

POLICY PLAN GUIDING GROWTH MANAGEMENT: THE CAMBRIDGE STORY

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Use of a policy plan coupled with a strong land use and zoning strategy to guide long term growth management in Cambridge, Massachusetts during the Internet boom and its aftermath. Locational advantages allow the City to support the development of research and development (R&D) space and simultaneously use this development to leverage enhancements to the City's livability.

Introduction

Cambridge is a remarkably diverse community of historic neighborhoods, state-of-the-art research facilities, world-renowned universities, vibrant traditional main streets and downtowns, museums, arts cinemas, neighborhood parks and the Charles River waterfront — all within a short distance of each other. The resulting mix interweaves housing with research, single family houses with office towers, historic with cutting edge architecture, walking and bicycles with heavy vehicular traffic, and other contrasts of urban life. This provides the basis for a uniquely vital community—a quality often sought but rarely achieved in other urban communities. Yet this mix is also the source of tensions and conflicts.

Planning for a community that is attractive both to business development as well as to housing creates a unique set of challenges. The development boom spurred by the growth of the Internet economy in the nineties placed strong development pressure on Cambridge and forced the City to address the impacts of rapid development. To date, the policy approach (initiated in 1993 and reinforced in 2001) to address these issues has allowed a smooth transition from an Internet-dominant economy to a biotech-focused one. It remains to be seen if this approach will stand the test of time.

Historical Context

In pre-Revolutionary times, Cambridge, or Newtowne as it was then called, was a sleepy farming village. Harvard College was established in 1636 and the university has now grown to an enrollment of more than 18,000 degree candidates, including undergraduates and graduate students.¹ While Harvard was the first of the universities, the City is now home to a number of smaller universities, as well as Massachusetts Institute of Technology (MIT), which has an enrollment of almost 10,000 undergraduate and graduate students.²

In the nineteenth and early twentieth centuries, Cambridge became a draw to heavy industries. This was due to easy access to cheap immigrant labor and the city's strategic location on waterways providing easy access to locations upstream and to Boston harbor. North Cambridge became home to brickyards and clay pits. A variety of industries such as woodworking, foundries, oilcloth manufacturers, ink producers, publishing companies, and meat packing were attracted to East Cambridge.³

Like many urban communities across the country, Cambridge experienced a major decline in manufacturing between 1950 and 1980. The rise of arterial roadways and truck transportation encouraged industrial development on cheaper land close to the burgeoning interstate highway system. Many of Cambridge's industrial buildings sat vacant and in danger of demolition after the Second World War. With the advent of urban renewal in the late 1960s some of these areas were, in fact, demolished and modern office buildings developed in their place.

¹ Harvard University, Town –Gown report, 2001

² Massachusetts Institute of Technology, Town – Gown report, 2001

³ Cambridge Historical Commission, Survey of Architectural History in Cambridge: Cambridgeport, 1971

Planning For A Technology Based Economy

With the decline of the industrial economy, and long past the agrarian economy where it began, Cambridge struggled for a number of years to establish an economic base. After a period of decades, technology-based industries came to the fore.

Cambridge recognized that it had a few key strategic advantages over other cities in north-east USA.

- Cambridge housed two of the premier universities of the country, Harvard and MIT. The city is just across the river from several major research hospitals located in Boston. These factors provided a skilled labor pool for high-tech and biotech industries that wished to locate in the area.
- Availability of vacant industrial structures and developable land in desirable areas. Unused industrial structures were the first to be retrofitted for use as cheap, incubator industrial space. As businesses grew and expanded, and as larger businesses moved to the area, the vacant land faced more development pressure. Businesses were desirous of developing office and lab space customized to their needs and projecting their corporate image.
- Desirability of the living environment in the City. Maintaining the quality of life in the City has been a consistent goal of planning efforts – this includes preserving the scale and residential fabric; maintaining and enhancing the walkable/bikeable streets, access to transit; and proximity to a rich, cultural environment, including museums, libraries, bookstores, and theaters.
- Proximity to downtown Boston, a strong commercial and financial center.

Predictability

While the above factors were a strong draw to high-tech industries, it was clear that a predictable legislative framework

would be key to the decision of industries to locate in the area.

While the local Recombinant DNA (rDNA) Ordinance was enacted in 1976 out of concern over the release of genetically altered organisms into the community, it has come to represent an opportunity for the City and biotech companies to work together constructively in an environment with clear rules. The Cambridge rDNA Ordinance bases its requirements on the widely employed National Institutes of Health (NIH) Guidelines for Research Involving DNA Molecules (effective 6/24/94; last amended April, 2002).

Cambridge is the only city in the country to have a program that oversees the care and use of laboratory animals used in research, as directed by city ordinance. The ordinance follows regulations set forth by the Animal Welfare Act, the Public Health Service Policy, and the Guide for the Care and Use of Laboratory Animals. Once again, while appearing onerous at first sight, the ordinance is, in fact, much appreciated by the labs and biotech companies that are subject to the program, since it establishes a set of clear rules and guidelines.

Synergy

Today, Cambridge has grown to a thriving city of 100,000 residents, providing employment to over 100,000 people⁴, significantly more than the working-age population of the City (approximately 80,000 residents over the age of 16, according to the 1990 Census). The industries of the early part of the last century have been replaced by technology-based enterprises, including electronics, self-developing film and cameras, software and biotechnology research.

Once the number of high-tech businesses in Cambridge reached a critical mass, the move became self-sustaining and the location achieved a certain cachet. At this

⁴ US Census, 2000

point Cambridge – particularly Kendall Square in the eastern part of the city – is one of the most sought-after addresses in the country for high tech businesses.

Growth Management in a Booming Economy

As the national economy emerged from the last recession of the early 1990s, Cambridge created a growth policy document, Toward a Sustainable Future, in 1993. The vision established in this document (one that has been successively reaffirmed in subsequent planning processes) seeks to build upon the features that make Cambridge a special place: a richly diverse population; an intermixture of living and work; and diverse neighborhoods with access to jobs, open space, and shopping. To achieve this vision, the broad goals that govern planning for future change in every part of Cambridge are as follows:

- Promote land use patterns that improve quality of life in residential neighborhoods and foster a vital public realm in mixed-use districts.
- Expand housing opportunities for a wide range of residents, across the community.
- Maintain a strong, predictable, and supportive environment for high tech businesses.
- Support economic development policies that address the needs of small and start-up businesses and people in need of jobs and public services.
- Shift transportation patterns toward more walking, transit use, and bicycle use, reducing reliance on automobiles.
- Meet the open space needs of current and future residents.
- Pursue urban design policies that enhance the character of residential neighborhoods, support creation of more lively pedestrian-friendly areas in mixed-use districts, and result in more attractive and convenient pedestrian connections.

The sustained economic growth over the past decade resulted in significant real

estate development pressures throughout the City. In September 1997, the City embarked upon an historic effort to develop Citywide Growth Management policies and zoning recommendations. This was followed by the Eastern Cambridge Planning Study, a more detailed look at the eastern part of the City, which, in particular, was the subject of numerous large development proposals.

In both these cases, the process began as a response to resident concern about the amount of development potential remaining and the impacts of development such as increasing density of development and resultant traffic impacts. The City's Community Development Department worked with community advisory committees for over three years to create a growth management strategy and address these impacts of the development boom spurred by the red-hot Internet economy.

This planning work encompassed the gamut of issues, including urban design, open space, land use, zoning, transportation, economic development and employment. The result was a large-scale rezoning of most of the city (Citywide Rezoning, ordained February 2001 and Eastern Cambridge Planning Study and Rezoning, ordained October 2001). Recommendations from both these studies provided incentives for residential development, addressed transportation impacts of development, established urban design guidelines, and created a strong public review provision for all large projects.

The value of the processes was that they brought all the interests to the table to find workable solutions to problems. Planners worked with residents, developers, and representatives of business and universities to ensure that those most impacted would have a role in the decision-making process. For instance, a proposal to drastically limit the amount of rooftop mechanical equipment was not

adopted due to concerns voiced by the biotech industry and the Biotech Council. This issue is currently under detailed study, with recommendations expected at the end of 2002.

Rezoning that modified allowable densities was used as a tool to address cumulative impacts of development. Specific impacts of individual projects are addressed through a detailed project review process that brings together developers, the public, and the City's officials in a forum that allows the balancing of a variety of goals.

Surviving the Economic Downturn

In 2001, with the bursting of the Internet bubble, a large percentage of the Internet startups that had located in Cambridge went out of business or reduced in size. In 2001 the office vacancy rate increased from less than 1% at the beginning of the year to over 25%⁵ in the last quarter. The vacancy in the R&D lab space remained significantly lower. As a result, the development climate in the City shows a change even though the amount of development continues unabated.

As opposed to two years ago, a large percentage of this development is now residential. This is partially in response to the recent rezoning that provides strong incentives for housing development. In addition, the housing market continues to be strong as people see real estate as a safer investment than the stock market. Cambridge remains attractive to residents due to the high quality of life it offers.

Biotech lab space continues to be developed. In addition, space left vacant by telecom and Internet businesses is being retrofit to accommodate labs and the biotech sector.

Conclusion

While most communities in the United States create physical master plans that

establish five or ten year growth patterns, Cambridge is in an unusual position because it uses a vision for the future that is not only physically determined, but is also guided by policies embodied in the City's planning document, *A Vision for the Future of Cambridge*. This provides the advantage of a known and predictable framework within which land use and zoning decisions can be made to cater to conditions at a given time.

While other communities struggle with the economic recession, Cambridge is less affected because during the economic boom it was able to use its locational advantages to attract a diverse set of high tech businesses, not just Internet-based ventures. The biotech sector continues to be strong and enterprises such as Genzyme, Biogen, Amgen, Novartis, and related businesses continue to grow spurred by the genetic and biotechnology revolution.

Cambridge's growth management approach serves as a valuable model for managing unexpected "big bang" events such as the Internet boom.

First, the City's policy- based approach to planning, rather than relying simply upon physical planning, enables rapid course corrections when needed.

Second, diversification of the business base allows the City to cope with spikes and troughs in the demand cycle for a particular industry.

Third, planning efforts consistently enhance the city's vibrancy and livability to sustain an attractive housing market even in a slow economy and keep people invested in the downtown. Cambridge uses its large project review to mitigate long term impacts of development and leverage development to create positive enhancements.

⁵ Meredith & Grew, Survey of Office Space, First Quarter 2001, and 4th Quarter, 2001