Project Planning Committee Report for Varsity Centre 2007 (Varsity Arena, Varsity Entrance Building, and Centre for High Performance Sport)

I. MEMBERSHIP

COMMITTEE MEMBERSHIP FOR VARSITY CENTRE:

Bruce Kidd (Co-Chair)	Dean, Faculty of Physical Education and Health (FPEH)
Elizabeth Sisam (Co-Chair)	Assistant Vice-President, Campus & Facilities Planning
Susan Addario	Director, Student Affairs
Andréa Armborst	Undergraduate Representative, UTSU
Julian Binks	Capital Projects
Bruce Dodds	Director, Utilities, Facilities and Services
David Farrar	Deputy Provost and Vice-Provost, Students
Paul Fisher	President T-Holders' Association, FPEH
Don Gedge	Varsity Centre Coordinator, FPEH
Robin Goodfellow	Undergraduate student, President, PHEUA; Student Governor
Liz Hoffman	Assistant Dean, Co-curricular Education, and Director of Athletics, FPEH
Karen Pitre	Co-chair, Varsity Centre Campaign Cabinet
Adam Pomper	Undergraduate Student, Co-chair Council of Athletics & Recreation
Masha Sidorova	Undergraduate Student, Co-chair Council of Athletics & Recreation, FPEH
Ron Swail	Assistant Vice-President, Facilities and Services
Laura Tan	Graduate Student, Chair Co-ed Intramural Sports Committee, FPEH
Scott Thomas	Associate Dean, Graduate Education and Research, FPEH
Estefania Toledo	Student Governor
Nick Zouravlioff	Acting Chief Capital Projects Officer

II. TERMS OF REFERENCE

(The original terms of reference, presented to the Planning and Budget Committee of Governing Council in May 1998, were revised in 2005 reflecting the change in direction for a Varsity 2005 Plan and have been revised now to reflect the requirements for phases three and four.)

1. Identify the space programme and functional layout for a renovated Varsity Arena, accommodating all of the programme elements identified in the 2001 space programme.

2. Ensure that the space programme, layout and amenities are designed to achieve the goals of gender equity, and a welcoming, inclusive environment for athletics and recreation.

3. Ensure that the plan will allow ready access from the new Stadium to the Arena from Bloor Street and access to both Stadium and Arena for persons with disabilities.

4. Identify the needs of other University users and members of the public, including those participating in programmes conducted by the City of Toronto and the potential for the rental tenants.

5. Identify all equipment and furnishings required by the project.

6. Identify all resource implications for the arena, including the capital cost, new equipment and furniture purchases, and the projected increase, if any, of the University's annual operating cost, and separately any work that is associated with the stadium renovation.

7. Identify a plan that can be implemented in phases, if required, and the costs associated with each phase.

8. Determine a plan and its associated costs for staging to maintain programming during the transition to the new facilities.

9. Respond to the rich history of Varsity Arena, of events and architecture in the design of the new facilities.

10. Address campus wide planning directives as set out in the campus master plan, open space plan, urban design criteria, and site conditions that respond to the broader University community.

11. Prepare a site plan showing the extent of the new plan for the Arena in relation to Philosopher's Walk, Trinity College, RCM and the interface with Varsity Stadium and Arena.

12. Consult widely with the University community and members of the public.

III. BACKGROUND INFORMATION

In June, 2005, the Governing Council approved a project planning report that recommended an implementation plan for a multi-phased approach for the Varsity Centre for Physical Activity and Health. The total cost of the project (all phases) was estimated to be $56 million (subject to escalation) and was to be implemented in four phases.

The first phase, the track and field, received full approval for construction. The second phase, construction of the bubble (subsequently called the "Dome"), was approved through the Accommodation and Facilities Directorate under the Capital Project Policy as it was estimated to cost less than $2 million.

The cost of developing the master plan for the site was also funded as part of the first phase. The consultants confirmed the overall plan and requirements for the site.

Preparation of the site and construction began in the spring of 2006. During that period, the Intercollegiate Program had to organize many of its fall activities off campus. Thirty-one "home" games and 48 practices that normally would have been held on the St. George Campus were held elsewhere, at Esther Shiner Stadium, Birchmount Stadium, Lamport Stadium or the University of Toronto at Scarborough, as were the Intramural playoffs and championships that normally were held in Varsity Stadium.

Most of Phase 1, including the installation of the Dome was completed by January, 2007. FIFA, the world soccer association, gave its highest certification to the field, and the thousands of students who played all manner of sports and games on it under the dome during the winter term gave the new facility their enthusiastic endorsement as well. The final two layers of the track, the installation of the scoreboard, and the remaining details of construction and landscaping are in the process of being completed, so that the new stadium will be in full use by June, 2007.

Governance approvals in June, 2005, also identified that the subsequent phases 3 and 4 would require updated planning reports for each indicating the details of the implementation plan and funding sources.

Throughout its history, physical education and athletics at the University of Toronto have been driven by a spirit of excellence, including the encouragement of the highest levels of athletic performance, a commitment to the academic mission, and student involvement in governance and research. The goal has always been to create facilities, programmes and services which are welcoming, inclusive, celebratory of the University's past and present, and one which will serve the needs of future generations of users.

The new Varsity Centre will enable the University to realize these goals. It is intended that 75% of the usage will be for U of T students, for activities ranging from academic courses and research to Varsity and intramural sports, while 25% of the time available will be used for community activities. In this latter category, the focus will be upon the development of high performance athletics, with outstanding coaching, scientific research, sports medicine and facilities enabling athletes to reach the highest levels of excellence.

This report outlines the details of the remaining components of this project. These now include the Varsity entrance building[1], the Centre for High Performance Sport, and the renovation of Varsity Arena. This report addresses the site conditions, the funding issues, the current demands for physical activity and recreation facilities on this campus, and the goals and aspirations of the widely representative membership of the Project Committee. Each of the remaining components can be constructed when funding becomes available. It is

[1] The "Varsity entrance building" will provide the south entrance to the Varsity facilities on Site 21 and some of the amenities and offices necessary for their effective operation. A less generic, more appealing name needs to be found.

expected that operating costs of the new facilities will be funded by a combination of student fees and rental revenue from the facilities.

The criteria for selection of capital projects are consistent with those stated in the 2005 project planning report:

1. Mission Objectives:

The project addresses the needs of the University community and enhances learning beyond the classroom by providing significant additional facilities for the academic and co-curricular programmes of the Faculty of Physical Education and Health. The new facilities include much-needed space for the Faculty's teaching and research, and will support graduate enrolment expansion and the new teacher preparation curriculum, being offering in collaboration with OISE/UT. In addition, the Faculty will be able to expand its varied and popular co-curricular programmes and further strengthen or allow for greater capacity to develop outreach initiatives and community partnerships.

The project also enables the University to contribute significantly to the revitalization of high performance sport in Ontario and Canada, and the training of coaches and scientists for high performance.

2. Policy Objectives:

The project provides important infrastructure to support University policy objectives by enabling the Faculty to better meet its own goals for teaching and research and to improve substantially the delivery of its co-curricular programmes, which are customarily rated highly by students in surveys of their non-classroom interests. The project addresses the first Priority Objective in *Stepping UP*, namely to ensure "that we are meeting our student, faculty and staff expectations of the level of academic challenge provided, opportunities for active and collaborative learning, student-faculty interaction, and an enriching overall educational experience."

The project will also enable the University to realize the Governing Council objective 'to provide opportunity for athletes in a few carefully selected sports to pursue world standards of performance and to provide for empirical research into the requirements of excellence in these sports'.

A very high degree of accessibility is planned for the new facilities and the renovated Varsity Arena.

3. Provincial Space Standards:

Currently, the St. George Campus has only 75% of the co-curricular space recommended by the Council of Ontario Universities for our student enrolment, and much of this space is in need of repair and renovation. Moreover, Canadian athletic authorities no longer consider the University's facilities adequate for hosting national

championships in field and ice sports. This has a significant impact on the University's "beyond the classroom" image and student recruitment efforts. The Project will enable the University to address these shortcomings.

4. Strengthening Scholarship:

Undergraduate and graduate teaching will be enhanced by the new facilities. The Dome plus the artificial turf, all-weather track, strength conditioning centre, activity rooms, field house, and sports science research facilities will enable year-round teaching of both academic and co-curricular programmes. The Faculty's vision of "research informs teaching informs best practice informs outreach and advocacy" will be realized as stronger linkages are created between the academic and co-curricular programmes.

5. Providing Academic Leadership:

The Project addresses pressing issues of serious space shortages in the Faculty's academic and co-curricular programmes that have resulted in reduced course offerings and lengthy waiting lists for many programmes and recreational activities. Continuation of the existing inadequate facilities will result in escalating annual and deferred maintenance costs, in lessened opportunities for student participation, and in failure to address recruitment issues.

When completed, the Project will provide the University the opportunity to advance to the first rank in Canada for its academic programmes in physical activity and health, its co-curricular offerings and effective integration between the two areas. An invigorated graduate education and research program will advance the mission of the Faculty.

6. Student Experience:

The Project will enhance the quality of student experience in numerous ways: by increasing opportunities for participation on a year-round basis in existing and new programmes; by eliminating waiting lists in field, ice and court sports (including the 106 teams currently waiting to play intramural soccer); and by at least quadrupling the annual usable hours for these programmes. The new facilities will become a year-round centre for active, healthy living.

Construction of the highly accessible, year-round facilities will enable the Faculty to expand and enrich its existing diversity programmes (based on its established policies of gender equity, universal accessibility, ethno-cultural inclusion and sexual diversity) and significantly expand its innovative community service programmes.

7. Excellence in Sports

The University of Toronto has long prided itself on the outstanding athletic performances of its students and alumni and the contributions its leaders, coaches, sports

physicians and therapists and other professionals have made to the Olympic Movement in Canada and around the world. The new facility will enable the University to revitalize its contributions to excellence in sports, through the creation of a centre for high performance, where athletes, coaches, sport scientists and sports physicians and therapists can work together in world-class facilities and students can train for careers in high performance sports.

8. Economic Consistency:

External revenue sources include rental income from business, community groups and sports organizations (both educationally and community-based); sponsorship income, including naming rights; concession fees; fees from instruction courses and camp programmes; and expanded athletics memberships for members of the community.

Projected sources of capital funding include: private donations; donors for the arena and academic lab; naming rights and other sponsorships; broad appeal campaigns among alumni/ae and friends and the corporate sector; in-kind donations of athletic equipment; and funding from existing trusts.

The Project will enable the Faculty to better service the needs of the entire student body for physical activity (including athletic and recreational programs), active healthy living and an enriched experience outside the classroom. Rental uses can be varied to accommodate varying patterns in student use, both for academic and co-curricular programmes, and to respond to faculty members' needs for additional teaching and research space.

Reports from operators of similar facilities elsewhere indicate that substantial revenue growth can be expected within three years.

9. Resources:

The Project addresses academic priorities of both the University and the Faculty, as outlined in *Stepping UP*. It is “fiscally feasible” in that the University has already provided funds for Phase 1 and funding for Phase 2 was initially provided by the Faculty's business plan and the alumni donations. Construction of Phases 3 & 4 will proceed only when the funding is secured. There was no student capital levy for Phase 1. For 2007-08 a modest increase in the student ancillary fee has been approved to operate the Dome ($9 per term for one year, in 2007-08).

10. Deferred Maintenance:

Renovation of Varsity Arena will be accomplished in Phase 4 of the Project. Other facilities will be newly constructed and a major maintenance fund is provided in the business plan. The design and operating plans will fully comply with the University's design standards and the business plan ensures adequate funding is annually set aside to address on-going maintenance.

Varsity Centre Overview – The Plan

A number of Phases, as defined by the 2005 Project Planning Report, have been or are in the process of being completed. These are as follows:

- Phase 1A Master Design
- Phase 1B 5,000 stadium seats, public washrooms, 2 change rooms, media gondola, entrances
- Phase 1C Field, track, lights, scoreboard, fencing, landscaping
- Phase 1D Foundation and services as required below the field and track and for the dome
- Phase 2A Dome

The quality of the artificial turf used on the field has led to a Fédération Internationale de Football Association (FIFA) 2 Star certification. This is FIFA's highest certification. At time of writing, only four other stadiums in the North American, Caribbean and Central American soccer confederation (CONCACAF) enjoyed this rating. This designation provides the opportunity for holding international events.

The Dome was installed and opened in January. This structure spans the entire football field, including a portion of the end zones. This new winter facility has been an immediate success. From an operational perspective the dome's activity level has exceeded expectations. It is providing the opportunity for expanding intramural programs and is being used on a regular basis by various varsity teams, including soccer, field hockey, golf, lacrosse, baseball, fastpitch, rugby, cricket, ultimate Frisbee, and football. Significant demand is experienced from user groups from outside of the university. For example, on a typical Saturday, there are typically more than 200 youth in the dome at any given time.

In the last quarter of 2006 the asphalt base for the eight-lane track was poured. The final layers of the track are now being poured, so that the track will be completed by June of this year.

As part of the arena's deferred maintenance program, some of the work contemplated in the 2005 Arena Renovations has already been completed. This work includes a new arena floor; new boards including glass; and new lighting.

The 2005 phased plan for the Varsity Centre also included Phase 2B - Off-site track and field throwing events area, Phase 3 – New Athletics Facilities (3,729 nasms) and Phase 4 – Arena Renovations. While there has been no change to Phase 2B, planning for Phases 3 and 4 has continued to evolve.

The 2005 Plan for Varsity Centre located the new athletic facilities (initially to be called the Wellness Building) along the southern end of Varsity Stadium. The limitations of the difficult site resulted in an estimated unit cost that exceeded other portions of construction.

In early 2006 the possibility of including basketball and volleyball facilities was discussed. Ideally, such facilities would need to be located near to the New Athletic Facilities and the Stadium and Arena. About the same time, the Faculty of Law determined that their own plans for expanded facilities would be best located at 78 and 84 Queen's Park Crescent, thus releasing Site 12, 100 Devonshire Place, making it available for other development. This location is ideally suited for such a facility.

As a result, the Plan for the Varsity Centre has evolved into four complementary components:

- Varsity Stadium, being completed by July, 2007
- The Centre for High Performance Sport, to be built on Site 12.
- The Varsity Entrance Building, to be built on Site 21, located in the south west corner of Varsity Stadium, a pedestrian/user point of entry to Varsity Stadium, the Dome and the Arena
- Arena Renovations

The Varsity Entrance Building

A new configuration for the south end of the site is planned.

The Varsity entrance building will be the entry and control point to Varsity Stadium, Varsity Arena and the Dome, and the base for operations for these facilities. It will also house change rooms for U of T teams using Varsity Stadium.

During non-event days this will be the primary entrance for users of the stadium, dome and arena. When the user/spectator reaches the south entrance and the new Varsity Entrance Building, they will be greeted by a generous entrance with a customer service counter and curtain walls allowing them to look out over the stadium. This entrance will act as a hub distributing users/spectators to the stadium stands or track, to the dome in winter, to meeting and change rooms and to the new arena entrance.

On event days, spectators will also enter through the event entrance from Bloor Street, located at the base of the site's prominent marquee.

To provide an entrance for users and spectators using Philosopher's Walk, an entrance will be also created from the laneway to the Varsity Entrance Building.

The entry in the Varsity Entrance Building will control card swiping, issue keys to users, monitor security surveillance, and program the electronic information sources ranging from the scoreboard to the ceiling-hung computer monitors with important information for the users. During events the Customer Service Area will sell tickets. Immediately after going through the card swipe the recreational user will be able go to the Programme Equipment Room to sign-out equipment, before proceeding to the pre-assigned change room.

Rather than assign permanent office space to individuals, the building will be designed to accommodate about seven multi-use offices. The "administrative" centre for programming and community services staff and coaching staff will be in the Centre for High Performance Sport. Rather than duplicate office spaces or staffing, on an "as needed" basis, individuals will temporarily occupy a multi-use work space.

To meet the need for storage space, including storing the dome, three storage areas will be built: a storage building of 140 nasms adjacent to the track, 66 nasms in the Varsity entrance building, and a further 51 nasms in the Arena.

Two areas on the second floor of the Varsity Entrance Building are important operationally. The first space will be used for a multi-use office space, and the second will be used for Community Programme Office/ Student & Event Programme Area. Football change rooms and multi-use change rooms are also planned for the Varsity Entrance Building and this multi-use space will be utilized to accommodate required meetings.

To provide for the taping and therapeutic needs of the Varsity teams using the stadium, dome and arena and to provide timely attention to injured athletes, a Therapy and Emergency Event Care Room will be located on the main floor of the Varsity Entrance Building.

Combined Box Office and Beacon

A combined box office and beacon is planned for the stadium entrance on Bloor Street. The Beacon will be constructed when funds become available and will be above the box office and adjacent to the new wall of the Royal Conservatory of Music, located at the east end of the site, adjacent to the forecourt entry. It will mark the public entry point and make the new facility visible from the north.

Centre for High Performance Sport

The Centre for High Performance Sport is planned for the south end of Site 12, directly north of the Trinity College tennis courts. It is anticipated that a second building, possibly the Student Commons (for which a Project Planning Committee is underway) will be constructed north of the Centre, abutting the Centre on its south side and the historic Admissions Building on its north side. The Centre and adjoining building can share entrances, circulation and common space, and food and beverage services.

The focal point of the Centre will be the 2,000-seat world class combined basketball and volleyball facility on the main floor. There will be two courts: a practice court and a feature court built to International Basketball (FIBA) and Volleyball (FIVB) standards.

The Centre's basement will house the support facilities for the courts, including the volleyball and basketball change rooms, visiting teams' change rooms, change rooms for

officials, first aid therapy and taping room, coaches' offices and public washrooms. Four additional change rooms will be located on this floor. These will be multi-use change rooms, to be used on an as needed basis by other Varsity, intramural and community teams using the Centre and Varsity Stadium.

The upper floors will accommodate the Strength and Conditioning Centre, the Exercise Room, the sport science and sports medicine facilities, along with appropriate offices and meeting rooms.

The new Strength and Conditioning Centre has been expanded from 800 nasms in the 2005 Report to 1,100 nasms to accommodate demonstrated student demand for these facilities. Its design and presentation will be similar to the new Strength and Conditioning Centre at the University of Toronto at Mississauga. This space has proven to be welcoming and integrative for all people. Participants will have access to training opportunities to enhance the necessary fitness components of cardio, strength, endurance, flexibility and body composition, to build an optimal lifestyle which promotes learning beyond the classroom experience and to build a foundation for health and fitness for the future. It will also have a dedicated heavy lifting facility for Varsity and high performance athletes.

Research has shown the integral role of accessible fitness and strength training facilities to combat obesity and the health-undermining physical inactivity sometimes referred to as the "sedentary death syndrome." As a leader in physical activity research and best practices, the Faculty of Physical Education and Health will create a space to address these issues and needs, and attract people from diverse backgrounds to participate in healthy lifestyle programmes.

Recent site visits to newly-renovated facilities at peer institutions have found cardio training equipment, selectorized weight machines, open traffic areas, natural light, air conditioning, colour and lighting were key factors in creating an inclusive space. Carefully choosing the right equipment and hiring professional staff have created environments that attract women, beginners and people with disabilities, and transformed 'masculinist' weight rooms into welcoming fitness centres. Specifically, it was found that:

- greater numbers of cardio pieces attract female participants;
- selectorized weight machines attract women and beginners for strength training; and
- specialized and adaptable equipment as well as larger spaces are more conducive and safer to address the needs of persons with mobility challenges.

The Exercise Studio will accommodate scheduled and unscheduled training including plyometrics, yoga, stretching, aerobics, Junior Blues and camps.

Also included will be a new research facility. The need for this sports research facility was identified in 2005 but the spaces weren't defined until recently.

The Mission of the Faculty of Physical and Health Education is "To develop, advance and disseminate knowledge about physical activity, health, and their interactions through education, research, leadership, and the provision of opportunity." The proposed research facility will assist in fulfilling this mission through research that enhances both sport performance and advances the health of athletes. It will be unique in Canada in addressing the balance between excellence and health for athletes.

Envisaged is a research program that addresses questions of how to achieve excellence in sport while ensuring that the risks of participation are minimized and the health benefits are maximized. The research will be coupled with a program of service provision that furthers safe and effective development of sport excellence. Researchers will work with the Faculty's David L. MacIntosh Sport Medicine Clinic to support the health of sport participants.

Working together, scientists, physicians and therapists will perform research related to critical aspects of athlete health and performance including motor learning, cardiovascular function, optimal training regimes, psychological preparation, energy balance, the effect of the physical environment and injury prevention and rehabilitation.

Education of graduate students and the sport community outreach will also be an important function of the research facility. Training of future sport scientists and Knowledge Translation to the sport community will ensure that the research informs and is informed by practice today and into the future.

Arena Renovation

Built five years before Maple Leaf Gardens, Varsity Arena is rich in history, the site of major sporting, political and cultural events for more than 80 years. Beginning with the new entrances and the mezzanine the building will be decorated in a manner which celebrates this history.

The objectives underlying the renovation are threefold:

- To integrate the arena into its new environment, including Varsity Stadium and the newly expanded Royal Conservatory of Music, which has eliminated Varsity Arena's front entrance
- To modernize Varsity Arena from a technical and functional perspective, and
- To celebrate Varsity Arena's historical past.

As has been mentioned previously, a new entrance to Varsity Arena will be created to open into the Stadium concourse, with prominent well lit digital signage and an attractive vestibule. Everyday users will reach it through the Varsity Entrance Building. On game days, spectators will also enter from Bloor Street.

The façade at the southern end of the arena will be redesigned and replaced, including redesigning the windows at the back of the Blue and White Room. The driveway will be appropriately landscaped, as will the laneway bordering Trinity College's property.

Work aimed at bringing Varsity Arena up to today's standards will include:

- Building appropriately sized and outfitted change rooms for the Varsity Men's and Women's Hockey Teams
- Opening up the Blue and White Room to integrate it into the arena and make it available for day and evening use for a variety of events. Currently, the Blue and White Room is isolated at the back of the arena.
- Replacement of the very old ice-making process.

The internal room design and finishes will make it a suitable environment for events ranging from seminars, catered gatherings, hosting VIP functions to hosting summer youth camps. To further assist in creating a fully functional space a new sound system and two ceiling hung A/V systems with drop down screens will be installed. The renovations to Varsity Arena present an opportunity to explore innovative ways of energy conservation through possible re-use of heat generated by ice-making.

Sport Science and Sports Medicine

The sport science assessment, teaching and research centre will be a focal point where athletes and coaches come together with scientists from the Faculty of Physical Education and Health, the sport community and the broader University of Toronto research community. Specific research collaborations have been identified. Collaborating researchers from the Canadian Sports Centre Ontario and other organizations will be afforded shared office space with appropriate equipment and will access use of the research facilities through their association with FPEH colleagues.

Research in the Centre for High Performance Sport will be supported through service to the sport community, research funds and the Faculty's budget.

In the past the David L. MacIntosh Sport Medicine Clinic was not been identified as a potential tenant in the Centre for High Performance Sport. However, there are a number of compelling reasons for re-locating the main services of the Clinic to the Centre.

1. Proximity to Support Varsity Sports
   The Clinic plays an important role in the development and maintenance of Varsity athletes.

2. Reduced Cost for Field Care to Higher Risk Sports
   The Clinic will be in close proximity to the practices and games of teams involved in high risk sports. This is consistent with the concept of allocating field care services to intercollegiate sport programs on the basis of several criteria, most of which devolve from the risk of injury in sports. While a sports medicine service

will remain at the Athletic Centre, re-locating the main operations of the Clinic would be essential to realize the high performance objectives of the Varsity Centre.

3. Improved Clinic Revenue Generation
   In the late 1990's the Clinic was charged with the mandate to include non-students among its clientele. This hasn't been a practical undertaking. The Clinic's location in the basement of a controlled-access member-only facility is a significant barrier to enticing outside business.

4. Opportunities for Partnership
   Making the Clinic an integral part of the Centre for High Performance Sport will help in creating an environment which is seen as being conducive to mutually beneficial partnerships. Recent opportunities in this regard include: the possibility for creating a University MSK Health Network; a partnership with Women's College Hospital and partnering with Canadian Sports Centre Ontario in possible research projects; becoming the home training facility for certain national teams such as basketball, volleyball, soccer and track; and working with the National Coaching Institute.

The following is a summary of the space in the various components/phases of the entire project.

NOMINAL SPACE ALLOCATION

As a physical-activity-for-all facility, the new Varsity Centre and Centre for High Performance Sport will accommodate increased recreational, fitness and academic programming as well as high performance training and a greater number of competitive events. More and better change rooms will be provided for teams participating in track, field and ice sports. These will permit continuous programming on all of these venues and accommodate the dressing and showering needs of players using auxiliary playing fields on the St. George campus. In addition, large general use change rooms will be provided to accommodate individual users of these venues, the strength and conditioning facilities and the exercise studio.

The following table includes all of the assignable and non-assignable programme space to accommodate the intended programming of the rink, the strength and conditioning, and exercise facilities. The table identifies those elements already constructed in phases 1 and 2 and the remaining components.

Nominal Space Allocation

VARSITY CENTRE SPACE PROGRAM

COMPLETED DURING PHASE 1 and 2	NASM	NASM	
New Outdoor Playing Field and Running Track			
Covered Outdoor Storage			
New Outdoor Spectator Stands			
Blues Men's Hockey Change Room			
Therapy and Emergency Event Care Room			
Blues Men's Hockey – Coach's Office			
Stadium Media Gondola			
Stadium Officials Change Rooms			
Field and Facility Maintenance and Equipment Storage Room			
Assignable Stadium Change and Taping Rooms			

Varsity Entrance Building	NASM	NASM	
Vestibule	0		in gross-up
Entry Lobby and Circulation Space	0		in gross-up
Customer Service Area	19		
Multi-use Offices	60		
Therapy Room	38		
Internal Cash Room	7		
Facility Ticketing (Box Offices)	0		in beacon
Community Programmes Office	19		
Football Team Change Room	220		
Football Coaches' Change Area	10		
Programme Equipment Rooms (140 – Stadium; 66 - Annex)	66		
Laundry Room	20		
Assignable Stadium Change and Taping Rooms (2 at 68)	136		
Total Varsity Entrance Building		**595**	

ARENA			
Existing Ice Pad	n.a.		
Existing Arena Spectator Seating	n.a.		
Zamboni Room and Ice-melting Pit	n.a.		
Pop/Program/Chair Storage Room	9		
Assignable Ice Users Storage	78		
Blue & White Room	210		
Blue & White Kitchen Area (existing)	9		
Blue and White Storage Room (existing)	8		
Blue and White Washrooms (existing)	20		
Blues Women's Hockey Change Rooms	83		
Blues Women's Hockey – Coach's Change Room	12		
Assignable Ice Users Change Rooms	318		
Ice Officials' Change Rooms	32		
Arena Media Gondola	n.a.		No change
Programme Equipment Room	51		
Food Concession	25		
Multi-Use Office	12		
Blue and White Room Arena Viewing Area	165		

Total Arena		**1,061**
	NASM	NSAM
CENTRE FOR HIGH PERFORMANCE SPORT		
Student + Users Change Rooms (2x306)	612	
Students + Users Taping and First Aid Room	19	
Student + Users Family/Co-Educational Change Room	19	
Full-Time Coaches Offices (6x12.1)	73	
Part-Time Coaches Workspace & A/V Area	20	
Scheduled Meeting/Seminar Room(s)	58	
Information Service Counter	19	
Internal Cash Room	7	
Strength and Conditioning Centre	1,102	
Strength and Conditioning Centre Office	12	
Strength and Conditioning Centre Counseling and Assessment Room	12	
Exercise Studio	200	
Exercise/Strength and Conditioning Centre Storage Room	42	
Electronic Equipment Room	16	
Basketball/Volleyball Courts	1,578	
Basketball/Volleyball Official Change Rooms (2x16)	32	
Visiting Team Change Rooms (4x45)	180	
Home Team Change Rooms (4x66)	264	
Assignable Stadium Change and Taping Rooms (2x65)	130	
Meeting Rooms (3x30)	90	
Towel Service and Programme Equipment Room	40	
Storage Room – Basement	30	
Storage Rooms – Third Floor	40	
Storage Room – Fourth Floor	14	
Staff Lounge/VIP/Media Room	35	
Assistant Dean's Office	15	
Administration Offices (4 Open Concept Offices; 8 Offices)	134	
Subtotal: Field House and Sport Facilities		**4790**
Sports Science and Assessment		
Research: Reception & Administrative Space Area	21	
Research: Offices (8x12.1) plus 9 open concept offices	205	
Research: Washroom & Shower	12	
Research: Data Analysis & Storage	14	
Research: Athletic Heart Lab	45	
Research: Sport Research Lab	45	
Research: Motor Learning Lab	45	
Research: Academic Media Laboratory	36	
Research: Metabolic Kitchen Lab	45	
Research: Train/Perf Modeling Lab	45	
Research: Biochem/Blood Lab	45	
Research: Sport Med/Biomech Lab	45	
Research: Sport Psych Lab	45	
Research : SP ACTCUL ENVIRO	45	

Research: Common Testing/Training	102	
Research: Interview Room	14	
Subtotal Sports and Assessment		**909**
MacIntosh Sports Medicine Clinic	NASM	NASM
Sports Medicine Clinic:Reception Desk	20	
Sports Medicine Clinic: Telephone Room	8	
Sports Medicine Clinic: Waiting Room	20	
Sports Medicine Clinic: Client Change rooms (2x24)	48	
Sports Medicine Clinic: Physicians' Offices (2x15)	30	
Sports Medicine Clinic: Physicians' Examining Rooms (4x10)	40	
Sports Medicine Clinic: Corridor Charting Station (2x2)	4	
Sports Medicine Clinic: Triage/Procedure/Taping Room	20	
Sports Medicine Clinic: Private Treatment Rooms (4x 11)	44	
Sports Medicine Clinic: Open Treatment Plinths (8x7.5)	60	
Sports Medicine Clinic: Therapeutic Exercise Area	80	
Sports Medicine Clinic: Wet Treatment Room	12	
Sports Medicine Clinic: Clinic Supplies Storage Room	20	
Sports Medicine Clinic: Therapy Office	25	
Sports Medicine Clinic: Assessment/Fitting Rooms	15	
Sports Medicine Clinic: Bracing/Orthosis Storage Room	8	
Sports Medicine Clinic: Manager's Office (3x14)	42	
Sports Medicine Clinic: Clinic Clerical Office	30	
Subtotal McIntosh Clinic		**526**
Total all Phases		**7753**

Detailed room specifications and equipment and furnishings schedules have been prepared and are available upon request.

VI. ENVIRONMENTAL IMPACT

ENVIRONMENTAL PROTECTION POLICY

The University of Toronto is strongly committed to the development and maintenance of exemplary strategies that are aimed at enhancing not only the campus but also the global environment. This commitment is set out in the University's *Environmental Protection Policy*, dated 7 March 1994 (Appendix A).

On campus, buildings represent the single most important element that affects the environment; they give it a recognisable form and are major consumers of natural resources in their construction and operation. Building design professionals have an inherent responsibility to foster good environmental practices as do building users and University administrators.

In order to encourage building designs that meet the University's environmental policy, an environmental section has been incorporated into the University's *Design Standards Manual*. This section obligates the design team to adhere to a set of environmental design principles:

- When making decisions about designs, processes and products that influence resource use (e.g., energy, water, materials) and other environmental impacts (e.g., indoor air quality, lighting, waste management), alternative choices, including innovative but proven alternatives, be considered;
- Consideration be given to designs that minimise life cycle costs; and,
- Environmental impact be assessed broadly – recognising that impacts in one area must be assessed in relation to others so that the "system" as a whole can be effective.

Notwithstanding the University's environmental goals, this Project Planning Committee does want to clarify that the strategies to incorporate environmental design must work in concert with and not compromise the specified requirements of Varsity Centre.

Environmental Design

Because of the nature and the extent of the activities that will occur in this facility, the new Varsity Centre will have significant environmental implications. These will include considerable increases in energy and water consumption, waste generation, etc. If done properly, better environmental designs can significantly reduce operating costs over the life of the building.

Because of the Varsity Centre's siting and size, the design team should pay particular attention to:

- building form and envelope to maximise the use of natural energy or passive strategies such as the use and control of sunlight, ventilating air movements, and diurnal and seasonal temperatures,
- minimising energy use for heating, cooling and lighting through the careful design of the building envelope, mechanical and electrical systems, and the use of low energy fixtures in combination with natural daylight and task lighting wherever possible,
- water conservation through the use of water-saving fixtures and close-looped equipment cooling systems and consideration of the possibilities for cleaning and recycling grey water from showers through some sort of "living machine",
- metering of energy and water use in the building, or parts of it (e.g. student common space, blocks of locker rooms, etc.),

- the retrofit of Varsity Arena must also address the environment and consider an innovative approach to make use of heat generated by the ice-making process,
- building materials, finishes (e.g., paint), furnishings (e.g., carpets) and furniture which are not only emission-free (to provide building occupants with the highest quality indoor environment) but are also the most environmentally friendly in their manufacture and installation,
- provision of recycling depots for source-separation of waste throughout the building to meet the needs of the University's recycling and waste reduction programmes,
- conveniently locating waste receptacles to minimise litter,
- creating a sufficiently large central area for the consolidation of and access to recycled materials and waste,
- proper hazardous waste storage and disposal,
- directing rainwater (roof) runoff from the City's storm water system and other sources of "grey" water to satisfy landscaping needs (melt-water from ice-scrapings must not be used on landscaped area due to the dyes used and must be directed to the municipal sanitary system),
- using water penetrable systems in outdoor areas where hard landscaping is required to minimise flows to the City's storm water system, and choosing paving materials to assist the University in minimising the amount of salt used in snow and ice clearance,
- the design of roofs and access to them to permit future use as campus open space by building users, where practical,
- the landscape design to promote local plant species that require low maintenance,
- the design of outdoor spaces for all-season use, with shade and cool air movement for the summer, and sun-trapping and wind shelter for winter use.

The Committee recognises that all of the above strategies may not be practical to implement because of the site and built-form. However, the design team and the building's users must make an earnest effort to ensure that this building, when viewed in its entirety, will satisfy the environmental goals set out by the University. The consultants are to approach the design exercise considering LEEDS accreditation. The capital cost estimate has made provision for this standard of design. However, maintenance and other life-cycle costs such as periodic renewal must be considered an equally important part of the analysis.

Students at the University are concerned with the University of Toronto's energy use and therefore greenhouse gas emissions. They have taken great interest in this project and have developed a list of green building strategies that they would like to see explored in the design of the Centre for High Performance Sport. The list is included in Appendix B for consideration by the consultants as the design progresses.

VII. SPECIAL CONSIDERATIONS

ACCESSIBILITY, ACCESS AND SECURITY

The Centre for High Performance Sport will be student-centred, educational in focus and inclusive in design. It will provide for equity, diversity, community outreach and a sense of welcome in its spaces, services and programmes. As such, barrier-free accessibility for all persons must be integrated throughout the design. The University's policies and design guidelines for physical accessibility must be met or exceeded to ensure that the entire facility is accessible to all. The Barrier Free Design Checklist can be found in Appendix 'I'.

Equity is also very important for this project. The intent is to create a facility that is equitable on a wide variety of levels and, to this end, the project will be guided by the Equity Policies of the Faculty of Physical Education and Health (see Appendix C).

Users of the new Centre will arrive by car, by transit and by foot to either the spectator entrance to the facility at Bloor Street or to the main student entrance at the south end of the site. While the track and playing field will be visible along Devonshire Place as well as from several points along Bloor Street, general pedestrian traffic across the playing field will not be possible. The interior layout and way-finding of the entire Centre must be very obvious and very clear to newcomers and regular users alike. As some participants will arrive with large equipment bags or heavy equipment, a convenient pick-up and drop-off location will need to be provided convenient to the main student entrance to the Centre, along Devonshire Place. The renovation of the arena will include an accessible entrance directly into the facility.

Personal and community safety issues must be addressed as a high priority. The project will be governed by the University's extensive requirements for personal safety features in design, as articulated in the University's design guidelines.

Particular consideration must be given to this building's location, expected hours of use, and to the needs of the communities that will use this facility. For example, men and women in the University's intramural leagues, many of whom play and practice early in the morning and late at night, will extensively use the Centre.

Placement of plant material, outdoor lighting and other elements in the landscape plan must have regard for public and personal safety.

Child-Minding/Babysitting

While the Committee recognizes the importance of a child-minding facility in the vicinity of the completed Varsity Centre for High Performance Sport, consistent with the view of the University, it was not feasible to construct this space in the first phase of the project. While we continue to believe that a child-minding service should be available to students using the Varsity Centre given other developments in this area of campus life, we recommend that it

be provided and operated through the offices of the Vice-Provost, Students and the Vice-President, Human Resources, and is not included in the space program for this facility.

Wireless Connections

Where feasible, meeting rooms, the media gondolas, shared office spaces, and common areas should have wireless access meeting the requirements of the UTORcwn network.

CAMPUS PLANNING

Site

Varsity Centre 2005 described four phases of development on site 21:
Phase 1: Track, field, 500 seat stadium facilities
Phase 2: Bubble
Phase 3: Wellness Building (south end of site)
Phase 4: Arena Renovation

As phases one and two were implemented, the consultants were requested to develop a master plan to ensure that all aspects of the program could be accommodated on the site. The plan confirmed that the site capacity would accept the program; however, the estimated cost of the Wellness Building was higher than anticipated due to site constraints and configuration of the proposed building. There was a construction cost premium associated with this location.

Shortly afterward, an opportunity arose to include basketball and volleyball facilities in the plan. About the same time site 12 was released by the Faculty of Law as its preferred site for expansion, making it available for other development. This location is ideally suited for the enlarged facility. Varsity 2007, as described in this report identifies the additional components for construction and renovation occurring on sites 21 and a portion of site 12 to complete the space program. These are as follows:

Varsity Centre 2007 comprises the following components:

Centre for High Performance Sport (a portion of Site 12)
Varsity Entrance Building (south end of site 21)
Arena Renovation
Beacon Entry at Bloor Street

A separate project planning committee for the Student Commons has recommended that a major node of student activity space be located at the north end of site 12. There are many aspects of both space programs that are complementary. Co-location of both facilities will create a vibrant area of the campus at this north end that has been not evident since the days of activity in the original Varsity Stadium.

The plan for Varsity Centre 2007 distributes the activities on both sites 21 and 12. The description of the space program earlier in this planning document itemizes activities to each location. The Varsity Entrance Building will be a key entry point for the University population arriving from the south. It must be made visible from Devonshire Place and connect visually to the Centre of High Performance Sport planned for the south end of site 12.

The current proposal for Varsity Centre for High Performance Sport should have little, if any, impact on Trinity College or Massey College. The current easement agreement with Trinity College over the right-of-way on the lane south of Site 21 currently allows for service access to Varsity Arena. Permission for pedestrian access for participants and spectators has been included in the easement agreement.

The area of Philosopher's Walk is a remnant of Taddle Creek visible from Bloor Street West between the RCM building and the ROM and extending south to Hoskin Avenue between Varsity Arena and Trinity College on the west and the Edward Johnson Building and Flavelle House on the east. This space has been designated Urban Open Space (UOS) in the Part II plan, thereby protecting the space against development. Understanding the sensitivity surrounding urban open space, the current plan for development respects zoning requirements for this area. In keeping with the *Bloor/Devonshire Neighbourhood Study*, "…athletics renewal is organised to minimise projection into the valley and corresponding landscape restoration that will be required can be used to intensify the landscape quality and integrity of Philosopher's Walk." Egress from events at the arena and the stadium will be directed towards the west and north through the concourse to Bloor Street. A master plan for Philosopher's Walk has been completed. See Appendix D, an extract from "Investing in the Landscape" – The Primary Objectives of the Open Space Master Plan. Any work required on Varsity Arena must contribute positively to the adjacent areas of Philosopher's Walk and respond to the Master Plan.

Servicing

Servicing Varsity Arena, the Stadium, Centre and the Varsity Entrance Building will have to be done from the lane immediately to the south of the site. If necessary, pick-ups and deliveries can be arranged for non-peak hours in order to minimise potential vehicular/pedestrian conflicts.

Servicing, for the CHPS, Woodsworth Residence and Student Commons will occur from a lane running west from Devonshire Place at the south end of the site which turns north to the Woodsworth Service Area.

Secondary Effects

According to the University of Toronto parking by-law no additional parking will be required as a result of this development. However, development of Site 12 will require

that 52 parking spaces that are lost on this site must be absorbed by the parking inventory of the St. George Campus

Outdoor space must include provisions for ample bicycle parking.

One of the two offices of the Association of Part-time Undergraduate Students (APUS) is temporarily located in 100 Devonshire Place at the south end of Site 12. As part of the on-going commitment to provide suitable space to APUS, the organization will need to be relocated, at least on a temporary basis, in order for development on the site to take place. Future space allocations to APUS will be dependent upon the development of other capital projects (e.g., the proposed Student Commons) and the administration's continuing discussions with the organization with respect to their space needs.

ELECTRICAL INFRASTRUCTURE

There was sufficient power available for the first phase of the Varsity project to be powered from the same electrical capacity available to the now-demolished stadium. The power requirements of the third and fourth phases of Varsity, however, will exceed capacity available on the University distribution system and therefore must be supplied directly from Toronto Hydro. Under the master plan for the upgrade of electrical services to the St. George Campus, Utilities has determined that the share for the full build-out of Site 12 is $1.3 million which has already been done. At present, the budget for CHPS carries $1 million as its share of these costs and $100,000 in connection costs. The situation with respect to the South Building is still under review, and currently the budget carries an allowance of $100,000 for hydro connection charges. The cost will depend on ownership of the sub-station and economies derived from sharing the cost with other nearby future developments.

OTHER CONSIDERATIONS

Because of the multifaceted use of the new Varsity Centre facilities, the high level of physical activity and the motorised equipment, a highly efficient and effective heating and ventilation system, including an appropriate air-conditioning and de-humidification system, is essential.

Heating for Site 12 will be available from the Central Steam Plant using a line already installed that serves Woodsworth College Residence. This will require the completion of a higher capacity line segment at Hoskin Avenue and an extension of a segment from the underground parking garage at the Rotman Building to Site 12.

The financing plan of the original steam line assumed a cash contribution from the Site 12 project of approximately $225,000 based on an early estimate of the required capacity of the site. This figure will be re-evaluated once the full capacity of the building is known.

VIII. RESOURCE IMPLICATIONS

CAPITAL COST ESTIMATE

The capital cost is based on the data sheets provided for the facilities included in the remaining components, approximately 7750 nasm in total. When all taxes, contingencies, fees, equipment, financing and miscellaneous costs are included, the total project cost of the remaining Phases is expected to be approximately $69.8 million, premised on a tender date of October 2008 The details are shown in Appendix E. Escalation on this estimate will be 7% per annum to date of tender

Separated into individual components, the capital costs are estimated to be as follows:

Arena renovation	$ 7.1 million
Beacon	$ 0.5 million
Centre for High Performance Sport	$52.7 million
Varsity Entrance Building	$ 9.5 million
Total	$69.8 million

IX. FUNDING SOURCES

Operating

The annual operating costs of the facility, Phase 3 and 4, are currently estimated at $2.8 million. 75% of this amount comes from student fees, on the assumption that students will have access to the facilities 75% of the time. The remainder of the revenues will be generated through rentals, special events and other income. There is no expected change to the operating costs of Varsity Arena after renovations.

Capital

All components of Varsity Centre 2007 described in this project planning report will be funded by private benefaction, government grants and other outside sources

X. SCHEDULE

Construction will occur when funds are raised. It should be noted that each component can be implemented in any order once funding is available. With adequate funding already in place to fully fund the South Entrance Building and Beacon and Box Office, the Project Committee recommends completion of these two components.

STAGING AREAS

Care must be taken to ensure that these new outdoor facilities are protected from damage due to construction of the new building at the south end. It is critical that once the track and field are in place that they not be disturbed.

XI. RECOMMENDATIONS

It is recommended to the Planning and Budget Committee:

1. THAT the planning and construction of the Varsity Entrance Building and the renovations to Varsity Arena, on Site 21, 299 Bloor Street West, and of the Centre for High Performance Sport on Site 12, 100 Devonshire Place, as contained within this report, be approved in principle,

2. THAT the components of the project for Varsity Centre, approximately 7750 net assignable square metres be approved in principle at a total project cost of approximately $69.8 million (plus escalation to point of tender of the project) to be funded by fundraising initiatives.

3. THAT the South Entrance Building and Beacon and Box Office be implemented (approximately 600 nasm) at a total project cost of $10 million with available funding from donations. No financing will be required.

Appendix A:

Environmental Protection Policy

University of Toronto Environmental Protection Policy

PREAMBLE
The University of Toronto is committed to being a positive and creative force in the protection and enhancement of the local and global environment, through its teaching, research and administrative operations. Recognizing that some of its activities, because of their scale and scope, have significant effects on the environment, the University as an institution, and all members of the university community, have the responsibility to society to act in ways consistent with the following principles and objectives:

FUNDAMENTAL PRINCIPLES
• Minimization of negative impacts on the environment
• Conservation and wise use of natural resources
• Respect for bio-diversity

SPECIFIC OBJECTIVES
In adopting these fundamental principles, the University will be guided by ethical attitudes towards natural spaces, and will take all reasonable steps to meet the following objectives:
• Minimize energy use, through efficient management and practice
• Minimize water use, through efficient management and practice
• Minimize waste generation through reduction, reuse and recycling
• Minimize polluting effluent and emissions into air, land and water
• Minimize noise and odour pollution
• Minimize and where possible eliminate use of chemicals, including outdoor salt, pesticides herbicides and cleaning agents
• Include bio-diversity and environmental concerns in planning and landscape decisions
• Meet and where possible exceed environmental standards, regulations and guidelines

IMPLEMENTATION
To implement this Environmental Protection Policy:
• An Environmental Protection Advisory Committee (EPAC) will be established consisting of administrative staff, academic staff and student groups, to be chaired by a member of the University's academic staff. The Committee will provide advice to the Assistant Vice-President, Operations and Services, on programs to meet the environmental protection objectives. Membership of the committee will be made known to the community to ensure that new and existing initiatives are brought forward for consideration. The meetings of EPAC will be open.
• Facilities and Services, through the Waste Management Department will facilitate the development, implementation and evaluation of environmental protection programs, and will liaise with the EPAC and all three campuses on the programs.
• In this role Facilities and Services will:
  • Regularly review university policies to ensure consistency with this policy;
  • Carry out appropriate environmental audits and pilot projects;
  • Undertake education and training programs to inform the University Community about this and how its members, both personally and collectively, can best meet the objectives set forth in it;
  • Inform all contractors, service operations and users of University facilities that they must comply with the requirements of the policy;
  • Annually issue a report concerning the University's impact on the environment, summarizing initiatives undertaken and identifying matters which require particular attention.

Approved by Business Board of the Governing Council on March 7, 1994.

Environmental Checklist for Users Committees (5/99)

1. General planning principles: Consideration of alternatives, Life cycle approach

2. Minimize Energy Use
   a) Thermal Energy: Heating, Cooling
   b) Lighting/Use of Natural Light
   c) Ventilation/Windows
   d) Machinery/Equipment
   e) Orientation of Building - effect on building energy needs
   f) Roof Design

3. Minimize Water Use (Maximize Reuse)
   a) Flushing
   b) Washing - hands and body
   c) Building Cleaning
   d) Drinking
   e) Experimental/Labs
   f) Equipment Cooling
   g) Outdoor Vegetation - choice and watering (see #4)

4. Utilization and Diversion of Rainwater
   a) Use of Roof Water
   b) Porous Pavements

5. Waste Management (offices, classrooms, food outlets, outdoors, construction/demolition)
   a) Reduction
   b) Reuse
   c) Recycling
   d) Treatment and Disposal - possible on campus

6. Effluent and Emmissions (reduce, reuse, recycle, dispose)
   a) Indoor (Air Toxicity, Noise, Odours, Ventilation)
   b) Outdoor Air - laboratory emissions
   c) Water - Hazardous Wastes
   d) Land

7. Reduce Harmful Chemicals
   a) Outdoor Salts
   b) Pesticides/Herbicides
   c) Cleaning Agents

8. Outdoor Environment
   a) Encourage Bio-diversity (encourage and protection of species)
   b) Landscaping/Shading - effect on building energy needs in summer and winter
   c) Use of outdoor space (e.g. rest areas, roof gardens)

9. Monitoring and Metering of Use of Resources and Wastes
   a) Water
   b) Electricity
   c) Heat
   d) Wastes

10. Visibility of Environmental Concerns
   a) Pilot Projects
   b) Posters/Displays

11. Material Choice (Use of endangered/exotic materials, off-gassing)
   a) Building Fabric
   b) Fixtures and Furnishings

Appendix B:

Green Building

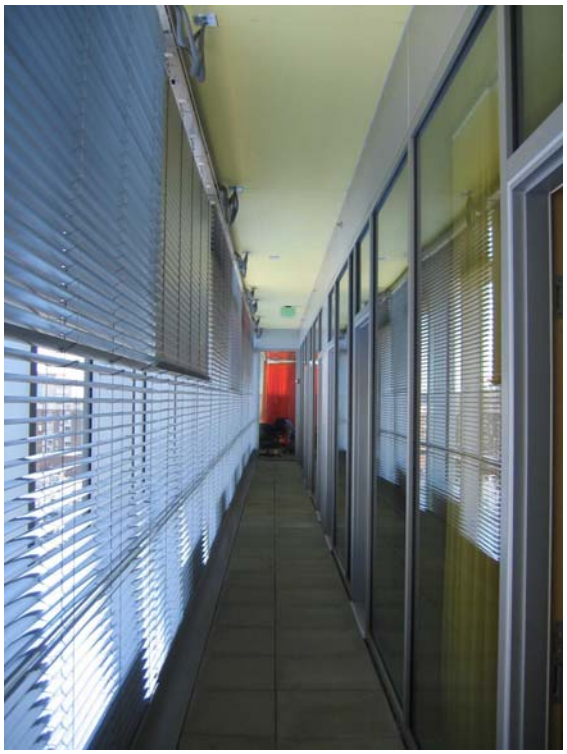
Sustainable Technologies Suggested for the New Athletic Building

Table of Contents

Acknowledgements: This appendix was a student initiative by Monica Samec, Rich Lam, Mike Kristiansen and Barry Rawn. Many thanks to the professors Danny Harvey, Ted Kesik and Brad Bass for their time and recommendations. Also thanks to Ron Venter and his staff for their willingness to allow this student initiative to go forward and for their advice and suggestions.

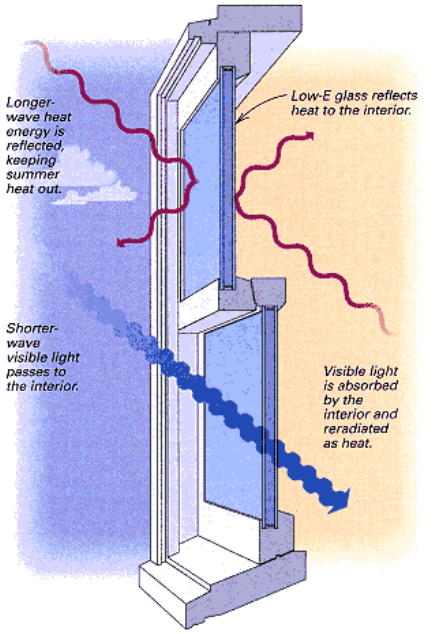
1. Building Envelope

- **1.1 Double Skin Walls**: The double curtain wall reduces heat and cooling loss by conduction by providing an intermediary space. Double envelope skins can reduce heat loss in the winter while still capturing solar gains. Heat can be "vented" out of the cavity on hot summer days while cool air can be brought into the building to temper perimeter spaces during a spring or fall day.



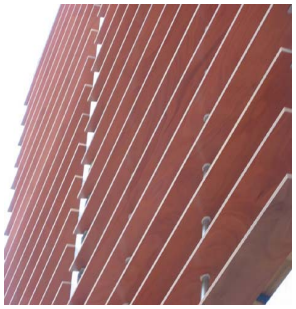
1. The main advantage of a double facade is in the summer, to provide adjustable and protected external shading. You can get the heating benefits more cheaply with just TG windows (TG shading be used in the DF in any case)..
2. If you have a DF with adjustable shading, you don't need EC ("smart") windows (which are very expensive and complicated to install and commission), nor do you need sunblockers (at least not on the same facade). Also, EC windows, adjustable shading, or sun blockers are not needed on the north facade.

- **1.2 High performance windows:** Switchable optical windows, or smart windows, can change their physical properties based on predetermined conditions. These chromogenic glazings can be altered either passively or actively. Where a change is desired, switchable materials can provide glare reduction, privacy, daylight and solar control, and reduction of ultraviolet transmission. When combined with continuously dimming controls, switchable materials can provide these significant benefits and save energy in commercial buildings. Energy simulations of office buildings indicate that smart windows with lighting controls in arid climates can provide 30 to 40 percent energy savings over conventional windows.



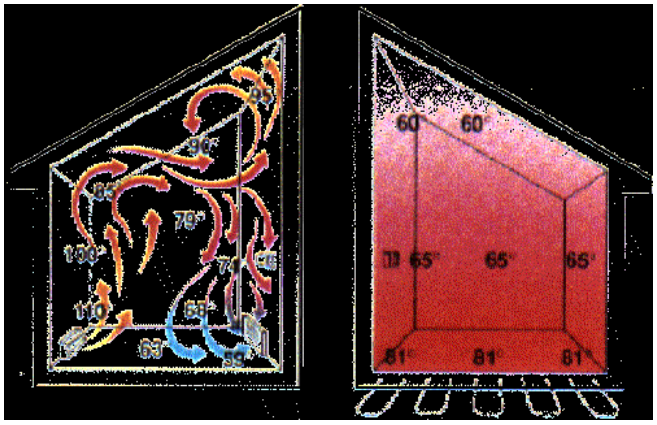
Relevant Website:
http://www.advancedbuildings.org/_frames/fr_cs_gog.htm (see left menu – Building Structure)
Case Study: Green on the Grand Office Building
http://www.advancedbuildings.org/_frames/fr_cs_gog.htm

- **1.3 Sun blockers** are designed to control light, heat and glare while providing many valuable benefits. Shading solutions control solar heat gain, which can significantly reduce a building's energy costs by limiting or eliminating the need for air conditioning. The use of optimum daylight not only contributes to energy savings but also provides a better working environment.



- **1.4 Insulation to twice building code standards:** Increasing insulation by twice building code standards (ex. for a 6 inch wall, use R40 instead of the code's R20) is a basic cost effective measure that generally has a payback period of approximately 10 years. This will reduce energy use and therefore will reduce Green House Gas emissions.

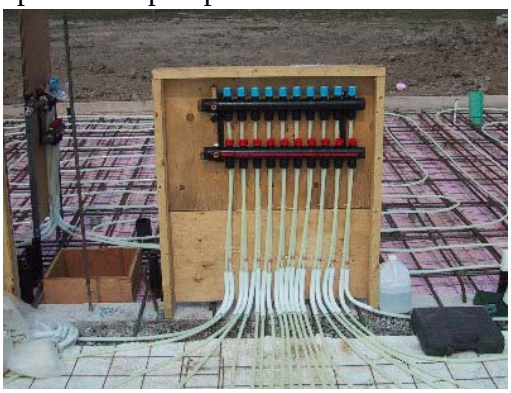
2. Building Systems



- **2.1 Radiant Floor Heating** (embedded in a concrete floor slab which acts as a thermal mass to store heat or to cool) allows for the thermostat to be set 2-4° less than in a forced air heating system. This can reduce energy costs by 10-40%. It also includes benefits such as silent operation, a healthier environment (forced air systems can spread dust pollen and germs), reduces material and labour costs (carpet or wood floors not necessary, no drywall or T-bar ceiling necessary – plumbing is embedded in the concrete). Also, radiant heat is less likely to dry out your breathing passages and skin. Courtesy of Natural Resources Canada and CHMC <http://www.advancedbuildings.org/_frames/fr_t_heat_radiant_heating.htm>

Examples of radiant floor use:

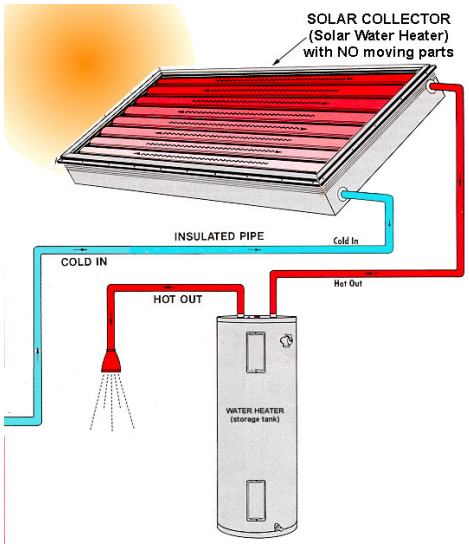
- **Liberty Gym, Albuquerque, NM. < http://www.virtualalbuquerque.com/VirtualABQ/LibertyG Solar Water Heating:** Solar energy is a clean and abundant energy resource that can be used to supplement many energy needs. Water heating is one of the most cost-effective uses of solar energy, providing hot water for showers, sinks and water for in-floor heating. A solar water heater reduces the amount of fuel you need to heat water because it captures the sun's renewable energy. Many solar water heaters use a small solar electric (photovoltaic) module to power the pump needed to circulate the heat transfer fluid through the collectors. The use of such module allows the solar water heater to operate even during a power outage.



Relevant Website -- http://www.advancedbuildings.org/_frames/fr_cs_gog.htm (see left menu - Plumbing and Water Heating)

Case Study - http://www.advancedbuildings.org/_frames/fr_cs_gog.htm (see left menu - Plumbing and Water Heating)

- **2.2 Solar Water Heating:** Solar energy is a clean and abundant energy resource that can be used to supplement many energy needs. Water heating is one of the most cost-effective uses of solar energy, providing hot water for showers, sinks and water for in-floor heating. A solar water heater reduces the amount of fuel you need to heat water because it captures the sun's renewable energy. Many solar water heaters use a small solar electric (photovoltaic) module to power the pump needed to circulate the heat transfer fluid through the collectors. The use of such module allows the solar water heater to operate even during a power outage.

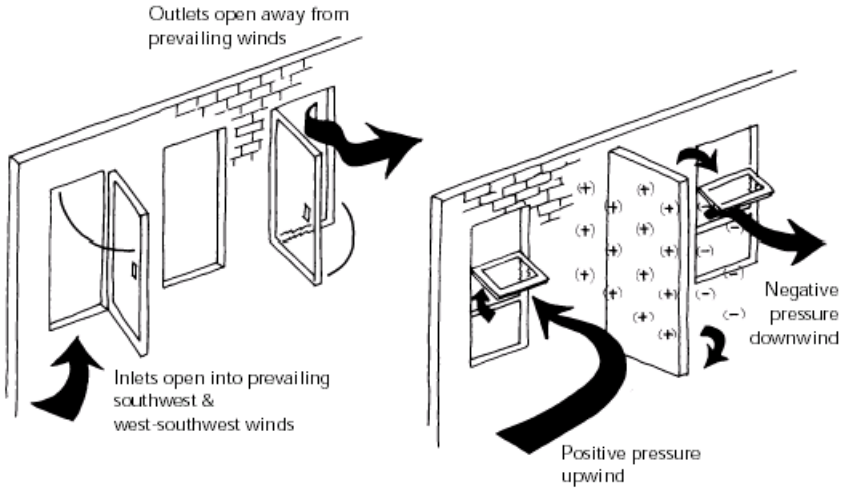


Relevant Website -- http://www.advancedbuildings.org/_frames/fr_cs_gog.htm (see left menu - Plumbing and Water Heating)

Case Study - http://www.advancedbuildings.org/_frames/fr_cs_gog.htm (see left menu - Plumbing and Water Heating)

- **2.3 Heat from Ice Making:** The heat generated by the ice making machine in the Varsity Hockey Arena could be redirected to the new Varsity Field Building. This would reduce the heat requirements of the new building, saving the University money on its energy bills as well as reduce the amount of heat dissipated into the local urban area. If this is to be implemented it must be immediately thought of as the design might have a certain dependency on the placement of the heat intake.

- **2.4 Natural Ventilation And Cooling**[2]



Source: "Design windows to maximize ventilation," *Santa Monica Green Building Program.* URL: http://greenbuildings.santa-monica.org/

Description

Natural ventilation and cooling is the use of outdoor air flow into buildings to provide ventilation and space cooling. Natural ventilation is a whole-building design concept. The design utilizes the stack effect and wind pressures to supply outdoor air to building interiors for ventilation and/or space cooling purposes. The aim is to have an airtight building envelope while controlling outdoor air supply to provide the required ventilation. Features of naturally ventilated buildings include operable windows, exhaust vents located high in the building with intakes located low in the building, and open building plans to facilitate air movement. Designs can incorporate atria, internal stairwells, ventilation chimneys and small fans to move ventilation air.

When ventilating a building using natural ventilation, two distinct design strategies must be considered - one for the winter and one for the summer. During winter only small air flows for are needed (usually 5-8 l/s per person) but there is the risk of cold air drafts. During the summer, the main challenge is providing enough air flow to give effective cooling. Some designs use mechanical systems to provide outdoor air for occupants but use natural ventilation to provide cooling.

[2] Source: "Building Automation Systems" *Advanced Buildings – Technologies and Practices.* URL: http://www.advancedbuildings.org

Natural ventilation reduces energy consumption for fans and mechanical cooling and in most cases gives occupants control over their office space. Further benefits include no fan noise and in some cases elimination of the mechanical cooling system.

Benefits	Limitations
• provides ventilation (outdoor air) to ensure safe, healthy and comfortable conditions for building occupants without the use of fans • provides free cooling without the use of mechanical systems • reduces building construction costs and operation costs, when carefully designed • reduces energy consumption for air conditioning and circulating fans • eliminates fan noise	• greater temperature swings than normal with mechanically cooled spaces will occur and have to be acceptable to the occupants. • air flow rate varies with outdoor conditions • occupants must be willing to open and close vents and windows to regulate thermal comfort • not as effective during warm, humid summer months • difficult to retrofit in buildings • fire codes may restrict design options

Application

There are many ways that natural ventilation can be incorporated into buildings. Some design concepts and guidelines are given below:

- the long façade of the building and the majority of the openings should be oriented with respect to the prevailing summer breezes (i.e., north-south orientation if prevailing westerly wind).
- exhaust vents or outlets should be on the leeward side as high as possible in the building.
- vegetation and site objects should not obstruct inlet openings.
- rooms should have inlet and outlet openings located in opposing pressure zones, e.g. windward and leeward walls, windward wall and roof.
- inlets should supply air low in the room. Outlets should be located across the room and at high level.
- the vertical distance between the inlet and exhaust openings should take advantage of the stack effect.
- all occupied spaces should have an inlet and outlet opening, one or both of which may be an operable window
- the total area of outlet openings should be operable and accessible by the occupants.
- inlet openings should not be obstructed by furniture and interior

partitions.

- enclosed staircases used to take advantage of stack effect ventilation should be designed such that their function as fire exits is not compromised.
- floor to ceiling heights should be at least 3 m.

In order for natural ventilation to be effective as a space cooling system, it is important to keep solar and internal gains to a minimum. The lower these gains are, the less air flow is required to remove the heat and the greater the likelihood that a mechanical cooling system can be avoided. Some techniques to reduce solar and internal gains are given below.

- window areas should not be excessive and be protected by exterior shading devices
- design for high thermal capacity and exposed ceilings for night cooling.
- minimize warming of the walls by the sun through use of light-coloured building exteriors, trees and shrubs to provide shading and evaporative cooling, grass and other groundcover to keep ground temperatures low, and ponds and fountains to enhance evaporative cooling
- internal loads should be low, e.g. high-efficacy lighting, lighting controls, high-efficiency mechanical equipment, pipe and duct insulation.

Relevant Website:
http://www.advancedbuildings.org/_frames/fr_cs_gog.htm (see left menu - Ventilation and Air Quality)

• 2.5 LOAD MANAGEMENT

OCCUPANCY SENSORS

Infra-red sensor detects occupancy.

Description

In most commercial buildings, electric lights are left on when rooms are unoccupied. While light switches are usually available, occupants cannot be relied upon to turn off lights when rooms are not in use. Occupancy sensors overcome this problem by automatically turning lights off or on as required.

There are two types of occupancy sensors: passive infra-red (PIR) and ultrasonic. PIR sensors sense infra-red heat radiated from the human body (10 micron wave lengths). Because there can be other sources of heat at the same temperature, the sensors respond to changes in position of the source of heat.

Ultrasonic sensors emit an inaudible high frequency tone. Like sonar, the tone bounces off the objects in the room and returns to the sensor. If there is motion, the acoustical response changes and occupancy is sensed. When occupancy is sensed (by either type

of sensor), the electric lights are turned on. The lights will stay on until no motion is detected for approximately 15 minutes.

Occupancy sensors have a limited sensing range. Sensors can detect slight hand motion up to 3 m and full body motion up to 10 m. Ultrasonic sensors offer better detection than PIR sensors. In rooms where it is critical that lights do not go off incorrectly, dual technology (PIR and ultrasonic) sensors can be used.

Occupancy sensors can reduce lighting energy use by 30 to 60%, depending on the frequency of room usage. Savings can rise to 75% if the lights are controlled by a combination of occupancy and daylighting controls (see The "Smart" Building).

Application
Occupancy can be used in almost all room types. The type and location of occupancy sensor depends on the application. In individual office spaces lower cost, wall-mounted PIR sensors are typically used. In open offices, ceiling-mounted PIR sensors are used. If, however, there are many partitions and obstructions, ultrasonic sensors should be installed.

Cost
Sensors cost from C$75 to $200 each. The payback on the investment is usually less than two years.

THE "SMART" BUILDING[3]

A user interface from Reliable Controls®.

Description
Building Automation Systems (BAS) use computer-based monitoring to coordinate, organize and optimize building control sub-systems such as security, fire/life safety, elevators, etc. Common applications include:

- **equipment scheduling** (turning equipment off and on as required)
- **optimum start/stop** (turning heating and cooling equipment on in advance to ensure the building is at the required temperature during occupancy)
- **operator adjustment** (accessing operator set-points that tune system to changing conditions)

[3] Source: "Building Automation Systems" *Advanced Buildings – Technologies and Practices*. URL: http://www.advancedbuildings.org

- **monitoring** (logging of temperature, energy use, equipment start times, operator logon, etc)
- **alarm reporting** (notifying the operator of failed equipment, out of limit temperature/pressure conditions or need for maintenance)

Benefits	Limitations
• improves and documents occupant comfort • reduces heating, ventilation, and cooling costs through improved sub-system management • reduces time required to monitor and manage building operation • allows support and diagnostics from remote location • Extremely low cost to manage and integrate with new systems.	• must be manually operated to improve occupant comfort, indoor air quality, building energy use and environmental impact • quantity and complexity of sub-systems must be great enough to warrant cost of system

Case Studies

- **Toronto Pearson International Airport** is tying a flight information database to heating, lighting and air conditioning systems at each gate in order to restrict energy use to those periods when gate areas are occupied.
- **Sears Canada** installed automated systems into department stores to manage light and temperature. The system adjusts heating, ventilation, lighting and air conditioning to preset levels. Ventilation is adjusted to the level of carbon dioxide in the building.

Relevant Website:

http://www.advancedbuildings.org/_frames/fr_cs_gog.htm (see left menu - Load Management/BAS)

Company Listing

Alerton Technologies
6670 185th Avenue NE
Redmond, WA
tel 1 425 869 8400
fax 1 425 869 8445
www.alerton.com

Delta Controls
17850-56th Ave Surrey, BC

Reliable Controls
203-3375 Whittier Avenue Victoria, BC
Canada V8Z 3R1
tel 1 250 475 2036
fax 1 250 475 2096
www.reliable-controls.com

Direct Energy Business Services

Canada V3S 1C7
tel 1 604 574 9444
fax 1 604 574 7793
www.deltacontrols.com

Mississauga
2645 Skymark Avenue
Mississauga, ON
L4W 4H2
1-888-893-5553
http://www.directenergy.com/

- **2.6 Green Roof with Grey Water System:** Roof-top patios are a valuable space in urban areas. With limited spaces to build and municipal height restrictions, roof-top patios maximize occupancy space of buildings and would provide an excellent viewing and social area especially for watching big games on the field! The space could then be enhanced by including greenery (plants, grass and trees) to reduce heat gain in the summer, provide psychological benefits for its users, and increase property value. Green roofs also lead to a 50-100% increase in the lifetime of the roof membrane. In addition, simple grass landscaping on a green roof results in CO_2 reduction of 0.2 kg per square meter. Green roofs average $8-25/sq. ft. compare to $3-20/sq.ft. for a typical roof installation. Manufacturers with Canadian subsidiaries include Soprema, Hydrotech, Elevated Landscape Technologies and Greentech. Each of these companies support green roof components that provide the necessary protective layers and soil substrates. Their prices average about $12-20/sq.ft.

Furthermore, water collection could take place and be redirected to a grey-water recycling system which would provide water for toilet use thereby reducing water needs of the building. Canada is second largest water consumer per capita in the world and therefore it is important to reduce our water use. With solar water heating, grey water recycling, natural growth and an excellent space for viewing athletics, the green roof would provide an excellent showcase for U of T's commitment to sustainable technologies as well as strengthen the school's commitment to enhance the experiences of its academic and municipal communities.

Examples of Green Roofs in Toronto

- Student Family Housing Residence, U of T, 30 Charles St. West, contact – Nancy Chater; 416-823-1072.

- 401 Richmond (renovated warehouse), Toronto, On., 401 Richmond St. West, http://www.401richmond.net/garden.html

Grey Water Recycling Reference

- http://www.advancedbuildings.org/_frames/fr_cs_gog.htm -(see left menu - Plumbing and Water Heating) and http://www.greywater.com/

- Case Study: http://www.advancedbuildings.org/_frames/fr_cs_gog.htm (see left menu - Plumbing and Water Heating)

- Local Manufacturer: Creative Communities Research Inc.
  152 Sparkhall Avenue
  Toronto ON
  Canada M4K 1G8
  tel 1 416 466 5172
  fax 1 416 466 5173

3. Other

- **3.1 Athletic Field**

  - **Turf from recycled tires:** Most new synthetic turf use a sub layer made from sand and rubber granules made from recycled tires. By choosing infill made from 100% recycled tires can utilize 20,000 to 40,000 scrap tires would be utilized, and this option is usually cheaper than mat or poured in place systems. Example Company: RTG Inc. http://www.nylovesbiz.com/press/press_display.asp?id=315

  - **Grey water recycling:** If the field is sloped towards the building, water could be collected to be used for flushing toilets in the new building. This would save on water for the building as well as help reduce stormwater runoff.

- **3.2 Fixtures and Finishings:** Examples to be considered are low-flush toilets, low-energy elevators and low-emission paints, materials and adhesives. Low-flush toilets will reduce the amount of water consumed and will make the grey water recycling more viable. Traditionally paints, adhesives and other new building materials emit VOCs that can cause health problems to those who are chemically sensitive (some are known carcinogens). There are also municipal incentives (rebates) for the use of low-flush toilets. By considering these suggestions, the health of the building and its occupants will be greatly enhanced (a healthy building for healthy athletes!)

  Relevant Website: http://www.advancedbuildings.org/_frames/fr_cs_gog.htm (See left menu- Motors and Equipment/low energy elevators, -- see also Finishes and Furnishings

- **3.3 Financial Incentives:** The Federal Government of Canada has funds available for energy reducing projects for institutions. These include:

  Green Municipal Investment Fund (GMIF) – The $100-million GMIF will provide interest-bearing loans, loan guarantees, and grants to Eligible Recipients carrying out

municipal environmental projects that improve energy and process efficiency in municipal buildings, and water, wastewater, solid waste management and public transit systems.

Commercial Building Incentive Program (CBIP) -- The CBIP provides financial incentives to building owners who incorporate energy efficiency features in the design of new commercial or institutional buildings. You can receive up to $60,000 if your building design meets the program's requirements.

*More Federal Government incentives will be available when they present their plan for implementing the Kyoto Accord

Appendix C:

Equity Policies of

Faculty of Physical Education & Health

Equity Issues Committee

Short-, Mid-, and Long-Term Equity Recommendations

Approved by the Council of Athletics and Recreation, May 10, 2004 and by Faculty Council, May 26, 2004

Introduction -- History and Initiatives*

The Faculty of Physical Education and Health (FPEH), in its mission and history, has become known as a leader in equity. It is the only faculty at the University of Toronto that has a systemic commitment to equity by including an Equity Issues Committee (EIC) in its governance structure. Furthermore, the FPEH has gone even further to incorporate equity into its governance structure by officially housing equity and the implementation of equity initiatives in the portfolio of the Assistant Dean, Administrative Services (see Report on Universal Accessibility Recommendation #8).

As a teaching health centre, the Faculty provides curricular and co-curricular opportunities that enhance the physical activity experiences of thousands of our students, faculty, staff and community members every day. The volume of participation and the demand for our programs and services indicate that we are meeting the needs of many people.

However, the Faculty recognizes that there is much more to be done in order to achieve equitable physical activity for all. In 1994, the Council of the Department of Athletic and Recreation (DAR) at the University of Toronto approved the report of the Task Force on Gender Equity. This report represented a "pioneering effort among universities in the field of gender equity in athletics and recreation programs", and significantly transformed and affected all aspects of the DAR and the Athletic Centre.

However, within the recommendations was an acknowledgement that there were a number of significant and relevant issues that could not be adequately addressed by the Task Force, notably issues of race/ethnicity, sexual diversity and universal accessibility. The Task Force recommended that the Standing Committee on Equity Issues (more commonly known as the EIC) examine these issues in greater detail. In response to this recommendation and its commitment to the "provision of a full range of opportunities and benefits, regardless of the difference between individuals and groups," the Faculty, through the EIC, initiated over the following years a number of initiatives (all of which are publicly accessible documents) including:

- The Ethnocultural Academic Initiatives Project (July 1999);
- The Report on Inclusive Practices for Ethnocultural, Racial and Religious Groups (June 2001);
- Symposia on “Excellence through Equity: Shifting your Perspective” (February and April 2003);
- The Faculty of Physical Education and Health's Accessibility Audit (May 2003);
- The Report on Universal Accessibility (June 2003); and
- The Report of the Task Force on Equity in regards to Sexual Diversity (August 2003).

The Faculty has also moved forward on other measures and recommendations including the hiring of an Ethnocultural Community Coordinator (ECC), the creation and implementation of women's only swim time and women's only hours in the Strength and Conditioning Centre (SCC), equal funding envelopes for men's and women's interuniversity sports, and the creation of the START program. Despite financial cutbacks, the FPEH and the EIC remain committed to equity in this time of scarcity. All suggestions and feedback on how to make the Faculty and the Athletic Centre more equitable for all are welcomed.

The 2003/2004 EIC, composed of students, staff and faculty from both within and outside the FPEH, was responsible for examining the two most recent equity reports, the Report on Universal Accessibility and the Report of the Task Force on Equity in regards to Sexual Diversity, and developing short-, mid-, and long-term recommendations. Both of these reports are publicly accessible and, while not duplicated in full within this report, inform the recommendations brought forward by the EIC. These recommendations are meant to guide the FPEH in fostering equitable and inclusive policies, curricular and co-curricular programs, services and facilities specifically with regards to issues of universal accessibility and sexual diversity, and in relation to the two previous equity reports on gender and ethnocultural diversity. It must be recognized that these recommendations are not exhaustive, and are open to change as new ideas, thoughts, and feedback arise on how to better promote and shape equitable physical activity and health for all.

* Adapted from the Report on Universal Accessibility and the Report of the Task Force on Equity in regards to Sexual Diversity

The Equity Recommendations Report was prepared by co-chair Parissa Safai; it was unanimously approved by the EIC on April 21, 2004 and by CAR on May 10, 2004.

Recommendations

These recommendations are informed by the Report on Universal Accessibility (UA) and the Report of the Task Force on Equity in regards to Sexual Diversity (SD). Where possible, reference has been made to similar recommendations found in either of these reports. Furthermore, these recommendations are aligned with the FPEH's previous equity reports on gender and ethnocultural diversity, however the FPEH and the EIC must continue to work towards more fully synthesizing all four equity reports. The FPEH and the EIC must also continue to recognize and address the ways in which the four reports differ in their recommendations. Furthermore, the FPEH is called upon to investigate and address other sites of social inequality that impact the Faculty and the Athletic Centre, chiefly age and socio-economic status.

Short-Term Recommendations

A1. Develop an FPEH Statement of Commitment to Equity that communicates the Faculty's commitment to fostering equitable physical activity for all, and to be used for all internal and external Faculty communications (SD #2-1).

∇ Purpose of this statement is to complement the FPEH's mission statement and to help shape all FPEH policies and practices.

Statement of Commitment to Equity:

The Faculty of Physical Education and Health is strongly committed to equity and inclusiveness. We are working to develop fully accessible programs, services and facilities for all. We celebrate diversity, and welcome people of every race, sex, sexual orientation, age, religion, ethnicity, size, level of ability and disability, and socio-economic group.

∇ The FPEH must recognize and acknowledge where qualifications may be necessary (e.g., currently, varsity sport, as regulated by CIS and OUA, does not recognize those athletes who identify themselves other than male or female); and

∇ Where the Faculty may be in violation of HR codes (e.g., the current structure of the physical activity practicums in the undergraduate program discriminates against students with a disability).

A2. Develop an FPEH system of equity symbols to be used in internal and external communications where needed (UA #16).

∇ Use existing and recognizable symbols to avoid 'reinventing the wheel' (e.g., wheelchair symbol, rainbow triangle, checkmark).

∇ Define symbols according to our needs (e.g., checkmark besides services and/or programs that are universally accessible).

∇ Use the symbols to appropriately differentiate between facility-accessibility (e.g., wheelchair symbol) and program/service accessibility (e.g., checkmark).

∇ Develop a baseline measure/checklist for this (i.e., what standards have to be reached for a service/program to achieve a checkmark?).

A3. Include the FPEH Statement and Symbols in all internal and external communications (SD #2-2; 2-3; 3-8).

∇ For example, hiring practices/job postings; "Rights & Responsibilities" signage located around Athletic Centre (AC); FPEH webpage; AC Summer and Winter Guides; 'Camp UofT' Brochures; Curricular Program Guides; etc.

A4. Increase the visual representations/display of the diversity of the University of Toronto community through signage, displays, photos, etc. (SD #2-6; 3-8; UA #15).

∇ Develop a baseline measure/checklist for this (i.e., have we included images of persons of varying size, persons with a disability, etc.?).

A5. Acquire and distribute adapted communication technology within the Athletic Centre, along with accompanying signage to direct individuals to the equipment.

∇ Minimum of one computer with adapted technology in the publicly accessible information commons, lower level Athletic Centre.

∇ Minimum of one publicly accessible telephone with TTY capabilities.

A6. Provide guidelines and develop a monitoring system for any FPEH-based web materials to ensure compliance with W3C standards. All webpages posted in the name of the FPEH must be accessible (UA #14).

A7. Direct administration to review appointment/recruitment strategies for diverse representation on curricular and co-curricular committees including, but not limited to, the Equity Issues Committee. A key question to ask is: what measures have been taken to increase representation on committees?

∇ Consult with appropriate campus groups where needed and where possible.

A8. Review job descriptions of senior staff, in consultation with Human Resources, with regard to equity and inclusivity (SD #1-1; 1-2; 3-3).

∇ Develop specific inclusivity and accessibility measures.

∇ Develop an Equity Initiatives Annual Report that is reviewed by the Dean and submitted to the EIC, the Council of Athletics and Recreation (CAR) and the Faculty Council (FC) (UA #19).

∇ Key questions to be asked in these annual reports include: how have you and your staff/office pursued equity initiatives this year?; what specific steps have you and your staff/office taken with regard to equity?; how have department funds been used to enhance equity?; and how do equity initiatives compare to baseline assessment?

∇ Review the impact of facility maintenance and renewal on accessibility with the Equity Issues Committee (UA #18).

A9. Create a dedicated budget line for equity initiatives specific to services/programs and a dedicated budget line for equity initiatives specific to facilities and facility renewal (UA #16).

- ∇ Review the progress and efficacy of the dedicated budget line(s) on a regular basis with the Equity Issues Committee.

- ∇ Purchase equipment to enhance accessibility where possible (UA #13).

A10. Assess baseline equity and accessibility (SD #4-1; 4-2; 4-3; 4-6).

- ∇ Develop a multiple approach strategy for baseline assessment of the FPEH with regards to equity and accessibility, including:

    - ∇ Assessment of academic and co-curricular sides of the FPEH, from admission materials to course outlines to co-curricular programs to facilities, etc. (UA #10; 11).

    - ∇ Possible strategies:

        - ∇ Direct Faculty Council to recommend that the Provost conduct a baseline equity audit as part of end of Dean's term review**,** and recommend that this becomes standard practice university-wide.

        - ∇ Direct the Provost to conduct an equity audit of the FPEH.

        - ∇ Develop an equity audit to collect baseline data for future testing and comparison.

Mid-Term Recommendations

B1. Adopt Universal Instructional Design (UID) principles for all academic and co-curricular/ instructional programs (UA #2).

- ∇ Organize and host a UID Symposium for all curricular and co-curricular faculty/instructors (UA #6).

- ∇ In conjunction with Faculty Council, develop and implement a systematic equity/inclusivity review of curricular and co-curricular programs. Key questions concern what equity needs have been met, and what equity needs are still not being met by FPEH curricular and co-curricular programs?

B2. Develop and change year-end accountability reports and/or reporting mechanisms for FPEH staff and faculty (SD #3-3; 3-5).

- ∇ Direct the Deans to engage managers and faculty in developing equity/accessibility accountability measures (and/or adapting existing measures) (SD #3-7).

- ∇ Implement accountability measures as part of year-end review process for managers and faculty to be reviewed by Deans, the EIC and CAR/FC.

B3. Develop and implement mandatory training/professional development programs tailored appropriately for casual staff and full-time staff and faculty.

- ∇ Training/professional development orientations for casual staff focused on awareness and education (SD #1-3; 3-6; UA #5).

- ∇ Professional development programs for full-time staff and faculty to include training in both areas of awareness/education, specific regulations, and performance management (SD #3-1; 3-4; UA #5; 7).

B4. Develop and implement recruitment strategies that attract and encourage the broadest range of undergraduate and graduate students to part of the FPEH.

- ∇ Develop specific strategies for outreach to LGBTQ students (SD #2-5; 3-10).

- ∇ Develop specific strategies for outreach to students with a disability (simultaneously being cognizant of the ways in which FPEH is working towards a universally accessible curricular program) (UA #9).

B5. Develop and implement staff and faculty recruitment strategies that attract and encourage the broadest range of individuals to be part of the FPEH.

- ∇ Develop specific strategies for outreach to LGBTQ staff and faculty (SD #2-5; 3-2; 3-10).

- ∇ Develop specific strategies for outreach to staff and faculty with a disability (simultaneously being cognizant of the ways in which FPEH is working towards more accessible facilities and services/programs).

B6. Develop and implement recruitment strategies that attract and encourage the broadest range of users, members, potential members and visitors to the Athletic Centre and to the FPEH (SD #3-9; 3-10; 3-11).

Long-Term Recommendations

C1. Implement changes to curriculum, curricular policies and practices (SD #4-1; 4-2; 4-3; 4-4; 4-5; 4-6).

∇ Changes to both academic and co-curricular programs.

∇ Changes with regard to increased attention and discussion of equity issues, specifically issues of sexual diversity and accessibility.

C2. Hire, on a contractual basis, an Equity Initiatives Assessor.

∇ The Equity Initiatives Assessor, hired every 3-5 years, will be responsible for assessing and measuring the FPEH's progress with regard to equity initiatives. The Assessor will conduct both outreach and in-house assessment of the FPEH's implementation of the short-, mid- and long-term equity recommendations, and will develop a report for the Deans, the EIC, the CAR and the FC outlining the Faculty's successes and remaining challenges.

C3. The FPEH (i.e., its sponsorship staff, its development staff, etc.), in conjunction with the University of Toronto, secure other dedicated funds for equity initiatives.

C4. Facilities

∇ Increase universally accessible equipment purchases where possible.

∇ New construction and/or retrofitting where needed and where possible (SD #2-4; UA #1; 4; 13).

GENDER EQUITY TASK FORCE – APRIL 1994

SUMMARY OF RECOMMENDATIONS

FUNDAMENTAL RECOMMENDATIONS

As pointed out in our Introduction, achieving gender equity in sports and recreation will require all the imagination, ingenuity, energy and commitment of the Department of Athletics and Recreation, and the University of Toronto itself.

Fundamental to this task are the following recommendations. Their implementation will be essential if true gender equity is to be applied and practised at the DAR. We therefore feel we cannot emphasize this enough.

1. The Task Force feels that gender equity cannot be established in the DAR without a change in its governing Council. Therefore, we strongly urge Council to support the Constitution Committee's efforts to reach the goal of gender equity on Council, its Sub-Committees and the Department's Committees.

2. Realizing that there were a number of significant issues that it was not able to address within its time-frame, its expertise or its mandate, and that there is a need for a mechanism *to review as required* the implementation of gender equity, the Task Force believes earnestly that the DAR Council should create a Standing Sub-Committee of Council

3. The Task Force believes that gender equity cannot be fully implemented in the DAR without major renovations to the Athletic Centre. Therefore, the Task Force strongly urges the DAR Council to proceed with the proposed plans for renovation.

4. The Task Force is convinced that central to the implementation of gender equity in sports and recreation at the DAR is the equal funding of both men's and women's sports programs.

SUMMARY OF RECOMMENDATIONS

RECOMMENDATIONS: PHYSICAL FACILITIES, EQUIPMENT AND REPRESENTATION

Most of the following recommendations are inextricably bound up with the task of renovating the Athletic Centre so that it can enhance the realization of the DAR's new mission. In most cases, they require one-time only expenditures. It is essential that they be adopted and implemented as a matter of high priority. It is

therefore recommended that special provisions be made in the DAR budgets of the next five years to ensure that this can happen.

1. In keeping with the DAR's new mission, the ambience of the Athletic Centre should invoke a full range of physical (and educational and social) activities and make all members of the University community feel welcome. To this end, DAR should

a) Redesign displays *where possible*, so that a mix of activities and people are affirmed. The images presented should reflect the actual and intended use of the place, so that there should be much more emphasis on activities which suggest fun and wellness. In terms of the display cabinets, special exhibits should be prepared to celebrate other accomplishments (e.g. Clara Benson's career, Helen Gurney's long advocacy for women, Ian McGregor's pioneering work in risk management, Natalie Rivard's and Stephanie Boyd's development of women's hockey schools, exciting new classes available, etc.) This will no doubt require the further rethinking of awards and recognition.

b) The majority of images should show a diversity of people of all shapes, sizes and age, in a variety of activities, affirming the accessibility and pleasure of DAR programs.

2. There must be gender equity in representation in all publications, posters, and displays at all times. Specifically,

a) Where Intercollegiate posters are appropriate, there should be either clearly androgenous images or both female and male images, and a balanced positioning of men's and women's schedules in the materials.

b) During the fall term, football dominates the images of physical activity throughout the building. Even at this time, the goal of gender equity in all publications and displays should be pursued at all times.] *(Council decided that the intent of 2(b) is covered in the preamble to Marketing Section 2, thus 2(b) was deleted.)*

c) As a gesture of affirmative action, there *should* to be a *yearly celebration of women's sports and activities in the DAR.*

d) The marketing *unit s*hould be encouraged to continue and further enhance his efforts to achieve gender equity in all DAR marketing activities, including PR, publications, etc. To this

end, the DAR should keep an accurate accounting of the time and resources devoted to marketing both men's and women's sport and recreation. It must monitor the *visual displays* of outside organizations *posted* in the Athletic Centre to ensure that both genders are equitably and appropriately depicted at all times.

e) The marketing *unit* should be encouraged to step up *its* efforts to redirect the emphasis of DAR publicity from the external media and their concern for high profile sports to the U of T community and the spectrum of current and potential users.

f) Within the Intercollegiate sports, consideration should be given to highlighting the efforts of all U of T athletes, not just those in the DAR-funded Intercollegiate sports.

g) *Where necessary* the marketing *unit* should undertake media awareness programs to correct sexist representations of *U of T DAR athletic activities* in the campus press and the `malestream' mass media.

3. The entire Athletic Centre needs to be made more inviting; specifically,

a) The DAR should proceed as quickly as possible with its plan for facility redevelopment, especially the plan to create men's and women's dressing rooms of equal size, both with direct access to the two pools.

b) Provision should be made in the Stevens Pool for a storage area (day lockers, hooks, etc.) for users to place t-shirts, robes, towels, etc. Also, the feasibility of an inexpensive robe service for those using the pools should be investigated.

c) DAR should follow Hart House's example and *make nooks* and crannies student-friendly, university-supportable space, i.e. fill open corridors and corners with comfortable couches, study tables, stretching mats, etc. and cover the walls with art works. The School of Architecture and Landscape Architecture *and the general community* should be challenged to come up with a solution to the "gauntlet" feeling created by the Stevens Wing corridors.

d) More aerobically oriented exercise equipment and mats for stretching and calisthenics should be installed around the

periphery of the Field House. Strength training equipment should be provided with all physiques in mind.

e) A permanent and proper dressing room should be added to Varsity Arena to accommodate the women's ice hockey team. *(Note: Council accepted this recommendation in principle. However, due to the uncertainty regarding the eventual level of the student athletic fee for 1994-95, Council decided not to allocate any funds to this project for 1994-95.)*

f) Until such time as a facility redevelopment plan has been implemented (and a new, large, fully-equipped weight room is provided for all members), the Field House "track" weight room should be outfitted as a supervised women-friendly weight room, i.e. there should be equipment appropriate for women. It should be staffed by women, and it should look attractive. It would be open to all members of the DAR.

g) The DAR should regularly conduct women's safety audits in the Athletic Centre, and Varsity Stadium and Arena.

h) The DAR should prepare an accurate accounting of the facilities and facility times devoted to men's and women's sport and recreation (e.g. pools, gyms, Varsity Arena, etc.) for the proposed DAR Standing Sub-Committee on Equity Issues.

4. *Council will create a Task Force on Child Care, to report to the first meeting of Council in the fall of 1994*. Any Council-approved recommendations from this task force should be incorporated into the plans for facility redevelopment.

5. Safety

a) The DAR should move immediately to redesign and improve signage in the complex. Maps of the building should be erected in various locations throughout, indicating the nearest assistance phone and staff person.

b) Emergency or assistance phones and/or "panic buttons" should be installed in greater numbers throughout the building.

c) Where possible, concrete or other opaque doors and walls should be replaced by glass ones providing greater visibility.

d) Corner mirrors should be installed where appropriate to provide greater visibility around corners, etc.

e) Facility design plans should address all of the problems indicated as well as the "runway" problem from the women's changeroom to the pool.

f) The DAR should investigate an electronic access system or additional staffed entrances to prevent unauthorized entry to restricted areas.

RECOMMENDATIONS: PROGRAMMING, SCHEDULING AND ACCESSIBILITY

1. CASUAL RECREATION

The Task Force recommends that the DAR should

a) staff the Field House, particularly the exercise training machines.

b) designate women-only hours, at times convenient for women, for the Lower Weight Room.

c) explore alternatives in expanding the Casual Recreation program to include women's or truly co-ed pick-up activities. The Task Force suggests either volleyball or basketball as a pilot project and recommends that introductory instruction workshops be offered to kick-off the program.

2. LIFESTRIDES

The Task Force recommends that the DAR should

a) eliminate the Fitness "shoe tag" fees which the Task Force feels unfairly penalize women, the majority of whom choose to participate in the DAR Fitness Program.

3. INTRAMURALS

The Task Force recommends, in order to increase the participation of women in the Intramural Program

a) *that the DAR provide for a chapter on Gender Equity to be added to the current Intramural and Co-eds Handbook issued by the Campus Recreation Unit for Colleges and Faculties.*

b) that a survey or needs assessment of current fitness program participants be conducted to determine interest levels in a variety of existing or possible additions to the intramural program. The purpose of such a survey would not be to "steal" fitness participants away to intramurals, but to assess interest among those most likely to get **more** involved in sports and recreation, i.e. those who have at least already entered and become somewhat familiar with the programming.

c) that the Intramural Program introduce an instruction component to the program, utilizing the resources already within the Department such as Intercollegiate coaches and athletes. Such instruction could take the form of a series of "clinics" for a particular sport. Any funding required for the instruction component should be provided by the college and faculty student groups. The purpose of the instruction component is to decrease the apprehension of potential intramural participants that they are "not good enough" to participate in intramurals, to provide them the opportunity to learn a new sport, and to give potential participants an assessment of their own skills in a particular sport.

d) that the Department of Athletics and Recreation adopt, as part of its regular planning activities, a goal of integrating, to a better extent, the Lifestrides and Intramural Program so that participants in one program have a logical route through which to expand their participation and improve their skills.

e) that the DAR Intramural Supervisor examine the broad question of Gender Equity and officiating.

f) that participation rates of men and women *in intramural* programs be monitored and analyzed.

g) that Colleges and Faculties be made aware of and be encouraged to adopt gender equity recommendations, and adopt gender equity in their sport and recreation programs.

4. CLUBS

The Task Force recommends

a) that the Clubs continue to take a role in equalizing their male and female participation through recruitment and outreach and by creating a climate within each *Club* which welcomes and celebrates women's participation.

b) that the Clubs Supervisor take an active role in encouraging DAR Clubs to pursue such efforts.

5. DAR-FUNDED INTERCOLLEGIATE SPORT

The Task Force strongly recommends

a) that the Department of Athletics and Recreation must fund the men's and the women's programs equally.

b) that the DAR should continue to move towards equity in DAR-funded Intercollegiate sports, which is equality in the funding of men's and women's sports.

c) that the DAR move as soon as possible to a system of DAR-funded Intercollegiate programming which:

    a) ensures equal resources to both men's and women's sport, and
    b) provides equitable numbers of opportunities and an equitable quality of opportunity to both male and female athletes

6. EXTERNAL SPORT ORGANIZATIONS

The Task Force recommends

a) that DAR representatives at association meetings (CIAU / OWIAA / OUAA / *CAHPER / CIRA /CIRA Ontario, etc.)* understand and be fully committed to the principles of gender equity set out in the Task Force's recommendations. Actions at these meetings should reflect these principles. That DAR Representatives *work to encourage* that the League *or organization* adopt and implement gender equity.

7. SPECIFIC PROGRAMMING ISSUES

The Task Force recommends

a) *That the DAR develop a broad campaign to increase the participation of DAR female members. The campaign should recognize that DAR female members come from all age groups, with a variety of backgrounds and interests.*

b) *That the DAR continue its efforts to respond to and consider all reasonable request from DAR members who would like programs adapted to specific cultural needs/interests.*

c) *That the DAR explore the following program options for DAR members:*
   - *Pre-and post natal fitness courses*
   - *Activities in which parents could participate with their children*

d) *That the DAR make every effort to inform DAR members of the community programs available to children.*

e) *That the DAR identify Community Memberships by gender.*

f) That the Standing Committee on Gender Equity review all community programs in view of the Principles of Gender Equity established by Council.

RECOMMENDATIONS: ADMINISTRATION

1. GOVERNANCE

The Task Force urges the DAR Council to give most favourable consideration to the Constitution Committee's Report being brought forward to its January 31, 1994, meeting, with the following suggestions:

a) *(Note: At its meeting on January 31, 1994, Council accepted the election recommendations presented in the Constitution Committee Report. The Report's recommendation for single member constituencies differs slightly from that proposed by the Task Force.)*

b) That DAR Council create a Standing Committee of the DAR on Equity Issues.

2. EMPLOYMENT POLICIES AND PRACTICES WITHIN THE DAR

The Task Force recommends

a) that the DAR implement mandatory programs to increase awareness of all staff of gender issues. This is of particular importance for those staff who make hiring and promotion decisions.

b) that the Department immediately *approach the University to* conduct a Pay Equity review of *all staff not covered by previous reviews.*

c) that *the DAR Council encourage the Director to examine* any imbalance of employment responsibilities *among* male and female staff members.

d) that efforts to attract female coaches continue and be increased. *In those sports where females and males compete in equal numbers, the department should ensure that there are both female and male coaches.*

e) that the DAR explore ways in which female students can more successfully compete for the best paid positions as officials in the Intramural Program.

3. CODE OF CONDUCT (COACHES)

The Task Force recommends

a) that a Coaching Code of Ethics be set by the Department with the consultation of the coaches, instructors and athletes along the lines of the Code of Conduct for Professional Coaches prepared by Strachan•Tomlinson, Ottawa., which was commissioned by and prepared in co-operation with the Canadian Association of National Coaches and the Coaching Association of Canada.

Council referred this section to the Standing Committee on Equity Issues

b) that, prior to the beginning of the competitive season, mandatory briefing be given all Intercollegiate coaches and athletes on the relationship between athlete and coach, including the University's Sexual Harassment Policies & Procedures.

Appendix D:

Investing in the Landscape

2. The Primary Objectives of the Open Space Master Plan

The following Primary Objectives have been framed as high level goals for the University open spaces. They are founded upon policies contained in the *Campus Master Plan and City of Toronto Part II Plan for the University of Toronto Area* and provide direction for both the prescriptive portion of ***Investing in the Landscape***, and the general operation of the University as it creates physical additions and changes to the campus.

The Primary Objectives should be adopted formally by the University to provide long term direction for open space revitalization and the integration of the campus with the larger district.

Primary Objective 1

The considerable energy of the University should be focused toward the common goal of achieving the highest quality design for the campus open spaces.

There are many opportunities across the campus to enhance spaces within an overall program of site improvements. ***Investing in the Landscape*** will re-focus attention on the potential for high quality design of the campus open spaces. Following this objective will, over time, create spaces and landscapes of landmark status that have a direct association with the University of Toronto.

Primary Objective 2

The University should require all building projects, including the identified University Development Sites, to improve public open space.

The general activity of adding to the University building stock represents potential to improve open space conditions on campus. To this end, any project which significantly renovates or reconstructs a building provides an important opportunity to undertake improvements to the adjacent open spaces. Major new development sites offer an additional opportunity to accomplish some of the larger aspects of open space renewal.

The process of revitalizing the open spaces of the campus will require a significant effort on the part of the entire University community. Most of the larger scale open space projects will likely establish their own source of funding for construction and long term maintenance.

Primary Objective 3

The University should participate in the planning, design and construction of capital works that will unify the separate open spaces of the campus and the City, within this important district of Toronto.

The University of Toronto area has a remarkable and historically significant legacy of public spaces which, at one time, were part of a single land base. These spaces have been progressively separated and marginalized. Investing in the Landscape can be used as a blueprint, to begin to revitalize the landscape by finding ways to reconnect its parts.

In consultation with the City of Toronto, an opportunity was identified to adjust the infrastructure of Queen's Park Crescent to make it more responsive to the operation of the University and other uses in the district. The removal of the grade-separated overpass in favour of an at-grade intersection is one example of a large scale move that will set the stage to reconnect the important open spaces of the district.

This activity will be the basis of a long term partnership between the City of Toronto, the Ontario Legislature and the University of Toronto, in the management of this land base. It is perhaps the single most important opportunity in the Plan.

Primary Objective 4

The University should establish a Pedestrian Priority Zone to implement the policies in the *University Master Plan* and the *Part II Official Plan*, which place a high priority on the quality of the pedestrian environment on campus. This zone should include the reduction of surface parking in the primary open spaces of the campus.

The University should be a leader in the integration of high quality pedestrian systems in an urban environment. Placing a high priority on the function and quality of the pedestrian environment is important to a large number of campus users and is a major focus of the Plan.

When developing a design program for any capital works within the Pedestrian Priority Zone, first preference should be given to pedestrians, second preference to cyclists and third to automobile use.

Primary Objective 5

The University should encourage and support community and cross- jurisdictional partnerships in open space and streetscape enhancements.

The University has the opportunity to partner with the City of Toronto, community groups, the Province of Ontario, the Affiliated and Federated Colleges and Universities and several adjacent institutions to increase the scope and value of improvements to the open spaces on campus and in the district in general. Several initiatives currently underway include the Taddle Creek Initiative with the City of Toronto and the neighbourhood, and the associated joint federal millennium application by the University, Royal Ontario Museum, Royal Conservatory of Music and the City of Toronto. Additional projects could include Bloor Street streetscaping and traffic calming on Queen's Park Crescent in partnership with the City of Toronto.

Primary Objective 6

The University should place a high priority on the preservation of existing mature trees and support all activities that will enhance and increase the overall tree density on campus open spaces and streetscapes.

One of the great losses the campus has suffered in the post-war period is the removal of large canopy trees. Replacement of these structural landscape elements requires generations to restore the lost effect. In addition to Primary Objective 3, aimed at reconnecting the open spaces of the district, a parallel effort should be placed on significantly increasing the urban forest of the campus.

Primary Objective 7

On the West Campus, the University should place a priority on developing a significant open space and on improving the streetscapes.

The West Campus was created from a nineteenth century residential neighbourhood by placing large university buildings into the existing block structure. No overall provisions were made to create a West Campus open space network in balance with the existing campus. As a result the landscape of the West Campus is largely related to individual building sites.

A significant open space, suitable for special events and student gathering on the West Campus, with good connections to St. George Street, should be a high priority for the University.

The City of Toronto streets on the West Campus need to be rethought, redesigned and reprogrammed to provide a higher quality streetscape and pedestrian environment that is distinctive to the University of Toronto.

Primary Objective 8

The open spaces on campus should support and promote the activities of the academic programs and represent the cultural diversity of the University community.

Academic departments and user groups should be encouraged to play a role in the creation and use of the primary open spaces of the campus. This objective could be met through thematic design choices in gardens or by creating settings in the landscape that reflect the internal activities of the adjacent academic functions. The contemplative character of all of the major open spaces should be increased significantly.

Primary Objective 9

The University should promote opportunities to increase public art on the campus.

The campus provides an excellent opportunity to incorporate public art into an outdoor environment. Public art can add to the richness and visual character of the campus, provide additions to the seasonal and winter landscape and is a valuable addition to a landscape design collaboration.

Primary Objective 10

The University should increase its investment in open space improvements. These improvements should, over time, achieve a consistent palette of material use on campus and promote long term life-cycle design and construction methods. The investment should be protected by providing sufficient resources for high quality maintenance of open spaces.

There are many reasons, including the process of time, for the diversity of materials present in the campus landscape. A short walk presents asphalt, concrete, precast, stone, and gravel pavers, in many methods of installation and in many combinations. Many types of light fixtures, fencing and furniture are also present. A new program of capital improvements should develop a palette of materials for site development that can be used successfully in repeated applications, have a long life cycle and potentially improve with age. The result of this method, over time, should be to provide a more consistent appearance to the campus landscape that can be recognized as unique to the University of Toronto.

The program of creating better quality open spaces, streetscapes and landscapes on the campus must be supported by increased resource allocations for the maintenance and management of the landscape, to protect the long term value of the initial capital investment. Investments in regular repair and upkeep will allow the landscape to mature and improve, while avoiding costly replacement due to deterioration.

Appendix E:

Capital cost estimate

Varsity Centre

DRAFT BUDGETS	A Field house and lower level change rooms	B Fitness etc pro-forma	C Clinic pro-forma breakout	D Research space pro-forma	A+B+C+D=E Summary, Centre for High Performance sport	F Varsity Entrance building	G Arena renovations	H Varsity Entrance beacon	E+F+G+H=J Grand Total
Gross floor area - M2	*4,906*	*4,324*	*950*	*1,456*	***11,636*** 1	***1,347*** 13	***7,000*** 13	***25***	**20,008**
Net Assignable	*2,149*	*2,641*	*526*	*809*	***6,125*** 2	***595*** 2	***1,033*** 2	***11***	**7,764**
Preliminary Construction Cost	15,488,000 3	9,510,000 4	2,090,000 4	3,200,000 4	30,288,000	6,045,000 13	4,537,000 13	290,000 15	$41,160,000
LEED/sustainable initiatives	900,000	9,000	0	0	909,000	0	0	0	$909,000
Construction Contingency	1,147,160	666,330	146,300	224,000	2,183,790	423,150	453,700	20,300	$3,080,940
Applicable GST	347,196	201,670	44,279	67,795	660,940	128,069	98,816	6,144	$893,969
Total Construction Costs, including taxes	**$17,882,356**	**$10,387,000**	**$2,280,579**	**$3,491,795**	**34,041,730**	**$6,596,219**	**$5,089,516**	**$316,444**	**$46,043,909**
Infrastructure Upgrades in Sector - Hydro, Steam	765,000	440,000	95,000	150,000	1,450,000 5	200,000 14	0	0	$1,650,000
Secondary Effects	100,000	0	0	0	100,000 6			0	$100,000
Site services - water, gas, drainage - city charges	100,000	0	0	0	100,000 7	50,000 7	0	0	$150,000
Landscaping & site repair	0	0	0	0	0	0	50,000 10	25,000	$75,000
Permits & Insurance	250,090	155,650	34,200	52,400	492,340 8	79,833 8	48,880 8	26,640	$647,692
Professional Fees	2,432,878	1,440,640	324,241	518,345	4,716,104 9	901,147 9	793,390 9	43,297	$6,453,938
Computing Infrastructure	60,000	20,000	10,000	30,000	120,000 10	5,000 10	0	0	$125,000
Telephone Terminations	5,000	5,000	10,000	10,000	30,000 10	2,000 10	1,000 10	500	$33,500
Audio/Visual	0	0	0	0	0	0	0	0	$0
Moving & Staging	0	5,000	45,000	50,000	100,000 10	0	10,000 10	0	$110,000
Furnishings	71,000	71,000	133,000	114,000	389,000 2	44,500 2	46,000 2	5,000	$484,500
Equipment	200,000	881,000	202,000	1,070,000	2,353,000 2	148,000 2	12,000 2	5,000	$2,518,000
Security & access systems	50,000	50,000	50,000	50,000	200,000 10	25,000 10	25,000 10	0	$250,000
Signage: Interior & Exterior	80,000	40,000	5,000	5,000	130,000 10	5,000 10	20,000 10	2,000	$157,000
Signage: Donor Recognition	30,000	20,000	10,000	10,000	70,000 10	20,000 10	10,000 10	2,000	$102,000
Groundbreaking & Building opening	20,000	0	0	0	20,000 10	50,000 10	0	0	$70,000
Miscellaneous	20,000	5,000	2,500	2,500	30,000 10	5,000 10	5,000 10	2,000	$42,000
Project Contingency @ 3%	661,990	405,609	96,046	166,621	1,330,265	243,951	183,324	12,836	$1,770,376
escalation to tender in Oct 2008	3,181,964	1,392,590	329,756	572,066	5,476,376 11	837,565 11	629,411 11	44,072	$6,987,424
Estimated total project cost before finance charges	**$25,910,278**	**$15,318,488**	**$3,627,321**	**$6,292,727**	**51,148,815**	**$9,213,215**	**$6,923,520**	**$484,790**	**$67,770,339**
Finance Costs tbd - allow 3%	777,308	459,555	108,820	188,782	1,534,464 12	276,396 12	207,706 12	14,544	$2,033,110
Total Project Cost Estimate, finance allowance included	**$26,687,586**	**$15,778,043**	**$3,736,141**	**$6,481,509**	**52,683,279**	**$9,489,611**	**$7,131,225**	**$499,333**	**$69,803,449**

revised May 1 2007 jcb

Notes

1 Gross calculated as base Jan 2007 Field house plus new space
2 Per FPEH data
3 Per CMRR Cost Consultants Dec 2006
Assumes conventional design-lump sum bid-build project delivery. Other methods such as construction management ot design-build, will differ.
4 Allowance only per GSM, requires confirmation
5 Per UT Utilities, $1.2M Hydro, $0.25M Steam
6 Allowance to demolish house on site
7 Allowance for City charges.
8 Includes wrap liability insurance allowed at 0.5% of construction value
9 Architect, misc, accessibility, Project management.
10 Allowance
11 Allow 7% pa past a tender date in October 2008
12 Allowance only.. Cashflow yet to be determined.
13 Per CM2R cost consultants, April 11 2007.
14 Allows for small, building specific service from THEC
15 No estimate as yet for beacon. This works back from a TPC allowance of $0.5M