



University of Toronto

CAPITAL PROJECTS DEPARTMENT

TO: Business Board

SPONSOR: John Bisanti, Chief Capital Projects Officer
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DATE: June 9th, 2004 for June 17th, 2004

AGENDA ITEM: 7(g)

ITEM IDENTIFICATION:

Capital Project –University of Toronto at Mississauga: Residences Phase 8

JURISDICTIONAL INFORMATION:

Pursuant to Section 5.2. (b) of its Terms of Reference, the Business Board approves expenditures for, and the execution of, approved Capital Projects.

PREVIOUS ACTION TAKEN:

The Business Board approved the expenditure of \$300,000 to initiate design on March 1, 2004. Other Board and Committee approvals to-date include:

- Planning & Budget – February 3, 2004 and May 18, 2004
- University Affairs Board – February 24, 2004 June 1, 2004
- Academic Board – February 26, 2004 and June 3, 2004
- Governing Council – March 29, 2004

HIGHLIGHTS:

In March 2004, Business Board approved \$300,000 to initiate the design work for this project. A condition of that approval was that the project be returned to Business Board for re-consideration once the reduced borrowing capacity situation at the University had been resolved. It is now necessary to approve the project in its entirety in this final governance approval cycle of the 2003/2004 academic year as the \$300,000 has been fully committed and that to delay will result in the residence not being completed on schedule for occupancy in September 2006.

Demand for residence at the University of Toronto at Mississauga has grown steadily over the past few years. With the opening of Erindale Hall (Phase 7) in September 2003, UTM now provides 1,023 residence spaces for single undergraduate students, graduate students, and students with families. With seven residential complexes, UTM offers a variety of housing options to its students - three and four bedrooms townhouses, two and four bedroom apartments and bachelor suites. Of the 1,023 spaces available, approximately 800 are exclusively for single undergraduate students – a population that also presents the college’s primary enrollment expansion pool in the next two years.

Approximately 12% of UTM students live on campus, while an estimated 25% of newly admitted first year students live in residence. At the same time however, approximately 76% of the 800 available spaces have been taken by first year students who benefits from the University’s first year housing guarantee. Like other colleges, this has come at the expense of upper year students who, either have to complete aggressively for a limited number of available space, or who self-select out of even applying for residence because they are acutely aware of the limited opportunity to return to campus. The increase number of first year students living on campus, combined with college’s enrollment expansion plans will only increase the demand among students wishing to return to residence- a demand that our current housing inventory is incapable of meeting.

The project completion date target is September 1, 2006.

FINANCIAL AND/OR PLANNING IMPLICATIONS:

The total project cost for the Phase 8 Residence at UTM has been estimated to be **\$26,215,000**. Of this amount, \$3,000,000 is estimated for the new kitchen and dining facility and approx. \$429,000 for administrative areas and the balance, or \$22,786,000, is for the residence which equates to \$54,500 per bed.

The current plan for the residence proposes 418 residence beds including 8 accessible rooms, 17 Dons, 1 Residence Life Coordinator, student amenities and dining/servery facilities.

Proposed funding for the project will be a mortgage in the full amount of the project - \$26,215,000.

Assumptions carried within the business case include a mortgage rate of 8% over a 25 year amortization period. A separate assessment of the risk analysis for this project within the context of UTM’s entire residence ancillary as a whole has been prepared by the Financial Services Department (see Appendix “A”) and conforms to University policy guidelines. Proposed monthly bed rates for September 2006 are set at \$588 for the new residence and vary from \$611 to \$675 for existing residences. The average annual increase to bed rates is calculated at 5% per year on the new residences for the first five years.

RECOMMENDATION:

THAT the Interim Vice-President – Business Affairs be authorized:

- i. to execute the Phase 8 UTM Residence project at a cost not to exceed \$26,215,000 with the funding sources to be a mortgage to be amortized over a period of 25 years in the amount of \$26,215,000 with payments forthcoming from residence revenues and the UTM ancillary.
- ii. to arrange such interim and long-term financing as required from either internal or external sources.

Attachment:

- Appendix “A”- *Risk Analysis of the UTM Residence Expansion Proposal* memo dated June 8th, 2004 from the Financial Services Department.

Date: June 8, 2004

To: John Bisanti, Chief Capital Projects Officer

From: Financial Services Department

Subject: Risk analysis of the UTM residence expansion proposal

Scope of review:

The UTM residence expansion proposes the construction of a three wing complex which would include a 418 bed dormitory style residence with semi-private washrooms, a newly constructed 175 seat dining hall, and residence administrative offices. The residence would be scheduled to open in September 2006 and will be operated by the UTM residence ancillary.

The financial model submitted includes the following financial parameters:

1. The project cost of the new residence building including the dining hall and administrative sections is estimated at \$26.2 million. Contained within the total project cost is \$3.0 million for the new kitchen and dining hall. The total project cost also includes \$2.0 million for new furniture and equipment, of which \$0.6 million is dedicated for the kitchen and dining operation.
2. The UTM residence ancillary plans to externally finance the entire project cost.
3. The proposed monthly bed rates for the new dormitory style residence would be set at \$588, with the existing stock of townhouse and suite style residence having rates varying between \$611 and \$675 per month. The lower rate for the new residence is based on it being a dormitory style residence.

The financial model submitted excludes the operating plan for the food service operation of the new dining hall. The students living in the new dormitory residence will be required to purchase a meal plan. A partial meal plan will be required of all other undergraduate students living in residence, with the option to purchase a full meal plan.

Financial Analysis:

The proposed UTM dormitory residence is very similar in style to the newly constructed New College (NC) residence and the new University College (UC) residence which is

currently being constructed. Expectation is that operationally, they would all be similar. The revenue and expense projections contained within the UTM financial model were compared to those submitted by NC and UC residence operations as part of the 2004-05 service ancillary budget process.

The UTM model was found to contain operating expenditures that were (on a five year average) approximately 500K per annum lower than those contained within the NC and UC submissions. The difference mainly is attributed to lower staffing costs and utility cost projections. The five year average capital renewal expenditure in the UTM model is lower than the UC model by approximately \$250K per year. The monthly bed rates were also compared and found to be lower in the UTM model than the NC and UC submissions. The low operating and capital renewal expenditures in the UTM model represent a risk factor in this proposal. The model also has no changes in the capital renewal reserve level in the outer years, although adding a new residence. **The UTM ancillary operation feels that they have made a fair estimate of their operating costs at this point in time. A recent engineering study of the operations indicates that all capital renewal issues can be managed within its annual operating budgets. They also feel that the current ancillary administration will be able to absorb the new residence operations with only a marginal increase in salary costs.**

The UTM financial model yields a per bed cost of \$62,715, based on its total project cost. The cost per bed is \$54,513, for project costs specifically related to the construction of the residence only. The low total construction cost of the project has been identified as a risk factor, since recently constructed or planned dormitory residences have had a construction cost in the range of \$95,000 per bed. **The UTM ancillary operation feels that the construction costs are consistent with the similarly designed and newly constructed residences at Brock University and University of Western Ontario, with adjustments made for escalation, site conditions and use of union electrical contractors. The lower construction cost residence meets the original mandate of the UTM ancillary, which is to build a residence that will not be a financial burden to its existing operations but still meet the needs of its students.**

The annual cost of external financing is \$2,427,979 based on the total project cost of \$26,215,000.

Identified Risk Factors:

1. Operating and Capital renewal costs exceed estimated amounts.
2. Construction costs exceeding current project projections.
3. Occupancy levels dropping due to softening in residence demand.

Sensitivity analysis:

Since the capital project contains multiple risk factors, a sensitivity analysis was prepared to account for the various possibilities. Low-risk, medium-risk and worst-case scenarios were modelled. The results of the financial analysis are summarized in Appendix 1.

The financial plan submitted by UTM will support the current estimated level of construction costs, with annual breakeven in year 4 and cumulative breakeven in year 6 (for the combined ancillary operation), Contingent on achievement of the underlying assumptions.

Risk factors are:

1. Operating and capital renewal costs are accurate – The expenditures included in the submitted model are well below similar dormitory residences on the St. George campus. As a result of these low cost estimates the risk factor is considered to be high.
2. Construction Cost overrun – It is assumed that construction costs will not exceed current capital cost projections. Although the current project cost has a built in contingency of \$1,966,000, the project has yet to be tendered. The most recently constructed and planned dormitory style residences on the St. George campus far exceeded the \$62,715 per bed construction cost. Therefore, the potential for a construction cost overrun would be considered as moderate to high risk.
3. Occupancy levels – With the current low interest rates and high off campus vacancy rate, demand for residence spaces at UTM could soften. But given the projected increase in enrolment at the UTM and the location of the campus, the risk is considered to be low.

Conclusion:

The financial model contains multiple factors that have a moderate to high risk weighting, along with the fact that the project is being completely financed. I would therefore view the moderate risk case scenario to be the most realistic outcome.

University of Toronto at Mississauga

June 2005 -- TPC \$26,215,000

<u>Standard criteria:</u>		
New Residence scheduled to open September 2006 (Fiscal year 2006-07)		
<u>Number of beds</u>		
existing (grad & undergrad)	1,103	
new residence (undergrad only)	418	
Total	<u>1,521</u>	
Occupancy rates	100.00%	
<u>Mortgage terms:</u>		
rate	8%	
amortization-years	25	
compounding (monthly)	12	
Capital renewal costs to be addressed fully by annual and major maintenance expense and existing capital renewal reserve.		
<u>Breakeven for total ancillary operation:</u>		
annual (year)	2009-10	4
cumulative (year)	2011-12	6

<u>Variables within various models:</u>			
<u>Project costs:</u>	Building	Furniture & Equipment	Total
Residence	21,478,766	1,307,735	22,786,501
Dining Hall & Kitchen	2,420,800	585,100	3,005,900
Administration	365,634	56,965	422,599
Total	24,265,200	1,949,800	26,215,000
<u>Cost per bed (based on projects attributable to residence only):</u>			
Residence = res bldg / total new beds		\$54,513	
Total project = total cost / total new beds		\$62,715	
<u>Sources of funding:</u>			
External financing		26,215,000	
<u>Monthly bed rates in year 1 and year 5:</u>			
	<u>2006-7</u>	avg annual <u>incr to Yr 5</u>	<u>2010-11</u>
New residence only	\$588	5.00%	\$714

University of Toronto at Mississauga, Total Residence Ancillary

Variables:

# of undergraduate & graduate beds	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521
occupancy-winter	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
capital cost	26,215,000																	
downpayment from ancillary & donations	0																	
downpayment -subsidy	0																	
mortgage rate	various	various	various	various	various	various	various	various	various	various	various	various	various	various	various	various	various	various

WORKING SCHEDULE	2006-7	2007-8	2008-9	2009-10														
Projected Income Statement:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Revenues-winter	7,310,883	7,650,021	8,006,645	8,380,324	8,771,887	9,035,043	9,306,095	9,585,277	9,872,836	10,169,021	10,474,091	10,788,314	11,111,964	11,445,323	11,788,682	12,142,343	12,506,613	12,881,811
Revenues-summer	292,195	300,961	309,990	319,289	328,868	338,734	348,896	359,363	370,144	381,248	392,686	404,466	416,600	429,098	441,971	455,230	468,887	482,954
Revenues-other	278,722	337,083	347,195	357,611	368,339	379,390	390,771	402,495	414,569	427,006	439,817	453,011	466,601	480,599	495,017	509,868	525,164	540,919
Dean's & dons	245,469	257,742	270,810	284,161	298,369	307,320	316,539	326,036	335,817	345,891	356,268	366,956	377,965	389,304	400,983	413,012	425,403	438,165
Amount of subsidy needed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net revenues	8,127,269	8,545,807	8,934,639	9,341,386	9,767,463	10,060,487	10,362,302	10,673,171	10,993,366	11,323,167	11,662,862	12,012,748	12,373,130	12,744,324	13,126,654	13,520,453	13,926,067	14,343,849
Expenses- inflation rate used yr 4+ =	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Operating (general)	2,916,249	3,056,261	3,169,650	3,289,504	3,430,067	3,618,368	3,726,919	3,838,726	3,953,888	4,072,505	4,194,680	4,320,520	4,450,136	4,583,640	4,721,149	4,862,783	5,008,667	5,158,927
Dons	245,469	257,742	268,145	278,645	289,804	297,556	305,521	313,706	322,116	330,759	339,641	348,769	358,149	367,789	377,696	387,878	398,342	409,097
Major Maintenance	361,108	387,496	252,696	268,821	282,263	296,376	311,195	326,755	343,092	360,247	378,259	397,172	417,031	437,882	459,777	482,765	506,904	532,249
Mortgage principal & Interest	3,522,826	3,701,499	3,690,490	3,836,970	4,002,134	4,212,299	4,343,634	4,479,186	4,619,097	4,763,511	4,912,580	5,066,461	5,225,316	5,389,312	5,558,622	5,733,427	5,913,913	6,100,273
Building depr'n (based on Provost Subsidy)	4,741,375	5,387,111	5,387,112	5,387,112	4,680,786	4,639,484	4,581,661	4,581,661	4,581,661	4,581,661	4,581,661	4,581,661	4,581,661	4,581,661	4,581,661	4,581,661	4,581,661	4,581,661
Building depr'n (based on downpayment)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Expenses before finance charges	8,264,201	9,088,610	9,077,602	9,224,082	8,682,921	8,851,783	8,925,295	9,060,847	9,200,757	9,345,172	9,494,241	9,648,122	9,806,977	9,970,972	10,140,283	10,315,088	10,495,574	10,681,934
Operating financing charges	(20,152)	(5,908)	9,243	11,740	(10,112)	(54,294)	(106,914)	(169,619)	(241,827)	(324,138)	(417,161)	(521,532)	(637,919)	(767,025)	(909,584)	(1,066,366)	(1,238,179)	(1,425,868)
Net expenses	8,244,049	9,082,702	9,086,845	9,235,822	8,672,808	8,797,489	8,818,381	8,891,228	8,958,931	9,021,033	9,077,081	9,126,591	9,169,057	9,203,947	9,230,699	9,248,722	9,257,395	9,256,066
Surplus (Deficit) before transfers & reserve	(116,780)	(536,895)	(152,206)	105,564	1,094,655	1,262,998	1,543,921	1,781,943	2,034,435	2,302,133	2,585,781	2,886,157	3,204,073	3,540,377	3,895,955	4,271,732	4,668,672	5,087,783
transfer to operating	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(Incr)/decr in investment in cap assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(Incr)/decr in major mtncse reserve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surplus (Deficit) after transfers & reserve	(116,780)	(536,895)	(152,206)	105,564	1,094,655	1,262,998	1,543,921	1,781,943	2,034,435	2,302,133	2,585,781	2,886,157	3,204,073	3,540,377	3,895,955	4,271,732	4,668,672	5,087,783

Projected Balance sheet:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Cash & Receivables	(13,451)	(550,347)	(702,552)	(596,988)	497,666	1,760,684	3,304,584	5,086,527	7,120,962	9,423,096	12,008,877	14,895,034	18,099,106	21,639,483	25,535,438	29,807,170	34,475,841	39,563,624
Residence	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385
Accumulated Depreciation	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)
	57,597,877	57,060,981	56,908,776	57,014,340	58,108,994	59,371,992	60,915,912	62,697,855	64,732,290	67,034,424	69,620,205	72,506,362	75,710,434	79,250,811	83,146,766	87,418,498	92,087,169	97,174,952
Mortgage payable & Equity in Res	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424
Funds committed for major maintenance	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528
Surplus (contributed)	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950
Surplus	(987,025)	(1,523,921)	(1,676,126)	(1,570,562)	(475,908)	787,090	2,331,010	4,112,953	6,147,388	8,449,522	11,035,303	13,921,460	17,125,532	20,665,909	24,561,864	28,833,596	33,502,267	38,590,050
Net fund balance	(301,547)	(838,443)	(990,648)	(885,084)	209,570	1,472,568	3,016,488	4,798,431	6,832,866	9,135,000	11,720,781	14,606,938	17,811,010	21,351,387	25,247,342	29,519,074	34,187,745	39,275,528
	57,597,877	57,060,981	56,908,776	57,014,340	58,108,994	59,371,992	60,915,912	62,697,855	64,732,290	67,034,424	69,620,205	72,506,362	75,710,434	79,250,811	83,146,766	87,418,498	92,087,169	97,174,952

The depreciation expensed via the "principle proxy" is captured as part of the "Mortgage payable & equity in Res" line.

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University of Toronto at Mississauga, Total R

Variables:

# of undergraduate & graduate beds	1,521	1,521	1,521	1,521	1,521	1,521	1,521	1,521
occupancy-winter	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
capital cost								
downpayment from ancillary & donations								
downpayment -subsidy								
mortgage rate	various	various	various	various	various	various	various	various

WORKING SCHEDULE

Projected Income Statement:	19	20	21	22	23	24	25	26	Net 26 year
Revenues-winter	13,268,266	13,666,314	14,076,303	14,498,592	14,933,550	15,381,556	15,843,003	16,318,293	299,213,050
Revenues-summer	497,442	512,366	527,737	543,569	559,876	576,672	593,972	611,791	11,265,006
Revenues-other	557,147	573,861	591,077	608,809	627,073	645,886	665,262	685,220	12,568,513
Dean's & dons	451,310	464,849	478,794	493,158	507,953	523,192	538,887	555,054	10,169,405
Amount of subsidy needed	0	0	0	0	0	0	0	0	0
Net revenues	14,774,164	15,217,389	15,673,911	16,144,128	16,628,452	17,127,306	17,641,125	18,170,359	333,215,974
Expenses- inflation rate used yr 4+ =	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
Operating (general)	5,313,695	5,473,106	5,637,299	5,806,418	5,980,610	6,160,029	6,344,829	6,535,174	119,623,797
Dons	420,151	431,511	443,188	455,190	467,525	480,205	493,238	506,634	9,594,467
Major Maintenance	558,861	586,804	616,145	646,952	679,299	713,264	748,928	786,374	12,138,714
Mortgage principal & Interest	6,292,707	6,491,421	6,696,631	6,908,559	7,127,435	7,353,498	7,586,994	7,828,182	141,356,979
Building depr'n (based on Provost Subsidy)	4,131,895	3,797,590	3,797,590	3,797,590	2,961,705	2,427,979	2,427,979	809,326	109,354,567
Building depr'n (based on downpayment)	0	0	0	0	0	0	0	0	0
Expenses before finance charges	10,424,602	10,289,012	10,494,222	10,706,149	10,089,140	9,781,477	10,014,974	8,637,509	250,711,546
Operating financing charges	(1,639,315)	(1,886,314)	(2,159,339)	(2,453,186)	(2,785,809)	(3,169,380)	(3,589,292)	(4,071,336)	(29,649,589)
Net expenses	8,785,286	8,402,697	8,334,882	8,252,963	7,303,331	6,612,097	6,425,682	4,566,173	221,061,957
Surplus (Deficit) before transfers & reserve	5,988,878	6,814,692	7,339,028	7,891,165	9,325,121	10,515,209	11,215,443	13,604,186	112,154,017
transfer to operating	0	0	0	0	0	0	0	0	0
(Incr)/decr in investment in cap assets	0	0	0	0	0	0	0	0	0
(Incr)/decr in major mtncse reserve	0	0	0	0	0	0	0	0	0
Surplus (Deficit) after transfers & reserve	5,988,878	6,814,692	7,339,028	7,891,165	9,325,121	10,515,209	11,215,443	13,604,186	112,154,017

Projected Balance sheet:	19	20	21	22	23	24	25	26
Cash & Receivables	45,552,502	52,367,194	59,706,223	67,597,388	76,922,509	87,437,718	98,653,161	112,257,347
Residence	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385	64,297,385
Accumulated Depreciation	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)	(6,686,057)
	103,163,830	109,978,522	117,317,551	125,208,716	134,533,837	145,049,046	156,264,489	169,868,675
Mortgage payable & Equity in Res	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424	57,899,424
Funds committed for major maintenance	526,528	526,528	526,528	526,528	526,528	526,528	526,528	526,528
Surplus (contributed)	158,950	158,950	158,950	158,950	158,950	158,950	158,950	158,950
Surplus	44,578,928	51,393,620	58,732,649	66,623,814	75,948,935	86,464,144	97,679,587	111,283,773
Net fund balance	45,264,406	52,079,098	59,418,127	67,309,292	76,634,413	87,149,622	98,365,065	111,969,251
	103,163,830	109,978,522	117,317,551	125,208,716	134,533,837	145,049,046	156,264,489	169,868,675

Appendix 1

UTM Residence Proposal - June 2004 Submission

Sensitivity Analysis

	<u>UTM Submission</u>	<u>Low-Risk Case</u>	<u>Medium-Risk Case</u>	<u>Worst Case</u>
Total Project Cost	26,215,000	26,215,000	26,215,000	26,215,000
Operating cost increase/annum	0	300,000	400,000	500,000
Project Cost Overruns (5%,10%)	0	0	1,310,750	2,621,500
Borrowing Required	26,215,000	26,215,000	27,525,750	28,836,500
Occupancy Levels	100%	100%	100%	98%
Breakeven Year				
Annual	4	5	5	7
Cumulative	6	8	9	14
<u>Monthly Residence rate</u>				
New Residence Opening Rate	588	588	588	588
IRR - Combined Operations	21.50%	20.32%	19.06%	17.20%
NPV - Combined Operations (Cashflows before financing costs and net of capital cost)	44,123,383	39,875,978	37,149,427	31,678,685