



# University of Toronto

OFFICE OF THE VICE- PROVOST, SPACE AND FACILITIES PLANNING

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TO: Planning and Budget Committee

SPONSOR: Ron Venter, Vice-Provost, Space and Facilities Planning

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DATE: November 23<sup>rd</sup>, 2004 for December 7<sup>th</sup>, 2004.

AGENDA ITEM: 7

## **ITEM IDENTIFICATION:**

Project Planning Committee for Electrical and Mechanical Infrastructure Upgrades Phase 3: Cooling Towers at the University of Toronto at Scarborough.

## **JURISDICTIONAL INFORMATION:**

Under the Policy on Capital Planning and Capital Projects, the Planning & Budget Committee reviews updates of the Project Planning Committee Reports prepared for a capital project and recommends to the Academic Board approval in principle of the project or changes within the approved scope.

## **PREVIOUS ACTION TAKEN:**

The Campus Master Plan for UTSC was approved in May, 2001. This plan detailed a vision of campus development over the coming years which included the construction of several new buildings to house the projected increases in student enrolment. As a secondary effect of the proposed new construction, two assessments were initiated to evaluate the existing electrical and mechanical infrastructure. The consultants identified several potentially critical conditions and deficiencies, and further, made recommendations for replacement and upgrading of these systems to ensure dependable service for the foreseeable future. In response to these reports, the University developed a multi-phase plan to replace and upgrade the infrastructure at UTSC. This plan is detailed in Table 1 of the Project Planning Report.

The multi-phase plan identified a defined set of high priority projects that required immediate attention. All projects in the planned schedule to the present time that cost less than \$2million dollars have been approved by the Accommodation and Facilities Directorate [AFD]. These projects identified as Phases 1A, 1B, 2A and 2B respectively in Table 1 are tabulated below and have previously been reported to Planning and Budget in the regularized annual AFD reporting as required by policy.

AFD Approval	Phase	Project Title	Cost of the Project
May 9, 2003	Phase 1A	Electrical Distribution Switch	\$451,000 See Appendix A
January 30, 2004	Phase 1B	De-aerator for heating / Asbestos	\$1,675,000 See Appendix B
January 30, 2004	Phase 2A	Electrical Distribution and Indoor/ Outdoor Switchgear Replacement	\$1,660,000 See Appendix C
January 30, 2004	Phase 2B	Mechanical Infrastructure – New Boiler / Asbestos	\$1,505,000 See Appendix D

Copies of the reports for the four AFD approved projects are available and appended to the Project Planning Report for the Electrical and Mechanical Infrastructure Upgrades Phase 3: Cooling Towers, the current project pending approval by the Planning and Budget Committee.

Approval of Phase 3 specifically requires the approval by the Planning and Budget Committee since the projected cost exceeds the \$2 million limit and cannot be approved by AFD.

### **HIGHLIGHTS:**

Numerous infrastructure needs related to both the electrical and mechanical systems at UTSC have required urgent attention in the past 24 months. Extensive construction has occurred on the site, with each of the five new major buildings requiring adequate electrical and mechanical services to ensure effective operation. A considerable portion of these expenditures relate to the additional demands of the new buildings as well as the replacement of systems that partially address deferred maintenance issues. It is to be noted that this project comprises a number of phases that need to be addressed in a timely manner to avoid the disruption of services to the campus. Each of the phases has been isolated as an independent project that contributes to the overall infrastructure at UTSC. Any phase that exceeds the \$2million limit, requires the approval by Planning & Budget and is presented in the context of the larger whole.

For Phase 3, the initial structural concepts for these towers have also been reviewed by the Design Review Committee [DRC] earlier in the year as these towers do impact the architectural features of the existing buildings.

Under the Policy on Capital Planning and Capital Projects, the Project Planning Committee will continue through the implementation phase. The Working Executive of the Project Committee will comprise the lead User, a Planner and Implementer all of whom have been intimately associated with the project definition since its inception; this membership is:

**User:** E. Relph, Professor and Special Advisor, Campus Development, UTSC  
**Planner:** Gail Milgrom, Office of Campus and Facilities Planning.  
**Implementer:** M. Richard, Director, Facilities Management, UTSC  
J. Derenzis, Development Manager, Capital Projects, University of Toronto

This Working Executive will be expanded to include a Project Manager to be appointed by the Chief Capital Projects Officer.

### **FINANCIAL AND/OR PLANNING IMPLICATIONS:**

UTSC has already directed a total of \$5,291,000 towards Phases 1 and 2 of the projected \$17.351 million infrastructure upgrades plan at UTSC. The new cooling towers, phase 3, will require an

additional \$2,515,000. The funds for phase 3 are to be derived from the UTSC operating budgets in 2004/2005 and 2005/2006 as well as from Deferred Maintenance Funds and Facilities Renewal Funds to be allocated to UTSC. The funding provided from the 2004/05 UTSC operating budget is available immediately to initiate the project. The remaining funds will be available in April, 2005 well prior to the completion of the project.

#### **IMPACT ON THE CAPITAL PLAN EXPENDITURES:**

With respect to the impact on the capital plan expenditures, no borrowing of funds have been directed to this particular phase of the project. i.e. phase 3, as well as the two previous phases of the project. The need for these infrastructure upgrades however is absolutely necessary to support the new buildings at UTSC addressed within the Capital Plan.

#### **RECOMMENDATIONS:**

That the Planning and Budget Committee recommend to the Academic Board:

1. THAT the Project Planning Report for the Electrical and Mechanical Infrastructure Upgrades at the University of Toronto at Scarborough, Phase 3 Mechanical: Cooling Towers, be approved in principle.
2. THAT the project scope, consisting of the replacement of the existing cooling towers by new units and appropriately designed screens, be approved at an estimated total project cost of \$2,515,000 to be funded from the following sources:
  - i) A cash contribution in the amount of \$1,218,166 from the 2004/05 operating budget of the UTSC.
  - ii) A cash contribution in the amount of \$500,000 from the 2005/06 operating budget of the UTSC.
  - iii) Deferred Maintenance Funds allocation to UTSC in 2005-06 in the amount of \$596,834.
  - iv) Facilities Renewal Program allocation 2005-06 in the amount of \$200,000.