

# **2002 Annual Town Gown Report**



**Massachusetts Institute of Technology**

**October 17, 2002**

# 2002 Annual Town Gown Report Update

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# 2002 Annual Town Gown Report Update

Institution Name: Massachusetts Institute of Technology

Report for Time Period: June 30, 2002, unless otherwise noted

Date Submitted: October 17, 2002

## I. EXISTING CONDITIONS

**Please provide the following information about the current conditions and population at your Cambridge campus. Please note where information is unavailable or the question is inapplicable. Add clarifying comments as needed.**

### A. FACULTY & STAFF (a/o fall 2001)

<i>Cambridge-based Staff</i>	Head Count:	7,820	FTEs <sup>1</sup> (if available):	6,793
<i>Cambridge-based Faculty</i>	Head Count:	955	FTEs <sup>1</sup> (if available):	948
<i>Contract Employees</i>	Head Count:	590	FTEs <sup>1</sup> (if available):	445
Number of Cambridge Residents Employed at Cambridge Facilities:				1,369

### B. STUDENT BODY (a/o fall 2001)

Total Students Attending Classes in Cambridge (inclusive of all categories below): 10,097\*

*\*Does not include 107 non-resident PhD students*

*Please provide the following statistics about your Cambridge-based student body:*

Total Undergraduate Students: 4,213

Day: 4,213

Evening: N/A

Full Time: 4,150

Part Time: 63

Total Graduate Students: 5,667

Day: 5,667

Evening: N/A

Full Time: 5,501

Part Time: 166

Non-Degree Students: 217 (7 undergraduates; 210 graduate students)

Day: 217

Evening: N/A

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<sup>1</sup> "FTE" refers to Full Time Equivalent employees, which treats part-time workers as a fraction of a full time position based on the number of hours worked per week.

**C. STUDENT RESIDENCES**

*Undergraduate Students:*

Number residing in Cambridge in Institute-approved housing (includes dormitories and independent living groups):	3,185
Number of these with cars garaged in Cambridge: See Section G (parking)	
Number residing in Cambridge in off campus housing owned and managed by MIT:	8
Number residing in Cambridge in off campus non-MIT housing:	103

*Graduate Students:*

Number residing in Cambridge in Institute-approved housing (includes dormitories and independent living groups):	1,458
Number of these with cars garaged in Cambridge: See Section G (parking)	
Number residing in Cambridge in off campus housing owned and managed by MIT*:	279
Number residing in Cambridge in off campus non-MIT housing:	1,649

\*33 non-MIT roommates (spouses, partners, children) are not included here.

**D. FACILITIES & LAND OWNED**

*Tax Exempt Facilities & Land:*

Acres:	157
Number of Buildings:	123
(Corrected figure—includes Cambridge buildings only)	
Size of Buildings (square feet):	9,042,482
(Corrected figure—includes Cambridge buildings only)	
Dormitories (undergraduate and graduate)	
Number of Buildings: 20      Number of Beds:	5,274
Do you maintain a detailed inventory of tax-exempt facilities? If yes, indicate contact person and phone:	
Kelley Brown, Senior Project Manager, 617-452-2410	

*Taxable Facilities & Land:*

Acres:	83
(Corrected figure—no actual change in acreage)	
All Taxable Properties (gross floor area):	N/A
Commercial Properties Only (gross floor area):	3,836,505
(Increase includes Technology Square and new University Park construction).	
Do you maintain a detailed inventory of taxable facilities? If yes, indicate contact person and phone:	
Michael Owu, Senior Real Estate Officer, 617-258-5634	

*Housing*

	Tax Exempt - MIT Owned and Managed Housing	Tax Exempt - Other Housing	Taxable - MIT Owned and Managed Housing*	Taxable - Other Housing (Univ. Park & 100 Memorial Drive ground leases)
Number of Units:	5,274 Beds	N/A	172	676
Number of Buildings:	20 Dormitories	N/A	12	5

\*Five units are occupied by non-MIT people.

*Property Transfers:*

Please list Cambridge properties purchased since filing your previous Town Gown Report:

None

Please list Cambridge properties sold since filing your previous Town Gown Report:

None

**E. REAL ESTATE LEASED**

Please attach to the report a listing of all real estate leased by your educational institution within the City of Cambridge. Include street addresses, use (e. g., institutional, residences, commercial, etc.) and approximate area of property leased (e. g., 20,000 SF, two floors, entire building, etc.). If your institution does not lease any real estate within the City of Cambridge, you may omit this section.

<b>Massachusetts Institute of Technology</b> Leases in non MIT-Owned Buildings in Cambridge Academic Departments in Office and Research Space as of August 2002		
<b>Use</b>	<b>Leased Location*</b>	<b>Square Feet**</b>
Office / R&D	1 Cambridge Center	11,555
Office / R&D	3 Cambridge Center	60,960
Office / R&D	5 Cambridge Center	34,469
Office / R&D	One Hampshire Street	23,899
Office / R&D	185 Albany Street	45,000
Office / R&D	304 Vassar Street	61,638
Office / R&D	One Main Street	18,403
<b>TOTAL</b>		<b>255,924</b>

\*Leased on behalf of MIT by the MIT Real Estate Office.

\*\*The square footage will, in some cases, only be a portion of the entire building.

**F. MAPPING REQUIREMENTS**

Please attach to the report maps of the following:

1. Map of all real estate owned in the City of Cambridge. Categorize properties by use as appropriate (e. g., academic, dormitory, commercial investment, etc.).

See Attachment 1: “MIT Property in Cambridge” map

2. Map of development projects now underway, proposed or planned.

See <http://web.mit.edu/evolving/>. This site describes every academic capital construction initiative taking place on the MIT campus. It tracks the progress of each project on a weekly basis through imagery, maps, and commentary.

See Attachment 2: “The Evolving MIT Campus” map

**G. PARKING FACILITIES**

*This section refers to parking spaces maintained in Cambridge only.*

Number of parking spaces maintained for students

(including resident and commuter parking): 1,103

Number of parking spaces maintained for faculty, staff and visitors: 3,711

Do you charge for the use of parking spaces? Yes

If so, please describe your fee schedule: (effective 9/1/02)

- \$466/year/permit with the following exceptions:
  - \$433/year/permit for residential students
  - \$233/year/pool for carpools and vanpools
  - \$300/year/permit for commuting students
  - \$25/year/permit plus \$3.25/day for occasional parking
  - \$83/year/permit for retired faculty/professor emeriti without compensation
  - \$50/year/permit for volunteers
  - \$555/year/permit/non-employees

**H. PAYMENTS TO THE CITY OF CAMBRIDGE DURING FY '02':**

<i>Taxes</i>		
Real Estate taxes paid on MIT-owned property	\$9,214,471	
Real Estate taxes paid on MIT-owned property by University Park and 100 Memorial Drive	5,968,300	
Real Estate taxes generated by Independent Living Groups	46,930	
<b>TOTAL Real Estate Taxes Paid for FY '02:</b>	<b>\$15,229,701</b>	
<i>Fees</i>		
Water & sewer fees paid	3,715,171	
Other fees & permits paid	3,829,294	
<b>TOTAL Fees for FY '02</b>	<b>\$7,544,465</b>	
<b>Payment in Lieu of Taxes (PILOT) FY '02</b>	<b>\$1,164,000</b>	
<b>TOTAL Payments to Cambridge (taxes, fees, PILOT)</b>	<b>\$23,938,166</b>	

<b>Cambridge First Purchasing Policy FY '02 (The purchase of goods and services in Cambridge)</b>	<b>\$41,387,889</b>
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<sup>2</sup> FY '02 for the City of Cambridge and MIT includes the period from July 1, 2001 through June 30, 2002.

**II. TRANSPORTATION DEMAND MANAGEMENT**

Please provide the following information. You may summarize the information below or attach documents to this report, as appropriate. If your school has not updated information since submitting the 2001 Annual Report, you may so indicate in the appropriate space below.

**A. Results of surveys of commuting mode choice for faculty and/or staff and/or students. (We would appreciate receiving a copy of your survey instrument, if possible.)**

	Employees	Students	Combine d
Single Occupant Vehicle:	38%	9%	26%
Vanpool/Carpool:	11%	6%	9%
Transit:	39%	39%	39%
Bike:	8%	33%	18%
Walk:	5%	12%	8%
Other:	.4%	2%	1%

These percentages do not add up to 100 due to rounding.

**B. Information on the point of origin of commuter trips to Cambridge for faculty and/or staff and/or students. (This information will assist the City in lobbying for improved regional transit options.)**

Faculty, Staff, and Students Living in Massachusetts  
(Excluding Cambridge Residents):

County	Percentage
Barnstable	0.5%
Bristol	0.5%
Essex	4.5%
Hampshire	0.1%
Middlesex (excl. Cambridge)	61.5%
Norfolk	7.1%
Plymouth	2.2%
Suffolk	22.8%



*2002 Annual Town Gown Report Update*

Worcester

0.8%

**C. Description of Transportation Demand Management programs offered to faculty and/or staff and/or students (e. g., MBTA pass sale programs, shuttle services, bike parking facilities, etc.)**

***Minimal Parking***

From the time the Cambridge Zoning Ordinance first included a parking requirement, MIT has provided the minimum number of spaces required in the ordinance. In fact, since 1990, MIT has not added a single commuter parking space to its inventory.

***Parking Fees***

For many years, MIT did not charge for parking. Beginning in 1996, the Institute implemented a parking fee to discourage automobile commuting. This fee will gradually be increased in the next several years.

***Transportation Management Association***

MIT has been an active member of the Charles River Transportation Management Association (CRTMA) since its founding in 1994. The Institute currently serves on its Board of Directors, and provides free electronic mail and Internet services to the staff.

***Transportation Information Dissemination***

MIT regularly disseminates information on alternative transportation modes to employees through electronic mailings, a quarterly newsletter and articles in the campus newspapers. In addition, MIT hosts the annual CRTMA transportation fair to expose commuters to a full range of alternatives available to them.

***Carpools and Vanpools***

Through preferential parking and reduced fees, MIT encourages commuters to form carpools and vanpools to reduce single-occupant vehicle trips.

***Rideshare Program***

Through the CRTMA, MIT offers commuters access to CARAVAN's RideSource computerized ride matching service.

***Guaranteed Ride Home Program***

Through the CRTMA, MIT provides a guaranteed ride home in case of a personal emergency to employees who carpool, vanpool, use transit, walk, or bike to work.

***Flexible Work Hours***

It is the general policy of MIT to allow flexible work schedules for individual employees where it is to the mutual advantage of both the employee and the department or laboratory.

***T-Pass Sales and Subsidies***

MIT currently offers a T-pass subsidy to commuting students, faculty, and staff. This represents a subsidy of 62.5% on local bus service, 50% of subway, combo, combo plus, Zone 1 and Zone 2 passes. Subsidy for Zones 3-9 and the Watershuttle is 50% of the retail value of a Zone 2 pass. T-passes are sold at three locations on campus; and bus, subway, and commuter rail schedules are provided to employees and students. MIT subsidizes over 50,000 MBTA passes each year.

***Shuttle Services***

MIT operates a SafeRide shuttle service, providing free daily service in the evenings and late night to members of the MIT community in the Cambridge, Boston, and Brookline

communities. In addition, MIT operates the Tech Shuttle, which provides regular free weekday shuttle service from 7am to 7pm, with stops at the Kendall T and points across campus. The Institute also operates a regular shuttle to Lincoln Laboratories in Lexington, and special shuttle services to Logan Airport before and after major holidays. Together with Wellesley College, MIT also supports shuttle services between the two campuses for cross-registered students. MIT is also a major participant in the EZ Ride shuttle with the CRTMA, with service from Kendall Square to North Station.

***Parking and Transportation Office***

MIT has a parking and transportation office charged with implementing and overseeing the Institute's parking and transportation program. Staff members in this office are available to assist employees and students in exploring commuting alternatives.

***Transportation and Parking Committee***

MIT has a transportation and parking committee appointed by the President of the Institute. The committee is charged with recommending parking and transportation policies to the administration.

***Bicycle Amenities***

MIT has over one thousand bike parking spaces on campus, including several secure indoor bike rooms. See Attachment 3 "MIT Bicycle Parking Facilities" map.

***Shower facilities***

MIT provides shower facilities in our recreational facilities for cyclists who need to shower upon arrival to campus.

***Telecommuting***

As part of MIT's general flexible work schedule policy, the Institute encourages telecommuting for those employees whose jobs lend themselves to this mode of work. To further encourage telecommuting, MIT's Information Systems Department developed *Tether*. Tether is MIT's remote-access dialup service providing high-speed Point-to-Point Protocol (PPP) connectivity to the campus network and the Internet.

***Zipcars***

MIT currently hosts four Zipcars on campus with over 400 MIT subscribers. This program provides hourly car rental service providing another means to reduce vehicle commuting to campus. MIT provides a sponsored account to graduate students and employees, which lowers the financial commitment required of the individual.

***On-Site Services***

MIT provides several services on campus to help minimize the need for vehicle trips during the workday. These services include cafes, restaurants, a grocery store, a bank, two ATM facilities, dry-cleaners, barber shops, a post office, a travel agency, an optometrist, and a bookstore. In addition, MIT leases space to several restaurants on Massachusetts Avenue and Main Street within walking distance of the campus to further discourage midday vehicle trips.

### III. RECENT EFFORTS TO SHARE INFORMATION

**Please summarize efforts made by your institution to share information with either City agencies or the community about your institutional planning process over the past calendar year. You may either use the space below for your response or attach a statement to this report.**

MIT is involved in many public activities that promote strong communications and partnerships between the Institute and the Cambridge community. Some of these activities result in the sharing of information regarding MIT's institutional planning processes, while others strengthen the MIT/City relationship to the benefit of the entire community. Examples of these types of activities in 2001 and 2002 are summarized in four sections.

- A. Sharing Information on MIT's Building Program
- B. Other Efforts to Share Information
- C. Partnerships between MIT and Community Based Organizations
- D. MIT Collaboration with the Cambridge Public Schools

#### **A. Sharing Information on MIT's Building Program**

There are many different communication methods that the Institute relies upon to provide building program information to both the MIT and the Cambridge communities.

##### ***The Evolving Campus Web Site***

This site describes every academic capital construction initiative taking place on the MIT campus. It tracks the progress of each project on a weekly basis through imagery, maps, and commentary. Our goal is to keep the impacts of the construction to a minimum, to be informative, and to be responsive to community needs and concerns. MIT is pleased to be able to provide such extensive information to the public in this easily accessible form. We encourage use of the communication mechanisms built into the site.

Log on: <http://web.mit.edu/evolving>  
Call: 617-452-2415  
Write: [construction@mit.edu](mailto:construction@mit.edu)  
Read: Tech Talk and The Tech  
View: Campus Billboards

##### ***Town-Gown Report***

All of the Institute's current and future projects are summarized in this year's sixth annual Town-Gown Report. These public reports are an initiative that resulted from the 1991 Committee on University-Community Relations.

##### ***Planning Board Town-Gown Report Hearing***

MIT presents a summary of the Town-Gown Report at an annual publicly-advertised Planning Board hearing. The 2002 report will be presented on February 4, 2003.

##### ***Building Program Update***

Continuing a practice implemented in 2000, MIT distributes a brochure summarizing all current and planned academic building projects to the City Council, City administration, and

the public. This year's summary was published in early October 2002, and is available for distribution.

***70 Pacific Street Graduate Dormitory Open House***

On September 25, 2002, MIT hosted 120 city colleagues and Cambridgeport neighbors at an open house at this new graduate residence. The guests participated in tours of the building, a barbeque dinner, a brief program, and buffet dessert.

***Regularly Scheduled Construction Communication Meetings***

MIT participates in regular meetings with staff from the Public Works Department, Traffic, Parking, and Transportation Department, Community Development Department, Water Department, and the City Electrician to discuss construction coordination and mitigation.

***Informal Communications with City Departments***

MIT staff engage in extensive ad hoc discussions with City staff on Institutional and City projects. Topics such as traffic impact, design, parking, zoning, permitting, sanitary sewer lines, storm water management, and community input are fully reviewed with the Community Development Department, the Traffic, Parking and Transportation Department, the Public Works Department, the Inspectional Services Department, and the License Commission.

***Groundbreaking and Opening Celebrations***

MIT invites City officials and residents to join in celebratory occasions related to ongoing building projects. At these events, models and drawings, or the new buildings themselves, can be viewed in an informative setting. The Simmons Dormitory and the Zesiger Sports and Fitness Center dedications were held on October 4, 2002.

***Presentations to Local Organizations***

MIT gives periodic presentations about its building projects to groups such as the Cambridge Rotary Club, Central Square Business Association, and the Cambridge Chamber of Commerce.

**B. Other Efforts to Share Information**

***University Relations Committee***

Last year, the City Council established a permanent committee on University Relations. MIT has participated fully in this initiative by sharing requested information and attending public meetings, including an off-site retreat with the City Council, City staff, Harvard University officials, and Cambridge citizens.

***Formal Communications with City Administration***

MIT staff and the City Manager and his staff meet periodically to review projects, issues, and matters of mutual concern.

***Public Hearing on MIT's Research Reactor***

MIT was asked by the City Council to participate in a public hearing in October, 2001 regarding the activities of the Institute's research reactor. Reactor staff fully briefed the

Council and other attendees on the facility's medical research and comprehensive safety program.

***CCTV Town-Gown Relations Show***

Cambridge Community Television (CCTV) sponsored a show on town-gown relations with MIT and Harvard staff, the Chair of the University Relations Committee, and local residents to discuss roles, expectations, goals, and tensions that exist in the town-gown relationship.

***Participation on Municipal Public Policy Committees***

MIT routinely serves on local committees and task forces addressing municipal public policy issues. In 2001 and 2002, MIT officials served on the following City committees:

- Cambridge Pedestrian Committee
- Cambridge Bicycle Committee
- Cambridgeport Roadway Committee
- Eastern Cambridge Planning Study Committee
- Cambridge Tree Protection Task Force
- Cambridge Climate Protection Task Force
- Cambridge Local Emergency Planning Committee
- Cambridge 9/11/02 Planning Committee

In addition, MIT actively participates in public policy processes by sharing its ideas and concerns and engaging in discussions at public meetings and hearings. For example, in 2001 and 2002, MIT participated regularly in public forums and discussions regarding the city-wide, SD-8, and East Cambridge rezoning initiatives.

***Annual Cambridge First Day***

In 1993, Cambridge First Day was established by MIT President Charles Vest as a way for MIT to formally express its appreciation to the Cambridge community for the productive economic and cultural partnerships that exist between the Institute and public officials, businesses, and residents of Cambridge. That year, MIT honored Cambridge businesses with whom MIT had been working for 50 years or more. MIT then recognized minority- and women-owned Cambridge businesses in 1994, small Cambridge businesses in 1995, Cambridge biotechnology companies in 1996, entrepreneurship in 1997, the culinary arts in 1998, architecture in 1999, the arts in 2000, community building in 2001, and services for the homeless in 2002. Since 2000, the four organizations being honored each year have been the recipients of \$1000 gifts from MIT in honor of their work in the community.

***Annual Community Service Awards***

In 1994, MIT implemented Cambridge Community Service Day, which celebrates the spirit of volunteerism and community service in Cambridge. The reception is held annually at the MIT President's house to honor individuals from both the Cambridge and MIT communities for exemplary community service.

***Access to General MIT Information***

General information about MIT, including its history and organization, current events, research summaries, Reports to the President, and the MIT Facts Book can be found on the MIT web site at <http://web.mit.edu/>.

### **C. Partnerships between MIT and Community Based Organizations**

MIT has enjoyed a long and productive relationship with many neighborhood organizations in Cambridge. Through vehicles such as the MIT Community Service Fund, the Kendall Community Group, and our affiliation with the Moses Kimball Fund, MIT has made steady financial and volunteer contributions to multiple organizations. The following represents a partial yet by no means exhaustive list of MIT activities in the community.

#### ***Tutoring Plus***

Tutoring Plus has received regular financial support from MIT since its founding with the assistance of the MIT Social Service Committee in 1964. Each year, students from MIT's undergraduate and graduate programs make up 20-30% of Tutoring Plus's active volunteers. An MIT staff member serves on Tutoring Plus's Board of Directors.

#### ***The Community Arts Center***

For more than seven years, the MIT Community Service Fund has supported the Arts Center's School Age Child Care and other programs. For the past two years, the Institute's Media Lab has hosted the Arts Center's major, nationally-recognized teen film and video festival.

#### ***Kendall Community Group (including the Margaret Fuller House)***

MIT's founding role in the Kendall Community Group, in 1987, helps leverage annual contributions from area businesses for the Margaret Fuller House, as well as the Community Arts Center and Tutoring Plus. The Kendall Group builds upon relationships between corporations in the Kendall Square vicinity and these three Area IV organizations through monthly meetings with agency directors and informal discussions about areas of mutual interest.

#### ***The Algebra Project***

The Institute is providing operational funding and classroom space for the Summer Math Institute for the Algebra Project, a mathematics literacy effort aimed at helping students in inner-city areas successfully achieve mathematical skills that are a prerequisite for full citizenship in today's technological society. For the past two years, MIT has hosted at Kresge Auditorium the Algebra Project's major annual fundraiser, a Benefit Concert for 1,000 middle school students given by the a cappella group Sweet Honey in the Rock.

#### ***Just A Start***

MIT's strong support for Just A Start has assisted this agency with home improvement programs and landlord-tenant mediation within Area IV. Just A Start also maintains three "Youth Build" sites in Area IV. This agency, which began with the help of the MIT Community Service Fund in 1968, is responsible for more than 50 units of below market rental housing in Area IV.

#### ***Project Manna***

The MIT Community Service Fund provides financial support to Project Manna, an outreach program for the homeless and hungry operated out of the Massachusetts Avenue Baptist Church at 146 Hampshire Street.

***Senior Citizen Lunch***

Co-hosted with the Mayor's Office, MIT sponsors an annual spring luncheon for approximately 1000 Cambridge senior citizens.

***Cambridge Community Chorus***

MIT has a 10-year old relationship with the Cambridge Community Chorus, hosting its many concerts, as well as its annual performance of the Messiah.

***CASPAR***

For over twenty years, MIT has worked closely with CASPAR, and particularly its Emergency Services Center at 240 Albany Street. Volunteer projects, clothing drives, and food donations are among the many services carried out on behalf of the center by MIT faculty, staff, and students.

***Institute Representation***

MIT staff and faculty serve on over two dozen Cambridge non-profit boards and committees, and help to guide the activities of these community-based agencies that primarily serve youth and family needs.

***Facility Use***

The Institute frequently provides meeting and event space for Cambridge organizations.

***Cambridgeport Children's Center***

MIT provides financial and volunteer support to this center for children. The organization was a recipient of a 2001 Cambridge First Day Award (\$1,000 cash gift).

***City of Cambridge Annual Road Race***

MIT provides financial backing for the City's annual road race that supports a different city-designated non-profit annually.

***MIT Museum***

Families are encouraged to participate in weekend activities related to museum exhibits that promote learning in various areas of scientific endeavor. In addition, a variety of special opportunities and exhibits are made available to Cambridge children at no cost.



## **D. MIT Collaboration with the Cambridge Public Schools**

MIT works very closely with the Cambridge public school system through dozens of programs and initiatives designed to enhance learning and teaching in the local schools.

### *Communication and Planning*

#### **Annual Kickoff Meeting & Faculty Keynote Lecture**

MIT faculty members have delivered the keynote address to this gathering of all Cambridge school administrators and selected teachers. Professor Mitch Resnick addressed the group in 1997, and Professor David Housman did so in 1998.

#### **Cambridge Partnership for Public Education**

MIT is a founding member of this organization, which started in 1986.

#### **Hosting of District-wide Professional Development Teacher Meetings**

Three meetings have taken place at MIT (October 1997, 1998, and 1999) at the request of Superintendent Bobbie D'Alessandro. Approximately 1,150 teachers and administrators attend. MIT makes its meeting rooms, facilities, and staff development resources available to the Cambridge schools whenever possible.

#### **MIT Teacher Education Program**

The primary aim of the program is to improve teacher preparation in mathematics and science.

#### **Public Service Center Summer Fellowships**

Since spring 1992, seven MIT students annually are awarded competitive fellowships from the Public Service Center to work with the Science Department staff during the summer months. They typically work on the science frameworks and help teachers to revise and improve the science curriculum.

### *Community Service*

#### **CityDays**

This program introduces MIT students to their host community of Cambridge. CityDays also promotes strong interaction between new MIT students and the Cambridge Public Schools.

#### **MIT Community Service Fund Financial Support**

The Community Service Fund regularly makes financial awards to various school-related organizations, including Cambridge School Volunteers and The Algebra Project.

### *General Academic Advancement*

#### **Key Pals Program**

This program pairs 20 eighth-graders with volunteer MIT staff for e-mail exchange, a research project, and three campus visits during the school year.

**MIT Educational Talent Search and MIT/Wellesley Upward Bound**

The goal of these programs is to provide college preparatory information, academic support, advising, career information, and college and career exploration opportunities to the economically and/or educationally disadvantaged youth of Cambridge and Somerville.

**MIT List Visual Arts Center**

Art Works is a yearlong vocational program for students at Cambridge Rindge and Latin School interested in the creative arts. Students hear directly from professionals about careers in the arts, including curator of an art gallery and graphic and web design.

**Educational Studies Program**

The Educational Studies Program is an MIT student activity committed to providing opportunities for learning in the greater Boston community. Its projects provide classes for motivated high school or middle school students interested in obtaining alternative and meaningful educational experiences.

**MCAS Tutoring**

Approximately twenty students participated in an intensive tutoring program to help improve the test scores of Cambridge high school students.

***Science and Technology Outreach***

**Center for Materials Science and Engineering Day Camp**

The Day Camp is a science enrichment program for minority students from the Fletcher Maynard Academy. Cambridge students attend the camp for a full week during the summer and return to MIT in the fall and spring. Students investigate everyday materials in a real lab setting.

**Edgerton Center Outreach Program**

The Edgerton Center runs a program during school for 4th, 5th, and 6th grade classrooms. Teachers bring their classes to MIT and participate in activities designed to introduce the students to MIT and to investigate science topics outlined in the Cambridge Science Frameworks. The program originated in 1995.

**KEYS**

This program focuses on empowering 11-13 year old girls and creating interest in the areas of science, math, and technology. MIT students act as mentors in these one-day and three-day programs held throughout the year. KEYS, which began in winter 1993, is a program of the MIT Public Service Center.

**LINKS**

LINKS places MIT students in K-12 science classrooms to excite young people about science and to provide valuable experiences for the MIT students. MIT volunteers provide technical assistance and support science projects to enhance and extend the Cambridge Public Schools' science curriculum. Started in the fall of 1992, LINKS recruits volunteers each semester.

### **MIT Museum Outreach Program**

This program brings Cambridge school students to the MIT Museum throughout the year for field trips, tours, and exhibits.

### **Public Service Center IAP and Summer Fellows**

Annually since January 1992, approximately 25–30 MIT students are awarded competitive fellowships from the Public Service Center to work with science teachers during IAP. Students typically concentrate on a science unit or help students with projects.

### **Science Expo**

Cambridge Public Schools students in grades 5-8 develop science projects and then display them at a daylong science fair at the MIT Johnson Athletic Center. MIT students serve as project mentors, judges, and tour guides who show participating students MIT labs and facilities. Since 1994, approximately a thousand Cambridge students and almost as many MIT students have participated in the Expo.

### **Solar Car Contest**

A group of MIT students sponsored a team from the Cambridge Public Schools to compete in the U.S. First design contest.

### **Volunteer Tutoring**

MIT students volunteer at the high school through the Cambridge School Volunteers and Tutoring Plus programs to tutor students in math or science.

## ***Recent MIT Initiatives in Science with the Cambridge Schools Since June 2000***

### **Summer Teacher Research Fellowships**

With federal funding through the Center for Materials Science and Draper Laboratory, two Cambridge middle school science teachers conducted research at MIT in the areas of materials fabrication and photonics.

### **Center for Environmental Initiatives**

Plans are underway for a multi-year environmental sciences project that includes support for both teachers and graduate students.

### **MIT Media Lab**

Media Lab staff are performing field tests on the design of new robots for educational use.

### **Edgerton Center**

Alumnus Tom Hsu of the Cambridge Physics Outlet conducted a Saturday workshop for 18 teachers on data collection using Strobe technology and its application to a school curriculum on motion and acceleration.

The Edgerton Center conducts monthly Design Group Workshops for middle grade science teachers, with staffing provided by a Lemelson-MIT Award winner. The Center also collaborates on grant writing with the Cambridge Public Schools.

### **Faculty support for Science Instruction**

Professor Tom Herring has conducted Saturday workshops on weather and earth science.

Professor Jonathan King has provided equipment help and other assistance in high school biology. Professor Heidi Nepf is developing an environmental engineering project.

**IMMEX Project**

This is a collaborative project with Professor Ron Stevens, UCLA, and MIT involving CRLS science teachers in computer-designed case studies and problem solving strategies.

**Computer Donations, Repair, Installation and Support**

Mr. Jerry Burke, a former MIT employee, has physically delivered over 50 “decommissioned” MIT computers and printers to science classes in the Cambridge Schools since September 2000. The Institute is helping to create “Jerry’s Angels” to continue installation and supportive maintenance for these and additional computers. The plan is to equip all middle grade science labs with a minimum of five working computers and appropriate application software.

**Center for Space Science**

The Center has created a three-year, science outreach plan encompassing the Cambridge School Department, middle grade science teachers, and professional development in earth and space science.

**Use of MIT Conference Space**

These uses are frequent and ongoing and include regular Saturday workshops on science, a four-day science teacher workshop during July, and physical space in building E60 made possible by the MIT Council on K-12 Education.

## IV. FUTURE PLANS

**On page 12 of the Town-Gown Report, the members of the Town-Gown Committee agreed that “Universities should offer statements of their future needs to the city and plans responding to those needs. These plans should include specific statements about known development projects and their status; forecasts of faculty, staff or student population growth; and identified needs that do yet have solutions . . . These plans should address known concerns of the community, such as parking and/or tax base erosion.”**

**In this section of the report, please provide a summary of your institution’s current and future facility plans. To the extent possible, please cover a planning horizon of at least ten years. Please include projected changes in your employee and student populations, anticipated changes to your housing stock, and planned property acquisition and disposition. Please include discussion of projects now underway, planned or under construction in adjoining cities and towns that may have a significant impact on the City of Cambridge. As appropriate, please include excerpts from institutional planning reports or summarize the results below. In making this request, the City of Cambridge acknowledges that as conditions change, your institution may need to modify the plans described below, changing or abandoning them as necessary. If your school has not updated future plans since submitting the 2001 Annual Report, you may so indicate in the space below.**

### *Introduction*

The MIT capital construction program is truly a city-building activity, permanently changing the landscape of this critical corner of Cambridge. The themes of collaboration, boldness, learning and evolution that are highlighted on our web site (<http://web.mit.edu/evolving>) speak to the relationship of the City and its neighborhoods with the Institute.

The first components of the building program are just now being completed. Each of the recently completed projects (70 Pacific Street graduate residence hall, Simmons Hall, and the Zesiger Sports and Fitness Center) reflects the priority MIT has placed on strengthening student life.

These facility improvements are combined with programmatic and organizational changes, including the implementation of the requirement that all freshmen are to be campus residents, a strengthened program on alcohol and drug awareness, expanded and improved mental health services, and increased supervision of fraternities, sororities and independent living groups. These initiatives enhance student life at MIT and help us to become better neighbors.

There has been progress over the last year in a number of areas that are worthy of special mention.

### **A. Housing**

While the total student population has grown at a rate of less than 1.0% annually over the last decade, MIT has recently added more than 1,200 beds of graduate and undergraduate housing. The Boston Redevelopment Authority (BRA) estimates that for every four dormitory beds created, a unit of family housing is placed on the market for community use. Using this formula, MIT’s dormitory construction program effectively made available 300 units of housing.

A study by the Commonwealth's Executive Office of Administration and Finance noted that a reduction of 10% in the proportion of students living in an off campus neighborhood leads to a \$75 dollar per month reduction in median rents, controlling for other relevant variables. This causal effect is more pronounced in neighborhoods with high concentrations of college students. We don't yet know how dramatic the reduction will be in the numbers of students that live (or would have lived) in Cambridge neighborhoods, especially those nearest the campus, but it is certain that the convenient, attractive, and affordable student housing now available will be a powerful draw.

## **B. Historic Preservation**

MIT has undertaken a joint Historic Inventory and Assessment Project with the Cambridge Historical Commission.

The Institute has contracted with a well-regarded team of historic preservation experts (Candace Jenkins and Wendy Frontiero) to inventory industrial buildings on the edge of the MIT campus with a primary focus on the area north of Vassar Street. The project has been divided into two study areas; the boundary of the first study area is Vassar Street, Memorial Drive, Brookline Street, Henry Street, Sydney Street, and Main Street, and the second study area is bounded by Main Street, Dock/Deacon Street, Amherst Street and Wadsworth Street but also including the Sloan School and the Dibner Building.

The purpose of the inventory is to supplement inventory work already completed by the Cambridge Historical Commission and to inventory buildings for which documentation does not yet exist, including non-MIT owned property.

The project began in August 2001 and will conclude in November 2002. At the end of the project, MIT and the Historical Commission will receive a catalogue of the inventoried properties, documentation of the evolution of the study areas, and an analysis of the historic preservation implications of the inventory. The consultants have nearly completed the Inventory Phase and are currently engaged in the Evaluation Phase. There have been a series of meetings with MIT, the consultants and the Cambridge Historical Commission to determine the historic significance of the various buildings.

This joint endeavor and the common information developed should provide a basis for productive work between MIT and Cambridge in preserving historically significant property in and around the MIT campus.

## **C. Environmental Programs**

MIT has committed to becoming a leader in environmentally responsible operations, development of new and renewed facilities, and education. Towards that end, we have launched numerous operational initiatives, implemented campus wide upgrades to building systems to improve water and energy efficiency, as well as better systems monitoring, and developed new standards for new and renovated facilities.

***Facilities operations***

- Implemented a new Environment, Health & Safety system that improves organization, creates an inspection and inventory program, delineates roles and responsibilities and accountability for compliance, and provides training for all those who manage hazardous waste and other regulated materials.
- Continued to strengthen our recycling and food waste composting programs.

***Campus wide building system upgrades***

- Regular improvements to the central mechanical plant are made to improve efficiency and utilize more environmentally friendly refrigerants.
- Extensive metering is being installed on existing buildings to monitor energy usage.
- A water capture and reuse system has been installed sending water to the Central Utility Plant for reuse, rather than drawing it from the City.
- Installation of low flow fixtures has reduced water usage.
- Replacement of traps and installation of thermostatic valves on radiators.

***New and renovated facilities***

- All projects currently in design are planned to meet LEED (Leadership in Energy & Environmental Design) Silver certification level. Major projects in design include the Sloan School project and the Brain and Cognitive Sciences Center.
- Projects under construction were designed before these new standards were in place. However, it is noteworthy that the Stata Center is striving for a gold level of LEED certification.

In short, the Institute is striving to build an environmentally sensitive campus that will be a source of inspiration and support for the MIT community and its neighbors in Cambridge for generations to come.

**D. Economic Development**

The annual Town-Gown report chronicles the direct impact of the Institute on the Cambridge economy, as an employer, a commercial owner and taxpayer, and as a fee and Payment in lieu of Taxes (PILOT) payer. While this spending is certainly an important part of the economic role of MIT in the community generally, the powerful indirect role of MIT in promoting and sustaining local technology-based businesses is of perhaps equal or greater importance.

The strong and vibrant Cambridge commercial tax base provides more than two-thirds of property tax payments and property taxes are the single largest component of municipal revenues. It is both the growth and continuing strength of this sector that allows Cambridge to tax its residents and businesses \$37 million less than permitted under Proposition 2 1/2 tax limits and still maintain a high level of municipal services.

Many of the corporate mainstays of Cambridge's industrial past have left or are in the process of leaving the City. The new growth sectors in high technology, especially computer hardware and software and biotechnology, are more dynamic and footloose than the former industrial anchors. Ties between the universities and local businesses have always been a part of Cambridge's

history, but in the knowledge-based economy of the 21<sup>st</sup> century, these ties are central to providing Cambridge with its competitive advantage, regionally and globally.

For example, the Massachusetts Biotechnology Council lists 60 biotechnology and pharmaceutical companies in Cambridge. Fifty-two are located within one mile of MIT and 21 have licensed MIT technology or were found directly by MIT. Spaulding & Slye Colliers reports that the East Cambridge laboratory market has grown by 80% over the last three years, with an additional 1.5 million square feet still under construction. Venture capital investments in biotechnology continue to grow and National Institute of Health funding in Massachusetts, already the highest per capita in the nation, will grow from \$3.5 billion this year to \$4.1 billion in 2003.

Even though many information technology companies have been hurt in the stock market and forced to cut costs, many others continue to grow in Cambridge. Akamai Technologies, a company closely tied to MIT, has grown from 450 employees in 1999 to 800 today, even as they have moved into less costly space. Whatever the fortunes of individual companies, there is no doubt that innovations in information technology will be a cornerstone of economic growth.

The high cost of building and operating facilities in Cambridge is beginning to send smaller biotechnology companies to suburban locations, according to a recent report in *The Boston Globe*. The competitive advantage of Cambridge increasingly relies upon the connection to the universities. New facilities, like the Stata Center and the Media Lab Extension in information technology and the proposed Brain and Cognitive Sciences Center in life sciences, will highlight the centrality of MIT as the source for scientific and technological innovation. The competition for educators, researchers and research funding is a global one. Only a constant drive for excellence can sustain Cambridge's leadership. The pace of change is so rapid that a few faltering steps could shift the center of economic gravity to a new location. Re-capturing the leading edge would be very difficult.

MIT's mission is education and research, not economic development. However, the influence of MIT and other institutions of higher education on the growth and health of the City's economy and municipal finances can hardly be overstated.

### **E. The Evolving Residential Campus**

The report of MIT's [Task Force on Student Life and Learning](#) continues to provide policy leadership in implementing changes to student life on campus. Members of the Task Force believe that the campus of the twenty-first century must eradicate barriers between disciplines, between students and faculty, and between the social and the academic.

The new laboratories, living spaces, courtyards, and promenades completed and under construction will reflect this drive for inter-connection. Guided by the philosophy of the Task Force, new buildings are being designed to inspire teamwork, communication, and collaboration at all levels of campus life.

Over the long term, MIT is committed to providing increased housing for students, particularly at the graduate level. The dedication of areas for cultural and recreational activities, places to eat



and shop, a network of green open spaces, transportation services, parking, and other support facilities will sustain and link the core campus functions.

Projects recently completed include the following facilities.

***Simmons Hall***

This new student residence on Vassar Street will feature spaces for integrated social, educational, recreational and dining activities. The dormitory has been designed to accommodate 350 students. The students have moved in while work on the dining hall and first floor common area is being completed.

***70 Pacific Street***

Our new graduate student residence on the corner of Sidney and Pacific Streets will create a center for student life and form a community of students, faculty, and visiting scholars. This 750-bed dormitory is complete and occupied.

***224 Albany Street***

This dormitory has opened its 120 new beds, now occupied by graduate students. The dormitory is an innovative approach in renovation through the conversion of an early twentieth-century mill building to efficiency apartment-style housing for first-year graduate students. The building was occupied in August 2001.

These projects total in excess of 1200 student beds, the largest increase in MIT student housing in a generation. This housing will provide a significant reduction in pressure on the surrounding neighborhood housing markets. It is a contribution to improving housing affordability for a broad range of Cambridge residents, especially those near the MIT campus.

***The Zesiger Sports and Fitness Center***

The center, within the existing campus, will integrate and supplement existing athletic facilities and will contain MIT's fitness, swimming, squash courts, multi- activity courts, competitive team and sports medicine programs. It is now complete and open.

**F. Enhanced Academic Facilities**

Two academic projects are moving ahead: one is currently under construction and the other is ready for construction.

***The Stata Center***

The Center will form a new campus gateway at the intersection of Main and Vassar Streets, and will house the computer, information and intelligence science laboratories in order to support potential new collaborations and innovations. Frank O. Gehry Associates designed the Stata Center. Because of its non-traditional and eye-catching design, the building has the potential to become a new landmark for the City of Cambridge. The underground garage associated with this building is now scheduled to open in spring 2003 and the complete building is scheduled for occupancy in fall 2003.

***The Media Lab Extension***

This facility will include wet labs, computer labs, student and faculty offices, a conference center, and exhibition spaces. The project required demolition of both E10 and E20 to accommodate a facility comprised of three major research centers. The designer of the Media Lab addition is architect Fumihiko Maki of Tokyo, with Leers Weinzapfel of Boston as associate architect. The new addition will accommodate a growing educational program in media studies.

The project has been delayed for six to twelve months while fund raising is proceeding. Building construction is expected to start in 2003.

**G. Public Improvement Projects**

The City is actively making improvements to infrastructure throughout Cambridge. MIT is an active participant in, and contributor to, several of these major projects. The capital contributions from MIT are substantial and reflect the Institute's interest in doing its part to improve the quality and safety of the infrastructure that we all use and share.

***Vassar Street Enhancements***

The rebuilding of Vassar Street is intended to improve the pedestrian, bicycle and vehicular environment of the roadway from Audrey Street near Memorial Drive to Main Street. This is the first major project to implement the landscape design guidelines provided by the Olin Partnership to MIT. The Institute, with the support and cooperation of the City, is undertaking major improvements, including landscape and streetscape enhancements, pedestrian and bicycle paths, traffic calming strategies, and consolidated utility lines, to form a residential street. This project has been split into two phases: Vassar East and Vassar West, divided at Massachusetts Avenue.

Vassar East is underway and is scheduled to be complete prior to the reconstruction of Massachusetts Avenue, the Cambridgeport Roadways project and the MDC Memorial Drive project. Vassar West has been deferred until adverse traffic conditions from these projects have been substantially reduced.

***Traffic Signals on Memorial Drive***

MIT, with the support and cooperation of the MDC and the City, designed, constructed and paid for two full traffic signals at the intersections of Wadsworth and Endicott Streets at Memorial Drive. This project was completed in spring 2002.

***Cambridgeport Roadways Project***

MIT, in conjunction with the City and Forest City Development, will contribute land and money for the construction of a new roadway through Cambridgeport that will facilitate the flow of vehicles from University Park and surrounding areas. This project is scheduled for 2003.

***Massachusetts Avenue Storm Sewer Project***

MIT will make a \$3 million contribution to the City's major storm sewer improvements that have just been completed along Massachusetts Avenue.

***Metropolitan District Commission (MDC) Memorial Drive Historic Parkways Initiative***

MDC, in partnership with MIT and NSTAR, plans to remove a lane of eastbound traffic on Memorial Drive in front of MIT, and most of the existing parking on the eastbound side to extend the riverside park and promenade area. In addition, the long-sought signalization of Massachusetts Avenue and the Memorial Drive off ramps will be constructed. MIT has contributed the construction documents it developed for the intersection improvements to be amended and integrated into the Parkway project. MIT will be contributing an additional \$565,000 for the project. This project is scheduled to begin later this fall.

In addition, there are many other smaller infrastructure projects that have been planned, are under construction or have been built, such as water and sanitary sewer line improvements adjacent to the Media Lab and Stata Center, raised crosswalks and traffic tables on Ames and Amherst Street, storm drain connections to MIT outfall pipes on Audrey Street and placement of utilities underground near 70 Pacific.

**H. Future Academic Building Projects**

Over the long-term, the MIT campus will evolve to accommodate new academic initiatives. Improved research and teaching space will be needed for technological and scientific ventures in the 21<sup>st</sup> century. The enhancement of formal and informal cross-disciplinary ties within the MIT community, through easy and convenient communication among faculty and students, will become even more crucial.

***Brain and Cognitive Sciences Center***

This new facility will be the home of the Department of Brain and Cognitive Sciences, the McGovern Institute for Brain Research Center, and the Picower Center for Learning and Memory. These disciplines are currently housed in various locations, including some leased space. MIT has applied for a Project Review Special Permit for this project. The Planning Board held a public hearing on this project on October 1, 2002.

***Sloan Addition and SHASS Renovation***

An addition to the **Sloan School of Management** and a renovation of facilities for the **School of Humanities, Arts and Social Science (SHASS)** will accommodate the expanding needs of both Schools on the East Campus in order to provide enhanced teaching and learning spaces. This project has been sited on the eastern-most block of the campus, adjacent to the existing Sloan facilities. This project is completing its concept design.

**I. Kendall Square, Central Square and Cambridgeport**

There are a series of projects located along an arc on the northern edge of the campus that are continuing the slow evolution in the character of the former industrial area between Central Square and the MIT campus. The mix of housing, cultural institutions, retail, restaurants, laboratories and offices will enliven this area and create opportunities for a more vibrant street edge. Some of the more notable examples:

**Technology Square**

This project is nearing completion. The development has continued to attract new Biotech tenants, the largest of which is the Novartis Institute Biomedical Research Inc., which has leased approximately 255,000 square feet of laboratory space in Building 100. Currently they are scheduled to open their new world research center in the spring of 2003. Other major new Biotech tenants include Dyax, Tolorex and Xanthus.

Progress renting retail space has been made with Kinko's taking space in 500 Tech Square. Marketing continues for the balance of retail and restaurant space.

**28 Osborn St.**

The redevelopment of 28 Osborn St., a historically significant building, for the world headquarters of Transkaryotic Therapies (TKT) is also nearing completion. TKT plans to occupy the renovated Kaplan Furniture building in the fall of 2002.

**MIT Museum**

Our museum at 275 Massachusetts Avenue has a new façade, storefront, entry and signage, improving its appearance and elevating its visibility.

**University Park**

Forest City's has also continued to attract Biotech companies and is approaching its full build out. Phase IV, which contains over 734,000 square feet of buildings for Biotech use and 135 units of the new housing, is nearing completion.

MIT has signed a lease with two community theater groups for 452 Massachusetts Avenue, the location of the former Bradford Café and the Day and Night Convenience store. This marks the first milestone for the two theater companies. Fundraising is proceeding for this important cultural project. The renovation of this property for theater use will commence when fundraising permits.

**70 Pacific Street**

This graduate student residence hall has a restaurant tenant, *Passport: A Taste of Europe*, for the Sidney Street space. This restaurant expects to open in the fall of 2002.

Combined with the City's reconstruction of Massachusetts Avenue from Lafayette Square to Memorial Drive next year, these projects will bring an urban density that can support the neighborhood retail that will be the final piece of the transition from industrial to post-industrial urban space.