



**TO:** Planning and Budget Committee

**SPONSOR:** Elizabeth Sisam, Assistant Vice-President, Campus and Facilities Planning

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**DATE:** December 16, 2010 for January 12, 2011

**AGENDA ITEM:** 5

**ITEM IDENTIFICATION:**

Project Planning Report for the University of Toronto Scarborough Sport and Recreation Centre as accommodated in the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario

**JURISDICTIONAL INFORMATION:**

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

**BACKGROUND:**

The importance of fitness, sports and recreation opportunities for a well-rounded university experience is well recognized as is the link between physical and mental wellbeing. When the current UTSC Athletics & Recreation Centre facility was built 37 years ago, it was designed for 4,000 students; the current population is more than 10,000 undergraduate students. In addition to the lack of capacity the existing facility does not include aquatics, track and field or multi-purpose arenas. Due to the limitations of the Centre's location and structure, it cannot be substantially expanded. When compared to the other twenty-one campuses in the Ontario system, UTSC ranks in the bottom six in terms of athletic / recreation spaces per student.

Many years ago the students at UTSC began advocating for a new athletics facility to improve their overall campus experience while promoting wellness and a healthy lifestyle. Then in 2004, to find the funding needed to create a suitable facility for the UTSC community, UTSC students and administration jointly began exploring a partnership with the City of Toronto with a goal to identify potential facility programming and cost sharing arrangements. The City of Toronto has long identified the eastern Scarborough community as a neighbourhood underserved by athletics facilities. All parties recognized that a shared facility would make a comprehensive athletic facility much more feasible and sustainable in the long term.

Recently, the opportunity to partner with the 2015 Pan American Games has given the UTSC/City partnership a tremendous boost and provided a catalyst to finally solidify a partnership to build a major athletics and wellness complex. As a site partner in the Pan Am Games, UTSC will have the opportunity to participate in the creation of a world-class facility. Students will have the best possible facilities available to them, from a gymnasium and multipurpose program area, fitness and

training facilities, to two Olympic-sized swimming pools and a diving tank. They will be able to pursue a wide range of sports and wellness interests, including intramurals and personal fitness with open recreation time and student activity. Further, this partnership will also provide students the opportunity for volunteerism and employment as the facility will be a catalyst for new partnerships with community for programs bridging of leadership and sport. UTSC students will replace their current aging Recreation Centre with one of the best University and high performance sports complexes in Canada, built to international standards.

Not only will the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario revitalize sports and physical activity at UTSC but, combined with an anticipated growth in the academic infrastructure, UTSC will attract more top students and faculty. World-class athletes will want to attend university at UTSC to be close to these exceptional training facilities. The increased awareness of UTSC's physical campus will bring new exposure to the faculty and programs at UTSC. Students will graduate with an increased sense of pride in their campus and alumni will find a new source of pride and means for re-engaging with UTSC.

## **HIGHLIGHTS**

The Centre will be the home of an exciting, vibrant and sustainable partnership between the City of Toronto and the University of Toronto Scarborough together with the Canadian Sports Institute Ontario, a major stakeholder, which will enable resources and leadership to be shared from playground to podium.

A broad range of user groups will be accommodated in the new facility: members of the university community, individual and family members of the local community, spectators, high performance athletes and individuals registered for directly operated programs delivered by the City and the University of Toronto. In addition, university and community members will be using this facility as their local community centre for a full array of aquatic, fitness, physical programs, therapeutic and recreational drop-in and registered programs. All ages and all skill levels will be served by this facility.

The facility will be an important recruitment tool for the University for athletes and the general student population. It will also enhance student engagement on campus, providing for the expansion of much needed programs at UTSC including intrahouse and intramural time, increasing participation in drop-in activities and increasing jobs and hands-on leadership development of students. Drop-in, instructional and leadership programs are envisioned as shared programs led by the City of Toronto for both community and student participants.

A project planning report has been prepared by Campus and Facilities Planning for the Toronto 2015 Organizing Committee, the organization responsible for delivering the games. It provides background information regarding the development of the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario and to describe the facilities and the operational plans for its use post games. The information was assembled in consultation with the facilities owners, including UTSC, sport experts, planning facilities consultants and user groups (students, UTSC Athletics and Recreation) and forms the basis of the large planning initiative for the Pan Am facility. It represents an agreed upon approach to the planning and design of the joint facilities and addresses most of the topics normally covered in project planning reports at the University of Toronto - project vision, site and location, space program and functional plan, and building and infrastructure considerations.

The elements of the program are as follows:

- multi-purpose gymnasium (with spectator seating)
- fitness/cardio/weights/training centre
- sports medicine clinic
- 200 metre indoor running track
- high performance athletics
- racquet sports, such as badminton and table tennis
- teaching studios (dance/fitness/martial arts)
- one 52 meter competition pool and 2 moveable bulkheads (with spectator seating)
- one 52 meter training pool with 25 meters of moveable floor for shallow water programming and 2 moveable bulkheads
- one 25 meter dive tank with dive platforms and spring boards (1m, 3m, 5m, 7.5m and 10m platforms)
- indoor climbing wall
- gym, pool, studio and strength/fitness/cardio spaces which can be made physically and visually isolated for the provision of women's only programming
- food and social spaces
- meeting space/multipurpose rooms

In addition, SCAA student athletics association office and storage will be included as part of this facility. Lockers for Student Clubs, similar to the ones in the UTSC Student Centre, will also be housed within this facility so that groups can readily access program materials, and, a member service kiosk will be created in a high traffic area of this facility for use by SCSU for the sale of bus passes, tickets and other event material distribution.

The Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario will be a facility of approximately 23,400 nasm (or 366,000 gross sq.m.). The Centre will be located at the northeast intersection of Military Trail and Morningside Avenue.

The site is currently unoccupied, though highly visible and easily accessible. Lying at the northern extent of the UTSC campus, the new Centre will become a distinct gateway to the campus and anchor the development of the northern campus lands, which have been the subject of an extensive campus master planning exercise resulting in an update of the UTSC Campus Master Plan of 2000. This project is an essential component of the UTSC Campus Master Plan 2010. It will be constructed on land currently owned by the University of Toronto Scarborough and on adjacent land owned by the City of Toronto and which will be remediated to allow for its construction. The remediation of the land is necessary not only for the construction of the facility, but also will enable the master plan to be realized on the north campus lands. The cost of remediation will be funded separately and is not included as part of the construction costs of this project.

## FINANCIAL AND PLANNING IMPLICATIONS

The University of Toronto's share of the \$170,500,000 (\$2008) is \$37,510,000 and represents 22% of the overall cost.

The Scarborough Campus Students' Union (SCSU) proposed the establishment of a new special levy representing the contribution of \$30 million (\$2008), 18% of the total \$170 million capital costs (\$2008). The campaign the students developed was named "We Deserve World-Class" and became a rallying point for the student community. The ratification date for the student levy in support of this contribution was March 26, 2010, where in the largest ever turnout of students voted two to one in favor of supporting the levy. Ratification by the University Affairs Board (UAB) occurred in April 2010.

The operating costs are to be shared among the partners according to a predetermined scheduled usage. A detailed operating plan has been developed by UTSC and the City of Toronto which identifies the UTSC portion to be approximately \$1.5 per annum. UTSC will provide funding through existing student athletic fees for its share.

## PROJECT FUNDING

Source	2008*
U of T Sources:	
UTSC/ student levy	\$30,000,000
UTSC/U of T Central (1)	\$7,510,000(1)
<b>Total U of T Share</b>	<b>\$37,510,000</b>
Other Funding Partners	
Federal government	\$47,740,000
Provincial government	\$47,740,000
City of Toronto	\$37,510,000
<b>Total Other Funding Partners</b>	<b>\$132,990,000</b>
<b>Total Project Cost</b>	<b>\$170,500,000</b>

\* The 2008 \$ will increase based on inflation as agreed to by all parties providing capital funding to the facility.

1. The contribution from UTSC/ U of T Central will be escalated as needed.

The levy rate assumptions for 2010/11 through 2013/14 are \$40 per semester full time and \$8 per semester part time. These rates increase in 2014/15 through 2038/39 to \$140 per semester full time and \$28 per semester part time. A separate, but necessary infrastructure project to remediate the site to allow for the construction of the Aquatics Facility will be undertaken prior to construction. The remediation project, having the estimated cost of \$52 million will be funded jointly by the City of Toronto (\$22 million) and UTSC/U of T Central (\$10 million) and is contingent upon the University receiving support from the Government for a high performance sport facility, thus allowing an equivalent amount to be redirected towards remediation making up the balance of funding necessary for the project.

## **SCHEDULE**

The Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario is to be fully operational by June/July 2014, a year prior to the beginning of the Pan American and Parapan games. UTSC and the City of Toronto will occupy the facility at that time.

As part of the terms of the Pan American Games, the facility will be turned over to Toronto 2015 six weeks prior to the games; the games themselves are of a four week duration. During that ten week period, UTSC and the City of Toronto will not have access to the facility. It should be noted that in the year preceding the games it is expected that several pre-game events will occur in the Aquatic Centre and Field House. There may be a period of time after the completion of the games when modification of the facility is occurring that may limit the use of some areas of the facility.

## **RECOMMENDATIONS**

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

Subject to the availability of funding for the land remediation of the site,

1. THAT the Project Planning Report for the UTSC Sport and Recreation Centre, as accommodated in the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario to be built at the University of Toronto Scarborough, dated January 6, 2011, be approved in principle.
2. THAT the site northeast of the corner of Military Trail and Morningside Avenue be assigned to the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario Project.
3. THAT the total project cost for the UTSC portion be \$37.51 Million (2008 dollars) out of a total project cost of \$170.5 Million (2008 dollars).
4. THAT the funding costs for UTSC portion of \$37.51 Million (2008 dollars) comprise:
  - \$30 Million acquired through a UTSC/student levy and,
  - \$7.51Million from UTSC/U of T Central

**Project Planning Report**  
**for the**  
**University of Toronto Scarborough**  
**Sport and Recreation Centre (SARC)**

*As accommodated in the*  
**The Pan American Aquatics Centre, Field House and Canadian Sport  
Institute Ontario**

**January 7, 2011**  
**Prepared by the Office of the Assistant Vice President, Campus and Facilities Planning**

## I Executive Summary

The importance of fitness, sports and recreation opportunities for a well-rounded university experience is well recognized as is the link between physical and mental wellbeing. When the current UTSC Athletics & Recreation Centre facility was built 37 years ago, it was designed for 4,000 students; the current population is more than 10,000 undergraduate students. In addition to lack of capacity, the existing facility does not include aquatics, track and field or multi-purpose arenas. Due to the limitations of the Centre's location and structure, it cannot be substantially expanded. When compared to the other twenty-one campuses in the Ontario system, UTSC ranks in the bottom six in terms of athletic / recreation spaces per student.

Many years ago the students at UTSC began advocating for a new athletics facility to improve their overall campus experience while promoting wellness and a healthy lifestyle. Then in 2004, to find the funding needed to create a suitable facility for the UTSC community, UTSC students and administration jointly began exploring a partnership with the City of Toronto with a goal to identify potential facility programming and cost sharing arrangements. The City of Toronto has long identified the eastern Scarborough community as a neighbourhood underserved by athletics facilities. All parties recognized that a shared facility would make a comprehensive athletic facility much more feasible and sustainable in the long term.

Recently, the opportunity to partner with the 2015 Pan American Games has given the UTSC/City partnership a tremendous boost and provided a catalyst to finally solidify a partnership to build a major athletics and wellness complex. As a site partner in the Pan Am Games, UTSC will have the opportunity to participate in the creation of a world-class facility. Students will have the best possible facilities available to them, from a gymnasium and multipurpose program area, fitness and training facilities, to two Olympic-sized swimming pools and a diving tank. They will be able to pursue a wide range of sports and wellness interests, including intramurals and personal fitness with open recreation time and student activity. Further, this partnership will also provide students the opportunity for volunteerism and employment as the facility will be a catalyst for new partnerships with community for programs bridging of leadership and sport. UTSC students will replace their current aging Recreation Centre with one of the best University and high performance sports complexes in Canada, built to international standards.

Not only will the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario revitalize sports and physical activity at UTSC but, combined with an anticipated growth in the academic infrastructure, UTSC will become known for its great campus experience, attracting more top students and faculty. World-class athletes will want to attend university at UTSC to be close to these exceptional training facilities. The increased awareness of UTSC's physical campus will bring new exposure to the faculty and programs at UTSC. Students will graduate with an increased sense of pride in their campus and alumni will find a new source of pride and means for re-engaging with UTSC.

A project planning report has been prepared by Campus and Facilities Planning for the Toronto 2015 Organizing Committee, the organization responsible for delivering the games. It provides background information regarding the development of the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario and to describe the facilities and the operational plans for its use post games. The information was assembled in consultation with the facilities owners, including UTSC, sport experts, planning facilities consultants and user groups (students, UTSC Athletics and Recreation) and forms the basis of the large planning initiative for the Pan

Am facility. It represents an agreed approach to the planning and design of the joint facilities and addresses most of the topics normally covered in project planning reports of the University of Toronto - project vision, site and location, space program and functional plan and building and infrastructure considerations.

The Project Planning Report for the UTSC Sport and Recreation Centre addresses those additional topics which are particular to a University of Toronto project planning report but which were not included in the report prepared for Toronto 2015 - campus space requirements, secondary effects, schedule and resource implications.

The Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario will be a facility of approximately 23,400 nasm (or 366,000 gross sq.m.). Planned to be consistent with the UTSC Master Plan, the Centre will be located at the northeast intersection of Military Trail and Morningside Avenue.

The site is currently unoccupied, although highly visible and easily accessible. Lying at the northern extent of the UTSC campus, the new Centre will become a distinct gateway to the campus and anchor the development of the northern campus lands, which have been the subject of an extensive campus master planning exercise resulting in an update of the UTSC Campus Master Plan of 2000. This project is an essential component of the UTSC Campus Master Plan 2010. It will be constructed on land currently owned by the University of Toronto Scarborough and on adjacent land owned by the City of Toronto and which will be remediated to allow for its construction. The remediation of the land is necessary not only for the construction of the facility, but also will enable the master plan to be realized on the north campus lands. The cost of remediation will be funded separately and is not included as part of the construction costs of this project .

The University of Toronto's share of the \$170,500,000 (\$2008) is \$37,510,000 and represents 22% of the overall cost.

The Scarborough Campus Students' Union (SCSU) proposed the establishment of a new Special Levy representing the student contribution of \$30 million (\$2008). The campaign the students developed was named "We Deserve World-Class" and became a rallying point for the student community. The ratification date for the student levy in support of this contribution was March 26, 2010, where in the largest ever turnout of students voted two to one in favor of supporting the levy. Ratification by the University Affairs Board (UAB) occurred in April 2010. The remaining \$7,510,000 (\$2008) will be from UTSC/Central University funding



## II Project Background

### a) Membership

Desmond Pouyat, Chair, Dean Student Affairs, UTSC  
 Kim McLean, Chief Administrative Officer UTSC  
 Andrew Arifuzzaman, Chief Strategy Officer UTSC  
 Liz Hoffman, Director of Athletics, Faculty of Physical Health and Education UT, until July 2010  
 Jim Derenzis, Director of Facilities Management UTSC  
 Jeevan Kempson, Assistant CAO UTSC  
 Heidi Calder, Co-Director, Athletics & Recreation UTSC  
 Randy Thomas, Co-Director, Athletics & Recreation UTSC  
 Milad Moshfeghian, President, Scarborough College Athletic Association (SCAA)  
*Predetermined Designate: Chris Flynn*  
 John Aruldason, President and CEO, Scarborough Campus Students' Union (SCSU)  
*Predetermined Designates: Inayat Samji SCSU Vice-President, Operations and CFO,) or Zahra Murji- SCSU Vice President Students and Equity.*  
 Gail Milgrom, Managing Director, Campus and Facilities Planning  
 Lisa Neidrauer, Campus and Facilities Planning  
 Julian Binks, Director, Planning and Estimating, Capital Projects, Real Estate Operations

#### Past members:

Tom Nowers, Chair, Dean Student Affairs UTSC until June 2010  
 John Kapageridis, President, Scarborough College Athletic Association (SCAA) until May 2010  
*Predetermined Designate: Milad Moshfeghian*  
 Amir Bashir, Acting President, Scarborough Campus Students' Union (SCSU) until May 2010,  
*Predetermined Designate: Mohsin Jeelani Vice-president, Operations, Scarborough Campus Students' Union (SCSU)*

### b) Terms of Reference

1. Determine a space program that will accommodate current needs and the future growth and change in physical education, athletic and recreation related programs and services at the University of Toronto Scarborough. The space program should address the athletic and recreational needs of UTSC students in detail, identifying priorities, and also generally identify the space needs and implications of potential partnerships.
2. Ensure that issues of gender equity, accessibility and cultural diversity are addressed in the descriptions of the preferred space program, layouts and amenities thus supporting a welcoming and inclusive environment for all participants.
3. Demonstrate that the space program will take into account the Council of Ontario Universities building blocks space formula and the University of Toronto space standards.
4. Identify all security and occupational health and safety requirements.
5. Identify the equipment and furnishings necessary for the UTSC detailed space program and its services.
6. Identify the site for the UTSC SARC in accordance with the Master Plan of UTSC.
7. Identify the secondary effects at UTSC, including existing space that will be released as a result of this project.

8. Identify the process by which operating resource implications will be determined and approved by the University.
9. Identify the capital contribution to the Pan Am project.
10. Prepare the Project Planning Report for submission to the Planning and Budget Committee in September 2010.

**c) Statement of Programming Plan**

The Centre will be the home of an exciting, vibrant and sustainable partnership between the City of Toronto and the University of Toronto Scarborough together with the Canadian Sports Institute Ontario as a major stakeholder which will enable resources and leadership to be shared from playground to podium.

A broad range of user groups will be accommodated in the new facility: members of the university community, individual and family members of the local community, spectators, high performance athletes and individuals registered for directly operated programs delivered by the City and the University of Toronto. In addition, university and community members will be using this facility as their local community centre for a full array of aquatic, fitness, physical programs, therapeutic and recreational drop-in and registered programs. All ages and all skill levels will be served by this facility.

The facility will be an important recruitment tool for the University for athletes and the general student population. It will also enhance student engagement on campus, providing for the expansion of programs needed at UTSC including interhouse and intramural time, increasing participation in drop-in activities and increasing jobs and hands-on leadership development for students. Drop-in, instructional and leadership programs are envisioned as shared programs led by the City of Toronto for both community and student participants.

UTSC students will be able to also provide leadership in many aspects of the supervision, instruction and customer service for the new facility contributing to their engagement and university experience while at UTSC. The potential to attract business to this area of the City and see growth in the community will create long term continuing impact on the local economy benefitting both UTSC and the local community.

Synergistic links between the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario and the Faculty of Physical Education and Health on the St. George campus will be supported for academic programs, research and continuing education, graduate and undergraduate courses will be cross-listed with the Faculty of Physical Education and Health. The development of web based communication systems will foster and create new opportunities to develop, teach and lead exciting programs on both campuses.

Current academic activities will be enhanced and new opportunities developed. The Centre will enhance opportunities for research and graduate education related to broadening sport participation and healthy high performance through the Exercise Sciences. New opportunities for education programs and research in areas such as: Sport Management, Coaching and applications of psychology to sport could be realized through the Sports and Recreation Centre.

d) **Space Requirements**

Currently the athletic and recreation facility at UTSC occupies approximately 4,300 nasm on three floors of the R Wing, consisting of the following:

**Table 1: Current Athletic Space UTSC**

<b>Space Function</b>	<b>Nasm</b>
Athletic Fitness Lab	239
Exercise Room	402
Mixed Playing Area	1,626
Squash Courts (8)	472
Activity Rooms (3)	511
Laundry	21
Athletic Equipment Storage	148
Athletic Locker, Shower etc.	846
Other Service Space	8
Storage/Dead Storage	26
	4,299

Although considered a rough guideline for campus athletic and recreation space needs, the Council of Ontario Universities space formula does allocate .9 nasm per FTE student. It should be noted that of the 22 Ontario campuses, few currently meet that standard, however, UTSC is in the bottom six. The Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario, a shared facility, will provide UTSC students access to a wide range of facilities well beyond what is normally available on a university campus. The elements of the program are as follows:

- multi-purpose gymnasias (with spectator seating)
- fitness/cardio/weights/training centre
- sports medicine clinic
- 200 metre indoor running track
- high performance athletics (horizontal and vertical jumps, throws training areas, straightaway for hurdles and sprints training)
- racquet sports, such as badminton and table tennis
- teaching studios (dance/fitness/martial arts)
- one 52 meter competition pool and 2 moveable bulkheads (with spectator seating)
- one 52 meter training pool with 25 meters of moveable floor for shallow water programming and 2 moveable bulkheads
- one 25 meter dive tank with dive platforms and spring boards (1m, 3m, 5m, 7.5m and 10m platforms)
- indoor climbing wall
- gym, pool, studio and strength/fitness/cardio spaces which can be made physically and visually isolated for the provision of women's only programming
- food and social spaces
- meeting space/multipurpose rooms

In addition, SCAA student athletics association office and storage will be included as part of this facility. Lockers for student clubs, similar to the ones in the UTSC Student Centre will also be housed within this facility so that groups can readily access program materials, and a member

service kiosk will be created in a high traffic area of this facility for use by SCSU for the sale of bus passes, tickets and other event material distribution

### III Project Description

#### a) Project Vision

The Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario is positioned to be a legacy facility that will:

- serve as a destination site for the local and regional community.
- be a physical gateway to the UTSC Campus and a signature building
- be a hub for all students as well as amateur athletes at the University of Toronto Scarborough
- create a venue for athletes of all ages and all calibers –from recreational to high performance
- attract secondary benefits such as new transit, community and student jobs, environmental improvements and other accompanying private sector investments; and
- bring the diverse, multicultural community together through a common interest in sport and recreation

The multi-functional and mixed use nature of this large signature facility will inspire all participants to associate with notions of wellness, leadership, athleticism and inclusive programming as a natural and welcoming part of both the community and the university experience. This centre will not only inspire young people to participate in sport and recreation but also inspire them to consider University attendance as a normal part of their lifetime aspirations.

Given the highly diverse populations served, such activities as learn-to-swim, recreational running and personal fitness as well as high performance opportunities will comfortably co-exist to serve the needs of all participants, student and community. The facility will be built to the highest standards of accessible design.

All design elements should be chosen to optimize operating cost efficiencies. It is essential that the activities, processes, procedures and physical amenities which maintain both the building infrastructures and respond to the impact of users are determined using environmentally sensitive and sustainable design strategies.

Design must be culturally and contextually sensitive, informed by best practice for flexible space, sensitive to modesty requirements for both men and women, and wireless throughout to accommodate both student and operating needs. Both food outlets and student club and office space will be included.

b) **Space Program and Functional Plan**

**Space Program Summary**

The proposed space program to accommodate the events of the Pan American and Parapan American Games and the legacy activities, the City of Toronto and the University of Toronto Scarborough totals 34,025 gross square meters or 366,241 gross square feet.

<b>Pan American Aquatic Centre, Field House and CSIO</b>					
	<b>Net Assignable Sq. M.</b>	<b>Gross Sq.M.</b>	<b>Net Assignable Sq. Ft.</b>	<b>Gross Sq. Ft.</b>	<b>Gross Up Ratio</b>
Aquatic Centre	11,385	15,939	122,547	171,566	1.40
Field House	8,094	12,141	87,123	130,685	1.50
CSIO - Dedicated	1,710	2,822	18,406	30,370	1.65
Food & Merchandise Concourse	1,680	2,352	18,083	25,317	1.40
Central Administration	551	771	5,931	8,303	1.40
<b>Totals</b>	<b>23,420</b>	<b>34,025</b>	<b>252,091</b>	<b>366,241</b>	<b>1.45</b>

**Key Components**

The City of Toronto worked together with UTSC in the preparation of a space program which addresses the needs of the City and the Community. The UTSC Department of Athletics and Recreation also completed a series of surveys of its students (both users and non-users), to understand the facility needs of the UTSC community. The future program takes into consideration existing rental partnerships, and potential new partners from the eastern GTA who may wish to rent space within the new Centre generating revenue for the long term. Thus, the following description reflects the rationale for space use by the members of the Toronto community, factoring in anticipated increased demand from the community upon completion of the facility and the needs of the current student population at the University of Toronto Scarborough.

**Atrium**

A prominent and distinctive entry point for both students and the community should face the intersection of Morningside and south towards the Street 'A' as identified in the concept site plan, near the proposed transit stop, at the south west corner of the building. An appropriately sized plaza area must be provided at that location.

**Gymnasium and Multipurpose Program Areas**

The scale of the proposed gymnasium and multipurpose program areas provide much-needed practice time and recreational opportunities for the community and student population, while still allowing for rental of the other courts.

### **Fitness and Training Facilities**

Post games use of this venue will allow this area of Toronto, which has significant gaps in fitness and training facilities, to benefit from this facility.

### **Sports Medicine Clinic**

This facility will include a Sports Injury/Massage Clinic Space that will provide the necessary primary care for student athletes and members of the facility and the public. Admission to the Sports Medicine clinic would be controlled through a reception desk at the entry. A second entranceway should be made available for restricted access to the taping area and cold therapy pools in the case of weekend events where athletes require limited access to certain elements of the clinic.

### **Field House Administrative Areas**

The central reception desk for the facility will be located near the main entrance and adjacent to offices and, after the games, will handle membership sales, customer service and security, towel service and basic program equipment rentals.

### **Field House Change Room Facilities**

The change rooms servicing the Field House are separate from the change rooms servicing the Aquatics Center. There are to be two, gender specific facilities and the men's and women's locker rooms identified in this space program include both rental and day-locker users in full and half lockers.

### **Student Spaces**

Dedicated space for the SCAA student athletics association office and reception area as well as club office storage and a SCSU member service kiosk will be included as part of this facility. Lockers for student clubs, similar to the ones in the UTSC Student Centre will also be housed within this facility so that groups can readily access program materials. A member service kiosk will also be created in a high traffic area of this facility for use by SCSU for the sale of bus passes, tickets and other event material distribution.

### **Aquatic Centre**

The aquatic centre will be created to meet Pan-Am and Parapan requirements for the aquatic events it is scheduled to host: swimming, diving and synchronized swimming. The pools are to be designed to the "fast pool" standard.

The aquatic centre will need to serve all aspects of aquatic programming including therapeutic uses, fitness, lifesaving aquatic leadership, water polo, intramural events, swimming lessons and drop-in casual uses. UTSC student use and public community use will include recreational and instructional swimming, with regular lane swimming opportunities, swimming lessons and aqua fitness classes.

### **Aquatic Change Rooms**

The pools require dedicated change rooms, separate and distinct from the gymnasias. Changing areas will include traditional gender specific facilities and family-style universal use formatted rooms, to provide for the needs of a diverse community during the multi-use programming of this large aquatic centre. Universal change rooms provide culturally sensitive privacy, flexibility for cleaning and repair. Also one change room can be closed off to the public as required for special programming purpose such as female-only programs.

**Aquatic Centre Administrative Areas and Support Areas**

The management model for the new facility, which is currently being discussed, will determine whether there is a requirement for different access points and methods for City public program users, aquatic (permitted) clubs, and UTSC students with or without memberships.

The space program which follows identifies all components of the Pan Am facility which the SARC forms a portion. It is consistent with the program submitted to Toronto 2015 in October 2010:

Space Description	# Rms	Assignable Sq.M. Per Room sq.m per room	Total Assignable Sq.M. assignable sq.m	Total Assignable Square Feet assignable sq.feet
<b>Competitive Aquatic Centre</b>				
Pan Am Aquatic Centre - for Swimming, Synchronized Swimming, Diving - seating 10,000, to meet FINA specifications				
<b>Pool Deck</b>				
52 m Competition Pool, 10 lanes, 3m depth	1	1,300	1,300	13,993
52 m Training Pool, 10 lanes, 2.5m depth	1	1,300	1,300	13,993
Pool Deck for Competition Pool and Diving Tank, includes fold out deck seating	1	2,214	2,214	23,831
Pool Deck for Training Pool	1	713	713	7,675
Competitive Diving Tank 25m by 21m; Depth of 5.5m'	1	525	525	5,651
Life Guard Stations/Chairs	6	0	0	0
Warm Therapy Pool, 18 capacity	1	61	61	657
<b>Pool Support</b>				
Timing Booths	3	15	45	484
Dryland, warmup, training area (trampoline) w/ storage			200	2,153
Dryland training area (diving only)			40	431
<b>Spectator Seating</b>				
2,500 permanent seat spectator capacity			1,250	13,455
2,500 retractable seat spectator capacity/ dual purpose space			1,000	10,764
5,000 temporary seat spectator capacity			see below	see below
<b>Other Support Areas</b>				
Central Reception Area/Box Office			see Field House external	
Box Office/Temporary Kiosk				
Press Area				
VIP Lounge / Reception Viewing Area / Boardroom			150	1,615
Doping Control Centre			45	484
Therapy Massage Area			35	377



Space Description	# Rms	Assignable Sq.M. Per Room sq.m per room	Total Assignable Sq.M. assignable sq.m	Total Assignable Square Feet assignable sq.feet
Officials Area (Eating, Instruction) 2 Leadership Training Classrooms, 30 stations each	2	60	80 120	861 1,292
<b>Changerooms</b> Gender Specific Changerooms, Universal Change Rooms - allowance Team Changerooms	<i>multi</i> 2	1,230 150	1,230 300	13,240 3,229
<b>Offices, Etc.</b> Multi-use Coaches Offices, regular Multi-use Coaches Offices, larger Aquatic Club Offices Aquatic Club Offices Pool Administrative Offices Office support Space, zerox, files, etc. Instructor/Lifeguard Offices, wet with view, 1 per pool First Aid Room Aquatic Staff Lockers Aquatic Staff Lunch Room/Lounge	3 1 3 2 5 1 3 1 1 1	12 14 13 20 10 13 10 10 75 30	36 14 39 40 50 13 30 10 75 30	388 151 420 431 538 140 323 108 807 323
<b>Storage</b> Competitive Pool Mechanical Storage Room Training/Diving/Warm-Therapy Pool Mechanical Storage Room Pool Caretaking Storage Aquatic Equipment : CSIO & high performance event storage Aquatic Equipment: team practices storage (and rentable space) Aquatic instructional equip & other pool equip Reuse of Pan Am support space for legacy functions TBD	1 1 1 1 1 1	30 40 20 200 300 150	30 40 20 200 300 150 -300	323 431 215 2,153 3,229 1,615 -3,229
Total Nasm Competitive Aquatic Centre Estimated Gross Up <b>Total Gross Competitive Aquatic Centre</b>			11,385 1.40 <b>15,939</b>	122,547 1.40 <b>171,566</b>
5,000 temporary seat spectator capacity			<b>2,000</b>	<b>21,528</b>

Space Description	# Rms	Assignable Sq. M. Per Room sq.m per room	Total Assignable Sq.M. assignable sq.m	Total Assignable Square Feet assignable sq.feet
<b>Field House</b>				
Pan Am Courts for Fencing, Seated Volleyball, spectator seating for 3,000; CSIO 200 m indoor track with additional 8 lane sprint track				
<b>Gyms</b>				
Field House Gym/Court	4	436	1,744	18,772
Field House Gym/Court			0	0
Double Event Gym Management Room	1	6	6	65
Gym Storage (gym equipment, floor covering storage)	multi		250	2,691
Event and stage storage			included above	0
Dividers to separate gym				
<b>Track</b>				
200 M Track and 8 Lane Sprint Track	1	1,457	1,457	15,683
High Jump Long Jump Pole Vault Runway				
<b>Seating</b>				
2,000 permanent seat spectator capacity, 2 pull out bleachers of 1000				0
1,000 temporary seat spectator capacity				0
<b>Fitness Area (Strength and Conditioning)</b>				
Supervisors Station	1	9	9	97
Consultation Rooms	1	9	9	97
Stretching Warm Up Area	1	50	50	538
Cardio Area	1	492	492	5,296
Training Machines Area	1	415	415	4,467
Free Weights Area	1	328	328	3,531
Disabled Weight Machines	1	84	84	904
First aid room	1	13	13	140
Fitness Area Storage	2	30	60	646
Pan Am Office (UTSC Fitness Co-Ordinator)	1	9	9	97

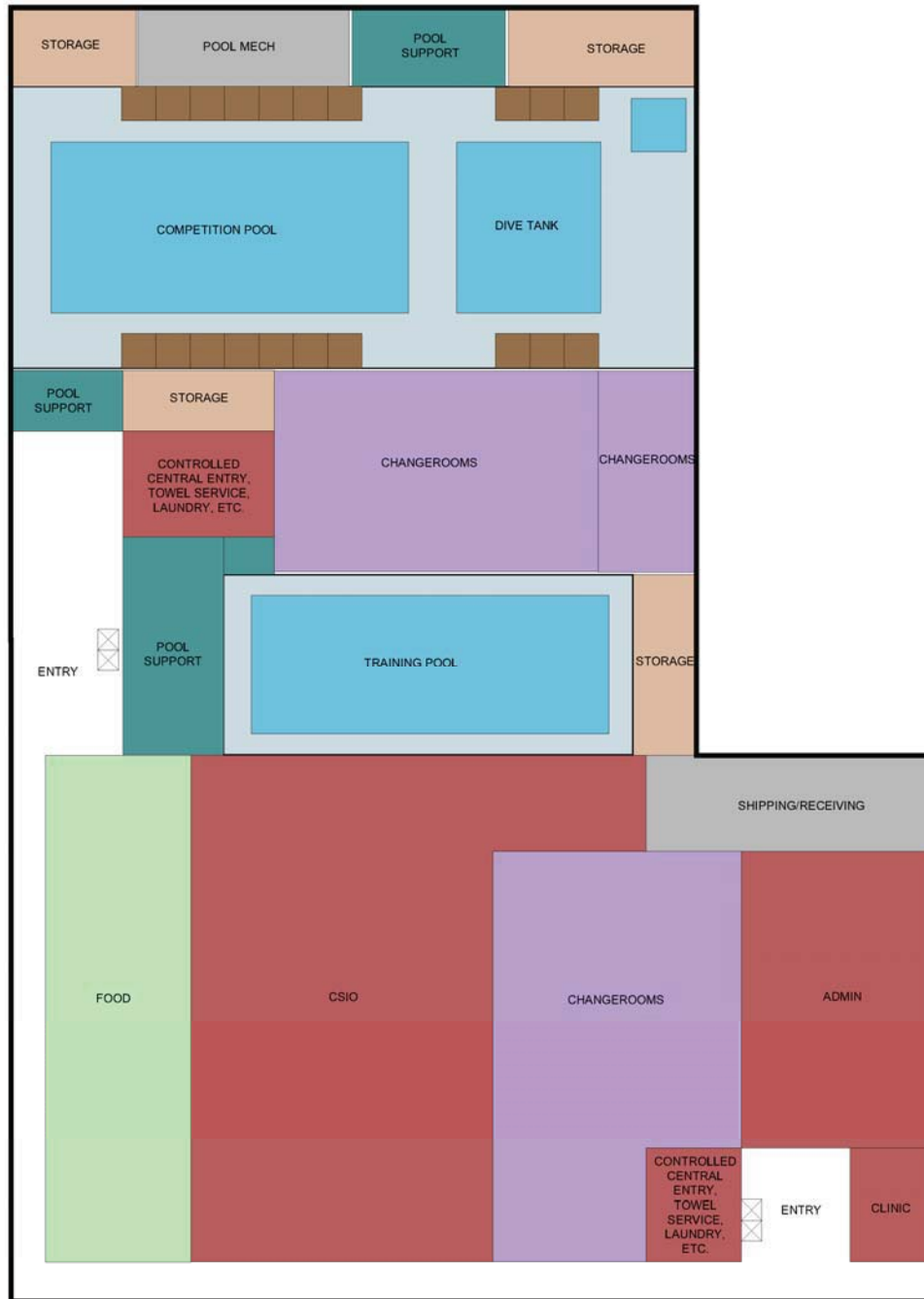
Space Description	# Rms	Assignable Sq.M. Per Room sq.m per room	Total Assignable Sq.M. assignable sq.m	Total Assignable Square Feet assignable sq.feet
<b>Other</b>				
2 Teaching Studios	2	270	540	5,813
Storage (inside each teaching studio)	2	30	60	646
Climbing Wall			16	172
Climbing Wall storage	1	9	9	97
<b>Reception, Etc</b>				
Central Reception area, storage for sundry items & team towels, box office	1	18	18	194
Internal Cash Room (with bolted safes)	1	7	7	70
Towel Service and Programme Equipment Room	1	40	40	431
Laundry room with adjacent storage room	1	45	45	484
<b>Administrative Areas</b>				
Multipurpose meeting rooms (2 x 20 capacity)	2	40	80	861
Pan-Am Office (Manager of Field House Programming)	1	13	13	140
Pan-Am Office (Facility Sched. Office & Admin Assist FH)	2	10	20	215
Pan-Am Offices (Director of Athletics and City Programs)	2	13	26	280
Pan-Am Offices (Administrative UTSC Programs)	7	10	70	753
Pan-Am Office (Program Staff City Programs)	4	9	36	388
Central Photocopying and File Room	1	13	13	140
Staff Kitchen	1	14	14	151
Activity room storage	1	66	66	710
<b>Field House Change Rooms</b>				
Gender Specific Change rooms, Universal Change Rooms - allowance	multi	1,230	1,230	13,240
Team, Officials, Family Change rooms	multi	150	150	1,615

Space Description	# Rms	Assignable Sq.M. Per Room sq.m per room	Total Assignable Sq.M. assignable sq.m	Total Assignable Square Feet assignable sq.feet
Sports Injury Clinic Space	1	250	250	2,691
<b>Student Clubs</b>				
Student Club Office and Reception Area, SCAA	1	30	30	323
Student Club Office Storage	1	12	12	129
SCSU Member Service Kiosk	1	10	10	108
Student Club Locker Room	1	65	65	700
<b>Other Lounge/Meeting/Etc.</b>				
Drop In Babysitting/Child Minding Room	1	50	50	538
Rentable Multipurpose/Meeting Space (20 people)	2	44	88	947
Preschool Programs Room	1	80	80	861
General Storage Rooms	5	26	130	1,399
Total Nasm Field House			8,094	87,123
Estimated Gross Up			1.50	1.50
<b>Total Gross Field House</b>			<b>12,141</b>	<b>130,685</b>
<b>Canadian Sport Institute Ontario - High Performance Training Centre</b>				
<b>Laboratories/ Fitness Areas</b>				
Sport Performance Laboratory, max. 25 machines to include heat chamber	1	186	186	2,002
to include Blood Testing Lab		28		
to include Altitude Chamber		10		
to include Musculoskeletal Screening Room		28		
to include Anthropometrics Room		20		
Public Testing Lab	1	10	10	603
Strength and Conditioning Facility / Physical Prep Area		56	56	3,498
Storage Area - Lab	1	46	46	495
Storage Area - Admin	1	9	9	97

Space Description	# Rms	Assignable Sq.M. Per Room sq.m per room	Total Assignable Sq.M. assignable sq.m	Total Assignable Square Feet assignable sq.feet
Showers / Locker Room / Washroom Recovery / Regeneration Centre	2 1	70 93	140 93	1,507 1,001
<b>Administrative Area</b>				
CSIO offices - private for staff personnel	14	11	154	1,658
CSIO offices - open for contract staff	20	6	120	1,292
MSO/NSO/PSO office space for coaches & technical staff	various	112	112	1,206
Resource and Research Centre	1	14	14	151
Server Room	1	9	9	97
Large Boardroom	1	70	70	753
Smaller Boardrooms/Meeting Rooms	2	46	92	990
Centre of Coaching Excellence - Multipurpose Classroom	2	70	140	1,507
Demonstration Kitchen	1	42	42	452
Staff Kitchenette	1	23	23	248
Athlete Career Lounge	1	79	79	850
<b>Total Nasm CSIO</b>			<b>1,710</b>	<b>18,406</b>
<b>Estimated Gross Up</b>			<b>1.65</b>	<b>1.65</b>
<b>Total Gross CSIO</b>			<b>2,822</b>	<b>30,370</b>

Space Description	# Rms	Assignable Sq.M. Per Room sq.m per room	Total Assignable Sq.M. assignable sq.m	Total Assignable Square Feet assignable sq.feet
<b>Food Service, Vending, Retail Concourse - to be located on a concourse easily accessible by all facilities</b>				
Atrium	1	600	600	6,458
Vending Machine Nooks (4)	3	4	12	129
Coffee Outlet			72	775
Franchise outlet spaces with back servery for refrigerators and preparation areas			240	2,583
Restaurant and Juice Outlet			300	3,229
Seating area (80) / Lounge	80	1	88	947
Back of House Storage, Loading, Receiving			78	840
Athletic Store & Additional Retail Opportunities	1	290	290	3,122
Total Nasm Food and Retail			1,680	18,083
Estimated Gross Up			1.40	1.40
<b>Total Gross Food and Retail</b>			2,352	25,317
<b>Central Administration</b>				
Director of Facility Administration	1	16	16	172
Director of Facility Programming	1	16	16	172
Admin. Asst. to Facility Administration	1	10	10	108
Admin. Asst. to Facility Programming	1	10	10	108
Chief Executive Officer	1	20	20	215
Asst. Chief Executive Officer	1	16	16	172
Admin. Asst. to CEO	1	12	12	129
Managers' Offices	7	13	91	980
Manager Support Offices	22	10	220	2,368
Central Photocopy & File Room	1	20	20	215
Meeting Room	2	25	50	100
Meeting Room – Management Board meetings	1	50	50	538

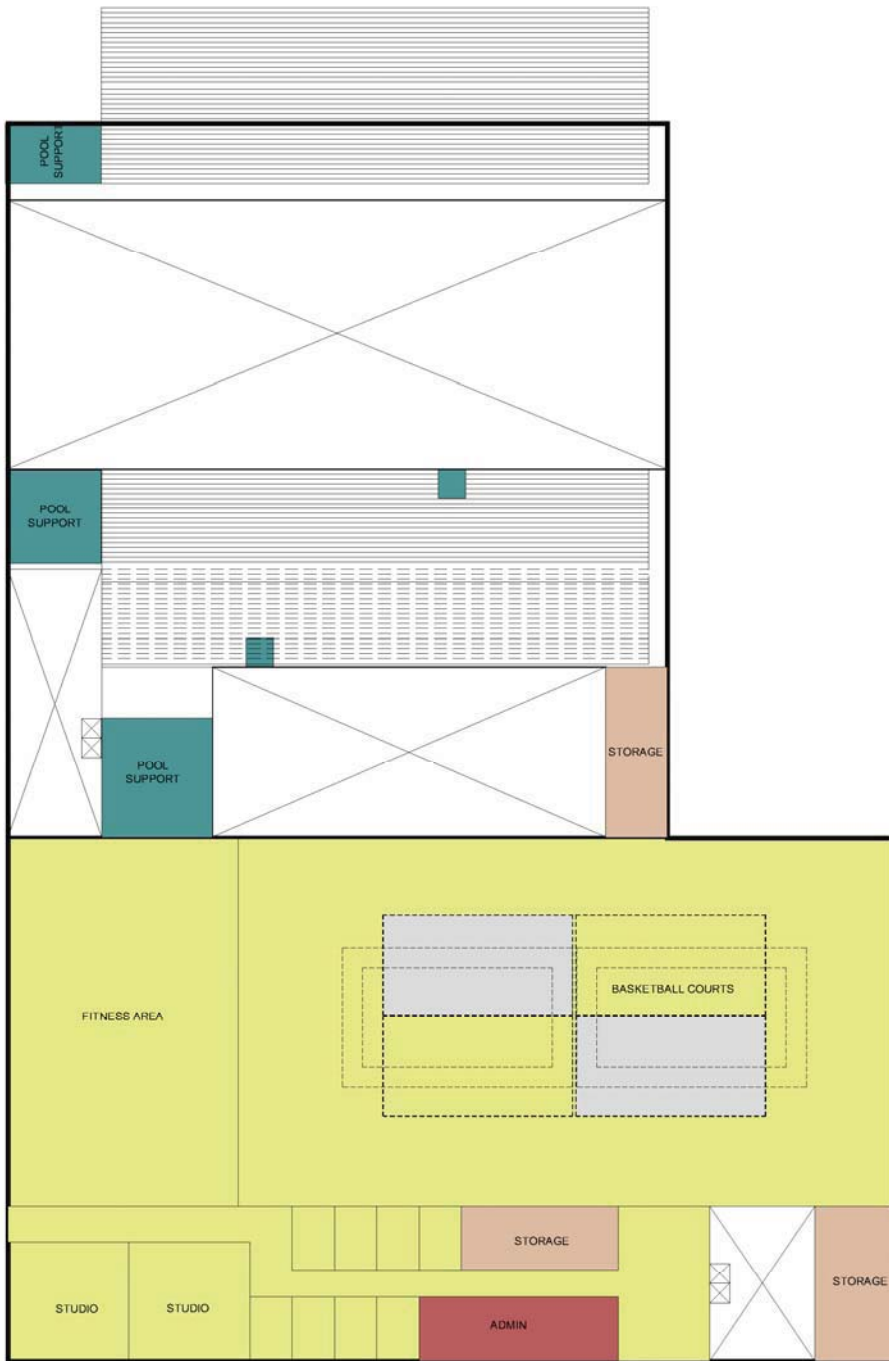
Space Description	# Rms	Assignable Sq.M. Per Room sq.m per room	Total Assignable Sq.M. assignable sq.m	Total Assignable Square Feet assignable sq.feet
Security Staff Change Room	1	20	20	215
Total Nasm Central Administration			551	5,931
Estimated Gross Up			1.40	1.40
<b>Total Gross Central Administration</b>			771	8,303
<b>TOTAL NASM</b>			<b>23,420</b>	<b>252,091</b>
<b>Estimated Gross Up</b>			<b>1.45</b>	<b>1.46</b>
<b>TOTAL GROSS</b>			<b>34,025</b>	<b>366,241</b>
<i>does not include the temporary seating structure</i>				



**Ground level  
(not to scale - for diagrammatic purposes only)**

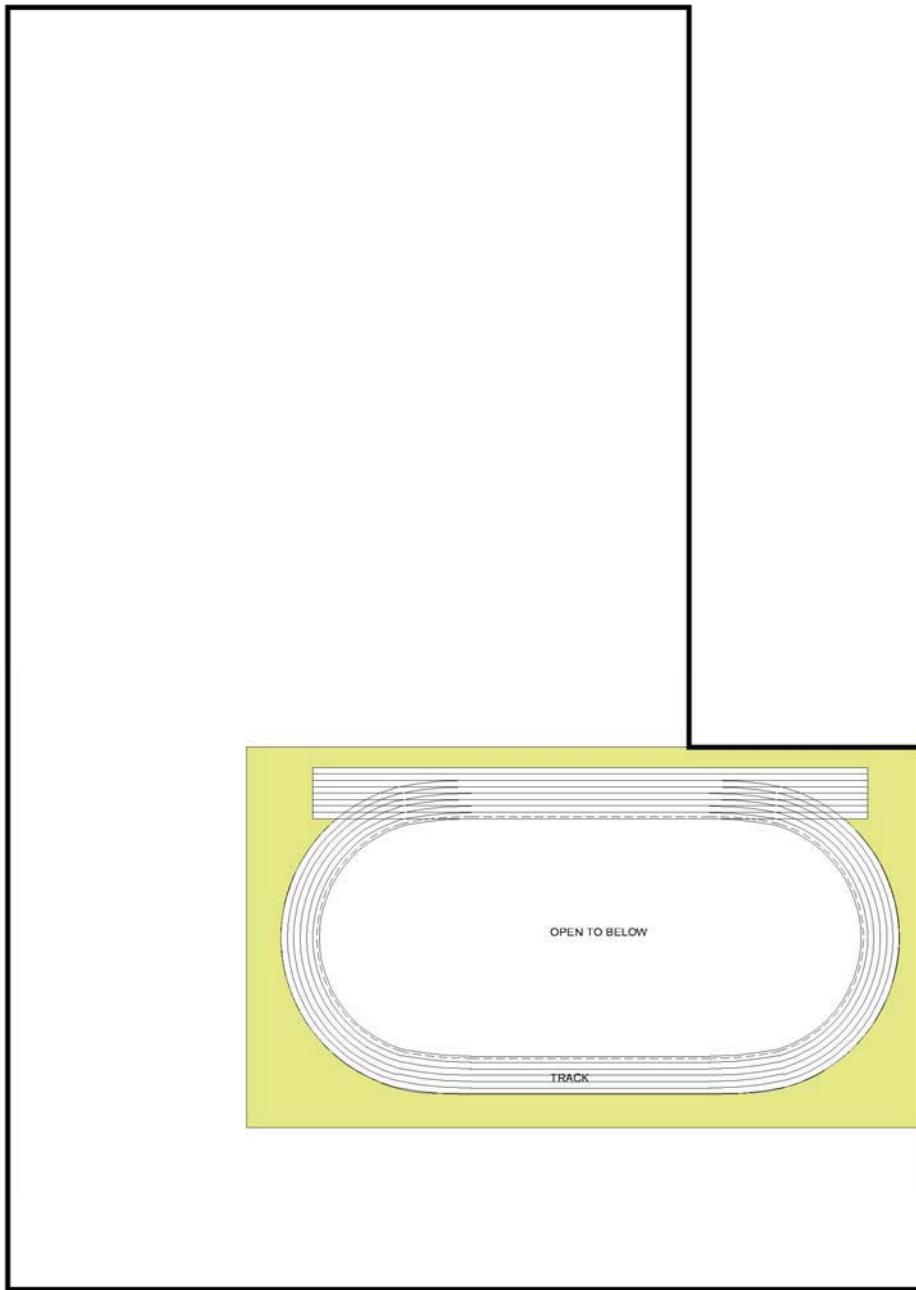
**c) Ground level massing/potential footprint**





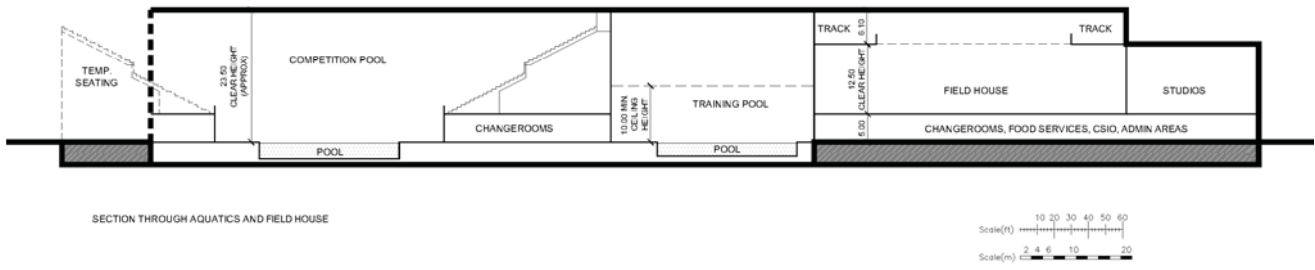
**Second level  
(not to scale - for diagrammatic purposes only)**

**d) Second level massing/potential footprint**

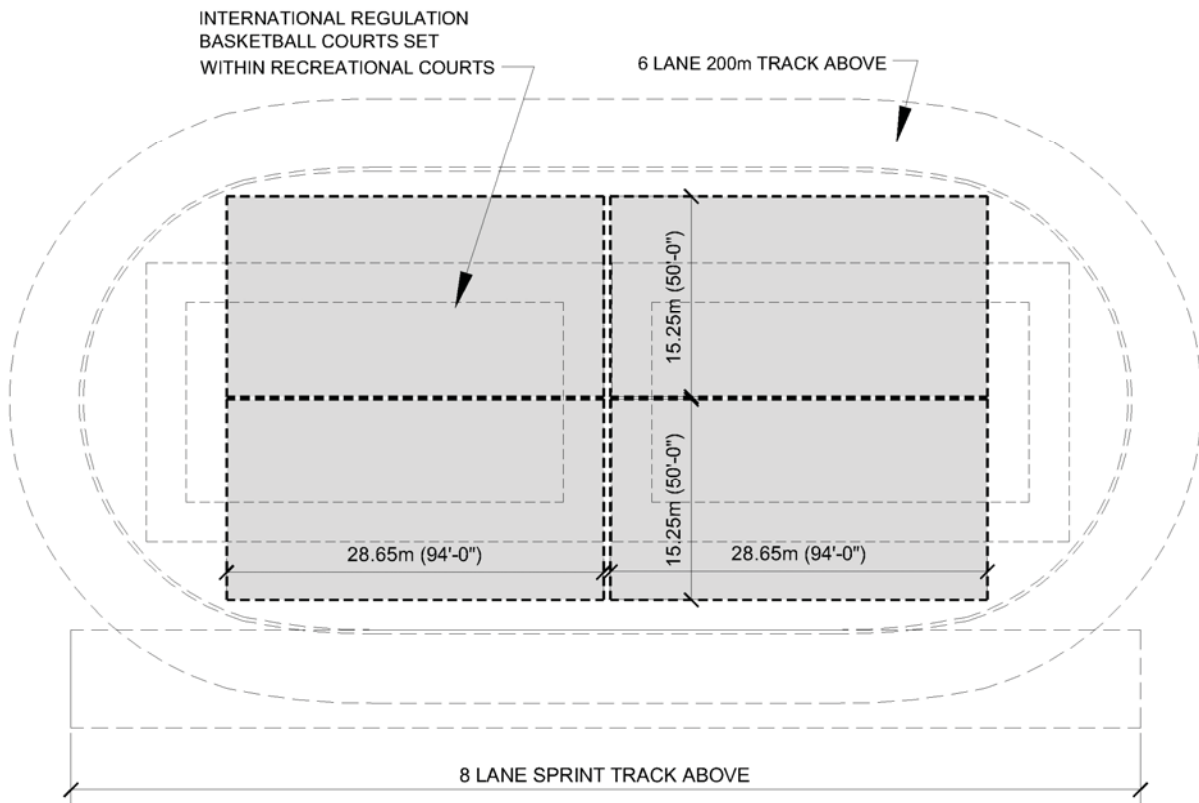


**Mezzanine level  
(not to scale - for diagrammatic purposes only)**

**e) Mezzanine level massing/potential footprint. Possible location of track if elevated.**



f) Longitudinal section through massing layout



g) Basketball court layout with Track above

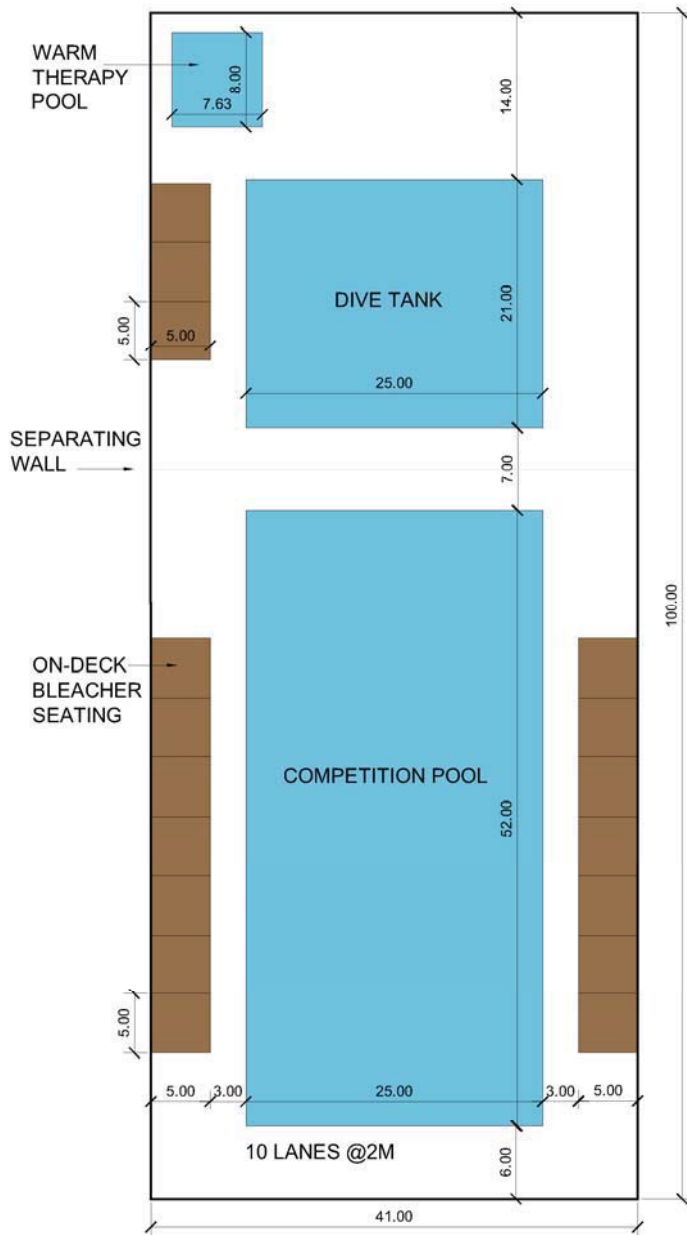
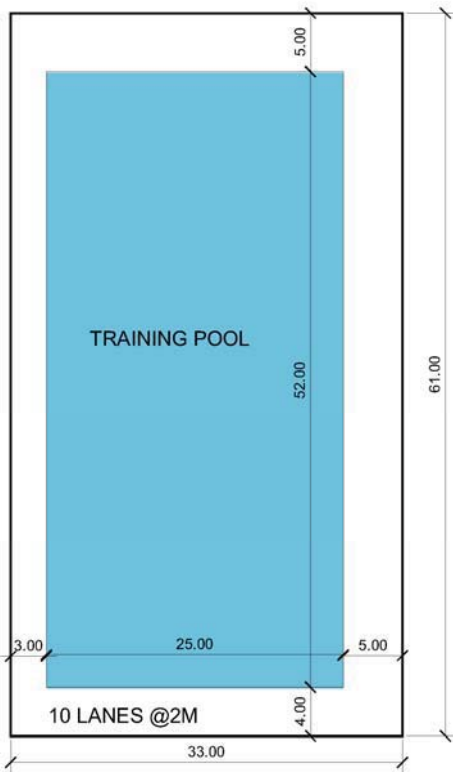
**UTSC/PAN-AM POOL - PROPOSED LAYOUT**

Deck Space

- 2214sm on competition pool and dive tank deck
- 713sm on training pool deck
- =2927sm total

On-Deck Bleacher Seating

- units of 5m x 5m (as at Etobicoke Olympium)
- uses Etobicoke's bleacher seat ratio of 93 seats per bleacher unit
- total bleacher seating provided on competition deck = 1581



**j) Competition and Training Pool layouts**

### c) **Building Considerations**

The Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario is to be constructed as a state of the art, flagship facility to be consistent with the high quality buildings existing on the UTSC campus. It will be a gateway building to the UTSC campus, an anchor to the North Campus and should have a distinctive high quality of architecture. The facility is anticipated to be a sustainable building designed to a LEED certified silver level in compliance with the City of Toronto Green Standard (TGS). The consultants are requested to propose sustainable alternatives and their impact on operating costs for consideration during design development to inform the specifications.

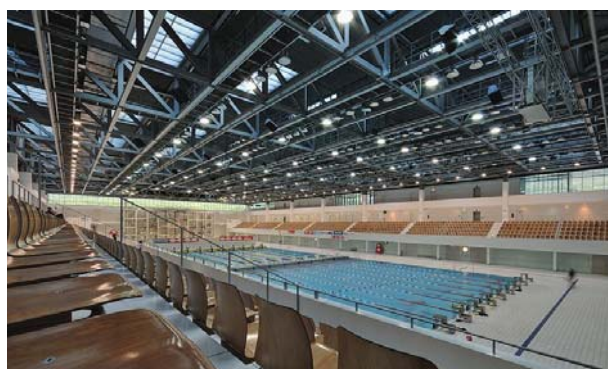
This building will conform to the City's Official Plan requirements by "massing the building to fit harmoniously into its existing and/or planned context, and will limit its impact on neighbourhood streets, parks, open space and properties". It will "provide amenity for adjacent streets and open spaces to make these areas attractive, interesting, comfortable and functional for pedestrians". Materials and finishes should be chosen in coordination with this objective.

This building will conform to the City's Official Plan requirements by "massing the building to fit harmoniously into its existing and/or planned context, and will limit its impact on neighbourhood streets, parks, open space and properties". It will "provide amenity for adjacent streets and open spaces to make these areas attractive, interesting, comfortable and functional for pedestrians". Materials and finishes should be chosen in coordination with this objective.

Several peer buildings have been identified:



*UTM Wellness Centre*



*Schwimm- und Sprunghalle im Europapark, Berlin  
(competition pool)*



*Victoria Commonwealth Pool (competition pool)*

## b) Characteristics and Massing

Assumptions regarding building characteristics and massing are:

- Floor to floor heights
  - Basement, as required
  - 1<sup>st</sup>. Floor - 5.5m entry level (higher at atrium and at entrances)
  - Competition Pool - height required for seating stands (5000 capacity), shown approx 24m on drawing section
  - Training Pool - minimum 10m; larger air volumes are better for air quality
  - Field House - 12.5m clear height
  - Entry atrium - double height space
- Blocking and Stacking
  - The new building should have a presence on both Morningside and the new Street "A", with a civic focus at the intersection/corner. It should be accessible from all sides, with one controlled access point inside.
  - Window areas to break up long building façade; blank walls are to be avoided
  - The façade must be visually distinctive when viewed from all directions, as the building will have a strong visual presence from the north side for those coming from Hwy 401 and points north.
  - Stepbacks at different locations will allow for a transition in height, scale and massing, which in turn, will enable terracing and green roof/outdoor open space opportunities.
  - Glazing and lighting to comply with the City's Bird Friendly Guidelines
  - Basement will be required in aquatic wing of building, except directly underneath swimming pools
  - Mechanical penthouse will be required. This could be located on roof or in a new "central plant" type location. It should be enclosed to diminish noise impacts on adjacent residential areas, and reduce visual impacts from the north and south
  - Garbage/loading areas – east side of building
- Material selection
  - Substructure - likely concrete
  - Structure - likely steel frame
  - Exterior enclosure - glass in entry, administrative, fitness, food areas (indirect or clerestory lighting only for field house and pools)
  - Finishes - Stainless steel pool by Myrtha or equivalent. Stainless steel grade A316 required
  - Fittings and equipment – identified in room specification sheets (Appendix 1)
  - Interior materials and finishes must be durable, easy to maintain and contribute to the high quality of design. Throughout the design process consideration must be given to the required standards of maintenance in relation to the high use of the facility.

### c) Key Building Components and Systems

Assumptions regarding key building components and systems are:

- mechanical – stand-alone HVAC, boiler sized for the “two buildings”
- data connections, one from this building over to inner campus, one to the outside world, presumably via Morningside . Data connection to the campus will require auguring under Military Trail
- all areas to meet University of Toronto and City of Toronto accessibility standards
- card access for all administrative, servicing and perimeter exterior doors,
- PA system
- Separate areas for garbage and recycling
- Minimum of 2 elevators but must be determined in relation to the position of the zoom track
- Lighting using T8 lamps/electronic ballast for ‘common’ areas, specialty lighting in selected areas related to broadcasting requirements

### d) Accessibility

The Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario will be student and community centred 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. AODA legislation, the University and City of Toronto’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 24. The City’s Accessibility Guidelines can be found in Appendix 18.

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 City of Toronto and the University of Toronto.

Users of the new Centre will arrive by car, by transit and by foot. The interior layout and wayfinding 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 at the main entrance to the Centre.

### e) Personal Safety and Security

Personal and community safety are high priorities. 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 and those of the City of Toronto.

Particular consideration must be given to this building’s location, expected hours of use (including early in the morning and late at night), and to the needs of the communities that will use this facility.

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

#### **f) Servicing**

Servicing and deliveries for the facility will be via the rear of the building where a loading/shipping-receiving dock will be constructed. This area should be multifunctional and designed to receive a variety of vehicles: buses transporting the swim team, various delivery vehicles, garbage and recycling services, and can also double as a parking location for buses during the Games and during large competitions. Two loading bays at or below grade at the rear should suffice for these purposes. Sufficient turnaround space for larger vehicles should be provided.

There should be a separate entrance roadway to the front of the facility which will require the building itself to be set back from Morningside, but could serve as a bit of a pick-up/drop-off as well as a stop for rapid transit.

This area at the rear will also require minimum parking facilities for various utility/emergency vehicles to service utilities (electrical, water, gas, communications etc.) at the rear of the building. A dedicated location should also be reserved for emergency vehicles in the event they are required by ambulance, police or fire department. Building services (electrical, water, gas, sewer) should enter via the rear of the building in order to facilitate future access for maintenance and emergencies.

#### **g) Elevators**

Passenger elevators will be required at various locations in the facility. All are to be designed to meet the latest ODA Standards, with at least two of the elevators being large enough to accommodate scooters (and floor cleaning equipment). One elevator must be accessible via the loading/shipping/receiving area and have freight capabilities. It would be desirable to have the elevators double as freight elevators if possible.

#### **h) Acoustics**

Every precaution must be taken to ensure minimal noise transmission between major areas of the facility. Noise from aquatics, for example, must be reduced or dampened by the use of appropriate building materials to eliminate any noise impact to the field house, concourse, or CSIO head quarters. Similar considerations should be made to the field house.

#### **i) Signage and Donor Recognition**

City, University and government funding partners must discuss naming strategies and their impact on signage in relation to the design of the facilities. The design consultants will be informed at a later date about these requirements.

#### **j) Sustainability Design and Energy Conservation**

Building construction and operations have a significant impact on the environment through resource consumption, waste emission and loss of greenspace. The City of Toronto and the University of Toronto Scarborough (UTSC) are deeply committed to sustainable design measures that reduce environmental impact and improve the quality of the built environment. This commitment is identified through the development of the University's *Environmental*



*Protection Policy*, 1994, UofT's Environment Design Standards and the Toronto Green Standard (TGS), which came into effect January 2010.

The University of Toronto Design Standards (Part One Section 9.1.2) requires the design team to adhere to the environmental design principles as set out below:

- Processes and products that influence resource use (e.g. energy, water, materials) and other environmental impacts (e.g. indoor air, waste management), alternative choices, including innovative but proven alternatives, are to be considered.
- Designs which facilitate future changes and which minimize the potential environmental impacts of demolition and renovation are preferable.
- Preference will normally be given to choices which minimize the life-cycle costs, however, those which offer greater environmental benefits than those with the lowest life-cycle cost should also be presented for consideration by the University.
- Environmental impact must be assessed broadly - impact in one area must be assessed in relation to others so that the "system" as a whole can be seen to be effective..."

Given the prominent site and the size of the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario the design team should consider:

- a building form and envelope designed to maximize the use of passive strategies such as the use and control of sunlight, natural ventilation, and diurnal and seasonal temperatures,
- minimizing energy use for HVAC, hot water, and lighting through optimizing efficiency of the building envelope; mechanical and electrical systems, and fixtures in combination with natural daylighting and task lighting wherever possible,
- independent commissioning of building systems, and staff training particularly on unique and innovative systems,
- metering of energy and water use,
- water conservation through the use of efficient and low-flow fixtures, and close-looped equipment cooling systems, in addition to consideration for on-site grey water treatment and recycling; for example, water from the showers could be used to flush toilets or for site irrigation,
- low- and no-VOC materials, finishes, and furnishings, to provide building occupants with the highest possible quality indoor environment,
- provision of recycling depots for source-separation of waste throughout the building and grounds, as well as a centralized recycling area to meet the University's recycling standards.
- proper hazardous waste storage and disposal,
- capturing stormwater on site for landscape irrigation,
- using pervious paving in outdoor areas where hard landscaping is required, to minimize flows to the City's stormwater system,
- product selection considering long term maintenance such as compatibility with snow clearing equipment, and the University's goal to minimize the use of salt in snow and ice clearance,
- landscape design that incorporates low-maintenance native plant species,
- design of outdoor spaces for all seasons, which provide shade and cool air movement in summer, and access to sunlight and shelter from wind in winter.

## City of Toronto

Tier 1 of the Toronto Green Standard (TGS), adopted by City Council (October 2009) and Amendment No. 66 to the City of Toronto Official Plan City (April 2010) target environmentally sustainable development and require many of the strategies listed above in addition to specific goals such as enhancing the urban forest; protection and enhancement of natural heritage and biodiversity; reduced light pollution; and minimized risk for migratory birds.

Amendment No. 66 states:

“3. To help achieve environmentally sustainable development, the City may use subsection 114(5)(2)(iv) and (v) of the City of Toronto Act, 2006 to secure the following sustainable design features in development that address exterior building and site matters in Tier 1 of the Toronto Green Standard adopted by City Council in October 2009:

- a) weather protected on-site bicycle areas and pedestrian friendly infrastructure to encourage cycling and walking as clean air alternatives
- b) high albedo surface materials, open grid paving, shade trees, green and cool roofs to reduce ambient surface temperature to minimize the urban heat island effect
- c) building orientation to take advantage of passive solar heating, shading for cooling and natural light; and energy efficient exterior cladding and window treatments, which may be required to meet the Standard, to improve energy efficiency and reduce greenhouse gas emissions
- d) rainwater harvesting facilities, bio-retention swales, permeable paving and water efficient plant material to manage stormwater and reduce demand for potable water
- e) trees to enhance the urban forest and use of native species to protect, restore and enhance the natural heritage system
- f) bird friendly glass treatment to ensure that risk for migratory bird collisions is minimized
- g) energy efficient, shielded exterior lighting to reduce night time glare and light trespass; and
- h) dedicated areas for collection and storage of recycling and organic waste to reduce solid waste”

New planning applications must meet TGS Tier 1 requirements. However, Tier 2 is recommended for this legacy facility. The Standard addresses ecology, air and water quality, greenhouse gas emissions, energy efficiency, materials and waste:

- Air Quality (automobile infrastructure, cycling infrastructure, pedestrian infrastructure, reduction of urban heat island effect)
- Greenhouse Gas Emissions/Energy Efficiency (minimum energy performance, systems commissioning)
- Water Quality, Quantity and Efficiency (construction activity, stormwater retention and quality, water efficiency)
- Ecology (tree protection, encouragement of tree growth, protection, restoration and enhancement of the Natural Heritage system, soil quality and planting conditions, glass and other design features for migratory birds, light pollution)
- Solid Waste (recycling, organic wastes, reuse of building materials, use of recycled materials, construction waste management).

The Zoning and Site Plan Applications will identify details regarding how these standards will be applied.

In addition, the City of Toronto Green Roof Bylaw requires over 60% vegetated roof coverage for a project of this size. Solar power generation through the use of roof top solar panels is also encouraged at roof level and must be factored in with the application of the Bylaw.

#### LEED and Other

Notwithstanding the City's and the University's environmental goals, environmental design strategies must work in concert with, and not compromise, the specified requirements of the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario. It is also important to recognize that this type of facility will have a much greater environmental impact than other institutional or commercial buildings comparable in size; considerable increases in energy and water consumption, waste generation, etc are anticipated. A sustainable approach to design and construction should target reduced operation and maintenance costs over the life of the building.

The design team with the project partners must make an earnest effort to ensure that this building, when viewed in its entirety, will satisfy the environmental goals set out by the City and by the University of Toronto. The design team must include LEED accreditation for the project outset. Based on recent building projects at the University and a review of TGS and University Design Standards in comparison to LEED, LEED Silver should be the minimum target. The capital cost estimate has made provision for this level.

An evaluation of alternative technologies in relation to life cycle costs is required to determine simple payback.

<http://www.toronto.ca/planning/environment>

<http://www.toronto.ca/greenroofs/overview.htm>

City of Toronto Act, 2006 subsection 114(5)(2)(iv) and (v)

#### **k) IT Requirements**

The Centre will have significant IT requirements. It is anticipated that UTSC and the City would collaborate with the consultants with expertise and experience in designing IT infrastructure for large sport facilities in order to provide a full set of requirements and recommendations for the new building to ensure adherence to the university's standards and requirements.

The following preliminary IT requirements are proposed for the Centre Centre, acknowledging that additional consultations are needed:

- i. Connection to UTSC backbone  
There will be a fiber network connection between the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario and the Instructional Centre. This connection will be sufficient to support activities and services associated with a university's athletic facility. Network connectivity for Pan Am games as well as for large post-Pan Am games sporting events will have to be discussed separately as there are a number of different options.
- ii. Data Centre requirements  
UTSC will utilize its existing data centre infrastructure to support its own activities and services. IITS can provide data centre capacity to all activities and services at the Sports and Recreation Centre. It will have to be determined, however, if the existing capacity will meet needs at peak times such as during the Pan Am games.

- iii. **Wireless**  
The Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario will have full Wi-Fi coverage. UTSC must also ensure that there is sufficient cell-phone coverage throughout the facility (except in areas where the usage of mobile phones is prohibited). Where feasible, wireless access in meeting rooms, the media gondolas, shared office spaces, and common areas should meet the requirements of the university network.
- iv. **Security Room**  
A security room that can house the equipment required for security cameras, and perhaps workstations for security personnel, is essential for a facility the size of the Sports and Recreation Centre. IITS proposes that the security cameras be connected to UTSC's network. UTSC has sufficient data centre capacity to store archival footage from the security cameras. The number and location of the security cameras still needs to be determined, as does the length of time that archives will be stored. Also unknown is whether the cameras will be monitored on the premises, off site, or whether the preference is for both on and off site monitoring.

**l) Noise or Vibration**

The site of the new facility has been determined by ensuring that a future LRT line can be accommodated within a required road allowance. The design and construction must be able to withstand this future work and its ongoing operations.

**m) Utilities (electrical, water, gas, steam lines)**

Hook-up to utilities are planned to be from Morningside Avenue.

**n) Sewer and Storm Water Management**

A report prepared by Marshall Macklin Monaghan indicated that existing services on Morningside are adequate to handle the expected load from this facility. The Toronto Green Standards will require that most, if not all storm runoff be handled 'locally', so the facility design must incorporate cisterns (can be used for irrigation), storage ponds or other comparable feature(s).

**o) Communications (phone/data)**

The building should have both wireless and wire-live capability. Cellular requirements will include small equipment space per service provider. Antennas are to be of a 'stealth' variety.

**p) Wayfinding**

Because of the size and complexity of the planned facility, a well thought out wayfinding system will be particularly important for both the exterior and interior areas. International way finding symbols should be incorporated into the design..

**d) Site Considerations**

**The Site**

Planned to be consistent with the UTSC Master Plan, the Centre will be located at the northeast intersection of Military Trail and Morningside Avenue. The site is currently unoccupied, though highly visible and easily accessible. Lying at the northern extent of the UTSC campus, the new Centre will become a distinct gateway to the campus and anchor the development of the northern campus lands.

#### University of Toronto Scarborough Campus Master Plan

The University owns all of the lands immediately south and southeast of the subject lands. This area comprises the planned "North Campus". Mostly occupied by surface parking lots, the North Campus has been the subject of a master planning exercise. This new facility is the second step in bringing a vast array of activities north of Ellesmere Road. The first phase of the expansion is underway with the construction of the Instructional Centre at the north west corner of Ellesmere Road and Military Trail.



### Design Review Process

It is required that the project be reviewed by a joint City/University of Toronto Design Review panel.

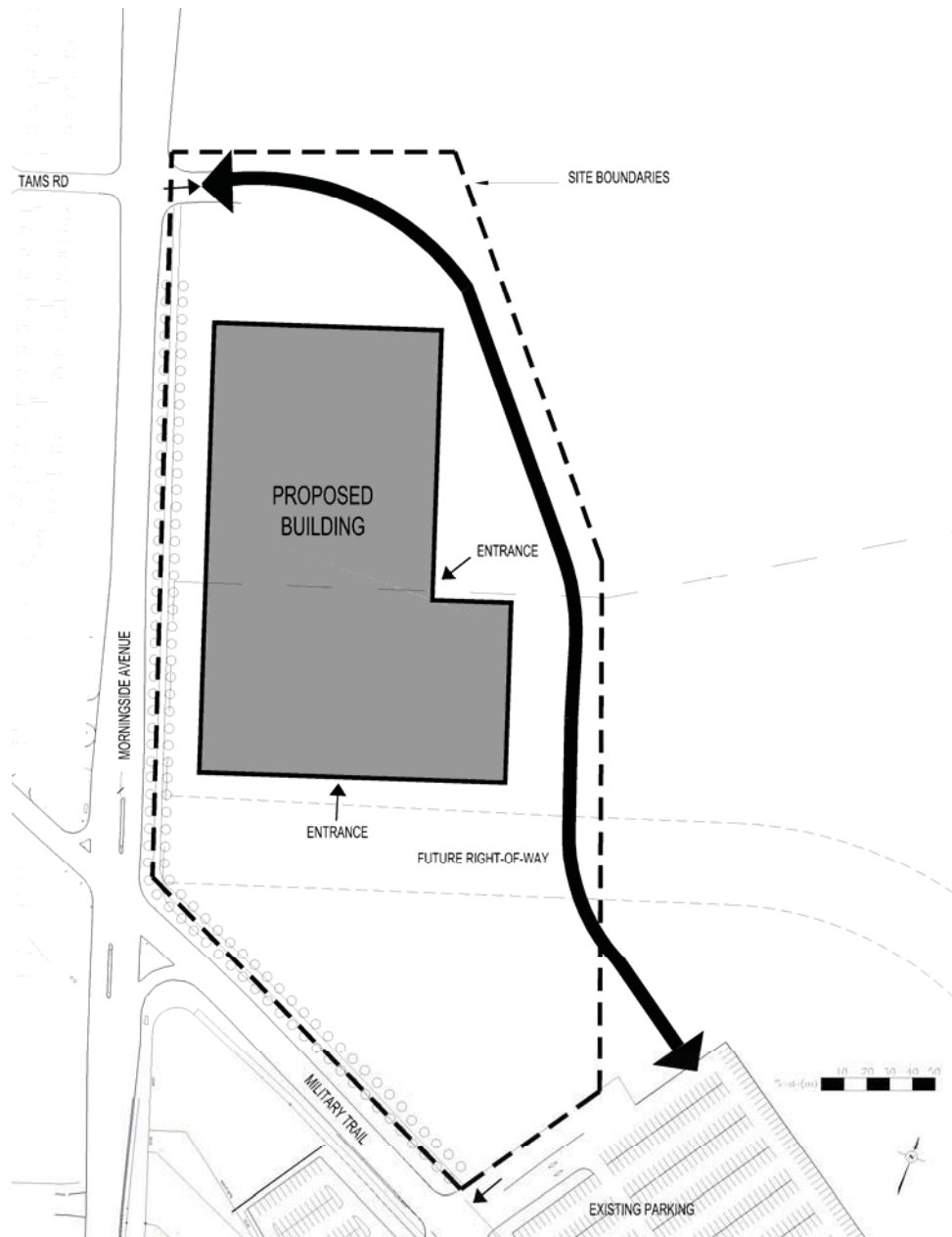
## Design Guidelines

1. The Centre will conform to Toronto Official Plan policies particularly those in Chapter 3 relating to the Public Realm and Built Form and will implement the following City of Toronto standards, guidelines and policies (see Appendices):
2. The location of the building will integrate with future development in the area.
3. The highest standards of architectural, landscape and urban design, and construction will be employed to create safe, attractive, interesting and comfortable spaces for pedestrians and facility users.
4. The Centre will be designed as a high quality and well designed building that will serve as a landmark for the City and UTSC and a gateway to the university.
5. Provide visual interest and break up the building massing to reduce the perceived size of the building.
6. The building will be designed as a model for sustainability and green development to reduce environmental impacts.
7. A large forecourt along the south building frontage will serve as the symbolic “front door” for the Centre and will support outdoor gatherings and activities, commercial frontage, high quality street furniture, landscaping, public art and other uses.
8. Building entrances shall be designed to be highly visible and directly accessible for pedestrians.
9. The Centre will be designed to maximize pedestrian accessibility, safety comfort and convenience.
10. Building signage and wayfinding will provide clear and effective information and will be designed to fit with the building.
11. Planned light rail transit will be a primary means of transportation to the facility. The Centre will be oriented toward the transit stop and will be designed to emphasize transit access.
12. Surface parking areas shall be designed and landscaped as high quality spaces that are directly accessible and visible from a primary building entrance to provide safe and convenient access.
13. The pick-up, drop-off and bus loading areas will be designed as important public and pedestrian-oriented spaces, and will be located in highly visible locations.
14. Bicycle parking infrastructure will be located in highly visible and active areas, in close proximity to primary building entrances.
15. Service access will be situated and designed to reduce the impact of the vehicles and activities while providing safe and convenient access.
16. Mechanical equipment and other building systems will be designed to minimize visual impact and protect the design integrity of the building.
17. The Centre will be reviewed by the University of Toronto Design Review Committee and City of Toronto Design Review Panel, and will implement University of Toronto and City of Toronto landscape and design standards and guidelines.

## Circulation and Public Transportation

The location of the Centre is approximately a 10 minute walk (approx 500m) from the south campus and closer from the new Instructional Centre. It is anticipated that the majority of students will travel back and forth on foot, particularly when improvements are made to the pedestrian environment with good urban design. This area is also the focus of an expanded transit plan which will bring a Light Rail Transit (LRT) line to the Campus and additional bus routes enhancing existing service. The Environmental Project report for the Scarborough Malvern LRT (SMLRT) from Kennedy subway station to Sheppard Avenue has received approval but no funding as of yet. The alignment is shown to be on Ellesmere Road and Military Trail, but could be changed as recommended in the Master Plan and discussed with the TTC. It locates

the line running on a new street south of the proposed Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario at Morningside Avenue. A transit stop at the Centre will be incorporated into the facility. Given the broad range of users expected to use the facility, a well-functioning drop-off and pick-up area will be necessary. The construction of the driveway to the rear will accommodate both a drop-off/pick-up and a service entrance to the building.



#### Site Access

Optimally the new street will be built concurrent with the construction of the Pan-Am facility. In the event that the construction of this new street is delayed, access to existing Military Trail can be accommodated through the UTSC parking lot which already has a signaled intersection. Secondary access through a driveway connection to Tams Road at the north is necessary to



accommodate day-to-day and event requirements of the facility and mitigate traffic operational impacts.

An appropriately designed, and screened, stand-alone loading facility should be provided to accommodate service and delivery activity. A preliminary program of minimum of two loading bays, plus an allowance for recycling, storage and refuse collection is identified.

#### Parking

The required parking spaces necessary for the ongoing use of the facility will be accommodated on site or on adjacent land. The detailed layout of parking and servicing is expected to be determined through design development. Well designed walkways to the main entrance from the parking areas are required.

#### Soil Consideration and Remediation Area

In the past, the subject site and surrounding area served as a sand and gravel pit for surrounding development. The excavated area was subsequently used for both construction debris and municipal waste. Parts of the subject site and the mound immediately northeast of the site served as a municipal waste site, and the waste remains today. Development of the site will be done in a physically safe and environmentally compliant manner. To the east and west lie residential neighbourhoods, primarily consisting of single family houses. To the north lies a City of Toronto works yard, a portion of which is included within the development area.

Discussions regarding remediation of the site have been ongoing for the last year and have included engineering consultants for both the City and University. A detailed work plan is underway and a development ready site, meeting the required construction time frame for the aquatics facility, will be provided. The plan that has been developed has also been reviewed by the Ministry of the Environment to ensure appropriate approvals will be in place with each step of development. Work associated with remediation is not part of the construction process.

#### e) **Secondary Effects**

When the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario is completed, the existing UTSC athletics and recreation facilities will be fully vacated and reallocated for other institutional purposes. Planning is underway and the cost for renovating and reallocating these facilities will be brought forward as an independent project. Schedule will be identified at that time.

#### f) **Schedule**

The Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario is to be fully operational by June/July 2014, a full year prior to the beginning of the Pan American and Parapan games. UTSC and the City of Toronto will occupy the facility at that time.

As part of the terms of the Pan American Games, the facility will be turned over to Toronto 2015 six weeks prior to the games; the games themselves are of a four week duration. During that ten week period, UTSC and the City of Toronto will not have access to the facility. It should be noted that in the year preceding the games it is expected that several pre-game events will occur in the Aquatic Centre and Field House. There may be a period of time after the completion of the games where modification of the facility is occurring that may limit the use of some areas of the facility.

## IV Resource Implications

### a) Total Project Cost and Sources of Funding

Source	2008*
U of T Sources:	
UTSC/ student levy	\$30,000,000
UTSC/U of T Central (1)	\$7,510,000(1)
<b>Total U of T Share</b>	<b>\$37,510,000</b>
Other Funding Partners	
Federal government	\$47,740,000
Provincial government	\$47,740,000
City of Toronto	\$37,510,000
<b>Total Other Funding Partners</b>	<b>\$132,990,000</b>
<b>Total Project Cost</b>	<b>\$170,500,000</b>

\* The 2008 \$ will increase based on inflation as agreed to by all parties providing capital funding to the facility.  
 1. The contribution from UTSC/ U of T Central will be escalated as needed.

The levy rate assumptions for 2010/11 through 2013/14 are \$40 per semester full time and \$8 per semester part time. These rates increase in 2014/15 through 2038/39 to \$140 per semester full time and \$28 per semester part time. A separate, but necessary infrastructure project to remediate the site to allow for the construction of the Aquatics Facility will be undertaken prior to construction. The remediation project, having the estimated cost of \$52 million will be funded jointly by the City of Toronto (\$22 million) and UTSC/U of T Central (\$10 million) and is contingent upon the University receiving support from the Government for a high performance sport facility, thus allowing an equivalent amount to be redirected towards remediation making up the balance of funding necessary for the project.

### b) Operating Costs

The operating costs are to be shared among the partners according to a predetermined scheduled usage. A detailed operating plan has been developed by UTSC and the City of Toronto which identifies the UTSC portion to be approximately \$1.5Million per annum. UTSC will provide funding through existing student athletic fees for its share.

## V Recommendations

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

Subject to the availability of funding for the land remediation of the site,

1. THAT the Project Planning Report for the UTSC Sport and Recreation Centre, as accommodated in the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario to be built at the University of Toronto Scarborough, dated January 6, 2011, be approved in principle.
2. THAT the site northeast of the corner of Military Trail and Morningside Avenue be assigned to the Pan American Aquatics Centre, Field House and Canadian Sport Institute Ontario Project.
3. THAT the total project cost for the UTSC portion be \$37.51 Million (2008 dollars) out of a total project cost of \$170.5 Million (2008 dollars).
4. THAT the funding costs for UTSC portion of \$37.51 Million (2008 dollars) comprise:
  - \$30 Million acquired through a UTSC/student levy and,
  - \$7.51Million from UTSC/U of T Central

UTSC Campus

The University's participation in the Games will be consistent with the UTSC vision and master plan through:

- Ensuring that the Aquatics, Field House and CSIO facilities bring positive national and international profile to UTSC, its students and surrounding communities through the design, operations and usage, and future associations
- Ensuring that the current and long-term sports and recreational needs of the UTSC students are met through these facilities and that the post-Games operational impact is understood and managed
- Plan and develop the Aquatics, Field House and CSIO facilities in a manner that is consistent with the UTSC vision and master plan, on a site that is jointly owned by the City and the UTSC and remediated for this purpose at no cost to the City or the University
- Completion of a direct LRT connection from the Sheppard LRT line through the campus, consistent with the master plan, by 2015, and secure a commitment to significant additional transit improvements following the Games

National and International Reputation

The University's participation in the Games will continue to further its reputation and profile as one of the world's top research-intensive universities, and will impact positively on each of its three campuses. In this context:

- The University will be distinguished as an international leader in the areas of exercise sciences and sport medicine research
- The Pan Am Games Observatory will be a world resource for data and best practices related to physical activity and sport participation around multi-sport games
- The University will develop student and faculty exchanges related to research in the Americas, encouraging knowledge translation and knowledge exchange
- The University system will strengthen links to the diverse Toronto community especially those of Caribbean, Central and South American descent.
- The University may partner internally with the diverse Pan American-related centres, departments, clubs and students within the institution
- The University should ensure the Council of Universities' standards for athletic facilities are met through capital legacies at UTSC and St. George campuses
- The Games will enhance recruitment opportunities through increased facility offerings to students

St. George Campus

The St. George campus has a long-standing reputation for excellence in sport programs. Participation in the Games as the venue for the Field Hockey, Futsal and the opening and closing ceremonies of the 2015 Parapan Ams will enable the University to:

- achieve a new era of excellence for its programs by increasing the number and quality of its fields for student use
- expand the current intramural program, including the diversity of sports offered
- expand the number of high performance centres at U of T to include a national field hockey centre
- Increase sport event hosting capacity for revenue generation and high performance brand building
- Enhance its leadership in accessibility and equity policies and programs in hosting the opening and closing ceremonies of the 2015 Parapan Ams.