

**PROJECT PLANNING REPORT**  
**FOR THE DEPARTMENT OF ECONOMICS**  
**BUILDING EXPANSION AND RENOVATION**  
**AT 150 ST. GEORGE ST.**

**September 25, 2001**

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**PROJECT PLANNING REPORT  
FOR THE DEPARTMENT OF ECONOMICS  
BUILDING EXPANSION AND RENOVATION  
AT 150 ST. GEORGE ST.**

**I. EXECUTIVE SUMMARY**

The Department of Economics is presently located at 150 St. George Street with seven faculty within the department's complement housed at the Institute for Policy Analysis. Over the years a common theme stressed in the external reviews of the Department has been the lack of office space for graduate students. Time after time, the space problem has been brought up in reviews of the Department, yet it remains a proverbial thorn which will continue to impede the Department's progress in reaching its goal of comparability with the best publicly funded economics departments in North America.

With the addition of the Master of Financial Economics program and the expansion of the undergraduate Commerce program, the increased faculty and administrative demands can no longer be met within the present facilities. At the same time, space for undergraduate student activities is essential for the integration of these students within the Department, yet given the present scarcity of space within the current departmental facilities, this is not possible. The proposed structure will provide space for both undergraduate and graduate students to interact with each other and faculty on both an academic and social basis.

A 75-seat tiered accessible lecture room within the proposed facility addresses the crucial need for additional classroom space in the northwest quadrant of the St. George campus. The classroom will also provide a hub for student activity within the building. The room will be centrally booked by the Office of Space Management and the Faculty of Arts and Science.

From a research perspective, the Department seeks to gain the greatest synergies possible by coordinating the research activities undertaken by all members of the Department within its new facilities. This involves the relocation of the Institute for Policy Analysis to the new facility at 150 St. George Street and the provision of research space for all economics faculty at the University of Toronto at Mississauga within the new structure. This is necessary for the Department to achieve its goal as a premier economics teaching and research.

The Department of Economics presently occupies 1293 net assignable square metres and the Institute for Policy Analysis occupies 454 nasm for a total of 1747 nasm. The Users Committee recommends a nominal allocation of 2241 nasm. This allocation corresponds to COU space standards.

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The proposed project will be privately funded and has an estimated cost of \$14,300,000 in May 2004 dollars, the date the project is expected to commence. A secondary effect of this project is to release to the University for relocation all the space currently occupied by the Institute for Policy Analysis in the Bissell Building at 140 St. George Street. Additionally, 13 reserved parking spaces and a loss of revenue to the parking ancillary in the amount of \$20,800 p.a. will result.

## **II. MEMBERSHIP**

M.K. Berkowitz (Chair), Professor, Department of Economics  
M. Abouhaidar, Business Officer, Department of Economics  
C. Deri, Graduate Student, Department of Economics  
R. deSouza, Director of Administrative Services and Planning, Faculty of Arts and Science  
D. Dewees, Professor, Department of Economics  
M. Fuss, Professor and Acting Chair, Department of Economics  
N. Gallini, Professor, Department of Economics  
J. Binks, Project Planning and Construction, Facilities and Services  
E. Sisam (Secretary), Director of Campus and Facilities Planning, Office of the Vice Provost,  
Planning and Budget  
G. Milgrom, Office of the Vice Provost, Planning and Budget  
N. Soboleva, Asst. Professor, Department of Economics  
L. Cheung, Undergraduate Student, Department of Economics

## **III. TERMS OF REFERENCE**

1. Determine a space program for the Department of Economics which will accommodate the activities currently at 150 St. George Street and other locations where members of the Department are currently located.
2. Demonstrate that the proposed space program will take into account the Council of Ontario Universities and the University's own space standards.
3. Plan to realize maximum flexibility of space to permit future allocations as program needs change.
4. Identify the capital cost of construction, any renovations, data and communications requirements and the cost of equipment and furnishings.
5. Identify any costs associated with transition during construction and secondary effects resulting from construction of this project.
6. Identify all proposed sources of funding.
7. Report by April 30, 2001.

#### IV. BACKGROUND INFORMATION

Over the years, the Department of Economics has made great strides in achieving its present status as the premier economics department in Canada. Due to the continued support of the university administration and the extraordinary efforts of our dedicated faculty, in the past few years we have been able to compete with the top universities in North America for the very best graduates. This is clearly evident by our recent success in winning the Polanyi Prize in each of the last three years.

As was spelled out in our “Raising Our Sights” plan, the Department is not content to remain the best economics department in Canada.<sup>1</sup> While the most recent ranking placed us within the top 10 publicly funded economics departments in the world, we have set higher goals - to rank within the top 5 publicly funded economics departments (equivalent to the University of California at Berkeley, University of Michigan, University of Wisconsin and UCLA). To reach this goal, it is necessary to address a chronic problem within the department - lack of space. Since the inception of the department in the early 1980's, every Chair's report and every external review has commented on the dire need for additional space. It is clear that the present space constraints and poor quality of much of the available space at 150 St. George have contributed to our being unable to attract better graduate students and has caused a number of key faculty to move to other parts of the university that offer improved space.

This need for space was cited 15 years ago by Dean Robin Armstrong in his report on the Review of the Economics Department (June 29, 1985):

“The graduate program appears unable to recruit the best students and too few master's students continue on to the doctoral program. Reasons that were suggested include lack of even minimal space to house graduate students, resulting in little sense of belonging to the department;”

In the 1988 OCGS Appraisal of the Graduate Program in Economics, the Chair wrote:

“Office space for graduate students is very limited. Ph.D. students working on their thesis have some space at 150 St. George St. and in the Institute for Policy Analysis. The Department is trying to expand the space for graduate students. This is not very easy on the St. George campus.”

The problem was also brought to light in 1990, when Professors J. Cragg and P. Mieszkowski stated in

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<sup>1</sup> “Raising Our Sights in the Department of Economics: Planning to the Year 2004”, June 1999.

their External Review of the Department of Economics:

“The amount of space available for graduate students, especially Ph.D. Students, appears to be distinctly substandard. Students do not have an adequate reading room in which to study and which provides ready or immediate access to journals and to reference materials. They also do not have adequate lounge facilities to provide readily for the casual discussion of material, exchange of ideas and help on problems that can be an invaluable aid to effective mastering of material. In this respect, casual observation suggests that the Department is in a worse position than its major competitors.”

The external reviews concluded:

“We therefore strongly recommend that priority be given to finding or constructing more space for the Economics Department so that study and lounge facilities for graduate students in immediate proximity to faculty office space can be provided.”

Over the years, the space problems at 150 St. George have been tuned and tweaked, but the basic problem remains - lack of additional quality space within the departmental complex. In the latest external review of the Department, Professors Eichenbaum, Howitt, and Olewiler stated in November, 1999:

“As Nancy Gallini notes in her Chair’s report, the department has severe space constraints. This affects the graduate program in several ways. First, many graduate students have no office space in which to work. Secondly, they have no common room in which to gather and discuss their course work, eat lunch, etc. This tends to lead to a feeling of alienation among students without offices and inhibits the development of a collegial atmosphere. While space is scarce, perhaps some arrangement of existing space could be contemplated to allow students a place to gather. Ideally, the space problems of the department could be solved by construction of an addition to their building and a physical reunification with the Institute of Policy Analysis.”

Time after time, the space problem has been brought up in reviews of the Department, yet it remains the proverbial thorn in our side which will continue to impede our progress in reaching our goal of comparability with the best publicly funded departments within the North American market.

## **V. STATEMENT OF ACADEMIC PLAN**

Although its roots stretch back to 1888, the Department of Economics as we know it today evolved in 1982 when the Department of Political Economy was reorganized into two separate departments -- economics and political science. Over the years, department members have continued to excel in both research and teaching, and our graduates have made significant contributions to commerce, public service and education.

### **A. Research**

The department is proud of its many outstanding researchers. Professor Emeritus Sam Hollander has served as University Professor, the highest distinction the university can bestow. Hollander is the author of six books on classical economics and a recognized world leader in the area of 19th-century British economic thought. Martin Osborne has gained a substantial international reputation for his work in game theory. Ralph Winter, one of two Hoover Institute Fellows in the department, has made important contributions, along with Frank Mathewson in explaining the economics of vertical contracts and competition policy. Two young economists, Michael Baker and Dwayne Benjamin, have tackled a number of public policy questions in Canada in areas as diverse as immigration, pensions and retirement, minimum wages, and discrimination against women and minorities. Dan Trefler's research in international trade has received wide recognition and has given the department a strong presence in an ever-important area.

Departmental members have also held editorial positions on the most prestigious journals in the profession, including the *Canadian Journal of Economics*, *American Economic Review*, *International Journal of Industrial Organization*, *Explorations in Economic History*, *Energy Economics*, *International Journal of Game Theory*, and *Mathematical Social Sciences*, among others.

Members of the department have won many high honours which reflect their standing in the discipline. These include memberships in the Royal Society of Canada, the Order of Canada, and the Canadian Institute of Advanced Research. The department also boasts 5 past presidents of the Canadian Economics Association, 2 Research Fellows of the National Bureau of Economic Research, 1 past president of the History of Economics Society, 1 past president of the Industrial Relations Association, and 2 Harry Johnson Prize winners for the best article in the *Canadian Journal of Economics*.

Members of the economics department also hold large and prestigious grants from the World Bank, the Canadian International Development Agency, the Ford Foundation, the Tinker Foundation, the Mellon Foundation, the Bradley Foundation, the United Nations, the William Davidson Institute at the University of Michigan, and the Social Science and Humanities Research Council.



While a department's reputation depends on the visibility of its faculty's research within the profession, the broader impact of that research outside of the profession, especially in the policy arena, also deserves recognition. The strong academic credentials of our faculty have earned them influential and high-profile positions on the MacDonald Royal Commission, the Royal Commission on the Pharmaceutical Industry, the Market Design Committee on Restructuring the Electricity Industry in Ontario, a Federal task force on Business Taxation in Canada, the C.D. Howe Institute (current President) and the International Development Research and Policy Task Force to give a few examples. In the areas of economic demography, macroeconomic forecasting, taxation, competition policy, economic development, international trade agreements, financial markets, labour and immigration policy, members of the department have been key players in shaping economic policy.

## **B. Teaching**

The department's undergraduate areas of specialization include commerce and finance, international economics, labour economics, public finance, monetary economics and industrial organization.

Table V.B1 shows undergraduate enrolments in economics over the last four years. The department has one of the highest undergraduate teaching loads of any department within the Faculty of Arts & Science and the University as a whole. Over the last couple of years, there has been significant growth which is expected to be sustained.

**Table V.B1 Undergraduate Offerings by the Department of Economics**

<b>Period</b>	<b>Number of FCE's Sept.-April</b>
1996-97	5,908.0
1997-98	5,874.5
1998-99	6,059.0
1999-00	6,296.0
2000-01	6,705.0

**Note:** FCE's include courses such as SSC199Y and MGT310Y which are taught by members of the Department.

Our nearly 6,700 FCE enrolment (2000-01) ranks with the largest in the Faculty of Arts and Science. Approximately one-third of all first-year Arts and Science students enrol in one of our

principles courses either in the Fall/Winter or Summer terms. The department has 315 students in 11 specialist programs, 1080 students in 2 major programs, 230 students in 3 minor programs and 847 Commerce students (including 181 majors). This gives a total of 2290 program students in Economics. Our large program enrolment reflects not only our flagship Commerce and specialist/joint-specialist programs with geography, statistics, mathematics, philosophy, political science and sociology, but also our partnership in Environmental Studies, International Relations, East Asian Studies, Urban Studies, European Studies, Medieval Studies, and Employment Relations. Many of our faculty also teach multi-discipline courses in areas that include Industrial Relations, Law, Management, Mathematics and Political Science.

The department has 107 graduate students (2000-01), roughly half of whom are in the Ph.D. program. Many of our graduate students are teaching assistants and form a vital link in the department's objective of teaching undergraduate students the basic principles of economics and how to deal with contemporary economic problems. Table V.B2 shows the hours per week worked by teaching assistants within the department over the September 1999-August 2000 period.

**Table V.B2 Teaching Assistant Hours Per Week  
(Sept. 2000 - August 2001)**

<b>Period</b>	<b>Total TA Hours</b>	<b>Number of Weeks</b>	<b>TA Hours Per Week</b>	<b>Dollars</b>
September - April	19,110	34.67	551.20	\$639,828
May - August	4,970	17.33	286.79	\$170,014
Total 2000-2001	24,080	52.00		\$809,842

Note: Amounts include 9.5% benefits and 4.0% vacation pay.

Table V.B3 provides a list of graduate students within the department at both the MA and Ph. D levels over the last 6 years. In 1995, there were 47 MA students while in 2000, the number grew to 59. At the Ph. D level, the number has decreased slightly from 54 in 1995 to 48 in 2000. This reflects the significant change in the age distribution of the department over the last few years with a large number of retirements being replaced by younger faculty who are unable to supervise as many Ph.D. students at this time in their careers. It also represents a concerted effort within the department to improve the quality of the Ph.D. program.

**Table V.B3 Graduate Students Within the Department**

<b>Period</b>	<b>Number of MA Students</b>	<b>Number of Ph. D Students</b>
1995-96	47	54
1996-97	57	53
1997-98	57	44
1998-99	61	48
1999-00	62	46
2000-01	59	48

The nature of economics lends itself to interdisciplinary work. Departmental members are at the forefront of the discipline, pushing the research and teaching boundaries through their interactions with the faculties of management and law, the division of the environment and the employment relations program. The department also has teaching links with history, geography, statistics, mathematics, philosophy, political science and sociology through joint specialist undergraduate programs. The department offers a number of collaborative programs at the graduate level in areas such as environmental studies, international relations and Asia-Pacific Studies.

The department's dedication to teaching is demonstrated in a number of ways. David Foot, for example, was awarded the 3M Teaching Award. Foot and Adonis Yatchew both received awards from the Association of Part-time Undergraduate Students and Students' Administrative Council, and David Nowlan received the Faculty of Arts and Science Outstanding Teaching Award. Some department members use state-of-the-art technology in the classroom such as sophisticated electronic displays that provide an interactive teaching environment. John Floyd and Ken Rea have introduced Internet-based courses. Various professors have also written texts which are used in classrooms throughout North America.

### **C. The Future**

#### ***Faculty Growth***

It is expected that the department will have a net (of retirement) gain of 8 faculty members, including two transferred positions from Scarborough, over the present 5-year planning horizon. At the same time, the department has been awarded a Canada Research Chair and a Noranda Chair. The department will also be actively pursuing additional external donors for commitments to endowed chairs

that will further expand our complement.

### ***Growth in Non-Academic Staff***

The department plans to add four administrative positions over the next five years. One of these positions will be a clerk 2 aimed at mitigating the understaffing which presently exists. The other three positions are related to the new Masters in Financial Economics Program. The director of the Program will require office space as will the administrative assistant who will be directly involved with counseling students and arranging summer internships. A secretary will also be hired to supply administrative support to the Program.

### ***Graduate Student Growth***

It is expected that the new Masters in Financial Economics Program will add 20-25 students per year to the graduate program. Together with the proposed program in Economic Policy, the size of the MA program is expected to increase by over 50% within 5 years. The Ph.D. program is expected to continue at approximately the same size over the next 5 years.

### ***Undergraduate Student Growth***

The Bachelor of Commerce Program (B.Com.), a highly successful joint economics and management program, is expanding from 300 students per year to 450 per year. The additional 150 students will each take approximately 2 economics courses per year so that the departmental FCE number will increase by 900. Although it is expected that due to a higher direct admission policy into the B.Com. program, there will be fewer unsuccessful students choosing to take economics in the future, the addition of new programs within the department at the undergraduate level (e.g., Economics & Finance Major, Management Economics Major, etc.) will more than compensate for this reduction in enrolments. At the same time, it is expected that the quality of students will dramatically improve as rejected B.Com. students are replaced with students taking these new major programs, who are attracted to the University because of the successful programs offered by the department.

## **V. SPACE PROGRAM**

### **A. *Overview of Existing Space***

The Department of Economics occupies approximately 1,325 net assignable square meters (nasm) at 150 St. George Street and the Institute for Policy Analysis, located at 140 St. George St., occupies approximately 450 nasm for a total of approximately 1,800 nasm. The space is inventoried in the following categories:

<u>Space Category</u>	<u>Nasm</u>
<b>Economics – 150 St. George Street</b>	
Faculty Offices	755
Graduate Student Work/Study Spaces	156
Non-Academic Staff Offices	120
Departmental Support Space	295
Subtotal	1,326
<b>IPA - 140 St. George Street:</b>	
Faculty Offices	175
Graduate Student Offices	48
Non-Academic Offices/Research Offices	80
Office Support Space	111
Lounge	29
Subtotal	443
Total Nasm	1,769

A detailed space inventory of the existing facilities can be found in Appendix 1.

Although not included in the information above, several faculty members also occupy space at Industrial Relations, Rotman School of Management, and the University of Toronto at Mississauga Campus.

#### ***B. Nominal Space Allocation Required***

To determine the nominal space allocation required, a space utilization analysis, using the Council of Ontario Universities space standards and the internal university guidelines, was conducted.

The analysis was based on the following profile of the department which includes existing, approved and planned academic and non-academic complements, programs and student numbers:

### **Departmental Profile**

#### **Current**

FTE Full time faculty members, 00/01	32 FTE
FTE Cross appointments/Fractional appointments, 00/0	13.5 FTE
FTE Mississauga faculty 00/01	12.8 FTE
Active professors emeriti, 00/01	6 headcount
FTE non-academic staff, 00/01	10 FTE
FTE Ph.D. students, five year average	47.6 FTE
FTE Masters students, five year average	52.4 FTE
Total FTE Graduate Students, five year average	100 FTE
T.A. hours, Sept. – april 00/01	19,110
IPA FTE academic, budget 00/01	.25 FTE
IPA FTE non-academic, budget 00/01	1 FTE

#### **Planned Increase**

TBA replacements	2 FTE
ROS Plan positions	10 FTE
Chairs, Canada Research and Noranda	2 FTE
Mississauga Campus	4 FTE
Total FTE increase to Academic Complement	18 FTE
Non-Academic complement	6.1 FTE
Net increase in total graduate student FTE with MFE	15 FTE

Details can be found in Appendix 2.

Based on this analysis a space programme for the Department and IPA was developed. The proposed space program provides for an increase of 472 nasm or 27%. Of this allocation 143 nasm is to accommodate a general use classroom in which the Department will have priority booking. A comparison of the existing space to the proposed space programme is shown in the table on the next page:

Category of Space	Existing Nasm	Nominal Nasm
<u>Departmental Space</u>		
Faculty Offices	930	863
Graduate Student Spaces	204	484
Non-Academic Staff Offices	120	242
Research Facilities	80	190
Departmental Support Space/Lounge	435	256
	1,769	2,035
<u>Other Facilities</u>		
Atrium/Lounge		50
Tiered Lecture Theatre		143
Economics Course Union Room		13
		206
Total	1,769	2,241

The following discussion of the different categories of space identify the input measures (#s of FTE academic, students, etc.) and the standards used to generate the space requirements for the Department of Economics and associated IPA activities. As this project must accommodate an expanded department, both current and growth requirements have been carefully identified.

#### Faculty Offices

The Department of Economics, in 2000/01 had an academic complement of 35.5 FTE on the St. George Campus and an FTE of 12.8 at the Mississauga Campus. There are increases at St. George of 11 FTE and at Mississauga of 2 FTE already approved and a further increase of 3 FTE and 2 FTE at the two campuses planned.

The COU space standard, in generating academic office space, uses a space factor of 13 nasm per FTE faculty member with an additional 13 nasm for 15 % of the total FTE. Although 12 sq. m. is the accepted planning standard for a typical office, 13 sq. m. is the most commonly used guideline. It recognizes existing office configurations where the offices may be larger than standard, as well as the fact that Deans and Chairs are usually allocated larger offices for use as meeting space. The supplement of 15% is based on the assumption that the number of faculty requiring accommodation is greater than the recorded FTE and, therefore, the standard provides space to accommodate cross-appointments, part-time appointments, status-only appointments, visiting scholars, post doctoral fellows and offices for faculty with administrative appointments.

The table below shows the space required to accommodate the existing FTE (35.5) and the approved and proposed FTE (14) using the COU Space Formula:

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<u>Academic</u>	<u>#FTE</u>	<u>#Offices</u>	<u>Nasm</u>
<b><u>St. George</u></b>			
2000/01 Complement	35.5	35.5	426
Approved TBAs	2.0	2.0	26
ROS Plan Positions	10.0	10.0	130
Research Chairs	2.0	2.0	26
Steady State FTE	49.5	49.5	644
15% Supplement		7.4	96
COU Generated		56.9	740

Although the COU space standard would generate 57 offices in 740 nasm the proposed space programme recommends an allocation of 67 academic offices in 863 nasm. The additional 123 sq.m., the equivalent of 10 offices, are required to accommodate the activities of academic staff, who though based at Mississauga, spend two to three days of the week on the St. George Campus to carry on their research activities, attend workshops, supervise graduate students, and participate in recruiting. The Department also has a large number of active professors emeriti who require workspaces.

<u>Mississauga Academics</u>	<u>#FTE</u>
2000/01 Complement	12.8
Approved TBAs	2.0
Net FTE increase for expansion	2.0
	16.8

While the majority of the offices are to be built at the 13 sq.m. standard, there are a few exceptions: 4 offices are to be slightly larger to accommodate meeting spaces for academics with administrative duties (for example, the Chair) and 9 are to be built at 10 sq.m. only. These smaller offices will be shared by Mississauga staff who have responsibilities on the downtown campus.

The current inventory of faculty offices is 755 nasm at 150 St. George Street (48 offices) and 175 nasm at 140 St. George Street (11 offices), for a total of 930 (59 offices). At 863 nasm and 67 offices this represents an overall increase in the total number of offices but a decrease in the average office size (15.8 nasm) to the university standard (13 nasm).

### Graduate Student Space

During the period 1995 – 2001, the average number of MA students was 52.4 FTE and the average number of PhD students was 47.6 FTE, for a total of 101 FTE. With the implementation of the Masters in Financial Economics Program it is expected that the total steady state graduate student FTE will increase to 115. (See Appendix 2)



The COU standard is 4 nasm of office type space per FTE graduate student. In practice significantly less has been allocated to graduate students both at the University of Toronto and in the Ontario system (averages of approximately 1.9 nasm and 2.5 nasm respectively). In most departments graduate student space has been provided for teaching assistants, research assistants and full time resident graduate students engaged in thesis preparation. In some disciplines dedicated graduate student study and workspace has also been provided for in laboratories or in libraries. However, few disciplines have been able to provide the facilities that would meet the COU guideline for office space. This lack of space has become a major recruitment issue when graduate students consider an offer from the University of Toronto.

This report recommends a space allocation for graduate students of 484 nasm which represents the spirit of the Council of Ontario Universities guideline and not the current practice.

Currently Economics graduate students occupy 156 nasm at 150 St. George Street and 48 sq.m. at 140 St. George Street, a total of 204 nasm. With an average of 100 FTE graduate students this is a ratio of 2 nasm per student, similar to the U. of T. average.

The proposed allocation of 484 nasm will bring that ratio to 4.2 nasm per FTE, for a steady state graduate FTE of 115. The proposed allocation will be used to provide not only office space for PhD. and MFE students, but also a series of T.A. interview rooms, an MA student computing room and a graduate student lounge. The interview rooms, when not in use for teaching assistant activities, will be used for other academic functions, such as, group related course work and part time faculty office hours.

### Non-Academic Staff Offices

The Department of Economics, in 2000/01, had a non-academic complement of 10 FTE. There are increases of .4 FTE already approved and a further increase of 2.1 FTE for the MFE Program and 3 FTE for Commerce planned which would bring the department's total non-academic FTE to 15.5.

The COU guidelines provide 13 nasm per FTE non-academic staff. The COU standard generates 202 nasm. for the current, approved and planned FTE:

<u>Non-Academic FTE</u>	<u>FTE</u>
Current FTE	10
Additional:	
Director of MFE Program	.6
Assistant Director of MFE Program	1
Secretary of MFE Program	.5
Part-time to become full time Secretary Asst to Business Officer	.41
Commerce additions, counsellor, IT, secretarial	3

The space programme recommends 242 nasm, or an additional 3 offices, one to serve as an Alumni Office, one to accommodate a Newsletter which is produced by a retired faculty member and one for development/fundraising coordination. The current allocation at 150 St. George Street is 120 nasm.

### Research Project Workspaces

The COU space formula for research facilities provides research laboratories or equivalent research space for the majority of the Humanities and Social Sciences by generating 1 nasm per FTE faculty and .5 nasm per full time equivalent graduate student. This formula is intended to create a pool of research project or office workspace, to be used as dedicated computer, interview, analysis, confidential file storage and research assistant workspace and to be allocated based on the needs and priorities of the department.

There are a few Social Science disciplines which have larger space factors: Psychology, Anthropology, Archaeology and Man/Environmental Studies (Physical). In these disciplines additional space is required to accommodate animals, materials and equipment more associated with “laboratory” space than with “office” space.

The COU guideline generates 124 nasm for the Department of Economics. The FTE for the Mississauga campus is included in this calculation as the research activity of these faculty members and their graduate students is located on the St. George Campus:

<u>Input Measure</u>	<u>FTE</u>	<u>Nasm</u>
FTE Academics, St. George, Current	35.5	35.5
Additional FTE Academics, St. George, Planned	14.0	14.0
FTE Academics, Mississauga, Current	12.8	12.9
Net Increase, FTE Academics, Mississauga, Planned	4.0	4.0
Steady State FTE Graduate Students	115	<u>57.5</u>
Research Nasm required		123.9

The allocation is to be provided in two different research project workspace styles, shared offices at 13 sq.m. each and private offices at 10 sq.m. each.

In addition to the above allocation the Institute for Policy Analysis has 5 FTE appointed administrative and research staff requiring office space of 13 nasm each for a total of 65 nasm.

The space programme recommends an allocation of 190 nasm for research project offices, representing a physical relocation of the Institute for Policy Analysis to the Department of Economics as

well as an increase in research facilities to accommodate the existing activities and those of the planned additional complement. It is a stated aim of the Department to bring as much research activity back to the department as possible. The allocation of the 190 nasm is linked to the commitment of the faculty members to make the Department of Economics the administrating department for their research projects.

The current allocation is 80 nasm.

### Support Space

Support space includes meeting rooms, faculty conference rooms, lounges, office storage and supplies.

The COU guidelines generate support space at a ratio of 30% of the space generated for offices. This number is a university wide guideline where in central administrative offices, Dean and Faculty offices, etc. the ratio is larger and at departmental level the ratio is usually around 20%. The space programme proposes 256 nasm of office and support space, is line with the 20%.

In addition to office storage, support and meeting rooms the facilities will include a Resource Centre, bookable caserooms and faculty and staff lounges.

The current combined allocation, at the two sites is 406 nasm. The reduction in space represents the increase in efficiency offered by newly and appropriately designed space. For example, the current allocations includes over 50 sq.m. of 'coat closets'.

### Other Facilities

A working group has been established to review classroom use in the northwest sector of the campus and preliminary recommendations suggest the need for the creation of additional classroom space. Thus a large tiered lecture room, with a capacity of 75, is to be located in this facility. It will be centrally booked and the Department of Economics would have first priority booking.

There is to be one 13 sq.m. room allocated to the Economics Course Union.

An allocation of 50 sq.m. has been identified for the Atrium. The Atrium which is seen as a welcoming space/lounge/casual study space is to be located close to the main entrance and will take advantage of the non-assignable space in the design of the building. The additional 50 sq.m is to ensure an adequate sized facility.

The detailed space program for the Department of Economics and the Institute for Policy

Analysis is shown on the following page.

**Department of Economics/Institute for Policy Analysis  
Space Program**

<b>ROOM TYPE</b>	<b># Rooms</b>	<b>Nasm Per</b>	<b>Nominal Nasm</b>
<b>ACADEMIC OFFICES</b>			
Departmental Chair's Office	1	26	26
Associate Chairs	2	15	30
IPA Director	1	15	15
Faculty Office/Private	50	13	650
Faculty Office/Emeriti	4	13	52
Faculty Office/Shared	9	10	90
	67		863
<b>GRADUATE STUDENT SPACE</b>			
Ph.D. Student Offices, 3 stations per office	16	13	208
MFE Student Offices, 33 stations @ 4.5 nasm	2	74.5	149
MA Student Carrel/Computing Room, 11 stations @ 4 nasm	1	44	44
TA Interview Rooms	6	8	48
TA Interview Room Waiting Space	non assignable space		
Graduate Student Lounge	1	35	35
			484
<b>NON ACADEMIC OFFICES</b>			
Receptionist	1	13	13
Business Officer	1	13	13
Chair's Secretary	1	13	13
Graduate and Undergraduate Administrators	2	13	26
Secretaries, 2	1	20	20
Secretary	1	13	13
Assistant to Business Officer	1	13	13
Photocopy Clerk	1	10	10
IT	2	10	20
Journal Office	1	13	13
Undergraduate Administrator for COMM	1	13	13
Director of MFE Program	1	13	13
Assistant Director of MFE Program	1	13	13
MFE Secretary	1	13	13
Newsletter	1	13	13
Economics 100 Co-ordinator's Office	1	13	13
Alumni Office	1	10	10
	19		242

<b>ROOM TYPE</b>	<b># Rooms</b>	<b>Nasm Per</b>	<b>Nominal Nasm</b>
<b>RESEARCH FACILITIES</b>			
<i>IPA/PEAP:</i>			
IPA Financial Officer	1	13	13
IPA Secretary	1	13	13
PEAP Secretary	1	13	13
IPA Research Economist	1	13	13
IPA Senior Economist	1	13	13
<i>Other:</i>			
Research Office – Level 1, 2 occupants per	5	13	65
Research Office – Level 2, 1 occupant per	6	10	60
			190
<b>SUPPORT SPACE</b>			
Resource Centre	1	26	26
Large Conference Room	1	60	60
Small Meeting Room	1	24	24
Office Supplies Room	1	10	10
Office Machine Room	1	10	10
Office Storage Room	1	10	10
Bookable Caserooms	4	10	40
Computer Workshop/Storage	1	12	12
Staff Lounge	1	15	15
Kitchenette	1	7	7
Faculty Lounge	1	35	35
Mailroom – Faculty and Staff	1	7	7
			256
<b>OTHER FACILITIES</b>			
Atrium	1	50	50
Tiered Lecture Room, capacity 75	1	143	143
Economics Course Union Room	1	13	13
			206
Programme Nasm			2,241
Nasm adjustment for retention of the North Building ( see discussion under ‘The Site’)			90
Total Nasm			2,331
<b>Other:</b>			
Data Closets			

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Server/technology support  
Caretaking Spaces

The Room Specification Sheets in Appendix 7 provide more information on the requirements of the individual spaces.

### The Site

The 150 St. George Street site, which will be discussed in more detail in Section IX B and IX F, consists of three structures: the North Building and Coach House were built in 1898 and the South Building was built in 1960. The Committee considered three options:

- demolition of all three structures and construction of a new facility
- demolition of the South building only, construction of a new facility and renovation of the North building and the Coach House
- demolition of the South and Coach buildings and a portion of the North, construction of a new facility and renovation of remainder of the North building.

A preliminary construction cost estimate by an outside consultant demonstrated that the costs associated with each of the options were similar. The Committee decided that the preferred option would be to retain the North Building and build a new facility adjacent to it.

The proposed space programme is 2,241 nasm and with a gross up factor of 1.8 would be 4,034 gross sq.m. The section of the North Building which is to be renovated has 453 nasm and an estimated 815 gross sq.ft. As the intention is not to totally reconfigure the interior of the North Building but to retain as many of the rooms as possible, and its' inherent charm, it is anticipated that there will not be a one to one match of space program to room sizes. If an 80% efficiency of the existing space can be achieved, then 1,878 nasm will need to be constructed in the new building:

Location	Nasm	Gross
North Building Renovation	453	815
New Building Construction	1878	3380
Total Project	2331	4195

## **VII. FUNCTIONAL PLAN**

The challenge of designing appropriate facilities for the Department of Economics is to satisfy the conflicting requirements of privacy and community. A high priority has been placed on the need for comfortable, quiet and personal office space for both faculty and graduate students to fulfill their academic responsibilities. The committee considered alternative spatial relationships for faculty and

Ph.D. students and agreed that area groups within the Department should be kept together. For each area group, faculty offices, Ph.D. student offices for those students within the area and dedicated area research offices would form an area cluster within the overall structure. Each cluster would be associated with one of the 10 specific area groups within the department (e.g., International Economics, Financial Economics, Econometrics, etc.). At the same time, there is a desire to improve the undergraduate experience within the department by making the department and its faculty and teaching assistants accessible to students. A primary goal of the design of the new facility is to increase social interaction and collegiality.

This goal can be achieved by using the shared space within the facilities to build a sense of community while at the same time locating and furnishing the academic offices to create a strong sense of personal space.

The main floor of the new facility will contain an atrium with a reception area at the entrance to the building. The atrium will serve as both a meeting place for undergraduate students and for departmental functions such as fund raising, alumnae events and departmental social and professional activities. Located around the atrium will be a graduate student lounge, an undergraduate student office (Economics Course Union), a resource center, student caserooms and an alumni office. Faculty and staff lounges will be located on the second floor of the new building.

New faculty offices, shared offices for Ph.D. students, emeriti professor offices, research offices and visitors offices will be built to a standard size and located on the second and third floors of the new building. Within the existing structure, faculty offices will also be located on the second and third floors with administrative offices occupying the first floor. It is important that the furnishings be flexible to allow for individual tastes. The critical feature that will distinguish an academic office from a non-academic office is the bookcase. Provision must be made for multiple shelving units in each academic office. To that end, the dimensions of the office, length and width, should allow for the maximum number of shelving units.

TA interview rooms, the MA Student carrel room, IT offices, Master of Financial Economics (MFE) administration offices and MFE student offices will be located in the structure replacing the present Coach House.

The third floor of the new structure replacing the present South Building will house the Institute for Policy Analysis and research centers within the department.

The 75 seat lecture theatre is to be a central university facility and should be capable of being separated from the remainder of the building to allow for evening and weekend usage by the general university population.



The committee identified a number of basic design considerations. Flexibility in lighting was desired with both fluorescent and incandescent lighting in office areas. Sound proofing between offices was considered critical. New furniture will also be required to replace existing furniture in bad repair. Within each of the new offices, the power requirements would include two duplex outlets per office and the communication requirements include 5(E) data cabling and voice cabling with rough-in for a second data line in each office.

Renovation of the existing North building at 150 St. George will also require a newly installed HVAC system, refurbishing of the building interior and exterior, new windows, interior painting, electrical and lighting upgrades to provide for the installation of both fluorescent and incandescent lighting in office areas, and upgrading of data connections.

## **VIII. ENVIRONMENTAL IMPACT**

No significant environmental impact is expected. The construction will be done in accordance with the University's environmental design standards.

## **IX. SPECIAL CONSIDERATIONS**

### **A. Accessibility and Personal Safety**

The existing complex of buildings is not presently accessible. With the changes planned, the new areas and the majority of the existing house will be made fully accessible. The new structure will share a new elevator with the existing house, and a re-grading of at least a portion of the existing drive will be required to improve accessibility into the new building.

### **B. Campus Planning Issues**

The department of Economics is currently located in adjoining buildings at 150 St. George Street. The original structure, a red-brick house in the Italianate/Toronto Gothic style, was built in 1898 and includes an original coach house facing the rear lane-way and accessible from the second floor of the main building. Both the house and coach house have modified interior spaces for institutional use. In 1959-60 a brick clad Neo-Georgian structure was added to the site south of the original house.

The Economics buildings are built to the south side and rear lot-lines and are set back from the street line with front and north-side driveways. The site includes passageways to neighbouring buildings on both sides. Light wrought iron fencing fronts the office wing and street trees exist in the front-yard setback.

From an urban/campus perspective, this combination of old and new structures maintains and punctuates the street frontage and establishes a newer context echoed by Innis College to the south. Although the building is not presently listed in the *Inventory of Heritage Properties*, the 1993 Heritage Conservation Study commissioned for the University of Toronto Area flagged the buildings at 150 St. George as properties of architectural and historical value.

150 St. George Street was not designated as one of the campus development sites outlined in the Part II Plan. Any building on this site, therefore, must comply with current City of Toronto zoning by-laws and will undergo scrutiny from a Heritage preservation perspective. This property is zoned T1.0 (one times coverage) and H 12.0 (12 meter maximum height limit). These are parameters set out to maintain the low-rise residential nature of the northern block of St. George just south of Bloor Street.

Any new structure will likely be required to provide an envelope, which is mindful of such residential scale and detail.

Several envelope options have been considered during the planning stage to increase useable area for the Department of Economics on this site. These include options that maintain some or all of the older structures on the site in an effort to be as sensitive to heritage considerations as possible. The option proposed within this report maintains the original house structure and builds a new addition in place of the 1960 addition and the coach house.

Because of the increased programme area required by the Department of Economics the new building area will, together with the existing building, amount to approximately two times coverage exceeding the current zoning. At minimum, therefore, a minor variance approved by the Committee of Adjustment must be sought for this site.

The proposed programme can be achieved in a new building of three to four storeys – maintaining the approved zoning height limit - and anticipates programme located in the basement. This addition is anticipated to wrap the site to the south and west property lines. The southern wing of the addition has the added benefit of adjacency to the Innis College quadrangle directly to the south. The proposed construction will allow a greater infrastructure link between the two buildings. Particular attention should be taken to allow for the incorporation of this wing to complete the quadrangle configuration partially formed by Innis College.

#### **C. Computing and Telecommunications**

150 St. George Street is on the university backbone and this project will maintain a high level of connectivity.

#### **D. Standards of Construction and Quality**

The cost assumptions included brick with some stone accents for the exterior. Interior would have 6" stud walls to handle shelving, floors would be carpeted with stone or wood in atrium, ceilings generally lay-in tile with some drywall.

#### **E. Landscape Requirements**

There are two areas which must be addressed by the landscape plan: the quadrangle, to be completed with the new construction and the St. George streetscape. The protected open space courtyard created when Innis College was constructed has been used by the students and visitors of Innis College. The completion of the Economics building will bring more users to this area. The treatment of the courtyard must address increased use by area residents as well as providing an attractive quiet area for meeting or respite. An Oxford-like quadrangle is envisaged providing opportunities for individuals or larger groups to meet formally and informally.

There are several trees falling within the City of Toronto guidelines for protection on and adjacent to the site. These should be protected and incorporated in the landscape plan if possible.

#### **F. The Site and the North Building**

Work around the existing house will have to be done with caution in order to avoid damage. A full basement immediately adjacent to the new building is not currently included as there is no allowance for underpinning. However, the new construction may step back from the existing house to avoid this problem and its associated costs. Certain trees will have to be protected. The existing house is generally in sound condition, but requires upgrades to bring it up to more current standards. The existing windows will be replaced with double glazed replicas with an openable section. The wiring and lighting systems will be replaced where necessary. Air conditioning and sprinklers will be added as unobtrusively as possible. The washrooms and heating system will remain. There will be some rearrangement of internal partitions, with make good repairs and repainting. There will be minor floor and ceiling repairs. Externally, there will be minor roof and soffit repairs, and the facades will be cleaned and trim repainted.

### **XI. RESOURCE IMPLICATIONS**

#### **A. Total Project Costs**

The costs of proposed new construction of 3,380 GSM and renovations to the existing house of 815 GSM (total 4,195 GSM), together with professional fees, furnishings, moving and staging, etc are expected to total \$14,300,000 if tendered in May 2004.

The estimate includes \$980,000 calculated as the total cost of the 75 seat tiered, electronic lecture room.

The estimate allows for the department to be moved into nearby rented space for a period of two years while construction is underway.

Further details are shown in Tables 1 & 2 attached.

## **B. Operating Costs**

The maintenance, operating and utilities cost of the new building is expected to be \$251,000 annually, or \$107 per nasm. The current combined cost for Economics and IPA is \$147,211 (00/01), an average of \$83.22 per nasm. The increase in cost per nasm is the result of constructing a modern air conditioned building, for example the Rotman Building was \$104 per nasm in 00/01:

<u>Location</u>	<u>Nasm</u>	<u>\$ per Nasm</u>	<u>Total</u>
150 St. George Street	1,326	83.32	110,482
IPA at 140 St. George Street	443	82.91	36,729
Total	1,769		147,211

## **C. Secondary Effects**

There will be a loss of 13 reserved parking spaces and a loss of revenue to the parking ancillary in the amount of \$20,800 p.a. as a result.

There will be a significant disruption to the normal workings of the department caused by the need to be relocated for a period of two years into rented space. The cost of this relocation is estimated at \$1,000,000. This is based on a \$25 charge per rentable sq.ft. annually as given by the Real Estate Department. The Department of Economics will need to rent approximately 20,000 sq.ft. of rentable space (1,326 nasm x 1.4). The process for identifying suitable temporary quarters should begin as soon as the project is approved.

Another secondary effect of the project will be the release of all the space currently occupied by the Institute for Policy Analysis in the Bissell Building at 140 St. George Street. This space will revert to the University to be reallocated. There may be renovations required for the new occupants.

## **XI. FUNDING SOURCES AND CASH FLOW ANALYSIS**

The Department of Economics has established a Fund Raising Committee and is planning to

launch a special fund raising drive in Fall 2001 aimed at past graduates of the department and other private sector companies and individuals whose interests in economics and business would make them potential donors for this project. Preliminary development work has begun in conjunction with the writing of a funding proposal.

Inclusion of a tiered lecture room, approximately \$980,000, in this new facility is contingent upon University Funding.

## **XII. SCHEDULE**

Expected project schedule would be as follows :

1. Approval by P& B	October 2001
2. Negotiate and obtain zoning	16 months
3. Approval by Business Board	March 2003
4. Selection of Architect	2 months
5. Design	10 months
6. Relocate Department	May 2004
7. Tender	1 month
8. Construction	20 months
9. Completion	Jan 2006
Occupancy	April 2006

Total expected project duration is therefore 33 months after Business Board approval with an occupancy date of April 2006. Additionally, to minimize disruption, the construction would be timed to start in June when the academic year is complete, and work could be done before the onset of winter conditions. This would indicate that approval would be required in the previous March/April timeframe.

As construction is not expected to begin until May 2004 there is adequate time available for discussions with the city regarding approvals for building envelopes.

## **XIII. RECOMMENDATIONS**

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

1. THAT the Project Planning Report for the Department of Economics Building Expansion and Renovation at 150 St. George Street be approved in principle.
2. THAT the project scope of 1,880 net assignable square meters (nasm) of new space and 450 nasm of renovated space at a cost of \$14,300,000, in May 2004 dollars, with the funding sources indicated above, be approved.
3. THAT the University immediately begin discussions with the City of Toronto to determine the viability of the site to accommodate the proposed building program.

## **APPENDIX A**

**DEPARTMENT OF ECONOMICS - SPACE INVENTORY - FALL 2000**  
**INSTITUTE FOR POLICY ANALYSIS – SPACE INVENTORY – SUMMER 2001**

# DEPARTMENT OF ECONOMICS SPACE INVENTORY

<u>Building</u>	<u>Blk</u>	<u>Room #</u>	<u>Time</u>	<u>Space</u>	<u>Room Use Description</u>	<u>Stns</u>	<u>M<sup>2</sup></u>	<u>Occupant</u>
<b>FACULTY OFFICES</b>								
150 St. G	S	103	100	100	Faculty Office Single	1	18.04	Diego Puga
150 St. G	S	104	100	100	Faculty Office Single	1	19.60	Greg Jump
150 St. G	S	106	100	100	Faculty Office Single	1	14.76	David Foot
150 St. G	S	107 A	100	100	Faculty Office Single	1	13.60	Gillian Hamilton
150 St. G	S	108	100	100	Faculty Office Single	1	16.40	Jack Carr
150 St. G	S	109	100	100	Faculty Office Single	1	12.30	Leonard Waverman
150 St. G	S	110	100	100	Faculty Office Single	1	18.04	Arthur Hosios
150 St. G	S	201	100	100	Faculty Office Single	1	20.24	Michael Berkowitz
150 St. G	S	202	100	100	Faculty Office Single	1	20.24	Michael Baker
150 St. G	S	203	100	100	Faculty Office Single	1	19.60	John Munro
150 St. G	S	204	100	100	Faculty Office Single	1	11.48	John Floyd
150 St. G	S	205	100	100	Faculty Office Single	1	14.76	Varouj Aivazian
150 St. G	S	206 B	100	100	Faculty Office Single	1	14.80	Don Moggridge
150 St. G	S	207	100	100	Faculty Office Single	1	16.40	Michael Smart
150 St. G	S	208	100	100	Faculty Office Single	1	12.30	Diego Restuccia
150 St. G	S	209	100	100	Faculty Office Single	1	18.04	Don Dewees
150 St. G	N	103	100	100	Chair's Office	1	30.94	Mel Fuss
150 St. G	N	108	100	100	Emeriti Professors	4	35.42	Breton, Rea, Triantis, Choudhry
150 St. G	N	109	100	100	Faculty Office Single	1	17.60	Michelle Alexopoulos
150 St. G	N	110	100	100	Faculty Office Single	1	18.18	Dwayne Benjamin
150 St. G	N	112	100	100	Faculty Office Single	1	9.20	Mark Stabile
150 St. G	N	201	100	100	Faculty Office Single	1	11.16	Xiaodong Zhu
150 St. G	N	202	100	100	Faculty Office Single	1	18.88	Martin Osborne
150 St. G	N	203	100	100	Faculty Office Single	1	29.14	Loren Brandt
150 St. G	N	207	100	100	Faculty Office Single	1	21.28	Nancy Gallini
150 St. G	N	210	100	100	Faculty Office Single	1	17.10	Michael Denny
150 St. G	N	212	100	100	Faculty Office Single	1	16.65	Jon Cohen
150 St. G	N	213	100	100	Faculty Office Single	1	16.65	Angelo Melino
150 St. G	N	214	100	100	Faculty Office Single	1	12.14	Vincenzo Damiano
150 St. G	N	215	100	100	Faculty Office Single	1	10.91	Joanne Roberts
150 St. G	N	216	100	100	Faculty Office Single	1	17.94	Aloysius Siow



150 St. G	N	217	100	100	Faculty Office Single	1	13.95	Matt Turner
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<u>%</u>	<u>%</u>
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<u>Building</u>	<u>Blk</u>	<u>Room #</u>	<u>Time</u>	<u>Space</u>	<u>Room Use Description</u>	<u>Stns</u>	<u>M<sup>2</sup></u>	<u>Occupant</u>
150 St. G	N	218	100	100	Faculty Office Single	1	15.30	Mike Peters
150 St. G	N	219	100	100	Faculty Office Single	1	10.79	Li Hao
150 St. G	N	221	100	100	Faculty Office Single	1	8.05	Susan Howson
150 St. G	N	222	100	100	Faculty Office Single	1	8.55	Carolyn Pitchik
150 St. G	N	301	100	100	Faculty Office Single	1	15.84	Adonis Yatchew
150 St. G	N	302	100	100	Faculty Office Single	1	18.57	Francois Casas
150 St. G	N	303	100	100	Faculty Office Single	1	11.84	Gordon Anderson
150 St. G	N	304	100	100	Faculty Office Single	1	14.89	Alex Maynard
150 St. G	N	305	100	100	Faculty Office Single	1	10.72	Rob McMillan
150 St. G	N	308	100	100	Faculty Office Single	1	10.21	Allan Hynes
150 St. G	N	309	100	100	Visiting Professor Off Single	1	10.66	Research Associate Abigail Payne
150 St. G	S	200	100	100	Visiting Professor Off Single	1	8.50	Visitor
150 St. G	N	209	100	100	Visiting Professor Off Single	1	9.20	Visitor
150 St. G	N	223	100	100	Visiting Professor Off Single	1	8.70	Visitor
150 St. G	N	307	100	100	Visiting Professor Off Single	1	11.70	Visitor
							23.56	
150 St. G	N	114	100	100	Part-time Faculty	2		Hare, Smith
							754.82	

#### GRADUATE STUDENT OFFICES

150 St. G	S	1	100	100	Grad Student Offices	3	12.63
150 St. G	S	2	100	100	Grad Student Offices	3	14.52
150 St. G	S	3	100	100	Grad Student Offices	4	18.04
150 St. G	S	5 B	100	100	Grad Student Offices	4	15.20
150 St. G	S	5 C	100	100	Grad Student Offices	4	17.20
150 St. G	S	7	100	100	Grad Student Offices	4	18.04
150 St. G	S	206 A	100	100	Grad Student Offices	1	10.00
150 St. G	N	205	100	100	Graduate Office Single	1	3.42
150 St. G	N	208	100	100	Graduate Office Single	1	6.66
150 St. G	S	6	100	100	Graduate Student Lounge	0	12.86
150 St. G	N	204	100	100	Work Room Grad Stdnts	7	27.73

156.30

<u>Building</u>	<u>Blk</u>	<u>Room #</u>	<u>Time</u>	<u>Space</u>	<u>Room Use Description</u>	<u>Stns</u>	<u>M<sup>2</sup></u>	<u>Occupant</u>
<b>DEPARTMENTAL NON-ACADEMIC OFFICES</b>								
150 St. G	N	102	100	100	Chairs Sec./Bus. Officers Asst.	2	27.24	Helen Cosic, Cissy Yun
150 St. G	S	105	100	100	Graduate Admin. Ass't.	1	12.30	Sophia Knapik
150 St. G	S	101	100	100	Supp Admin Office Multi	2	15.99	Nada Ghantous, Kitty Legault
150 St. G	N	107	100	100	Supp Admin Office Multi	2	9.06	U. Gutenberg, E. Biscerdi
150 St. G	N	105	100	100	Supp Admin Office Sing	1	21.73	Margaret Abouhaidar
150 St. G	S	102	100	100	Undergrad. Admin. Ass't.	1	13.64	Robbie Innes
150 St. G	S	107 B	100	100	IT Support	1	10.00	Don Bai
150 St. G	N	306	100	100	Editorial Office -Energy Journal	1	10.34	Geoff Pearce
							120.30	

#### DEPARTMENTAL SUPPORT SPACE

150 St. G	N	101	100	100	Group Conf Room	12	30.38	
150 St. G	N	111	100	100	Group Conf Room	30	59.71	
150 St. G	N	10	100	100	Kitchenette	0	48.44	
150 St. G	N	104 K	100	100	Mail Room	0	2.94	
150 St. G	N	104	100	100	Office Machine Room	0	6.40	
150 St. G	N	17	100	100	Office Storage	0	16.24	
150 St. G	N	18	100	100	Office Storage	0	19.90	
150 St. G	N	202 A	100	100	Office Storage	0	4.80	
150 St. G	N	12	100	100	Photocopying		12.40	
150 St. G	N	14	100	100	Office Supplies	0	23.32	
150 St. G	N	106	100	100	Open Stacks	0	8.00	
150 St. G	S	5 A	100	100	Computer Equipment	0	8.40	
150 St. G	S	4	100	100	Computing Facilities	8	20.82	
							33.04	
							294.79	

Departmental Total 1,326.21

# INSTITUTE FOR POLICY ANALYSIS

## SPACE INVENTORY

Room #	Flr	Ctgy	Category	% Time	% Space	Room Use Description	Stns	NASM Occupant	Dept
321 A	3	410	Faculty Offices	100	100	Faculty Associate	1	17.36 T.A. Wilson	Mgmt/Eco
321	3	410	Faculty Offices	100	100	Faculty Associate	1	17.98 Pauly	Mgmt
325 A	3	410	Faculty Offices	100	100	Faculty Associate	1	7.94 Dungan	Mgmt
610	6	410	Faculty Offices	100	100	Faculty Associate	1	12.96 Horstmann	Mgmt
612	6	410	Faculty Offices	100	100	Faculty Associate	1	12.82 Faig	UTM-Eco
613	6	410	Faculty Offices	100	100	Faculty Associate	1	12.82 Trefler	Eco
614	6	410	Faculty Offices	100	100	Faculty Associate	1	13.47 Soboleva	Eco
615	6	410	Faculty Offices	100	100	Faculty Associate	1	12.96 Restuccia	Eco
710	7	410	Faculty Offices	100	100	Faculty Associate	1	22.00 Pesando	Eco
712	7	410	Faculty Offices	100	100	Director's Office	1	22.00 Mathewson	IPA/Eco
715	7	410	Faculty Offices	100	100	Faculty Associate	1	<u>22.17</u> Winter	Mgmt/Eco
							174.48		
325 F	3	430	Grad Stdnt Off	100	100	Graduate Office Multi	2	8.00	
609	6	430	Grad Stdnt Off	100	100	Graduate Office Multi	2	13.47	
611	6	430	Grad Stdnt Off	100	100	Graduate Office Multi	2	13.47	
616	6	430	Grad Stdnt Off	100	100	Graduate Office Multi	2	<u>13.47</u>	
							48.41		
323	3	440	Dept Supp Staff	100	75	Research Assist Off Multi	4	26.55	
325 B	3	440	Dept Supp Staff	100	100	Technician's Off Single	1	7.60 Murphy	IPA-PEAP
325 D	3	440	Dept Supp Staff	100	100	Research Assist Office Multi	2	7.60	
325 E	3	440	Dept Supp Staff	100	100	Economist's Office	1	7.94 Li	IPA
325	3	440	Dept Supp Staff	100	100	PEAP Secretary	1	8.00 Foster	IPA-PEAP
706	7	440	Dept Supp Staff	100	100	Director's Secretary	1	11.88	
709	7	440	Dept Supp Staff	100	100	Administrative Assistant	1	<u>10.68</u> Bolt-Eddie	IPA
							80.25		
303	3	450	Office Support	100	100	Office Storage	0	3.72	
323 A	3	450	Office Support	100	100	Storage	0	2.16	
323 B	3	450	Office Support	100	100	Storage	0	2.16	
323	3	450	Office Support	100	25	Kitchenette	0	8.85	
325 C	3	450	Office Support	100	100	Supply/Reference Room	0	10.81	
626	6	450	Office Support	50	100	Conference Room	5	8.69	
703	7	450	Office Support	100	50	Office Storage	0	1.86	
707	7	450	Office Support	100	72	Reception/Waiting	2	33.84	
708	7	450	Office Support	100	100	Photocopy/Fax/Supplies	0	10.68	
728	7	450	Office Support	20	100	Meeting Room	8	<u>28.50</u>	
							111.27		
728	7	1430	General Lounge	20	100	Lounge	8	<u>28.50</u>	
							28.50		

Department Total

442.91

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## **APPENDIX 2**

### **DATA FOR SPACE UTILIZATION ANALYSIS**

**Table 1 Academic Staff**

<b>Name</b>	<b>FTE</b>
Alexopoulos, Michelle	1.00
Baker, Michael	1.00
Benjamin, Dwayne	1.00
Berkowitz, Michael K	0.67
Brandt, Loren	1.00
Carr, Jack	1.00
Casas, Francois	1.00
Cohen, Jon S	1.00
Damiano, Vincenzo	1.00
Denny, Michael G.S.	1.00
Deweese, Donald N	0.56
Dungan, Peter	0.40
Foot, David K	1.00
Fuss, Melvyn A	1.00
Gallini, Nancy Theresa	1.00
Gunderson, Morley K	1.00
Hosios, Arthur J	0.20
Jump, Gregory V	1.00
Li, Hao	1.00
Mathewson, Gilbert F <sup>a</sup>	1.00
Maynard, Alex	1.00
Melino, Angelo	0.50
Mintz, Jack	0.20
Moggridge, Donald E	1.00
Munro, John H.A. <sup>b</sup>	1.00
Osborne, Martin J	1.00
Pauly, Peter	0.20
Pesando, James E	1.00
Peters, Michael H	1.00
Puga, Diego	1.00
Restuccia, Diego	1.00
Roberts, Joanne	1.00
Siow, Aloysius	1.00
Smart, Michael	1.00

Soboleva, Nadia	1.00
Trebilcock, Michael	0.10
<b>Name</b>	<b>FTE</b>
Trefler, Daniel	1.00
Turner, Matthew	1.00
Wilson, Thomas <sup>b</sup>	1.00
Winter, Ralph	0.67
Yatchew, Adonis	1.00
TBA (Poirier replacement)	1.00
TBA (Tsionas replacement)	1.00
ROS Plan positions <sup>c</sup>	10.00
Canada Research Chair <sup>d</sup>	1.00
Noranda Chair <sup>e</sup>	1.00
<b>TOTAL</b>	<b>49.50</b>

<sup>a</sup> Currently Director IPA (.25 FTE) to Dec 31/01

<sup>b</sup> Expected retirements between 2000 and 2004 ROS planning horizon.

<sup>c</sup> Includes positions of Professors Sue Howson and Sue Horton to be transferred from Scarborough.

<sup>d</sup> The department has been allocated a Canada Research Chair.

<sup>e</sup> The Noranda Chair will be filled within next two years.

**Table 2 Administrative Staff**

<b>Name</b>	<b>FTE</b>
Abouhaidar, Margaret	1.00
Bicserdi, Elizabeth	1.00
Bai, Don	0.40
Cosic, Helen	1.00
Ghantous, Nada	1.00
Gutenberg, Ursula	1.00
Innes, Roberta	1.00
Knapik, Sophia	1.00
Legault, Kitty	1.00
Pearce, Geoffrey	1.00
Yun, Cissy	0.60
Director of MFE Program <sup>a</sup>	0.60
Asst. Dir. of MFE Program <sup>a</sup>	1.00
Secretary for MFE Program <sup>a</sup>	.50
<b>TOTAL</b>	<b>12.10</b>

<sup>a</sup> To be hired for 2001/2002 academic year.

**APPENDIX 3**  
**PROJECT COST ESTIMATES, TABLE 1 AND TABLE 2**  
**AND**  
**CASH FLOW ANALYSIS**



**Project Title: Economics, 150 St George.**

**TABLE 1: Total Project Cost Estimates**

Column 1 will be completed with the Project Planning Report.

Column 1-5 will be included in the Project Implementation Report.

Items	Project Planning Report	Concept Design	Design Devel't	Drawings @ 90%	Tender	100% Complete
Construction Cost [from Table 2]	7,922,685	0	0	0	0	0
Construction Contingency	792,269					
Applicable GST	201,315					
<b>Total Construction Costs, plus taxes</b>	<b>\$8,916,269</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Site Services, new	200,000					
Infrastructure Upgrades in Sector	na					
Secondary Effects	na					
Demolition allow for asbestos removal	100,000					
Landscaping	100,000					
Permits & Insurance	100,000					
Professional Fees	1,257,000					
Computer Wiring & Telephone Terminations	20,500					
Moving & Staging	1,150,000					
Furnishings & Equipment	885,000					
Miscellaneous Costs [signage, security..]	37,000					
Commissioning	inc					
Donor Recognition	0					
Finance Costs allow	200,000					
Project Cost Escalation [to 05/04]	1,296,000					
<b>Total Project Cost Estimate GST included</b>	<b>\$14,261,769</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Project Title:**

**TABLE 2: Construction Cost Estimate**

A Construction Cost Estimate will be systematically updated for all projects during the initial design cycle through to completion of all Capital Projects. These data are provided by the Quantity Surveyors. Table 2 will be maintained for internal use by the office of Space and Facilities Planning [Vice-Provost, Space & Facilities Planning] and Facilities and Services [Assistant Vice-President, Facilities & Services] and available to the PVP Campus and Facilities Planning in the review of Capital Projects.

Items	Project Planning Report	Concept Design	Design Devel't	Drawings @ 90%	Tender	100% Complete
<b>A. EXTERIORS</b>						
<b>A1 Substructure</b>	237,043					
A11 Foundation						
A12 Basement Excavation						
<b>A2 Structure</b>	934,146					
A21 Lowest Floor Constr.						
A22 Upper Floor Constr.						
A23 Roof Construction						
<b>A3 Exterior Enclosure</b>	1,705,153					
A31 Walls Below Grade						
A32 Walls Above Grade						
A33 Windows & Entrance						
A34 Roof Covering						
A35 Projections						
<b>B. INTERIORS</b>						
<b>B1 Partitions &amp; Doors</b>	653,008					
B11 Partitions						
B12 Doors						
<b>B2 Finishes</b>	636,293					
B21 Floor Finishes						
B22 Ceiling Finishes						
B23 Wall Finishes						
<b>B3 Fitting &amp; Equipment</b>	223,765					
B31 Fitting & Fixtures						
B32 Equipment						
B33 Conveying Systems						
<b>C. SERVICES</b>						
<b>C1 Mechanical</b>	933,754					
C11 Plumbing & Drainage						
C12 Fire Protection						

**Project Title:**

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**TABLE 2: Construction Cost Estimate [continued]**

Items	Project Planning Report	Concept Design	Design Devel't	Drawings @ 90 %	Tender	Project 100 % Complete
C13 HVAC						
C14 Controls						
<b>C2 Electrical</b>	730,439					
C21 Services & Distribution						
C22 Lighting, Devices, Heating						
C23 Systems & Ancillaries						
<b>NET BUILDING COSTS [excluding site]</b>	<b>6,053,601</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>D. SITE &amp; ANCILLARY WORK</b>						
<b>D1 Site Work</b>	145,800					
D11 Site Development						
D12 Mechanical Site Services						
D13 Electrical Site Services						
<b>D2 Ancillary Work</b>	305,400					
D21 Demolition						
D22 Alterations						
<b>NET BUILDING COSTS [including site]</b>	<b>6,504,801</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Z. GENERAL REQUIREMENTS &amp; ALLOWANCES</b>						
<b>Z1 General Requirements</b>	697,640					
Z11 General Requirements						
Z12 Fee						
<b>Z2 Allowances</b>						
Z21 Design Allowance	720,244					
Z22 Escalation Allowance						
<b>TOTAL CONSTRUCTION ESTIMATE [Inc.Allowances]</b>	<b>7,922,685</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Gross Floor Area, GSM</b>	<b>4,196</b>					

Cost Estimate Prepared By: Hanscomb, May 15 2001

## CASH FLOW ANALYSIS

### Cash flow by quarter

Quarter	may-jul 2003	aug-oct 2003	nov-jan 2003-4	feb-apr 2004	may-jul 2004	aug-oct 2004	nov-jan 2004-5	feb-apr 2005	may-jul 2005	aug-oct 2005	nov-jan 2005-6	feb-apr 2006	may-jul 2006	totals
<b>Funding:</b>	4,300	0	0	0	3,200	0	0	0	3,200	0	0	0	3,200	<b>10,700</b>
<b>Expenditure:</b>														
fees & soft	260	260	260	360	39	39	39	39	39	39	39	40	40	<b>1,493</b>
construction					1269	1269	1269	1269	1269	1269	1269	1269	1273	<b>11,425</b>
furn,equip,land												1124		<b>1,124</b>
<b>subtotal</b>	260	260	260	360	1308	1308	1308	1308	1308	1308	1308	2433	1313	<b>14,042</b>
net cash flow	4,040	-260	-260	-360	1,892	-1,308	-1,308	-1,308	1,892	-1,308	-1,308	-2,433	1,887	
<b>open bal</b>	0	4,060	3,840	3,617	3,291	5,225	3,963	2,688	1,400	3,316	2,035	740	-1,701	
<b>change</b>	4040	-260	-260	-360	1,892	-1,308	-1,308	-1,308	1,892	-1,308	-1,308	-2,433	1,887	
<b>int earn @ 4.0%</b>	20	39	37	34	42	46	33	20	23	27	14			<b>336 gain</b>
<b>int exp @ 6.8%</b>												-8	-13	<b>(21) expense</b>
<b>close bal</b>	4,060	3,840	3,617	3,291	5,225	3,963	2,688	1,400	3,316	2,035	740	-1,701	173	
														<b>315 net interest income (cost).</b>

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## **APPENDIX 4**

### **EQUIPMENT/FURNISHINGS**

Economics.

Furniture & Equipment schedule

Rooms	#	furniture				equipment			
		item	unit	allow	total	item	unit	allow	total
<b>ACADEMIC OFFICES</b>									
Departmental Chair's Office	1	lot	1	8000	8000				0
Associate Chairs	2	lot	2	5000	10000				0
IPA Director	1	lot	1	5000	5000				0
Faculty Office/Private	50	lot	50	4000	200000				0
Faculty Office/Emeriti	4	lot	4	5000	20000				0
Faculty Office/Shared	9	lot	9	5000	45000				0
	67				0				0
					0				0
					0				0
<b>NON ACADEMIC OFFICES</b>									
Receptionist	1	lot	1	4000	4000				0
Business Officer	1	lot	1	4000	4000				0
Chair's Secretary	1	lot	1	4000	4000				0
Graduate and Undergraduate Administrators	2	lot	2	4000	8000				0
Undergraduate Administrator for COMM	1	lot	1	4000	4000				0
Director of MFE Program	1	lot	1	4000	4000				0
Assistant Director of MFE Program	1	lot	1	4000	4000				0
IT	2	lot	2	3500	7000				0
Secretaries, 2	1	lot	2	4000	8000				0
Secretary	1	lot	1	4000	4000				0
MFE Secretary	1	lot	1	4000	4000				0
Assistant to Business Officer	1	lot	1	4000	4000				0
Photocopy Clerk	1	lot	1	3500	3500				0
Journal Office	1	lot	1	4000	4000				0
Newsletter	1	lot	1	4000	4000				0
Economics 100 Co-ordinator's Office	1	lot	1	4000	4000				0
Alumni Office	1	lot	1	3500	3500				0
	19				0				0
					0				0
					0				0
<b>GRADUATE STUDENT SPACE</b>									
Ph.D. Student Offices, 3 stations per office	16	lot	16	6000	96000				0
MFE Student Offices, 33 stations @ 4.5 nasm	2	carrell	33	1500	49500				0
		chair	33	100	3300				0
MA Student Carrel/Computing Room, 11 stations @ 4 nasm	1	carrell	11	1500	16500	comp	11	3000	33000
		chair	11	100	1100				0
TA Interview Rooms	6	table	6	300	1800				0
		chair	30	100	3000				0

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**Economics.**

**Furniture & Equipment schedule**

Rooms	#	furniture				equipment			
		item	unit	allow	total	item	unit	allow	total
TA Interview Room Waiting Space	non assignable space	chair	6	100	600				0
Graduate Student Lounge		lot	20	1000	20000				0
					0				0
					0				0
					0				0
					0				0
					0				0
<b>RESEARCH FACILITIES</b>									
<i>IPA/PEAP:</i>									
IPA Financial Officer	1	lot	1	4000	4000				0
IPA Secretary	1	lot	1	4000	4000				0
PEAP Secretary	1	lot	1	4000	4000				0
IPA Research Economist	1	lot	1	4000	4000				0
IPA Senior Economist	1	lot	1	4000	4000				0
<i>Other:</i>					0				0
Research Office – Level 1, 2 occupants per	5	lot	10	2000	20000				0
Research Office – Level 2, 1 occupant per	6		6	2500	15000				0
					0				0
					0				0
					0				0
<b>SUPPORT SPACE</b>									
Resource Centre	1	carrell	8	1500	12000				0
		chair	8	100	800				
Large Conference Room	1	tables	10	600	6000	data proj	1	8000	8000
		chairs	30	250	7500				
Small Meeting Room	1	tables	4	600	2400				0
		chairs	12	250	3000				
Office Supplies Room	1		1	500	500				0
Office Machine Room	1		1	1000	1000				0
Office Storage Room	1		1	500	500				0
Bookable Caserooms	4	tables	4	500	2000				0
		chairs	20	100					
Computer Workshop/Storage	1	lot	1	2000	2000				0
Staff Lounge	1	lot	1	2000	2000				0
Kitchenette	1				0	dishwasher	1	1500	1500
Faculty Lounge	1	allow	15	1500	22500				
Mailroom – Faculty and Staff	1	na			0				
					0				
					0				
<b>OTHER FACILITIES</b>									
Atrium	1	allow	1	20000	20000				
Tiered Lecture Room, capacity 75	1	chairs	75	100	7500				
Economics Course Union Room	1	lot	1	4000	4000				

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706,500

42,500

Economics.

Furniture & Equipment schedule		#	furniture				equipment			
		Rooms	item	unit	allow	total	item	unit	allow	total
			taxes	10.23%		72,282				4,348
			contingen	5.00%		3,614			10.00%	435
						782,396				47,283



**APPENDIX 5**  
**ROOM SPECIFICATION SHEETS**

**(available on request)**

## **APPENDIX 6**

### **ENVIRONMENTAL PROTECTION ADVISORY COMMITTEE REPORT**

## **University of Toronto Environmental Protection Policy**

### **PREAMBLE**

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

### **FUNDAMENTAL PRINCIPLES**

- Minimisation of negative impacts on the environment
- Conservation and wise use of natural resources
- Respect for biodiversity

### **SPECIFIC OBJECTIVES**

In adopting these fundamental principles, the University will be guided by ethical attitudes towards natural spaces, and will take all reasonable steps to meet the following objectives:

- Minimise energy use, through efficient management and practice
- Minimise water use, through efficient management and practice
- Minimise waste generation through reduction, reuse and recycling
- Minimise polluting effluent and emissions into air, land and water
- Minimise noise and odour pollution
- Minimise and where possible eliminate use of chemicals, including outdoor salt, pesticides herbicides and cleaning agents
- Include biodiversity and environmental concerns in planning and landscape decisions
- Meet and where possible exceed environmental standards, regulations and guidelines

### **IMPLEMENTATION**

To implement this Environmental Protection Policy:

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

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

September 25, 2001

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## Environmental Checklist for Users Committees (5/99)

1. General planning principles: Consideration of alternatives, Life cycle approach
2. Minimize Energy Use
  - a) Thermal Energy: Heating, Cooling
  - b) Lighting/Use of Natural Light
  - c) Ventilation/Windows
  - d) Machinery/Equipment
  - e) Orientation of Building - effect on building energy needs
  - f) Roof Design
3. Minimize Water Use (Maximize Reuse)
  - a) Flushing
  - b) Washing - hands and body
  - c) Building Cleaning
  - d) Drinking
  - e) Experimental/Labs
  - f) Equipment Cooling
  - g) Outdoor Vegetation - choice and watering (see #4)
4. Utilization and Diversion of Rainwater
  - a) Use of Roof Water
  - b) Porous Pavements
5. Waste Management (offices, classrooms, food outlets, outdoors, construction/demolition)
  - a) Reduction
  - b) Reuse
  - c) Recycling
  - d) Treatment and Disposal - possible on campus
6. Effluent and Emissions (reduce, reuse, recycle, dispose)
  - a) Indoor (Air Toxics, Noise, Odours, Ventilation)
  - b) Outdoor Air - laboratory emissions
  - c) Water - Hazardous Wastes
  - d) Land
7. Reduce Harmful Chemicals
  - a) Outdoor Salts
  - b) Pesticides/Herbicides
  - c) Cleaning Agents
8. Outdoor Environment
  - a) Encourage Biodiversity (encourage and protection of species)
  - b) Landscaping/Shading - effect on building energy needs in summer and winter
  - c) Use of outdoor space (e.g. rest areas, roof gardens)
9. Monitoring and Metering of Use of Resources and Wastes
  - a) Water
  - b) Electricity
  - c) Heat
  - d) Wastes
10. Visibility of Environmental Concerns
  - a) Pilot Projects
  - b) Posters/Displays
11. Material Choice (Use of endangered/exotic materials, off-gassing)
  - a) Building Fabric
  - b) Fixtures and Furnishings