



City of Cambridge City Hall Annex
344 Broadway
Cambridge, MA 02139

Cambridge City Hall Annex

Collaborative Leadership and Forward Thinking Result in City's First "Green" Building.

City Manager
Robert W. Healy

Deputy City Manager
Richard C. Rossi

City Council 2002-2004

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Michael A. Sullivan

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Collaborative Leadership

The “Green Building” elements help reduce energy consumption by almost 50% compared to a conventionally constructed building.

Under the leadership of City Manager Robert W. Healy and following the policies of the Cambridge City Council, the Annex reconstruction was a unique project in which a historic public building was preserved and restored utilizing the latest in environmental design and technology.

The City of Cambridge, Consigli Construction, HKT Architects and their consultants approached the revitalization of this historic building as an opportunity to show leadership in green municipal design by using the guidelines of the U.S. Green Building Council’s (USGBC) Leadership in Energy and Environmental Design (LEED) program. Based on well-founded scientific standards, LEED emphasizes state-of-the-art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

The City received a grant of \$337,500 from the Renewable Energy Trust Fund of the Massachusetts Technology Collaborative for the building’s renewable energy and energy efficiency features.

Environmentally friendly building features and energy efficiency measures:

New insulated walls

Energy efficient windows

“Energy smart” lighting systems

Ground-source heat pump system to supply all heating and cooling needs

Demand control ventilation strategies

Photovoltaic solar panels on the roof to supply a portion of the building’s electricity needs.

These new “green building” elements help reduce energy consumption by almost 50% compared to a conventionally constructed building.

The Cambridge Arts Council commissioned nationally recognized artist Mike Glier to create the unique public art inside the Annex that ties into the work of the City departments housed there. These include Community Development, Traffic, Parking and Transportation, Cambridge Arts Council (and the CAC Gallery), the Animal Commission and the Conservation Commission.





Melding Green & Historic

An innovative marriage of old and new,

that sets an example of civic responsibility around environmental and historical preservation issues.

The Annex, originally built in 1871 as The Harvard Grammar School, had room for 900 students in 12 classrooms. Two stories high with a third floor under a Mansard roof, the building suffered considerable damage in an 1899 fire. The renovations later that year by architect George Fogerty were extensive and innovative for the time and included a new third floor topped by a brick parapet.

The 1899 City of Cambridge Annual Report noted: "Large skylights were placed over each stairway which throws light down into the first story corridors. . . . An entirely new heating and ventilating system has been installed and details studied to perfect accommodations that should place this schoolhouse in a class of buildings which should be second to none in our City."

In 1939, the building was converted to municipal use, and the parapet was removed in the 1950s to create a flat roof.

The Annex underwent an extensive, state-of-the-art renovation again in 2002-2003. The current redesign of the 33,216 square foot building is an innovative marriage of old and new that sets an example of civic responsibility around environmental and historical preservation issues.

The historic exterior was preserved and restored to its 1899 appearance. Using Fogerty's original architectural rendering, as well as photos from the early 1950s, the brick parapet was completely recreated with its urns and ornate decorative pattern.

Inside, wood paneling and lighting fixtures reflect the civic nature of the building while incorporating the latest technologies.

The building is also completely handicapped accessible, with a new main entry that includes a two-story entry lobby and elevator access to every floor.



With energy efficiency upgrades and solar power generation,

the Annex uses significantly less non-renewable

energy for heating, cooling, lighting

and office equipment than a conventionally designed building.

The Green's the Thing

This results in a major cost savings to the City and a 43% reduction

in greenhouse gas emissions associated

with the building's energy demand.

A More Sustainable Site

By reusing an existing building, the project contributes positively to urban redevelopment. The “green” aspects of the site include:

Water Efficient Landscaping

reduces water usage by 50%.

Alternative Commuting Options.

The City offers subsidized MBTA passes and has an on-site employee transportation coordinator. Indoor bicycle storage room and shower facilities make this option more appealing. There are outdoor bicycle racks, including two City bicycles for employees to use and two designated parking spaces for carpoolers.

Minimized Heat Absorption

The Energy Star rated roof is coated with a highly reflective/low emissivity material to minimize heat absorption, which will lower demand for cooling in summer months.

Materials, Waste & Resource Management

Recycled Construction Waste:

Contractor, Consigli Construction, recycled about 80% of the construction waste. The old brick and concrete can be used as paving material, while the wood will be chipped for use as fuel in biomass power plants to produce electricity.

Recycled Materials: Wherever possible, materials with recycled content were used, including steel framing, carpet and ceiling materials. The carpet will be returned to the manufacturer for recycling when it needs to be replaced.

Sustainable Forestry: Over 50% of the wood used in the building came from certified forests where sustainable forestry practices are used. The wood is certified through the Forest Stewardship Council.

Indoor Environmental Air Quality

Fresh air: Carbon dioxide sensors ensure fresh air throughout the building at all times.

Low-Emitting Materials: low in volatile organic compounds were used for paints, adhesives, carpets and wood products. Water-based products were used wherever possible.

Energy Efficiency & Renewable Technologies

Solar Power: A roof-mounted 26.5-kilowatt solar photovoltaic (PV) system designed by Global Resource Options will create about 10% of the building's electricity. The Massachusetts Technology Collaborative, which administers the Commonwealth's Renewable Energy Trust, helped fund the installation.

No Furnace or Boiler: Ground source heat pump system in three 1200-foot deep wells provides all heating and cooling. Thermostat levels and systems operations are monitored by the Public Works Department.

Maximized Daylighting: To reduce the need for lighting during the workday, most workspaces have a window; 90% of the spaces have outside views. Skylights have been restored and a lightwell has been created between the third and fourth floors.

Glazed Windows: “Low-e” double-glazed panes in operable windows minimize heat loss and gain, as well as reduce ultraviolet radiation that causes fading of fabrics.

“Intelligent” Lighting: Daylight and occupancy sensors minimize electricity demand. Lights automatically adjust artificial light output to daylight levels and shut down when rooms are unoccupied.

Targeting Energy Use: A displacement ventilation system and heat recovery system in public meeting rooms ensure that 100% of air is provided from outside the building while minimizing heat loss by pre-heating the incoming air with heat from the outgoing air. And, since heating and cooling for these rooms is independent, evening meetings can be held while minimizing energy use for the rest of the unoccupied building.



A Visualization of “Green”

Public Art for the City Hall Annex

Large scale paintings transform the two-story space into an indoor “garden” and evoke the relationships between civic goals, “green” design, historic preservation, and public transparency.

Town Green is a group of large-scale wall paintings created by artist Mike Glier for the atrium of the newly renovated City Hall Annex. These paintings transform the two-story space into an indoor “garden” and evoke the relationships between civic goals, “green” design, historic preservation, and public transparency.

In 2002, when **Mike Glier** began his research for his public art, he spoke with directors of the five departments who would be occupying the Annex to learn about the work they do. While Transparency, Flow, Growth and Pleasure are the themes that Glier derived from the departments’ mission statements, urban moments are his subjects: a dog walker, office workers on a coffee break, birds in a thorny rose bush, verdant New England porch vines climbing the walls, a bicycle left at a parking meter, a girl reading in the grass nearby. Acrylic paint and charcoal are the artist’s media – painterly layers or graphic abstractions using transparent rose, greens, and yellows lie underneath a network of charcoal line.

From its beginnings in 1871 as an elementary school, the City Hall Annex building has gone through a history of 19th Century prominence, 20th Century decay, and now, 21st Century state-of-the-art restoration.

Town Green speaks to this history and fills the City Hall Annex atrium with a visualization of growth and renewal. Glier has created a work of public art that suggests connections between architecture and civic goals, between a city’s appreciation of its history and its commitment to its future, between the individual voice of a citizen and the public discourse of communities, and between the unchecked energy of growth and the wisdom of government.

The tens of thousands of visitors who will enter this building – to pay their parking tickets, to obtain a pet license or a street performer permit, to attend a community meeting, or to view art in the new CAC Gallery – will encounter a grand civic space made rich with public art.

This project was commissioned by the **Cambridge Arts Council’s Public Art Program**.

For more information visit: www.cambridgeartscouncil.org.

The Cambridge Arts Council is supported in part by the City of Cambridge, the Massachusetts Cultural Council, the LEF foundation, the Artists’ Resource Trust Fund, and many individual and corporate donors.



City Departments Located in the City Hall Annex

ANIMAL COMMISSION 1st floor

The Cambridge Animal Commission provides and facilitates programs concerning animal control and welfare in the City of Cambridge. All dogs must be registered with the Commission.

Ph. 617-349-4376 TTY 617-349-4621
www.cambridgema.gov/dept/animal.html

CAMBRIDGE ARTS COUNCIL 2nd Floor

The Cambridge Arts Council (CAC) exists to ensure that the arts remain vital for people living, working and visiting Cambridge. CAC offers annual programming that includes an award-winning Public Art/Percent-for-Art Program, the Cambridge River Festival, the CAC Grant Program, Summer in the City, the CAC Gallery & Exhibition Program and a lively Street Performer Program.

Ph. 617-349-4380 TTY 617-349-4621
www.cambridgeartscouncil.org

CONSERVATION COMMISSION

4th floor - 4R

The Conservation Commission protects and enhances the City's natural resources through regulatory review, planning, advocacy, and education. The Commission also administers the Massachusetts Wetlands Protection Act Regulations, reviewing, permitting and inspecting proposed projects in or near Cambridge's wetlands, floodplains and water bodies.

Ph. 617-349-4680 TTY 617-349-4621
www.cambridgema.gov/~CCC/

TRAFFIC, PARKING & TRANSPORTATION

1st, 2nd floor

The Traffic Department operates many of the City's transportation services and ensures that the City's street system is safe for vehicular and non-vehicular use. The department provides information on resident and disability parking, parking tickets, off-street parking, street closings, moving vans, street signs, snow emergency parking bans.

Ph. 617-349-4700 TTY 617-349-4621
www.cambridgema.gov/traffic

COMMUNITY DEVELOPMENT 3rd, 4th floors

The mission of the Community Development Department (CDD) is to enhance the physical environment and quality of life for Cambridge's highly diverse population. This is accomplished by planning and managing physical change and encouraging economic growth to strengthen the City's tax base, produce affordable housing and employment opportunities, and provide services to residents.

Ph. 617-349-4600 TTY 617-349-4621
www.cambridgema.gov/~CDD/

Community Planning

Provides information and technical assistance on zoning, land use, urban design, demographic and geographic analysis, neighborhood planning, and development and renovation of parks and open space.

Ph. 617-349-4651

Economic Development

Offers assistance to businesses, works to promote an environment for business growth and helps maintain thriving commercial districts. Programs include business counseling, façade improvement and retail best practices programs, real estate site search, support for job training, and production of a development log.

Ph. 617-349-4637

Environment & Transportation Planning

Provides information and assistance on streetscape improvements, traffic calming, pedestrian/bicycle programs, vehicle trip reduction, climate protection, and preventing childhood lead poisoning.

Ph. 617-349-4604

Housing

Provides information and support for affordable rental housing production, homeownership opportunities, home improvement loans, and education and financial assistance for first time homebuyers.

Ph. 617-349-4622

Lead Safe Cambridge

Provides information and support to prevent childhood lead poisoning and financial assistance for deleading.

Ph. 617-349-5323



10

Special thanks to Dan Gair, *Blind Dog Photo* for the following photos in this brochure:

Cover/Page 1: A view of the grand staircase.

Page 2: Conference room and hallway.

Page 4: Stairwell spiraling down.

Page 8: CAC Gallery

Page 11: Customer Service Window.

Band photos: Small interior and exterior photos.

Artwork:
Mike Glier

Front cover rendering courtesy:
Cambridge Historical Commission
Harvard Grammar School built in 1871, remodeled 1899, converted to municipal use 1939.

Back cover:
Solar photovoltaic system on the Annex roof.

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