents a scope change and an increase of \$5.2M from the 2004-2008 budget submission.

### **Project Scope**

Taking the above into consideration, layouts for the new Mount Dennis Bus Garage have been developed.

Following are highlights of the new garage, as illustrated in Attachment 1:

- Garage capacity equivalent of 250, 40-foot buses;
  - 75 articulated (60-foot) buses
  - 119 40-foot buses
  - 18 spaces in the repair bay
- No provision for CNG buses
- Repair Bay with eight, 60-foot bus hoists and six, 40-foot bus hoists
- Body shop with space for two, 60-foot buses (including one 60-foot hoist)
- Degrease room with one, 60-foot above ground hoist
- Touch-up shop with associated paint preparation and paint mixing rooms
- Two inspection pits
- Two indoor service lines with circulation to storage area
- One line for special cleaning of five, 40-foot buses (or three 60-foot buses), with circulation to storage area
- High-speed overhead doors
- Overhead lubricatoriums at all repair bays and service lines
- Battery shop and storage
- Tire storage room
- Compressor room
- Above ground storage tanks for diesel fuel and bulk fluids
- Flammable storage area
- Offices for Maintenance and Transportation staff and operators
- Separate male/female washrooms for Maintenance and Transportation staff
- Lunchrooms and locker space for Maintenance and Transportation staff
- CIS Room and repair shop
- Recreation/Operators waiting area
- Training/Meeting room
- Building Control room
- Janitor Room
- Plant Department Maintenance storage rooms and shops
- Employee parking

### **Project Schedule Summary**

The project schedule has been accelerated from the 2004-2008 budget, where it was scheduled for completion in December 2007. The revised operational date is based on the requirement to acquire new buses in order to accommodate ridership growth.

It is intended to satisfy the minimum requirement to have service lines, repair bays and staff facilities operational in April 2007, with construction of the remainder of the facility to continue through July 2007. Staff will be performing a constructibility review to verify the feasibility of this schedule and if there are any opportunities to improve it.

<b>Key Milestones</b>	<b>Start</b>	<b>Finish</b>
Preliminary Design	July 2004	November 2004
Detailed Design	December 2004	November 2005
Construction - Demolition and Site Remediation	December 2004	July 2005
Construction – Utilities/Site Services	July 2005	November 2005
Facility Construction	December 2005	July 2007
Relocation of Operations	April 2007	July 2007

A more detailed schedule is shown in Attachment 2.

**Consultative Process**

- While the conceptual layout had been reviewed with City staff, they recently advised they would like to review the possibility of an alternate streetscape which may require reorientation of the building. Staff will continue to work with the City and will report back to the Commission, if the resulting layout differs from that presented in this report. The proposed layout was accepted by the local Councillors.
- Per Attachment 3, further consultation will take place with City staff, local Councillors and the public. The first public meeting will be scheduled for November/December, 2004, where staff will present the conceptual layout of the facility. A second series of presentations will be held in the spring to present the detailed designs, including finishes and landscaping. Community concerns will be addressed in the detailed design phase, as appropriate. Any unresolved issues of concern will be brought to the attention of the Commission.

**JUSTIFICATION**

Commission review and approval of the conceptual layout is required prior to public consultation. The proposed layout addresses TTC operational requirements, and must proceed expeditiously, in order to accommodate the increase in fleet capacity requirements.

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October 4, 2004  
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Attachments

